



Special Olympics **Health Promotion**

Clinical Director Manual

Last updated December 2015



Table of Contents

CHAPTER ONE: SPECIAL OLYMPICS OVERVIEW	5
Special Olympics and Healthy Athletes.....	7
What is Healthy Athletes?	7
What is Special Olympics Health Promotion?.....	9
About this Manual	9
CHAPTER TWO: HEALTH PROMOTION LOGISTICS.....	17
The Healthy Athlete Clinical Director Role : Health Promotion	19
Check-list for Health Promotion Clinical Directors.....	21
Health Promotion Equipment and Supplies List:.....	23
Volunteer Recruitment, Training, Oversight and Recognition	29
APPENDIX: Health Promotion Logistics.....	30
Clinical Director Thank You Letter and Evaluation Tool	31
Clinical Director Invitation Template - Health Promotion Program	33
Clinical Director Invitation Template - Healthy Athletes Program.....	34
Grant Opportunities for Health Promotion 2015	36
Sub Award Evaluation Form.....	37
CHAPTER THREE: HEALTH PROMOTION CORE SUBJECTS.....	41
Core Subjects Table and Sample Layout Schematic.....	43
Screening Station Rubric Summary of Each Exam	45
Bone Mineral Density Screening Station.....	49
Bone Density Screening Procedure Instruction Guide	53
Performing Calibration and Quality Control Procedures with the Sahara.....	55
Shutting Down and Repacking the Sahara	56
Bone Density Frequently Asked Questions (FAQs).....	59
Training Skills Checklist for BMD Testing	60
Bone Mineral Density Appendix	61
Sahara Operation Reminders.....	61
Request Loan of Sahara Equipment	63
Body Mass Index (BMI) Screening Station	67
Equipment Standards.....	69
Measurement Protocol.....	70
How to Avoid Measurement Errors.....	71
Alternative Methods for Measuring Height and Weight	72
Training and Teaching Aids for Volunteers	74
Height and Weight Quality Assurance Tool.....	74
Body Mass Index (BMI) Frequently Asked Questions	76
Body Mass Index (BMI) Screening Station Appendix	77
Body Mass Index Chart - Adults	77
Body Mass Index Chart - Male Youth.....	78
Body Mass Index Chart – Female Youth	79
Weight Measurement Poster.....	81
Height Measurement Poster	82
Stadiometer Set Up.....	83
BMI Equipment and Supplies Resources	84

Blood Pressure Screening Station	85
Blood Pressure Screening Station Appendix	89
Counseling Suggestions for Adults, Depending on BP Reading.....	89
Frequently Asked Questions (FAQs) – Blood Pressure	91
Training Skills Activity: Blood Pressure.....	93
Health Habits Survey	95
CHAPTER FOUR HEALTHY ATHLETES SOFTWARE (HAS)	99
CHAPTER FIVE: EDUCATION STATIONS	109
Nutrition Education Station	111
Bone Health Education Station - Strong Bones, Strong Athletes	115
Hydration Education Station.....	121
Sun Safety Education Station	127
Handwashing Education Station	133
Tobacco Education Station	137
Physical Activity Education Station	139
Health Promotion Check-Out Station	143
Adult Blood Pressure – Summary Reference Sheet.....	145
Pediatric and Adolescent Blood Pressure - Summary Reference Sheet	146
Bone Mineral Density Screening – Summary Reference Sheet	148
Athlete Personal Health Report	149
CHAPTER SIX: LESSON PLANS	151
Lesson Plan 1 “ <i>I Choose to Change</i> ”	153
Lesson Plan 2: Milk Mustache Photo Booth (MMPB)	159
Lesson Plan 3: Strong Bones, Strong Athletes	161
Lesson Plan 4: Mystery Fruits & Vegetables Box.....	165
Lesson Plan 5: Spin the Water Wheel Hydration	167
Lesson Plan 6: Sun Safety and Solar Bracelet	169
Lesson Plan 7: Tobacco and My Body	173
Lesson Plan 8: Germ Demonstration	175
Lesson Plan 9: Foods that Make Me Healthy	178
Lesson Plan 10: Physical Activity	183
CHAPTER SEVEN: POWERPOINT PRESENTATIONS	187



Special Olympics **Health Promotion**

Clinical Director Manual
Chapter One:
Special Olympics Overview



Special Olympics and Healthy Athletes

From a backyard summer camp for people with intellectual disabilities to a global movement, Special Olympics has been changing lives and attitudes for 45 years.

The mission of Special Olympics is to provide year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities, giving them continuing opportunities to develop physical fitness, demonstrate courage, experience joy and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes and the community. Special Olympics strives to create a better world by fostering the acceptance and inclusion of all people.

Through the power of sports, people with intellectual disabilities discover new strengths and abilities, skills and success. Special Olympic athletes find joy, confidence and fulfillment -- on the playing field and in life. They also inspire people in their communities and elsewhere to open their hearts to a wider world of human talents and potential.

There are about 200 million people with intellectual disabilities around the world. Special Olympics' goal is to reach out to every one of them – and their families as well. Special Olympics does this through a wide range of [trainings, competitions, health screenings and fund-raising events](#). Special Olympics also creates opportunities for families, community members, local leaders, businesses, law enforcement, celebrities, dignitaries and others to band together to change attitudes and support athletes.

The Special Olympics 2013 Reach Report Summary outlines the scope and global impact of Special Olympics from sports to family leadership activities to health programs. The scope is broad and impact significant. Over 4.4 million athletes at 81,000 competitions in 170 countries are just a few of the achievements in 2013.

What is Healthy Athletes?

Healthy Athletes is a Special Olympics program that provides free health screenings in a fun, welcoming environment that removes the anxiety and trepidation people with intellectual disabilities often experience when faced with a visit to a doctor or dentist. The impact of Healthy Athlete on the health and well-being of Special Olympics athletes around the world is great, in some cases saving lives by discovering unknown health issues or providing health care that otherwise would not be available. Healthy athletes not only serve the athletes but also trains health care professionals who then go back to their practices with increased knowledge of and compassion for people with intellectual disabilities. The one page flyer Special Olympics Healthy Athletes includes program highlights and accomplishments.

Healthy Athletes' influence is evident with more than 120,000 healthcare professionals trained, free health screenings provided to nearly 1.4 million athletes, and 90,000 free pairs of eyeglasses given to athletes. Healthy Athletes continues to grow each year with help from a global network of volunteers, in-kind donations and other financial support. An overview of the vision, problem, proposed solutions, and partnerships is depicted in the Sustaining Athlete Health Infographic.

There are seven disciplines in Healthy Athletes. Information and resources are available for each on the Special Olympics website.

1. **[Fit Feet](#)** Fit Feet offers podiatric screenings to evaluate ankles, feet, lower extremity biomechanics, and proper shoe and sock gear to participating athletes.
2. **[FUNFitness](#)** FUNfitness is the physical therapy component of Healthy Athletes. Designed to assess and improve an athlete's flexibility, functional strength, aerobic capacity and balance, these screenings also educate participants, families and coaches.
3. **[Health Promotion](#)** Health Promotion uses interactive educational tools and displays, motivational literature and demonstrations to heighten the awareness of athletes, reinforcing the need to improve and maintain an enhanced level of wellness and self-care. Screenings include BMI – Height and Weight, BP – Blood Pressure, BMD - Bone Mineral Density and an athlete interview to assess health related behaviors.
4. **[Healthy Hearing](#)** Special Olympics Healthy Hearing program is a free hearing screening designed to ensure proper audiology care for participating Special Olympics athletes.
5. **[MedFest](#)** MedFest offers the physical exam that all athletes need prior to participating in Special Olympics sports programming.
6. **[Opening Eyes](#)** The Special Olympics-Lions Clubs International Opening Eyes program is a vision and eye health screening in partnership with the Lions Clubs International Foundation. Led by volunteer vision care professionals, Opening Eyes is able to offer prescription eyewear, sunglasses, and sports goggles to Special Olympics athletes.
7. **[Special Smiles](#)** Special Smiles provides comprehensive oral health care information, including offering free dental screenings and instructions on correct brushing and flossing techniques to participating Special Olympics athletes. This also includes issuing preventative supplies like toothpaste and toothbrushes and fluoride varnish.

What is Special Olympics Health Promotion?

The mission of Special Olympics Health Promotion is to improve the quality of life and long term health of Special Olympics athletes through healthy behaviors, screening and medical referrals when appropriate. Health Promotion is one of seven disciplines within the Special Olympics Healthy Athletes Program. In Health Promotion, health professionals provide health screenings, interactive educational tools, motivational health information, and referrals to health care providers.

Objectives of Health Promotion are to:

1. Encourage and enhance healthy behaviors;
2. Reduce risky behaviors;
3. Improve self-efficacy and self-advocacy;
4. Deliver screening services, and
5. Increase the investment of health promotion leaders for people with intellectual disabilities.

In order to evaluate the health of athletes and the health of our program, and to provide necessary resources to clinical directors across the world, Healthy Athletes Health Promotion focuses on the following core health areas:

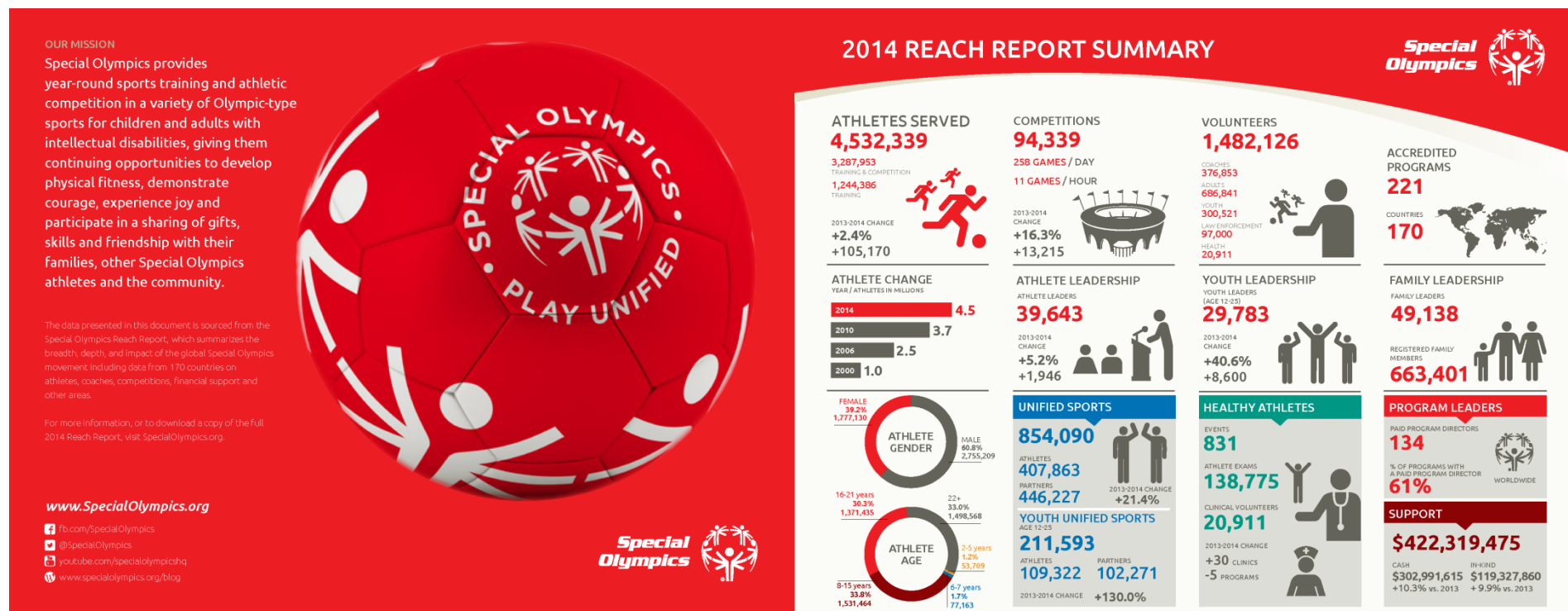
- Height/Weight –Body Mass Index Exam
- Blood Pressure Exam
- Bone Density Exam
- Healthy Habits Interview
- Foods that Make Me Healthy
- Sun Safety
- Hydration
- Hand Washing
- Physical Activity
- Tobacco Avoidance
- Referral and check out

Health Promotion is one of the few Healthy Athletes programs that encourage its clinical directors to be responsive to his/her community and to develop his/her own program beyond the core Health Promotion areas. If the local program provides the core health areas, the flexibility was designed to encourage Health Promotion activities which will effectively meet the health needs of all athletes, worldwide.

Additional health topics programs have included are: cardiovascular health, night safety, sleep deprivation, food demonstrations, milk mustache photo booth, ask the doctor (nurse or nutritionist), and community gardening.

About this Manual

This manual will provide you a background about the Special Olympics Healthy Athletes (and Health Promotion) Program and share important resources and tools to help you hold a successful Healthy Athletes Health Promotion event in your community. The following pages provide some high level information and data about the Healthy Athletes program broadly. The remaining chapters of the manuals provide details and steps specific to Health Promotion, and your role as a Clinical Director.



Special Olympics Reach by Global Region

NORTH AMERICA

Athletes.....	727,787	Unified Sports Participation.....	139,095
Competitions.....	19,720	Athlete Growth (2013-14).....	+1.4%
Coaches.....	123,032	Average Athlete Growth (2009-14).....	+1.7%
Volunteers.....	641,171	Athlete to Coach Ratio.....	5.9:1
Support Cash.....	\$189,047,773	Healthy Athletes Exams.....	62,162
Support In-Kind.....	\$71,692,841		

LATIN AMERICA

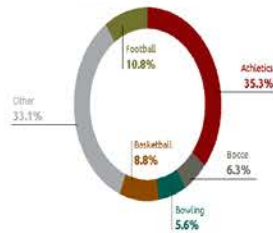
Athletes.....	322,335	Unified Sports Participation.....	24,213
Competitions.....	6,539	Athlete Growth (2013-14).....	+1.1%
Coaches.....	21,846	Average Athlete Growth (2009-14).....	+2.4%
Volunteers.....	37,645	Athlete to Coach Ratio.....	14.8:1
Support Cash.....	\$3,105,627	Healthy Athletes Exams.....	9,005
Support In-Kind.....	\$1,981,738		

AFRICA

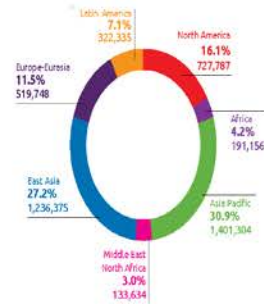
Athletes.....	191,156	Unified Sports Participation.....	25,984
Competitions.....	8,585	Athlete Growth (2013-14).....	+15.2%
Coaches.....	17,678	Average Athlete Growth (2009-14).....	+11.7%
Volunteers.....	18,301	Athlete to Coach Ratio.....	10.8:1
Support Cash.....	\$776,605	Healthy Athletes Exams.....	13,590
Support In-Kind.....	\$492,986		



TOP SPORTS



ATHLETES BY REGION



EUROPE-EURASIA

Athletes.....	519,748	Unified Sports Participation.....	66,618
Competitions.....	16,208	Athlete Growth (2013-14).....	-7.2%
Coaches.....	31,847	Average Athlete Growth (2009-14).....	+1.3%
Volunteers.....	70,946	Athlete to Coach Ratio.....	16.3:1
Support Cash.....	\$21,579,780	Healthy Athletes Exams.....	28,570
Support In-Kind.....	\$2,088,930		

EAST ASIA

Athletes.....	1,236,375	Unified Sports Participation.....	434,142
Competitions.....	6,717	Athlete Growth (2013-14).....	+1.3%
Coaches.....	46,652	Average Athlete Growth (2009-14).....	+5.3%
Volunteers.....	72,826	Athlete to Coach Ratio.....	26.5:1
Support Cash.....	\$2,828,245	Healthy Athletes Exams.....	6,210
Support In-Kind.....	\$153,199		

ASIA PACIFIC

Athletes.....	1,401,304	Unified Sports Participation.....	144,673
Competitions.....	35,292	Athlete Growth (2013-14).....	+8.2%
Coaches.....	130,237	Average Athlete Growth (2009-14).....	+11.9%
Volunteers.....	136,385	Athlete to Coach Ratio.....	10.8:1
Support Cash.....	\$9,287,463	Healthy Athletes Exams.....	14,511
Support In-Kind.....	\$14,110,681		

MIDDLE EAST NORTH AFRICA

Athletes.....	133,634	Unified Sports Participation.....	19,365
Competitions.....	1,278	Athlete Growth (2013-14).....	-10.5%
Coaches.....	5,561	Average Athlete Growth (2009-14).....	+1.3%
Volunteers.....	10,088	Athlete to Coach Ratio.....	24.0:1
Support Cash.....	\$1,525,000	Healthy Athletes Exams.....	4,727
Support In-Kind.....	\$330,000		

Special Olympics Healthy Athletes®



ACCOMPLISHMENTS

WHAT WE DO:

Healthy Athletes is a Special Olympics program that provides free health examinations in a fun, welcoming environment that removes the anxiety and trepidation people with intellectual disabilities often experience when faced with a visit to a medical professional. Our impact on the health and well-being of Special Olympics athletes around the world is great, in some cases saving lives by discovering unknown health issues or providing health care that otherwise would not be available.

We not only serve these athletes but also train health care professionals who then go back to their practices with increased knowledge of and compassion for people with intellectual disabilities.

Examinations are offered in seven different health areas:



IMPORTANCE AND IMPACT:

Despite a mistaken belief that people with intellectual disabilities receive the same or better health care than others, they typically receive sub-standard care or virtually no health care at all.

Health examinations have found that Special Olympics athletes are at increased risk of secondary health issues:

- 48%** have at least one kind of skin or nail condition
- 37%** have obvious, untreated tooth decay
- 26%** fail hearing tests
- 23%** have low bone density
- 16%** have an eye disease

Largest global public health organization specifically for people with intellectual disabilities

Provided more than 1.4 million examinations to Special Olympics athletes worldwide

Trained more than 120,000 health care professionals in the specific health care concerns of people with intellectual disabilities

Events in more than 125 countries

Given away more than 100,000 pairs of eyeglasses free of charge

Healthy Athletes Software (HAS) is the largest database of health data for people with intellectual disabilities in existence

Contributed to establishment of the American Academy of Developmental Medicine and Dentistry and the signing of the Special Olympics Sports and Empowerment Act of 2004

(Data through 12/31/2013)

CONTACT: Lynn Erickson: Manager of Health Communications - E-mail: lerickson@specialolympics.org

Special Olympics Health Promotion



Health Promotion uses interactive educational tools and displays, motivational literature and demonstrations to heighten the awareness of athletes, reinforcing the need to improve and maintain an enhanced level of wellness and self-care.

IMPORTANCE AND IMPACT:

Health Promotion events have found that a large percentage of Special Olympics athletes have limited knowledge of proper health practices.

- 60% adult athletes are overweight or obese**
- 22% have low bone density**
- 29% children and adolescents are overweight or obese**

62,469 examinations performed in 69 participating countries.

GOALS:

1. Encourage and enhance healthy behaviors; reduce risky behaviors; improve self-efficacy and self-advocacy; and increase the investment of health promotion leaders for people with intellectual disabilities.
2. Increase awareness of and response to infectious diseases such as Malaria, Tuberculosis, and HIV in developing nations.
3. Develop a body of knowledge about the overall health of children and adults with intellectual disabilities.

CONTACT:

Peyton Purcell: Senior Manager, Health Promotion - E-mail: ppurcell@specialolympics.org

Alice Lenihan: Senior Global Clinical Advisor - E-mail: lenihanaj@aol.com

Mary Pittaway: Global Clinical Advisor - E-mail: mpitt59802@aol.com

In The Field

Programs around the world often must adjust to local situations when implementing Healthy Athletes events, but in Malawi, the organizers of a program funded through a Health Promotion community-based grant took creative problem-solving to new heights when teaching hygiene at the Kalema Primary School. By inverting plastic, water-filled Coke bottles and creating a tap, they illustrated hand-washing techniques to more than 40 Special Olympics athletes and their parents and coaches, despite no running water.

"Prior to this idea, very few athletes were washing hands due to the unreliable water sources which were available," said Felix Chisowa, Acting Country Director for Special Olympics Malawi.

The lack of effective hand-washing contributes to high rates of intestinal, respiratory, and other diseases and infections, particularly among children. Thanks to the Health Promotion program, however, athletes and their families in Kalema are better educated and aware of the dangers of poor hygiene.



Sustaining Athlete Health



VISION

A world where every person with an intellectual disability & their family and/or caregivers understands what they need to do in order to optimize their health, & where accessible information, resources, systems & policies exist at the individual, community, national & global levels that support them in realizing healthy & productive lives.

THE PROBLEM

The Issue

Up to **200,000,000** people with intellectual disabilities are denied access to quality health services.



Our Role

Promote the overall well-being of people with intellectual disabilities via programs that ensure ongoing access to quality, community-based healthcare services, highlighted by free health exams and a year-round focus on health and wellness.



Successes

- ✓ 1.4 million exams
- ✓ 7 healthcare disciplines
- ✓ 120,000 professionals trained
- ✓ New data for research & awareness
- ✓ Increased access to care through the launch of Healthy Communities

Limitations

- ! Episodic exams (at games only)
- ! 3.5% athlete penetration rate
- ! Static snapshot data system
- ! Limited engagement of coaches, families & community partners
- ! Low awareness of Special Olympics' role as the largest global public health organization dedicated to people with ID

THE SOLUTION

- 1 Infuse expanded health services into all of Special Olympics' worldwide, year round events & programming.

> More Exams in More Places



> New Programming



> More SO Advocates (athletes, coaches, families)



- 2 Create local Healthy Community networks of health providers engaged in Special Olympics' health work & committed to providing ongoing health resources & services to people with intellectual disabilities & their families outside of Special Olympics.

> Foster Community Partnerships



> Activate at Special Olympics



> Catalyze Access to Community Healthcare Services



- 3 Create global Healthy Communities coalition of leading businesses, NGOs & governments that support Special Olympics' health work & increase access to health resources & services through macro-level action.



- 4 Develop world class bio-informatics capability to monitor longitudinal health outcomes for people with intellectual disabilities to measure progress, inform public policy leaders, and demand health justice worldwide.





Special Olympics **Health Promotion**

Clinical Director Manual
Chapter Two:
Health Promotion Logistics



Special Olympics

Health Promotion



The Healthy Athlete Clinical Director Role : Health Promotion

Special Olympics is a global movement of people creating a new world of inclusion and community, where every single person is accepted and welcomed, regardless of ability or disability. We are helping to make the world a better, healthier and more joyful place -- one athlete, one volunteer, one family member at a time.

The Healthy Athletes program is dedicated to providing health services and education to Special Olympics athletes, and changing the way health systems interact with people with intellectual disabilities. Through free health screenings, training for healthcare professionals, and evaluation of the health status of people with intellectual disability, Healthy Athletes has become a powerful public health organization worldwide.

Clinical Directors are an important part of the Healthy Athletes Health Promotion team. Clinical Directors are responsible for working with their local Special Olympics Program and other volunteer health professionals in coordinating a Health Promotion event in their region.

The role of a Health Promotion Clinical Director includes, but is not limited to:

1. *Determining event opportunities*

Identifying and scheduling the best opportunity to provide Health Promotion screenings is a joint effort between the Clinical Director and their local Special Olympics Program. Clinical Directors will also determine which areas of Health Promotion (nutrition, hydration, bone health, sun safety, tobacco avoidance, physical activity) to offer and how, based on the local needs and resources available.

2. *Recruiting and Training Volunteer Health Professionals*

Clinical Directors are the best people to identify and train health volunteers to work in the specific areas that will be offered in the Health Promotion venue, because they know their community and its local health care professionals. Potential volunteers may come from:

- Private Practitioners
- Universities/Colleges/Schools
- Health and Professional Associations
- Medical Facilities
- Government Medical Facilities (Military/VA/State/National/Local) and
- State or Local Public Health Agencies

3. Capacity Grant Application

Clinical Directors will work with their local Program to assure that supplies and equipment needed to deliver the core components of HP are included in the Healthy Athletes' Capacity Grant application. These grants assist Programs in purchasing interactive educational materials, athlete giveaways and incentives, volunteer recognition, signage and other supplies/equipment needed to conduct an impactful Health Promotion program.

4. Obtaining Equipment, Supplies and Athlete Giveaways

Needed supplies, equipment and athlete giveaways may be available to Clinical Directors through donations or loans obtained by networking with local sponsors and health services. Special Olympics headquarters also receives donations of goods and equipment that can be made available for events, if local sources are not available.

5. Setting Up and Supervising the Healthy Athletes Venue

On the day of the event, the Clinical Director is responsible for supervising the set up and delivery of screening and interactive education services by trained volunteers.

6. Collecting and Reporting Data

Clinical Directors use Healthy Athletes Software (HAS) to document screening data collected during the event. Data is used to determine need for health care provider referrals, and to assess the health status and needs of individual Special Olympics athletes. This data provides Healthy Athletes Programs worldwide with factual information to increase awareness and provide more services.

7. Program Evaluation

Evaluation gives Clinical Directors the opportunity to continuously improve and adapt their programs to the needs of the athletes.

Health Promotion Clinical Director Background and Requirements:

- Certificate and current licensure as a health professional e.g., RD, CHES, RN, MD, DO, PA, NP and more;
- A minimum three-year commitment to ensure quality and continuity of the Health Promotion program;
- Attendance at a SOI sponsored Train-the-Trainer session where information and training about Special Olympics, Healthy Athletes, Health Promotion specific management and clinical requirements are provided. During training Clinical Directors participate in a Health Promotion screening event. Expenses are covered by Special Olympics International.

NOTE: Local Special Olympics Program staff recruits potential clinical directors and submit the potential clinical directors' names and resumes to the Special Olympics International and Health Promotion Global Clinical Advisors for approval.

Check-list for Health Promotion Clinical Directors

The information below is a general summary. Please be sure to read through your local programs' and the Special Olympics International Healthy Athletes' (SOI HA) web site for background information, lesson plans and materials, order forms, etc.

www.specialolympics.org/healthy_athletes_resources.aspx

Your State or Country's Program:

- ☐ Meet with your local Healthy Athlete (HA) Coordinator to get acquainted, learn about your program and to discuss what your role will be in preparing for Health Promotion (HP) events.
- ☐ What is the upcoming HA event schedule?
- ☐ Will your Special Olympics (SO) Program apply for a capacity grant? And if so, who do you discuss requests and ideas with?
- ☐ Do you have a working budget and if so, how do you make purchases and/or request reimbursement?

Policies: What are your Program's written or un-written policies on the following?

- ☐ Food and beverages offered at events? Do volunteers receive lunch or snacks at screening events?
- ☐ Tobacco use at events?
- ☐ Referrals for screening results for "out of normal range" results; high or low BMI, BMD, BP?
- ☐ Policies about screening coaches, other family members, volunteers, staff, & Unified Partners?

Before your first HP event:

1. What is the planned screening schedule, e.g. days, hours, location, number of athletes expected?
2. Clarify space dimensions and sketch layout of HP venue.
3. If you will give incentives/gifts to athletes? Confirm donations/purchase plan.
4. Working with your HA coordinator, finalize plans to sharing screening results with athletes' parent, coach or guardian.
5. Assemble a "tool box" with office supplies like. scissors, tape, markers, pens, clipboards, name tags, push pins, string, staplers, staples, paper towels, Kleenex, "wall putty" to hang posters if push pins, address labels, duct tape, hammer, pliers, batteries, etc. Will you need a first aid kit in the HP area?
6. Plan to participate in scheduled conference calls while planning the event. When will they be? How do you call in? What's your role in setting the agenda?
7. Arrange to take photographs of event activities and plan to capture human interest stories about the impact of your programs have on the health and quality of life of the athletes.
8. Each Program is encouraged to offer all of the following areas in HP (*station overviews and detailed lesson plans available in Chapters 3, 5 & 6*). However, if are limited due to space/time/resources, which topics will you offer?
 - a. BMI, BP, BMD screening
 - b. Health Habits Survey
 - c. Nutrition Education
 - d. Tobacco Avoidance
 - e. Physical Activity
 - f. Sun Safety
 - g. Hand Washing with Soap
 - h. Hydration
 - i. Milk Moustache Photos
 - j. Other?
9. How will coaches and parents learn about the screening opportunities and how can you work to ensure athletes participate in Health Promotion?
10. Confirm process for Healthy Athletes Software (HAS) data entry. Who does it? When? How can you access the HAS summary data when it is sent to the HA Coordinator?

Health Promotion Equipment and Supplies:

- ☐ Based on the HP topic areas you offer, how many tables, chairs, electrical outlets and table skirts and supplies and what specific equipment will you need? (See [Core Components of Health Promotion and Equipment and Supplies List](#))
- ☐ What inventory of HP supplies, materials, and equipment does your local Special Olympics program already have? What do you need to purchase or borrow from SOI?
- ☐ Where are supplies stored? And how do you access these items for an event? Programs often store the HP inventory in clear plastic tubs with lids and labels, and a dated inventory list.
- ☐ For BMD screening, if you don't own your own Sahara equipment, [submit request](#) according to process (in [Chapter 3](#)), or contact Peyton Purcell (ppurcell@specialolympics.org).

Donations:

- ☐ What donations will you try to obtain, for example- water, fresh fruit, string cheese, light yogurt, bagged nuts, low sugar granola bars, sun screen, photo printing supplies and equipment for Milk Moustache Photo Booth, etc.?
- ☐ Will you be involved in soliciting donations to support HP activities? If yes, how so?
- ☐ How does your program recognize sponsors and/or donors and volunteers during and after the event? Are thank you notes sent? If yes, by whom?
- ☐ How does your program collect information on the value of donations?

Volunteers:






- ☐ Determine your volunteer needs and recruit based on hours of screening, topic areas offered and professional expertise needed.
- ☐ Where have volunteers successfully been recruited from for past HA events?
- ☐ Who recruits volunteers and how and what is the volunteer credentialing process. How is this process shared with volunteer?
- ☐ Create volunteer spread sheet with contact information: name, phone, email address, days and hours available, mailing address, credentials e.g. nurse, dietitian/nutritionist, physician, health educator. Is the volunteer a student, parent, health educator, photographer, fitness expert, etc.?
- ☐ Plan and deliver volunteer training prior to the event.
- ☐ Get volunteer "group" photos at the event, if possible. Consider taking photographs of each volunteer to jog your memory afterwards.
- ☐ How does your program recognize volunteers after an event? Are thank you notes sent? If yes, by whom?








After your HP event:

- ☐ During the event spot check completion of HAS forms, so recording errors or misunderstandings can be identified and corrected as early as possible. At Check Out, have trained volunteers review HAS forms for consistency and to ensure that they are collected.
- ☐ With volunteer help, systematically clean up, storing inventory in clearly marked tubs. Inventory contents of each tub, and make a list of items needing to be replaced for next event. What did you run out of? What did you need that you didn't have?
- ☐ Return borrowed Sahara equipment according to [instructions](#).
- ☐ Make notes of what went well, what you want to change when planning your next event, and request feedback from Healthy Athletes coordinator.
- ☐ Share photos and human interest stories about your athletes (including names and contact information) to the following:
 - Peyton Purcell – ppurcell@specialolympics.org






Health Promotion Equipment and Supplies List:







Use this list to calculate your supplies cost for your discipline. Unused, non-disposable items should be collected at the end of the event and stored under lock and key to support future events. When filling this information out for future events, conduct an inventory to determine what items you will not need and complete this supplies needed form as appropriate. Contact Health Promotion Program Manager, Peyton Purcell (ppurcell@specialolympics.org)

Health Promotion					
Standard Supply Item	Refer to HP CD Manual for ordering and additional suggestions	Comment/Amount Recommendations	Quantity Advised Per Training Manual	Vendor website	Estimated Cost
Banners - Health Promotion		If this is a first-time Health Promotion event, SOI will provide 2 HP banners per program for US/Canada programs. Order from SOI.	2	For First time US-Canada Programs: SOI Warehouse- HP Program Manager, Peyton Purcell (ppurcell@specialolympics.org) International Programs (or programs who need replacement banners) can access the files at: http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Brand_Graphics.aspx#HlthPro Banners for individual stations are also available on the SOI website	no charge (first time US events) Printing costs for international or replacement banners can be included in Capacity Grant
Choose-to-Change Cards		Must print needed quantity directly from HP forms and materials website at	based on stations offered, and number of athletes expected	http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx	print in color locally on cardstock *printing backside is optional
Athlete Health Report (screening results)		Must print needed quantity directly from HP forms and materials website at Special Olympics.	100% anticipated athlete attendance	SOI Health Promotion Resources website	print in color, locally on paper
Plastic baskets		Use to consolidate forms, giveaways and other materials. Helps keep HP venue tidy and organized.	2 per station	Dollar store	\$1 each
Colorful table cloths		Fabric or plastic table cloths to brighten look of venue, design can be station specific, solid colors nice if table filled with "busy" items	per station	local	varies

Standard Supply Item	Refer to HP CD Manual for ordering and additional suggestions	Comment/Amount Recommendations	Quantity Advised Per Training Manual	Vendor website	Estimated Cost
Fruit and Vegetable Balloons (or something to attract attention)		Use to promote healthy fruits and vegetables, a great way to attract attention to the HP venue. These can be used several times to conserve on cost. Need a "party" size tank of helium (available from Party Store or Wal-Mart). A hand pump will work in a pinch.	mixed set of fruits and vegetables	nutritioneducationstore.com	Package of 6 assorted fruits and vegetables \$36 plus shipping
Posters/ displays		Nutrition education, Food pyramid, health promotion posters and materials, include hand washing, food safety, smoking cessation	depends on number of stations	check USDA-my plate, CDC- nutrition and physical activity web sites	many free downloads
Inflatable cows (or something to attract attention)		Use to promote dairy products and to attract attention to the HP venue. These are reusable and can be inflated with a hand pump. 23" tall.	1	http://www.wisconsinfriedcheesecurds.com/Pages/merchandise.aspx	\$20.00
Food Models		Use for interactive nutrition education. Use fake food, fresh food or food pictures as a substitute. Review the E-nasco or HealthEdco catalogs and websites for options.	Include items from all food groups: dairy, grains, f & v, meats, legumes, etc	http://www.enasco.com/product/WA29168HR	\$295 (includes 42 food items)
Prize Wheel Game		Use for interactive education in several areas, handwashing, physical activity, nutrition	1 or more	http://prizewheel.com/	\$290 for 12" tabletop model
Foam Skeleton Floor Puzzle		Interactive teaching tool to engage athletes in thinking about their own skeleton and how to keep their bones healthy.	1	http://www.healthedco.com/index.php/skeleton-floor-puzzle.html	\$29
Loss of a Bone Easel		HEALTH EDCO W43124 Loss of Bone Easel Display, 9" Length x 12" Height	1	http://www.healthedco.com/index.php/loss-of-a-bone-easel-display.html	\$117

Standard Supply Item	Refer to HP CD Manual for ordering and additional suggestions	Comment/Amount Recommendations	Quantity Advised Per Training Manual	Vendor website	Estimated Cost
Glo Germ Kit		Glo Box Kit with Glo Germ Gel, Powder, 21 LED UV Flashlight & Folding Box	1	www.onlinesciencemall.com/	\$104 + shipping
Cambro Handwashing Station		4.75 Gallon Container Insulated Beverage Dispenser plus Cambro HWAPR Black Hand Washing Station	1	http://www.webstaurantstore.com/cambro-hwapr-black-hand-washing-station/214HWAPRBK.html?utm_source=Google&utm_medium=cpc&utm_campaign=GoogleShopping&qclid=CMKYi9vgg8QCFZGlaQod8pAA2Q	\$110+\$130+ shipping
Water (Bottled)		Important teaching tool for hydration, physical activity and/or sun safety stations	50% of anticipated athlete attendance	local	donation
Fresh Fruit and Vegetables		Represent local food preferences, small colorful, not requiring preparation	50% of anticipated athlete attendance	local grocer	variety
Dairy products		Have a bin of ice for yogurt, plus plastic spoons.	50% of anticipated athlete attendance	local grocer	variety sugar free, low-fat or fat-free options
Bean Bag Toss Sun Safety		Order from Baggo, ask for the Special Olympics Sun Safety Game.	1	http://www.baggo.com/	\$50 for ½ Baggo game \$89.95 for full game (2 game boards). Reference HP when ordering.

Standard Supply Item	Refer to HP CD Manual for ordering and additional suggestions	Comment/Amount Recommendations	Quantity Advised Per Training Manual	Vendor website	Estimated Cost
Lip Balm		Contact Peyton Purcell before ordering, as SOI may be able to supply for US programs.	depends on number of athletes	ppurcell@specialolympics.org (for US programs) or order online.	varies
Solar Bracelets		Contact Peyton Purcell (ppurcell@specialolympics.org) before ordering, as SOI may be able to supply to US programs or purchase from SolarActive. Order form on Special Olympics website.	50% of anticipated athlete attendance	Contact ppurcell@specialolympics.org (for US programs) or order online: http://www.solaractiveintl.com/uv-Awareness-Bracelets-ezp-62.html	\$2-\$2.50 each, depending on quantity. SolarActive provides a 10% price discount on total ordered.
Education Boards		Displays2go Tri Fold 3-Panel Display Board, 72 x 36 Inches with Black Velcro-Receptive Fabric and Write-On Whiteboard (3PV7236BLK)	as needed	Check Amazon and office supply sites	varies
Got Milk? / Milk Life photo backdrop banners and posters		Dairy Council has provided a limited number of banners and posters which can be obtained from SOI by US programs.		ppurcell@specialolympics.org (for US programs)	No cost if ordered through your local Dairy Council
Digital scale		Recommend: Doran 6100DS digital--approximately US\$425 or Seca 869, approximately US\$425. Select scale that weighs up to a minimum of 400lbs. Ask for Special Olympics discount	1 or more	perspectiveent.com/	\$425 USD

Standard Supply Item	Refer to HP CD Manual for ordering and additional suggestions	Comment/Amount Recommendations	Quantity Advised Per Training Manual	Vendor website	Estimated Cost
Stadiometer		Stadiometer: Portable adult/infant measuring unit; approximately \$400 USD. Ask for Special Olympics discount	1 or more	perspectiveent.com/	\$400.00 US
Body Mass Index Wheels adult		Use to determine athlete BMI for athletes 20 years of age and older	1 for each scale/stadiometer set and for each trainee	For US-Canada Programs: contact HP Program Manager, Peyton Purcell (ppurcell@specialolympics.org) For International Programs: order online (http://bmiwheel.com/) or online tool/app: https://itunes.apple.com/us/app/nhlbi-bmi-calculator/id446441346?mt=8	varies
Body Mass Index Wheels pediatric		Use EZ Plot Pediatric BMI Wheel to determine BMI for athletes up to age 20.	1 for each scale/stadiometer set and for each trainee	https://www.macgill.com/ProductDetail/49210-Macgill-Ez-Plot-Pediatric-Bmi-Wheel-No-Chart-Needed- or use a app: https://itunes.apple.com/us/app/pediatric-bp-calculator/id817332767?mt=8	US\$4.90
Blood pressure cuffs		Adult, extra-large and pediatric cuffs. Omron is one of several good brands.	3 adult; 1 XL and 1 pediatric	varied medical equipment suppliers or see if you can get donated	varies
Bone density machine		Sahara Request Form on SOI web site or contact Peyton at ppurcell@specialolympics.org US Programs may be able to borrow one from Peyton. International programs may be able to rent from regional Hologic.	1 or more	To request a loan, complete the request form on the SOI website http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx	\$7000 purchase or ~\$150 return shipping if borrowed
Bone density clinic supplies		Order gel, printer ribbon and foot sheets from Hologic, order form in HP CD manual, at SOI web site or at Hologic.com	See below	http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx	estimate .50 per person tested

Sahara Supplies and Recommended Quantities

Local programs will need purchase disposable supplies to perform bone density tests for athletes. The minimum order for Sahara supplies is \$100. What follows is a list of necessary supplies so plan to order at least 2 weeks in advance of your planned event. A current supply list and ordering information is available from Hologic. Call 1-800-321-4659.

Item	Purpose	Estimated need	Available
Foot sheets	Infection control	1 sheet per athlete	Through Hologic – US\$0.10 each (500 per box)
Coupling gel	Transmits sound waves	1 tube per 50 tests (2 heels)	Through Hologic – US\$6 per tube
Printer tape	Print QC results	1 roll per 100 tests	Through Hologic - US\$4 per roll
Kim wipes	Clean transducers	1 box per machine	Through Hologic - US\$2 per box
Baby Fresh Wipes	Clean outside of machine	1 small box per event	Buy locally
Kleenex	Wipe heels	1 per machine	Buy locally
Surge Protector	Protect in power outage	1	Buy locally
General Supplies			
Item	Purpose	Estimated need	Available
Bags (Trash - large)	Clean-up and for waste at stations	2 dozen (per 500 athletes)	Buy Locally
Clipboards	Used for writing on HAS forms	15	Buy Locally
Non latex gloves	For optional use while doing screening	Sm, Med, Large	Buy Locally
Hand sanitizer	Wet wipes or liquid soap	varies	Buy Locally
Paper clips		2 boxes	Buy Locally
Kleenex		multiple boxes	Buy Locally
Paper Towels		1 per station & back up supply	Buy Locally
Pencils		2 dozen	Buy Locally
Pens		2 dozen	Buy Locally
Post It Notes		varies	Buy Locally
Rubber Bands		varies	Buy Locally
Scissors	Cutting tape and boxes	3	Buy Locally
Staplers & staples		varies	Buy Locally
Table coverings		1 per table	Buy Locally
Tape (duct, black electrician; packing, Scotch)	Hanging signage, packing up supplies, and taping down electrical cord	2 to 3 rolls each	Buy Locally
Clear plastic storage bins, labels & inventory sheets	To store supplies and inventory before next event		Buy Locally

Volunteer Recruitment, Training, Oversight and Recognition

Volunteers enable Special Olympics to offer Healthy Athletes services across the globe. Special Olympics Healthy Athletes could not have been created, nor would it exist today, without the time, energy, dedication and commitment of volunteers. Healthy Athletes' influence is evident with more than 120,000 healthcare professionals' trained, free health screenings provided to nearly 1.4 million athletes. Healthy Athletes continues to grow each year with help from a global network of volunteers, in-kind donations and other financial support.

The Volunteer Management Series web pages are found at resources.specialolympics.org/Topics/Volunteers/Volunteer_Training.aspx.

Take time to review the Special Olympics Volunteer Training Web pages for World Games if you will help plan national or world games at media.specialolympics.org/soi/files/resources/World_Games/World_Games_Guide/VOLUNTEERSMgmtWGGuide_FINAL.pdf. Naturally, volunteer related issues for a smaller local event will be much less complex.

GENERAL: The links above include the volunteer handbook, and documents for volunteer orientation, how to design volunteer jobs, train volunteer trainers, and rules and code of conduct captured under the rubric "*Protective Behaviors*".

RECRUITMENT: When Special Olympics Program staff or key volunteers are involved in recruitment they are anxious in finding the right person. When the wrong person is recruited, volunteer feels incompetent and/or unfulfilled, leading to performance and retention problems, or the Program does not get the job done. Successful recruitment involves marketing your program's volunteer needs to people who can fill those needs while simultaneously filling their own "day jobs".

1. **Whose job is it to recruit volunteers for Health Promotion?**
2. **How will you determine how many volunteers you need for an event?**
3. **Where will you recruit volunteers from?**
4. **How will you recruit volunteers?**
5. **What incentives will you provide for people to volunteer with your program?**
6. **How will you maintain lists and contact information of volunteers from one year to the next?**

SCREENING & INTERVIEWING: Preliminary screening and interviewing those interested in volunteering at the venue is important. You'll need to ensure that the people are right for the positions you seek to fill.

1. **Ask yourself, why is interviewing volunteers important?**
2. **Also ask yourself, what you need to include in the interview.**

TRAINING: SOI Healthy Athletes uses the "train-the-trainer" model for HP CD training, who in turn follow the model when training volunteers. This enables our HP CDs to show less-experienced individuals how to perform assigned tasks or protocols in consistently, over and over. HP Clinical Directors will have a completed training event led by the course designer or

subject-matter expert. Helps to ensure that volunteers receive timely training to complete tasks according to the HP policies and procedures.

- 1. How would you set up a volunteer training session? Individual or group?**
- 2. Prior to the event or “on the job”?**
- 3. What job aids will you use and how will you organize these before your event?**
- 4. Knowing this is a “Train the Trainer” experience, how will you deliver training for your volunteers?**

SUPERVISION: Supervising Special Olympics volunteers means establishing conditions that encourage and support others to get the jobs done. Unlike the traditional supervisor/worker model, this model encourages volunteers to succeed in their assigned role, to accept constructive criticism when needed and to take responsibility for their actions.

- 1. What steps can you take to assure that those who agree to volunteer show up and complete their shift?**
- 2. How would you coach volunteers if you see mistakes in how they are handling screening or education?**
- 3. Will you rotate volunteers or keep them at the same station for the entire event?**

RECOGNITION:

- 1. What incentive do people have to volunteer for the Health Promotion venue?**
 - a. For example, certificates of appreciation? Continuing education credits? T-Shirts? Other gift items? Acknowledgment in local newspaper, company newsletters, professional newsletters?**
- 2. How will you increase the likelihood that your volunteers will return to help with future events?**

Volunteers from 170 countries help Special Olympics Healthy Athletes to grow with more and more athletes participating each year. As a HP Clinical Director, you are part of this incredibly important and significant public health initiative.

APPENDIX: Health Promotion Logistics

The next several pages of Chapter 2 provide some background materials and resources/tools that you may deal with while organizing a Health Promotion event. These include:

- An evaluation letter which you will receive after your event
- Two example letters to assist in the recruitment of volunteers
- Information about grant funding for Healthy Athlete events
- Example evaluation report for Special Olympic grants
- Hold Harmless agreement required for all providers to be covered under SOI liability.
 - NOTE: All Special Olympics participants sign a consent form when they join and this form grants consent to participate in Special Olympics Health events. Ask your local Special Olympics Program if you would like to see a copy of that consent form regarding permissions to take pictures/share stories.

Clinical Director Thank You Letter and Evaluation Tool

Special Olympics

Health Promotion



INSERT DATE

Dear Clinical Director:

On behalf of the Special Olympics International Healthy Athletes Program, congratulations on your recent Health Promotion event. Would you take a few minutes to let us know how your event went? Your feedback will help with our continued efforts to improve training. We also hope to learn how your health promotion impacts your athletes.

Please check the areas you offered:

- | | |
|--|---|
| <input type="checkbox"/> Height And Weight Screening (BMI) | <input type="checkbox"/> Hydration |
| <input type="checkbox"/> Bone Density Screening (BMD) | <input type="checkbox"/> Tobacco Avoidance |
| <input type="checkbox"/> Blood Pressure Screening (BP) | <input type="checkbox"/> Sun Safety |
| <input type="checkbox"/> Health Habits Interview | <input type="checkbox"/> Hand Washing |
| <input type="checkbox"/> Nutrition Education | <input type="checkbox"/> Milk Moustache Photo Booth |
| <input type="checkbox"/> Physical Activity | <input type="checkbox"/> Other _____ |

	Number	Yes	No
Was the Healthy Athletes Program offered with a sports competition event?			
• If yes, approximately how many athletes competed?			
• How many athletes participated in the Health Promotion Venue?			
• How many volunteers helped in Health Promotion?			
Do you have a system in place to share the Health Promotion screening results with the athlete's parents, coach, guardian or health care provider?			
• If yes, please specify with whom? Do you have a written description of the procedures you follow? And can I call to get more information about your referral process?			
Does your Healthy Athlete's Program follow healthy food and beverage guidelines?			
If yes, may we see a copy of your guidelines?			

1. What was the most satisfying, fun or effective part of your event?
2. Did you find any part of Health Promotion particularly challenging? If so, please describe.
3. How would you describe your volunteer recruitment, training, oversight and recognition? Did you have the right volunteers for the jobs you assigned?
4. Do you have any “lessons learned” that you are willing to share with us and other HP Clinical Directors?
5. Would you share any human interest stories that attest to the effectiveness of Health Promotion in enhancing the athletes’ health?
6. Please send or provide the hyperlink to any great photos of your event! Email the completed form to your Healthy Athletes’ Coordinator and to your Health Promotion Train-the-Trainer Clinical Advisor.
7. Did you feel well prepared to oversee your first Health Promotion event?

If you have any suggestions for us to make these events better, or if there is more support that we provide, please don’t hesitate to let us know. In behalf of the Special Olympics athletes, thank you

Sincerely,

Mary Pittaway, MA, RD
Global Clinical Advisor Health Promotion
Mpitt59802@aol.com

Alice Lenihan, MPH, RD, LDN
Global Clinical Advisor Health Promotion
lenihanaj@aol.com

Clinical Director Invitation Template - Health Promotion Program

Dear INSERT NAME/ORGANIZATION

Special Olympics is the world's largest sports organization for children and adults with intellectual disabilities, providing year-round training and competitions to more than 4.5 million athletes in 170 countries. Special Olympics competitions are held every day, all around the world—including local, national and regional competitions, adding up to more than 90,000 events a year. Special Olympics is the largest global public health organization dedicated to serving people with intellectual disabilities. The Special Olympics Healthy Athletes Program offers health screenings in seven areas: Fit Feet-podiatry, FUNfitness- physical therapy, Health Promotion- better health, nutrition and well-being, Healthy Hearing- audiology, MedFest -sports physical exam, Opening Eyes- vision and Special Smiles- dentistry.

The Health Promotion Program provides athletes with intellectual disabilities the opportunity to take charge of their own health. Health Promotion focuses on such areas as nutrition, bone health, sun safety, tobacco avoidance, hygiene and physical activity. Health Promotion uses interactive educational tools and displays, motivational literature and demonstrations to heighten the awareness of athletes, reinforcing the need to improve and maintain an enhanced level of wellness and self-care. Health Promotion offers blood pressure, height and weight and bone density screenings, to identify health challenges that may need additional education and follow-up.

Special Olympics needs volunteer health care professionals to serve as Clinical Directors for its Healthy Athletes Health Promotion Program. Special Olympics is reaching out to clinical and public health professionals skilled in helping individuals learn and practice healthy behaviors. The specialized backgrounds and expertise you have to offer can ensure that the Health Promotion reach its maximum potential. We need you to use your special skills and abilities to help change the lives of people with intellectual disabilities. As a Health Promotion Clinical Director you will join other health professionals volunteering in the Special Olympics Healthy Athletes Program. Please accept the challenge of empowering our athletes by promoting healthy behaviors and lifestyles. As one Health Promotion volunteer recently said, "The athletes thank me for what I do for them, but it is really the athletes who deserve my thanks for what they do for me." To learn more about Special Olympics Health Promotion, please visit www.specialolympics.org/healthpromotion.

Special Olympics is recruiting for Health Promotion Clinical Directors for several state and country programs. Please contact one of the individuals listed below to discuss how you can join our team and make a difference in a Special Olympics athlete's life.

Mary Pittaway, Global Clinical Advisor: mpitt59802@aol.com or 406-544-3969

Alice Lenihan, Global Clinical Advisor: lenihanaj@aol.com or 919-612-1137

Peyton Purcell, Senior Manager, Health Promotion, Special Olympics International: ppurcell@specialolympics.org or 202-824-0287

Clinical Director Invitation Template - Healthy Athletes Program

Dear INSERT NAME/ORGANIZATION

Special Olympics is the world's largest sports organization for children and adults with intellectual disabilities, providing year-round training and competitions to more than 4.5 million athletes in 170 countries. Special Olympics competitions are held every day, all around the world—including local, national and regional competitions, adding up to more than 90,000 events a year. Special Olympics, as the largest global public health organization dedicated to serving people with intellectual disabilities, needs volunteer health care professionals to serve as Clinical Directors for its Healthy Athletes program. The specialized backgrounds and expertise you offer can ensure that the Healthy Athletes program helps change the lives of people with intellectual disabilities.

Officially launched in 1997, Healthy Athletes organizes its health events in a welcoming, fun environment. Its events educate athletes on healthy lifestyle choices and identify problems that may need additional follow-up. There are seven disciplines in Healthy Athletes. Information and resources are available for each on the Special Olympics website.



Fit Feet offers podiatric screenings to evaluate ankles, feet, lower extremity biomechanics, and proper shoe and sock gear to participating athletes.



FUNFitness is the physical therapy component of Healthy Athletes. Designed to assess and improve an athlete's flexibility, functional strength, aerobic capacity and balance. These screenings also educate participants, families and coaches.



Health Promotion uses health screenings, interactive educational tools and displays, motivational literature and demonstrations to heighten the awareness of athletes, reinforcing the need to improve and maintain an enhanced level of wellness and self-care. It also provides screening for BMI, blood pressure, and bone density.



Healthy Hearing offers a free hearing screening designed to ensure proper audiology care for Special Olympics athletes.



MedFest offers a sports physical exam for athletes, needed prior to participating in Special Olympics sports programming.



Opening Eyes The Special Olympics-Lions Clubs International Opening Eyes program provides a vision and eye health screening in partnership with the Lions Clubs International Foundation. Led by volunteer vision care professionals, Opening Eyes offers prescription eyewear, sunglasses, and sports goggles to Special Olympics athletes.



Special Smiles provides comprehensive oral health care information, including free dental screenings and instruction on correct brushing and flossing techniques to participating Special Olympics athletes. This also includes issuing preventative supplies like toothpaste and toothbrushes and fluoride varnish.

To learn more about Special Olympics Healthy Athletes, please visit http://www.specialolympics.org/healthy_athletes.aspx?source=navbar.

Please accept our invitation to empower our athletes by promoting healthy behaviors and lifestyles and serving as a Clinical Director. As one Healthy Athlete volunteer recently said, "The athletes thank me for what I do for them, but it is really the athletes who deserve my thanks for what they do for me."

Special Olympics is recruiting for Clinical Directors in all disciplines for several state and country Programs. Please contact your local Special Olympics Program to discuss how you can join the Healthy Athletes team and make a difference in a Special Olympics athlete's life. A list of local Programs is available at: http://www.specialolympics.org/program_locator.aspx

Join us on <EVENT DATE AND TIME> and Volunteer with the Special Olympics <name of program> Healthy Athletes Program

Special Olympics is currently recruiting volunteers for upcoming health screening events in several health areas. We hope that you can contribute your time and skills to the movement and help change the lives of people with intellectual disabilities in your community through our Healthy Athletes Program.

Special Olympics is the world's largest sports organization for children and adults with intellectual disabilities, providing year-round training and competitions to more than 4.5 million athletes in 170 countries. Special Olympics competitions are held every day, all around the world—including local, national and regional competitions, adding up to more than 94,000 events a year.

Special Olympics, is also the largest global public health organization dedicated to serving people with intellectual disabilities. The Special Olympics Healthy Athletes Program offers health screenings in seven health disciplines:



Fit Feet offers podiatric screenings to evaluate ankles, feet, lower extremity biomechanics, and proper shoe and sock gear to participating athletes.



FUNFitness is the physical therapy component of Healthy Athletes. Designed to assess and improve an athlete's flexibility, functional strength, aerobic capacity and balance. These screenings also educate participants, families and coaches about fitness and how to improve each component of fitness.



Health Promotion uses health screenings in BMI, blood pressure, and bone density, interactive educational tools and displays, motivational literature and demonstrations to heighten the awareness of athletes, reinforcing the need to improve and maintain an enhanced level of wellness and self-care.



Healthy Hearing offers a free hearing screening designed to ensure proper audiology care for Special Olympics athletes.



MedFest offers a sports physical exam for athletes, needed prior to participating in Special Olympics sports programming.



Opening Eyes The Special Olympics-Lions Clubs International Opening Eyes program is a vision and eye health screening in partnership with the Lions Clubs International Foundation. Led by volunteer vision and eye care professionals. Opening Eyes is able to offer prescription eyewear, sunglasses, and sports goggles to Special Olympics athletes.



Special Smiles provides comprehensive oral health care information, including free dental screenings and instruction on correct brushing and flossing techniques to participating Special Olympics athletes. This also includes issuing preventative supplies like toothpaste and toothbrushes and fluoride varnish.

Additional information and resources are available for each health discipline on the Special Olympics website http://www.specialolympics.org/healthy_athletes.aspx

We would like to invite volunteers with clinical and public health backgrounds, as well as all other interested volunteers who may not have clinical or health experience..

The opportunity to volunteer with Special Olympics is truly a rewarding one: As one Healthy Athletes volunteer recently said, "The athletes thank me for what I do for them, but it is really the athletes who deserve my thanks for what they do for me!"

If you are interested in volunteering with the Special Olympics Healthy Athlete team and learning more about the specific disciplines and upcoming volunteer opportunities, Please contact the following individual at your local program by <DATE>:

<SPECIAL OLYMPICS PROGRAM>

<HEALTHY ATHLETES COORDINATOR/EVENT COORDINATOR>

<EMAIL ADDRESS/PHONE NUMBER>

Grant Opportunities for Health Promotion 2015

The Special Olympics Program will be responsible for submitting to Special Olympics International (SOI) for any grants, but there are some aspects of the grants that the Program may ask of a Clinical Director (e.g. supply needs, tracking/evaluation of event). This table summarizes some of the key types of grants available for Healthy Athletes and Health Promotion. On the following page, you will also see an example of the type of evaluation form that must be completed by the Program.

Type of Grant	Purpose	Goal	Components include	SOI Expectations
Capacity or Performance Grants \$500-\$15,000 USD Varies on number of screening venues and whether domestic or international.	Assist Programs in conducting Health Promotion activities in conjunction with scheduled Games or other special events.	To provide support to Special Olympics Programs to create a fun, educational and interactive environment where athletes learn to make healthy lifestyle choices.	Fun and interactive educational activities focused on: Healthy Nutrition Strong Bones Hydration Sun Safety Tobacco Free Sports Hand Washing Physical Activity	Require a trained Clinical Director. (<i>One who has participated in approved Special Olympics Healthy Athletes training event.</i>) Must enter screening and interview data into the electronic Healthy Athletes' Software (HAS) system. Must submit post event evaluation form upon completion.
Expanding Health Grant One-time, one-year grants of up to \$20,000 USD Healthy community Grants One-time, three-year grants of up to \$60,000 USD	Expand the reach and impact of Programs' health work and focus on the need for ongoing, follow-up health care, education and support in athletes' communities. These are designed to lead to 3-year Healthy Community grants.	To assure access to and/or referrals for on-going, follow-up health care, education and support in athletes' communities going beyond the one-time, event-centered health examination and education events that Healthy Athletes provides.	Increased programming in the areas of: 1) Partnerships for follow-up care 2) Partnerships for wellness opportunities 3) Training of health care providers 4) Training of athlete health advocates	Complete application information to be released each year. In order to apply for a grant, interested Programs will be asked to submit an <i>Expanding Health Grant Expression of Interest</i> . Expressions of interest will be reviewed by SOI, and Programs meeting the criteria will be invited to complete a full <i>Expanding Health Grant Application</i> .
Family health Forum Grants Up to \$3,000 USD per event	To provide a forum to educate athletes, families, and community members about health issues related to individuals with ID		Engaging forums and educational sessions and discussions on a variety of health topics with key speakers from SO, local community, and, possibly, clinicians.	Complete an application. Forum must be on a health topic. Must involve someone from the Lions Club. Must submit an evaluation report.



Sub Award Evaluation Form

Special Olympics Program:

Location of Screening:

Date of Screening:

Date of this report:

What type of event did you have?

- ☐ Competition ☐ Competition with Young Athletes
- ☐ Standalone event ☐ Standalone event with Young Athletes
- ☐ Young Athletes event only

If part of a competition, how many athletes competed in the event:

Health Promotion: Clinical Director _____

Number of athletes screened:		Number of Young Athletes screened:	
Number of referrals:			
Number of Volunteers:			
Clinical:		Students:	
Non-Clinical:			

At this Health Promotion event, what did/will you do to help connect athletes with follow-up care? (check all that apply):

- ☐ Contact caregivers about screening results ☐ In person ☐ By phone ☐ By mail
- ☐ Recommend specific doctors or provide list of possible doctors
- ☐ Have formal or informal community partnerships to provide free or reduced cost follow-up care
- ☐ Other:

4) Describe your “best” success or impact story from this event (e.g. a partnership that made the event possible, key publicity or media coverage, the discovery of a health problem, an improvement in athlete health and/or functioning, a change in attitudes among volunteers, or a follow-up care story). Please include names, photos, and any quotes associated with this story. (Use the reverse side or a separate report to complete.

Clinical Directors supply the local Special Olympics Program with the names of the clinical volunteers. The Special Olympics Program will add the names to the Hold Harmless form.



HOLD HARMLESS PURPOSE AND EXPLANATION

Each health care provider recruited for or volunteering to conduct health screenings at Special Olympics Healthy Athletes events **must** have malpractice insurance, either from a private insurance carrier or through an institution that is primary insurance and covers the volunteer for his/her Healthy Athletes related activities. Additionally, volunteer health care providers **must** have a valid license to practice in the state in which the Healthy Athletes event is being conducted. Special Olympics, Inc. has medical malpractice insurance that provides secondary insurance coverage to a Healthy Athletes volunteer's primary insurance coverage in the event that a malpractice/liability claim were filed against the volunteer, SOI and/or Special Olympics Programs located solely in the United States (the "SOI Insurance Policy"), provided the policy requirements are satisfied. The specifics of the coverage are outlined below. To be eligible for coverage a volunteer must:

- Be covered by a primary medical malpractice insurance policy that applies to Healthy Athletes volunteer activities¹;
- Be properly licensed in the State where the services are provided; and
- Sign a hold harmless agreement.

The purpose of the hold harmless agreement is to protect Special Olympics as an entity if it is brought into a claim as a result of the negligent actions of a Healthy Athletes volunteer. Similarly, the agreement protects the individual volunteer if he or she is brought into a claim resulting from the negligence of Special Olympics. The language in the agreement does not cause the individual volunteer to assume responsibility for Special Olympics for any conduct that is not connected with the volunteer's actions. Special Olympics values and appreciates the services and dedication of its Healthy Athletes volunteers, but is not able to retain liability for potentially negligent acts of all volunteers in the program. Therefore, the mutual hold harmless language is a method by which each party is protected and protects the other for claims that may arise out of the program.

The SOI Insurance Policy provides the following coverage effective from 1/1/2014 to 12/31/2014. The policy covers volunteer Dentists (DDS, DMD), Doctors of Medicine and Osteopathy (MD, DO), Optometrists (OD), Podiatrists, physical therapists, and Audiologists providing non-invasive screening and educational material to athletes while acting in their professional capacities solely on behalf of Special Olympics as Special Olympics registered volunteers in the United States.

The policy applies excess of any other valid and collectible insurance. It provides a \$1,000,000 per occurrence limit and \$3,000,000 general aggregate, subject to a \$5,000 deductible.

The SOI Policy **ONLY** provides coverage to parties at Healthy Athletes events conducted in the United States. **Liability and legal requirements for volunteer health care providers at events outside of the United States are dictated by the laws of that country, province, state, etc. To protect both the health care providers and SOI, however, health providers at events outside the United States also MUST sign the hold harmless agreement prior to participating in a screening.**

¹ Certain limited exceptions may apply to the requirement that volunteers for Healthy Athletes events have malpractice insurance. If a volunteer does not have malpractice insurance that covers Healthy Athletes-related activities, the volunteer should contact SOI right away to see if the volunteer is able to participate.

Clinical Directors supply the local Special Olympics Program with the names of the clinical volunteers. The Special Olympics Program will add the names to the Hold Harmless form.



Hold Harmless Agreement

The individual(s) listed below shall defend, hold harmless and indemnify Special Olympics, Inc., and its local Programs, and each organization's directors, officers, agents, employees and volunteers from and against any and all liability, loss, expense (including reasonable attorney's fees), or claims for injury or damages that are caused by or that are a result from the negligent or intentional acts or omissions by the person or entity named below who provides screening services as provided as part of the Special Olympics Healthy Athletes program.

Special Olympics, Inc. and/or its local Program shall defend, hold harmless and indemnify the individual(s) listed below against any and all liability, loss, expense (including reasonable attorney's fees), or claims for injury or damages that are caused by or that are a result of the negligent or intentional acts or omissions of Special Olympics, Inc. and/or its local Programs, and each organization's directors, officers, agents, employees, and volunteers with regard to the Special Olympics Healthy Athletes program.

SPECIAL OLYMPICS PROGRAM SIGNATURE AND EVENT INFORMATION:

SO Program Rep Signature	Program Name	Event Date(s)	Current Date
--------------------------	--------------	---------------	--------------

VOLUNTEER/AGENT FOR ORGANIZATION SIGNATURES:

		Check if you DO NOT have malpractice Insurance	Check if you are a Clinical/ Medical STUDENT	Do you <u>HAVE A VALID</u> <u>LICENSE</u> to practice in State in which services are being delivered?	
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>
<u>Printed Name</u>	<u>Signature</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Current Date</u>

Page ___ of ___



Special Olympics **Health Promotion**

Clinical Director Manual
Chapter Three:
Health Promotion Core Subjects

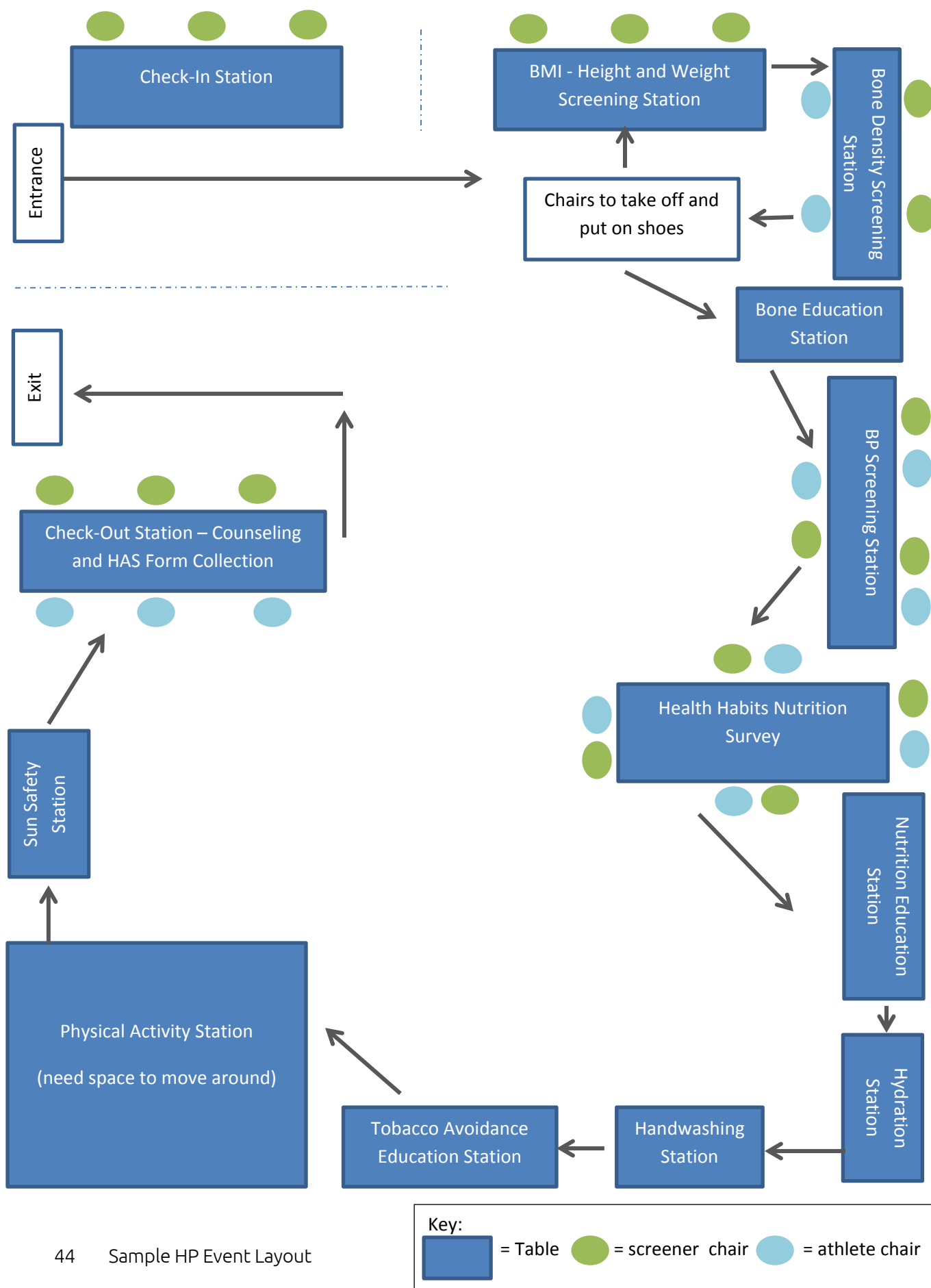


SOI recommends these 10 core subjects be included in all Health Promotion events. These include both screening and education stations, if time, space, and resources allow. This table summarizes the core stations and offers recommendation about the space and equipment needed. The tendency is to think that all stations require the same amount of space, but some stations require more space to complete the screening or properly display the educational materials. This Chapter will provide further detailed information about the screening stations (BMI, Blood Pressure, Bone Density, and Healthy Habits Survey). Chapters [five](#) and [six](#) will provide details about the education stations and example lessons plans.

Core Subjects Table and Sample Layout Schematic


Core Stations	Suggested Equipment and Supplies List by Station
Check In	Laptop if Healthy Athlete Software (HAS) forms are not pre-populated.
BMI Exam	Stadiometers and scales.
BP Exam	Extra-large, adult and pediatric cuffs, cartons of iodized and non-iodized salt, education board on DASH Diet recommendations, sodium and blood pressure graphics.
BMD Exam & Education Station	Sahara machines + clinic supplies, waste baskets, clipboards, Loss of a Bone Easel , food models (cups of fake milk and yogurt), calcium citrate supplement and vitamin D supplement bottles, education board on bone health if available. String cheese and light yogurt if available. Comparing Milk and Milk Alternatives and Sports Discussion sheets.
Health Habits	Current HAS forms and regionally appropriate food pictures to guide interview.
Nutrition Education	A variety of food models, food packages (Ramen, candy, etc.) electrician tape, education board on healthy nutrition, regional food guide e.g. MyPlate posters or display. Try not to use brand-name examples.
Sun Safety	Solar bracelets, raisins and grapes, 5000 IU vitamin D supplement bottle, lip balm, UV sun glasses, baskets for giveaway items UV Derm Scanner if available, education boards with colorful graphics and simple messaging. Baggo Sun Safety Bean Bag Toss.
Hydration	"Rethink Your Drink" materials. Clear cleaned soda bottles with sugar added (1 t per ounce if sweetened); include diet drinks, sports and energy drink containers. A few small zip lock bags with extra sugar, a measuring spoon; bottled water for athletes, education board with colorful hydration graphics and simple messaging.
Hand Washing	Glo Germ materials; or oil, cinnamon and soap, if handwashing facility or Cambro handwashing station is available. Spin the Water Wheel.
Physical Activity	Boom box, dance CD, hula hoops, yoga/exercise mats; education board with fun, colorful exercise graphics and simple messages.
Tobacco Avoidance	Straws, boom box, dance music, education board with colorful tobacco and health graphics and simple messaging.
Check-Out	I Choose to Change cards, Athlete Personal Health Report forms; Health Report Screeners Tool , a box or basket to collect completed HAS forms, HP Screening Reference Sheets for BMI, BMD and BP .
Optional Stations	Suggested Equipment and Supply List
Milk Moustache Photo Booth	Got Milk Celebrity Banners for backdrop; stick on moustaches, inflatable cow, plastic food models of dairy products, empty milk, and soy milk cartons. Use athlete's cell phones for photos, if camera and printers aren't available.
Food demo	Local decision, but must comply with food safety regulations for community.
Ask the RD, MD or RN	Food models, table and 2-4 chairs, education boards on selected topics.

HP Event Sample Layout (layout may need to change based on the size of the space & expected number of athletes)




Screening Station Rubric Summary of Each Exam

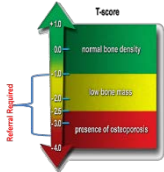
The following tables are intended to provide a broad overview of all the screening stations and recommended ways to evaluate volunteers on their ability to properly conduct the exam. This will be used at the Clinical Director Training, but is also a useful resource for the Clinical Directors to use as they plan and hold their events. The stations themselves are described in greater detail in the remaining section of this Chapter and Chapter 5.

BMI Height—Weight Screening Station Quality Assurance and Competency Training Tool				
Goal/Objective	Key Messages for Trainees	Methods & Materials	Instruction Resources	Evaluation Method
<p>Trainee will demonstrate the ability to accurately:</p> <ul style="list-style-type: none"> • Measure height and weight. • Use appropriate equipment. • Use appropriate technique. • Determine the BMI or BMI percentile. • State frequent causes of error. 	<p>People with Intellectual Disabilities (ID) are more likely to be overweight, obese or underweight than the general population, for a variety of reasons.</p> <p>An individual's height and weight is used to calculate a BMI (BMI percentile for children) is a measure of overweight and one's risk status for chronic diseases. Measurements should be accurate, reliable and replicable using appropriate equipment and a trained individual.</p>	<p>Demonstrate height and weight measurement technique.</p> <p>Trainee will practice measurement techniques with a partner. Trainer will confirm the technique.</p> <ul style="list-style-type: none"> • Record result on Healthy Athletes Software (HAS) form • Power Point slides • Poster on height and weight technique 	<p>Supplies from Special Olympics (SOI)</p> <ul style="list-style-type: none"> • HP Clinical Director (CD) Manual 1. Power Point Slides 2. Poster on height and weight technique • BMI Wheel –metric adult • BMI Wheel –metric pediatric <p>Equipment Specifications See Section 3 HP Manual Body Mass Index Station</p>	<p>Observation of techniques and confirmation of 100% accuracy.</p> <p>Have each trainee or volunteer measure one or two others, write down the results without saying them. Discuss concurrence of results.</p> <p>And/or use the Instruction Plan Checklist.</p>
<p>Referral /Follow-up for athletes with abnormal BMI results (BMI at 25 or higher, or 15 or lower).</p>	<p>Appropriate referrals are necessary to ensure athletes at risk receive care.</p> 	<p>Brainstorm process for follow-up for athletes with BMI at 25 or higher, or 15 or lower.</p>	<p>HP Clinical Director Manual- weight status classification tables, Health Promotion Screening Reference BMI</p>	<p>Group Discussion</p>

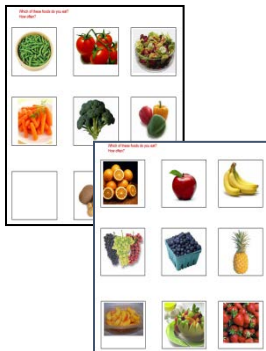
Blood Pressure (BP) Screening Station Quality Assurance and Competency Training Tool

Goal/Objective	Key Messages for Trainees	Methods & Materials	Instruction Resources	Evaluation Method
<p>Trainee will demonstrate the skills to accurately:</p> <ul style="list-style-type: none"> Select appropriate cuff size for individual athlete. Calibrate equipment. Use appropriate technique. Describe appropriate action and messages, based on comparison of blood pressure (BP) to the triage check list. State frequent causes of BP error. 	<ul style="list-style-type: none"> People with ID have at least if not more hypertension than the general population. An individual's (BP) reading is used to show general circulatory health, and can be used to discover other problems. Measurements should be accurate, reliable and replicable using appropriate equipment and a trained individual. If BP is too low the athlete may not receive adequate blood flow to the brain and heart If the athlete's BP is too high he or she may experience heart failure or stroke. 	<ul style="list-style-type: none"> Demonstrate calibration technique. Demonstrate the BP measurement technique with a partner. Describe action based on reading. Correctly record result on HAS form. 	<p>Supplies from SOI</p> <ul style="list-style-type: none"> HP CD Manual. Blood pressure monitor for adults and pediatric. BP charts for adults and children. Results action protocol. Choose to Change card- BP. Key message scripts Equipment specifications. Athlete's Personal Health Report Screeners' Reference Sheet. 	<ul style="list-style-type: none"> Observation of techniques and confirmation of 100% accuracy. Trainees will measure one another, and get the same results. Discuss "what if you get this reading", and assure trainees identify correct action based on BP reading. i.e., if hypotensive, athlete rehydrates; stage 3 hypertension: athlete rests retake BP. If BP still high after a 15-30 minute rest, see medic. Trainee will explain when and how to make BP referral at the event and/or at home.
<p>Referral /Follow-up for athletes with abnormal BP results</p> <ul style="list-style-type: none"> An adult with a systolic BP reading of 140 or higher, or a diastolic reading of 90 or higher will be referred to MD. A child with systolic and/or diastolic BP at or above the 95th % or below the 5th% is considered hypertensive and will be referred to MD. Pediatric hypotension not defined. 	<ul style="list-style-type: none"> Appropriate referrals are necessary to ensure athletes at risk receive care. Refer to adult and pediatric BP charts in Appendix. 	<ul style="list-style-type: none"> Brainstorm process for follow-up for athletes with hypotension or hypertension. 	<p>HP Clinical Director Manual - blood pressure classification tables, Health Promotion Screening Reference BP.</p>	<p>Group Discussion</p>

Bone Mineral Density (BMD) Screening Station Quality Assurance and Competency Training Tool

Goal/Objective	Key Messages for Trainees	Methods & Materials	Instruction Resources	Evaluation Method
<p>Trainees will demonstrate correct use of the bone density ultrasound equipment including the following:</p> <ul style="list-style-type: none"> • Reserve machine • Order supplies • Calibrate/QC • Operate • Replace printer tape • Repack Sahara. 	<ul style="list-style-type: none"> • Sahara an FDA approved medical device, is used to predict fracture risk. • Sahara test results are considered one aspect of a fracture risk assessment. • Use job aids to guide the proper operation of the Sahara for bone density screening. • Measurements must be accurate, reliable and replicable. 	<ul style="list-style-type: none"> • Demonstrate use of job aids for BMD competency checklist. • How to secure Sahara for event • Choose To Change Cards and messages • PowerPoint Slides • Sahara Manual 	<p>HP CD Manual BMD Job Aids:</p> <ul style="list-style-type: none"> • Reserve SOI loaner Sahara • Order Sahara supplies • Calibrate, QC and trouble shoot Sahara problems • Repack and return Sahara to loan source. 	<ul style="list-style-type: none"> • Reserve use of an SOI Sahara machine. • Successful volunteer training on use of the Sahara. • Critique one another in BMD screening service a skills based check list. • Demonstrate correct Sahara repacking for shipment.
Key Messages and Counseling Tips	<ul style="list-style-type: none"> • People with ID are at higher risk for low bone density, fracture and premature tooth loss for a variety of reasons. • Preventive measures and medical follow-up for abnormal scores may reduce fracture risk. 	Trainees will deliver key messages for <i>Strong Bones</i> Education. Use role play and brainstorming to reinforce skills.	<ul style="list-style-type: none"> • Key message scripts • Medication Watch List • Bone Health Education Resources • BMD testing procedure. • Record result on HAS 	<ul style="list-style-type: none"> • Critique one another in delivery of screening service using a skills based check list.
Conducting BMD measurement	Getting an accurate T-Score depends on following SOI protocol, athlete cooperation and shape of the athlete's heel.	<ul style="list-style-type: none"> • Demonstrate BMD testing process. • Record result on HAS form 	<p>Job Aids:</p> <ul style="list-style-type: none"> • How to conduct BMD measurement • See "Screening Follow-up BMD" in Manual. 	<ul style="list-style-type: none"> • Correctly test BMD on 5 others; explain the process to athlete, test, provide education, record data; sort for follow-up or not.
Referral criteria for athletes with abnormal BMD scores	<ul style="list-style-type: none"> • Athletes with low (-1.0 or lower) or very high T-scores will be referred to their health care provider for follow-up. • T-scores of >3.5 may indicate lead poisoning. Refer to MD. 	<ul style="list-style-type: none"> • Brainstorm process for follow-up for athletes with abnormal BMD scores. • Create list of local BMD follow-up resources. 	<p>See Screening Follow-up BMD in HP Manual.</p> 	<ul style="list-style-type: none"> • Implement a HIPPA compliant follow-up plan to refer athletes with abnormal BMD scores. • Observe competency using skills checklist.

Health Habits Survey (Nutrition, Tobacco, Sun Safety, Physical Activity) Quality Assurance and Competency Training Tool

Goal/Objective	Key Message for Trainees	Methods & Materials	Instruction Resources	Evaluation Method
<p>Trainee will demonstrate the ability to administer the Health Habits Survey to athletes:</p> <ul style="list-style-type: none"> • Introduce self and explain purpose of the interview. • Use food prompts to ask the nutrition questions. • Allow time for the athlete to respond. • Follow up with trigger questions if response is questionable or additional information is needed. 	<p>Responses to targeted questions provide some information on the athlete's eating habits.</p> <p>The responses can be used to develop nutrition education guidance or respond to questions the athlete may have.</p> <p>Responses to food questions may assist in developing referrals based on athlete feedback and screening results</p>	<p>Demonstrate introduction and interactive discussion with another trainee.</p> <p>Demonstrate use of food prompts (pictures, foods or food models) to assist in question response.</p> <p>Correctly record response on HAS form.</p>	<p>HAS Form</p> <p>HAS Food Pictures/Food Models/Foods</p> <p>HAS Foods Template</p> <p>HAS Form Instructions</p> 	<p>Observation of trainee and partner interaction.</p> <p>Discuss challenges in interviews, how to use food prompts to assist in athlete response.</p> <p>Recommend changes/additions to food prompts to assist in gathering information.</p>

Please see [Chapter 4](#) for full listing of all the Healthy Habits Questions as part of the HAS Form



Bone Density

Bone Mineral Density Screening Station

Background Information:

The purpose of including a focus on bone health in Health Promotion is threefold, to:

- Improve the health of athletes relative to prevention of bone fracture.
- Add to the database of information on the bone density status of this population, and
- Document the need to include prevention strategies in athlete health care.

People with intellectual disability (ID) have increased fracture risk for several reasons including sedentary lifestyle, inadequate dietary intake of key nutrients, low vitamin D levels, aging and hormone deficiency. Tobacco use and alcohol abuse further accelerate bone loss at any age. Certain underlying medical conditions are related to diminished bone health. Some may be prescribed medications that impact bone health.¹

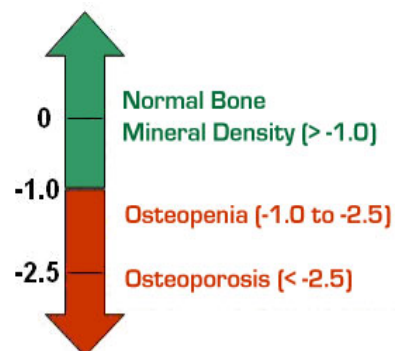
Early identification of low bone density through screening helps establish the need for lifestyle changes and/or medical intervention to improve bone health. Fortunately, we now have access to FDA approved medical devices to screen bone density. Health Promotion uses the Hologic Sahara Ultrasound to test bone density. The test is quick, painless, non-invasive, using ultrasound rather than x-ray. When correctly performed, abnormal T- scores results link to lifestyle and medical intervention protocols. An athlete's health care provider may order additional diagnostic tests including a 25 D (OH) vitamin D blood test; sequential height measurements; bone density x-ray of the hips and spine, also known as a DEXA or dual energy x-ray absorptiometry and blood or urine testing, so disease related causes for the bone loss can be ruled out. To standardize data collection and reliability of results, SOI only uses the Hologic Sahara Ultrasound device for bone density testing.

Osteoporosis treatment includes diet, safe sun exposure and/or vitamin D supplements, changing lifestyle habits and use of osteoporosis medications to prevent further bone loss and fractures. Osteoporosis is hard to reverse so prevention is the key to preventing fractures. A diet high in calcium is the cornerstone of prevention and treatment of osteoporosis. Many if not most individuals don't get enough calcium through diet or supplements. To enhance calcium absorption, vitamin D supplements or routine safe sun exposure are necessary. A regular exercise program that includes weight-bearing exercise, such as power walking, aerobics and resistance training can help keep bones strong and free of fractures if nutrient intake is adequate.

Counseling, Education, and Action Steps after Screening

What is low bone density? It's a thinning of the bones that increases the risk of fracture. It means that your bones are not as strong as possible.

How do we check for low bone density? The gold standard for measuring BMD is dual-energy x-ray absorptiometry (DEXA or DXA) scans. This test was done with a Sahara Ultrasound machine. Tests produce a **T-score**. Shows your score compared to a healthy 30 year old. **People with a T-score of -1.0 or lower should discuss the result with their health care provider at the next visit.** The chart on the next page will help with interpreting results and for specific recommendations for the referrals.



Some people have **very high bone density** scores, above +3.5. This may signal other problems with their bones and they should discuss this with their health care provider at the next visit.

Low bone density is not a disease. It shows us that the tested bones aren't as strong as they should be and are more susceptible to fracture. Our teeth are connected to the jaw bone, so bone loss may also lead to premature tooth loss. Many individuals with low bone density do not need medical treatment.

General Key Messages for Athletes About Protecting Their Bone Health

We can all take steps to ensure that we stay as healthy as possible.

1. Drink low fat cow's or soy milk daily, instead of soda, soft drinks, sports and energy drinks and other sweetened beverages.
2. Don't smoke or chew tobacco.
3. Eat healthy foods like dark green vegetables, fruit and almonds instead of candy or other sweetened foods.
4. Choose plain low fat yogurt and add your own fruit.
5. Take a calcium pill and a vitamin D pill (ask your doctor about the right dose).
6. Discuss your bone health with your doctor.
7. Ask your doctor about having a vitamin D test.
8. Be physically active.
9. Practice for your sport and do weight bearing and strength building activities at least three times a week.

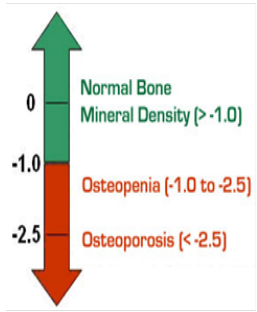
Thirty (30) minutes of weight-bearing and strength-building exercise daily benefits our bones, and improves heart and mental health, muscle strength, coordination, and balance. Those 30 minutes do not need to be done all at once; it's just as good to do 10 minutes at a time, several times each day. As a person builds strength, increase resistance, or weights rather than repetitions. Bringing a friend along can help some to keep going longer and more regularly.

Some weight bearing and strength building activities:

Lift weights Climb stairs Do aerobics Hike, jog or race walk Dance
Play court sports Play soccer Lift weights Play racquet sports Jump rope

Reference Chart and Action Steps Based on Bone Density T-Score

Abnormal BMD scores (-1 or lower, +3.5 or higher) do not “self-correct” and require medical and lifestyle intervention.

	T-score	Recommendations and Talking Points
	-1 to +3.5	<ul style="list-style-type: none"> • Normal Bone Density: Advise daily calcium intake of 1000-1200 mg per day from food and/or supplements. • Supplemental vitamin D dose should be based on vitamin D serum level, weight, age, skin color, medication use, sun exposure and dietary intake of vitamin D. • Participate in weight bearing and strength building sports e.g. running, basketball.
	-1.1 to -2.0 Referral required	<ul style="list-style-type: none"> • Low Bone Density: Advise daily calcium intake of 1000-1200 mg per day from food and/or supplements. • Supplemental vitamin D dose should be based on vitamin D serum level, weight, age, skin color, medication use, sun exposure and dietary intake of vitamin D. • Participate in weight bearing and strength building sports e.g. running, basketball. Weight lifting may put the athlete at risk for fracture until low bone density is resolved. • Discuss your bone health with your health care provider who may conduct additional tests and recommend treatment.
	-2.0 or lower Referral required	<ul style="list-style-type: none"> • Very Low Bone Density: Advise daily calcium intake of 1000-1200 mg per day from food and/or supplements. • Supplemental vitamin D dose should be based on vitamin D serum level, weight, age, skin color, medication use, sun exposure and dietary intake of vitamin D. • Participate in weight bearing and strength building sports e.g. running, basketball. Weight lifting may put the athlete at risk for fracture until low bone density is resolved. • Discuss your bone health with your health care provider who may conduct additional tests and recommend treatment.
	+3.5 or higher Referral Required	<ul style="list-style-type: none"> • Very High Bone Density: Advise to discuss bone health with their health care provider who may conduct additional tests, and recommend treatment.

Training and Teaching Aids for Volunteers

All materials are available in this manual and on the Special Olympics International website

[http://resources.specialolympics.org/Topics/Healthy Athletes/Disciplines/Health Promotion.aspx](http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx)

- Sahara instructions and forms: **Chapter 3 - Appendix**
 - [Sahara Calibration and QC Procedures](#)
 - [Repacking the Sahara](#)
 - [Sahara Request Form United States](#)
 - [Sahara Request Form International](#)




For supplies and ordering information regarding the Bone Density Machine, refer to **Chapter 2: HP Logistics and Administrative Topics Supplies and Equipment Ordering Information**





References

1. National Osteoporosis Foundation
 - a. December 2014: Ask the Expert, "What impact do intellectual and developmental disabilities have on an individual's bone health?"
<http://nof.org/files/nof/public/content/file/4309/upload/1051.pdf>
 - b. Vitamin D Status Around The World: Interactive global map for Vitamin D status. 2015
www.iofbonehealth.org/facts-and-statistics/vitamin-d-studies-map
2. Joanne E. Wilkinson, MD, MSc, Larry Culpepper, MD, MPH and Mary Cerreto, PhD J; Screening Tests for Adults with Intellectual Disabilities; Am Board Fam Med July-August 2007 vol. 20 no. 4 399-407.
3. U.S. Department of Health and Human Services. The Surgeon General's Report on Bone Health and Osteoporosis: What It Means To You. U.S. Department of Health and Human Services, Office of the Surgeon General, 2012.
www.niams.nih.gov/Health_Info/Bone/SGR/surgeon_generals_report.asp

Bone Density Screening Procedure Instruction Guide

Have a copy of this available for BMD screeners reference.

Images	Instructions and Notes
	<p>Step One:</p> <ul style="list-style-type: none"> Calibrate the machine following the steps in the Sahara instruction manual (also on next page). Clean the machine with <i>Baby Fresh Wipes</i>. <p>Do not use Bleach, Clorox wipes, or alcohol pads.</p>
	<p>Step Two:</p> <ul style="list-style-type: none"> Plug the machine into a grounded outlet and turn the power on at the black box. A green light will appear. Press the on button and the screen will say: <p>"Power on Self-Test" "In Progress....."</p> <ul style="list-style-type: none"> After a few moments the screen will say: "Ready" "Press ON"
<p>Figure 1. Press "On"</p> 	<p>Step Three:</p> <ul style="list-style-type: none"> Press the "On" button (See Figure 1) The screen will say: "Initializing" <p><i>This is a good time to describe the screening, let them know it won't hurt, and what you're testing.</i></p> <p><i>Ask other questions pertinent to bone health such as, "What sports are you involved in?" "What is your favorite dairy product?"</i></p>
<p>Figure 2. Press "open"</p> 	<p>Step Four:</p> <ul style="list-style-type: none"> When the screen says, "See gel pads Press Open" Press the "Open" button. (See Figure 2) The transducers will come together, touch each other, and then retract <p>The screen will say, "Opening.....Insert foot and press measure" Do not put your foot in the machine!</p>
	<p>Step Five:</p> <ul style="list-style-type: none"> The transducers are now retracted. Place a foot sheet in the cradle. Touch their left knee and ask the athlete put their left foot in the machine Begin with the left foot. <p><i>Make sure the athlete's heel is at the back of the foot carriage. It's a good idea to rest your hand on top of the athlete's foot to hold it still and provide reassurance.</i></p>
<p>Figure 3. Press "Measure"</p> 	<p>Step 6:</p> <ul style="list-style-type: none"> Press "Measure." (See Figure 3) The transducers will close on the sides of the athlete's foot. Sound waves measure for about 30 seconds. <p><i>Continue to discuss bone health with the athlete. See Bone Health education for ideas</i></p>

	<p>Step Seven:</p> <ul style="list-style-type: none"> The transducers will open on their own. When they are fully open, ask the athlete to remove their foot. Provide a tissue to wipe the gel from their foot. <p><i>Ask the athlete to remove their foot. This is important because the transducers will come back and touch during the "resetting" process. You may want to have them rest their foot to the side of the foot carriage in case you need to re-measure. E.g. if the result has an* beside it</i></p>
<p>Figure 4. Press "Prep"</p> 	<p>Step Eight:</p> <ul style="list-style-type: none"> Push "Prep." (Figure 4) The machine will process the score and display it on the LCD screen.
<p>Figure 5. Press "Print" (on the left), then press "On"</p> 	<p>Step Nine:</p> <ul style="list-style-type: none"> Press "Print" for each left heel scanned, unless there is an * beside the score. Recheck up to 3 times while trying to get a score without *. Record the score on the HAS form. Push "On" while printing, to reset the machine. <p><i>You can push "On" while the machine is printing which reduces the time between foot screenings a great deal. Use this time to record scores, ask questions, and explain the score obtained to the athlete.</i></p> <p><i>Screeners can reinforce the key messages for the Strong Bones component while the machine prints and re-sets for the next scan</i></p>
 <p>Athletes who use a wheel chair, the machine may be rested on the foot rest. It's important to test all athletes age 20 or older, especially those with ambulation difficulties.</p>	<p>Step Ten:</p> <ul style="list-style-type: none"> When ready, repeat for the right heel. Print the score for the right heel only if the score is lower than the left heel. Staple the result to the right corner of the HAS Form. <p><i>Note: Do not record or attach results that have an * by them, as these scores are invalid. Redo test up to 3 times, and if a * appears each time, thank the athlete for their time, and note on HAS form "unable to test."</i></p> 

When screening an athlete, test the left heel first, followed by the right heel. Testing both heels is particularly important because our bodies are seldom symmetrical. For example we wouldn't test one eye and create a prescription for both eyes. Both T-scores are reported and treatment is based on the lower of the two scores. A significant variation in the two heel T-scores is not uncommon.

NOTE: There are specific instructions regarding the process to shut down and re-pack the machine on the next pages. Please review those before shutting down or returning any machines.

Performing Calibration and Quality Control Procedures with the Sahara

Calibration: Perform this process before beginning use, after it is unpacked. It should be re-calibrated if the QC process fails after 3 attempts. Print the results of the process and save with the machine. This provides proof that it was in good working order before you begin testing giving assurance that all internal systems are operating correctly.

1. Turn machine on. Wait until it stops "opening and closing" and then
2. Push button that says Program
3. Push 2
4. Push enter
5. Push yes
6. Push yes
7. Then begin to follow the prompts that ask you to type in the numbers on the black "phantom" box. This will assure that the correct phantom is used with the machine.
8. Now follow the prompts exactly. If you type in the wrong number, or forget a decimal point, you can back space using the – key, but often, you'll have to start the entire process over so try not to get distracted.
9. Once the prompt reads "Calibration passed" you are ready to begin the testing process.

If the machine or the phantom is not at room temperature, the machine won't calibrate and you will have to wait about 60 minutes until the temperature stabilizes. Also, the phantom is the same temperature as the machine. If necessary, use a hair dryer or space heater to warm the area near the machine to speed up the process.

The rubber transducers may melt if heated up by direct sunshine.

Put the phantom back in the grey sponge box, zip lock bag or wrap with bubble wrap to protect it. Never store the phantom in the machine reservoir nor where it touches the machine as it will demagnetize.

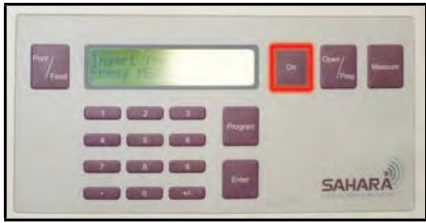
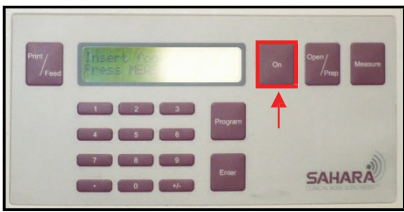



Quality Control (QC)


Perform this process after you do about 75 tests, or when you start getting asterix * beside the T scores. This means that the results are less than 100% accurate

1. Turn machine on. Wait until it stops "opening and closing" and then
2. Push button that says Program
3. Push 1
4. Push enter
5. Push yes
6. Push yes
7. When the transducers are "inside the machine", set the phantom in the foot resting spot. Press the measure button. The transducers will close and "measure the phantom".
8. Follow prompts and if all is well, the prompt will say QC passed.
9. If all is not well, it will say "QC failed. This means something is not okay with the machine, either the temperature of off, or the temperature is too cold or the machine is damaged. Refer to the **Sahara Manual** or call Hologic at 1-800-321-4659 for trouble shooting assistance.

Shutting Down and Repacking the Sahara

It is crucial for each Sahara machine to be repacked according to the following procedure. Omitting any one step will likely cause damage to the machine during the shipping process. Please follow these directions carefully.

Images	Instructions and Notes
	<p>Step One: Calibrate the machine following the steps in the Sahara instruction manual.</p> <ul style="list-style-type: none"> • Print the calibration tape to pack in the box. • Clean the machine with <i>Baby Fresh Wipes</i>. <p>Do not use Bleach, Clorox wipes, or alcohol pads.</p>
	<p>Step Two:</p> <ul style="list-style-type: none"> • Plug the machine into a grounded outlet and turn the power on at the black box. A green light will appear. • Press the on button and the screen will say: <p>"Power on Self-Test" "In Progress....."</p> <ul style="list-style-type: none"> • After a few moments the screen will say: "Ready" "Press ON"
<p>Figure 1. Press "On"</p> 	<p>Step Three:</p> <ul style="list-style-type: none"> • Press the "On" button (See Figure 1) • The screen will say: "Initializing" <p><i>This is a good time to describe the screening, let them know it won't hurt, and what you're testing.</i></p> <p><i>Ask other questions pertinent to bone health such as, "What sports are you involved in?" "What is your favorite dairy product?"</i></p>
<p>Figure 2: Press "Open"</p> 	<p>Step Four:</p> <ul style="list-style-type: none"> • When the screen says, "See gel pads Press Open" • Press the "Open" button. (See Figure 2) • The transducers will come together, touch each other (Figure 3), and then retract <p>The screen will say, "Opening.....Insert foot and press measure" Do not put your foot in the machine!</p>
<p>Figure 3.</p> 	<p>Step Five:</p> <ul style="list-style-type: none"> • The transducers are now retracted. • Place the white plastic ring onto each transducer receptacle. (See Figure 4)
<p>Figure 4. Insert plastic ring.</p> 	

<p>Figure 5. Insert white foam block</p> 	<p>Step Six:</p> <ul style="list-style-type: none"> • Insert the white foam block between the two transducer rings protectors. • If the foam block does not fit, turn the machine off and begin again. • Do NOT scratch transducer heads (the things that retracted) by forcing the foam block between them. <p>This will not be a problem if the transducers are properly retracted</p>
	<p>Step Seven:</p> <ul style="list-style-type: none"> • Turn the machine off at the power box. • Unplug the machine from the wall. • Unplug the machine from the power box unit.
	<p>Step Eight:</p> <ul style="list-style-type: none"> • Place the machine in the shipping box with the foam padding provided.
	<p>Step Nine:</p> <ul style="list-style-type: none"> • Check to see the following items are in the box with the machine: • Power box and cord. • Any leftover gel, Kim Wipes, Baby Fresh Wipes, and printer tape. • The black QC rubber block. • Sahara Instruction manual.
	<p>Step Ten:</p> <ul style="list-style-type: none"> • Tape the box shut.
	<p>Step Eleven:</p> <ul style="list-style-type: none"> • Follow shipping instructions provided. • Store the machine according to instructions.

If you have problems or concerns about shipping the equipment, contact one of the following people from SOI Health Promotion:

- **PRIMARY Contact**
 - Peyton Purcell: ppurcell@specialolympics.org 202-824-0287 (office) or 914-844-4598 (cell)
- **Secondary Contact**
 - Mary Pittaway: mpitt59802@aol.com 406.543.8892 (home) or 406.544.3936 (cell)

Important Notes:

- Never store the Sahara in a cold location (50 degrees or below), nor should it be stored in an area higher than 80 degrees or higher, nor operated in direct sunlight to avoid melting the transducers. Keep the machine at room temperature at all times.
- Use the black rubber OQ block for calibrating or doing quality control tests ONLY.
- Do not replace the foam block by using the black, rubber OC block. This will damage the machine.
- If the foam block needed to keep the transducers separated is lost during shipment, call an SOI representative and request a replacement block (contact information below)
- If borrowed, return the machine to SOI or to Hologic within 24 hours after your event using the shipping instructions provided below.

Shipping Instructions

- Make sure to repack the machine exactly as per instructions above to avoid damage in shipment.
- Be sure to move the transducers such that they are “inside” the machine housing before placing the round plastic rings around each transducer, and before inserting the white foam block. Don’t scratch the transducers with the white foam spacer.
- If you lose the white rings or foam block DO NOT SHIP THE MACHINE BACK until we get you replacement parts.
- If parts get lost, and replacement parts are needed, SOI/Hologic will ship to parts to you overnight.
- On the shipping label, identify machine as “medical equipment” and insure the Sahara for \$7,000.

We have found that using ground shipping with FedEx is usually the least expensive shipping method.

If you borrowed the machine from SOI, the return address is:

Peyton Purcell,
Special Olympics International
1133 19th St, NW (11th Floor)
Washington, DC 20036
Office: 202-824-0287
Cell: 914-844-4598
Email: ppurcell@specialolympics.org

Please email Peyton the tracking number once the machine is shipped.

If you borrowed the machine directly from Hologic, please return the machine following instructions provided by Hologic.

Bone Density Frequently Asked Questions (FAQs)

What is Bone Mineral Density (BMD)?

- Bone Mineral Density (BMD) determines your bone health, the amount of minerals, mainly calcium in your bones.
- Proper amounts of minerals in bones keep them healthy and strong.

What does a BMD test measure?

- The test used to determine BMD can identify osteoporosis and determine risk for fractures (broken bones).
- It measures the density, or thickness, of your bones.
- The BMD test shows where you compare to people with healthy bone mineral density.

What do BMD Scores mean?

Level	Definition
Normal	T-score is between +1 and -1. Very low risk for fracture
Low bone mass or osteopenia	T-score is -1 to -2.4. Elevated risk for fracture
Osteoporosis	T-score is -2.5 SD or lower. This individual has 25% less bone mass than normal
Unusually high T-score	T-scores +3.5 or higher at risk for lead or other heavy metal exposure

What is the difference between osteopenia and osteoporosis?

- The difference refers to the amount of bone loss present. Osteopenia is less severe than osteoporosis. It's interesting to know that most fractures occur for people with osteopenia.
- Low bone density can be caused by factors such as vitamin D and calcium intake, tobacco and/or alcohol use, sedentary lifestyle, genetics, less-than-optimal bone mass during youth; a medical condition or medication to treat a condition that negatively affects bone and/or abnormally accelerated bone loss.
- Not everyone with low bone density will develop osteoporosis, but everyone with low bone density is at higher risk for the disease and resulting fractures and dental concerns.

How can I help slow down bone loss and prevent osteoporosis?

- Eat foods rich in calcium (milk, yogurt, cheese, broccoli, dark green lettuce, almonds).
- Take a calcium pill daily. Ask your doctor for a vitamin D test. Take a separate vitamin D pill daily to help keep your vitamin D blood levels between 40-60 ng/ml.
- Ask your doctor about using hormone replacement therapy.
- Ask your doctor to review medications for bone health side effects. Sometimes alternatives are available.
- Do weight bearing exercise such as walking, running or lifting weights
- Avoid tobacco and/or alcohol as both damage bones.

What should I do if I have osteoporosis?

- You should consult your doctor to determine what treatment plan the doctor recommends. Treatment plans are individualized, based on the underlying cause of the condition.
- Following the healthy habits above will help as well.

What are the treatments for osteoporosis?

- There is no cure for osteoporosis, but there are steps that can be taken to prevent, slow or stop its progress.
- It is important you see your doctor, who may want to schedule additional tests, including a vitamin D test, before a treatment plan is started. Your doctor may prescribe medication to either slow or stop bone loss or rebuild bone.
- Any treatment involves the behavior suggestions above including getting enough

We do not currently have a doctor -- what should I do?

- Talk with your SO Program as they may have resources to help connect you with a doctor or medical services for follow-up.

Training Skills Checklist for BMD Testing

When you are training volunteers, you can use a simple training tool like this to have the volunteers practice their skills at taking height and weight.

Unpack and set up Sahara machine, turn on.	Refer to instructions in the Sahara manual and/or previous pages.
Calibrate machine	Refer to instructions in the Sahara manual and/or previous pages.
Run Quality Assurance (QC) process on Sahara	Refer to instructions in the Sahara manual and/or previous pages.
Change printer tape	Refer to instructions in the Sahara manual. Graphics are also printed in the Sahara tape receptacle.
Test 5 subjects, right and left heel, and record on HAS form	Assure testing skills understood. Refer to BMD Screening Procedure in Section 3 in HP-CD Manual.
Provide nutrition counseling during testing	Use a glass of milk; cartons of Ca and vitamin D fortified soy milk and orange juice; Rice Dream; carton of unsweetened fat free yogurt. Ask athlete what they drink and how much. Discuss answer "that is great, and try to increase to three times a day." Or "when you eat in a restaurant, order milk not soda." For athletes who can't drink milk, discuss alternate ways of getting adequate calcium and vitamin D. Refer to attached Milk Comparison in HP-CD Manual – Chapter 5, Bone Health Station.
Identify the point at which a referral should be made, based on T-score.	Refer to T-Score graph and identify -1.0 or lower; +3.5 or higher as trigger for referral. See <i>Explaining BMD Test Results</i> in HP-CD Manual Screening References and Materials, BMD Station
Answer the question "are these machines accurate?"	FDA approves these machines for screening. It predicts future fracture risk (risk of breaking a bone). It is painless, quick and accurate. Take these results to your doctor.
Demonstrate how to find "error message" information in manual.	The Sahara Manual should be kept in storage pocket in Sahara carry case. Error messages and how to resolve them are detailed in Sahara manual.
Identify 5 reasons why you may not be able to get an accurate measurement for an athlete.	Athlete is under age 20; has an unusual heel shape (too wide or narrow); machine needs to have QC run; ambient temperature is too cold; athlete refuses test.
Describe 2 ways to insure that the screening results will be shared with the athlete, parents or guardian, and/or coach.	Brainstorm plan to share screening results with athlete's health care provider. What would work in your country or community?
Request a Sahara loaner machine(s) for your event.	Describe how to find and how to get a completed form to Mary, depending on whether your program is in or outside the SONA region. Chapter 3 - Bone Density Appendix
Repack the Sahara machine for shipment.	Refer to instructions in the HP-CD Manual Chapter 3 – Bone Density

Bone Mineral Density Appendix

Sahara Operation Reminders

Special Olympics offers bone density screening because people with intellectual disability are at higher risk for fractures. Some reasons for this health disparity include:

1. Inadequate intake of calcium and micro-nutrients
2. Inadequate sun exposure and/or intake of supplemental vitamin D
3. Excess consumption of soda in place of milk or soy beverages
4. Immobility and/or sedentary lifestyle
5. Use of tobacco and/or alcohol
6. Use of medications that accelerate bone loss such as anti-seizure drugs, Depo-Provera, NSAIDS, psychotropic medications
7. Estrogen or testosterone deficiency
8. Some conditions such as Down syndrome, Marfan syndrome, Premature Ovarian Failure and others.

By referring those with low bone density to their health care provider for further diagnostic testing (DXA) and medical intervention, many unnecessary fractures may be prevented.

1. The Sahara machine needs to be **calibrated** before using it the first time. Refer to the attached sections from the Sahara manual for detailed directions on the calibration and QC (**Quality Control**) procedures. The machine must be stored in an environment that is between 65 degrees F but no higher than 75 degrees F. If it gets too warm the transducers will melt. If it gets too cold, the machine will malfunction. **The machine needs to be at least 70 degrees to calibrate successfully.**
2. **Don't test folks under age 20.** They are still growing and the test results are not easy to interpret except when being done longitudinally.
3. Always start each athlete testing with the least **dominant heel**, usually the left. Then move to test the right heel. You will record both scores on the HAS form. (If a person is left handed, start with the right heel, if right handed, you start with the left heel.)
4. Change **foot paper** between athletes, but try to only use one sheet per athlete. Use Kleenex to wipe the athlete's heel, but only use Kim wipes when wiping the machine, to prevent fibers from getting into the machine.
5. For **gel application**, use a pea size amount of gel on the "angled" side of each transducer, where they make contact with the athlete's heel. You don't have to wipe the gel off the transducers even though the screen will tell you to do so. Gel protects the transducers from drying out and acts as a coupling layer between the heel and machine, transferring sound waves to the athletes' heel. Do not let the metal end of the gel tube touch the transducer as it may cause damage to the transducer. Apply the gel to the transducer with the tip of your finger.
6. Be very careful to write either "plus or minus" beside the T-score. If you don't put one or the other, the result cannot be used as SOI won't know if the T- score is below standard or above standard. For example, on the screen, the score will show -1.0 or 1.0 T-scores are shown on the machine screen, without the + sign, **you need to write the plus sign or minus sign in front of the T-score on the HAS form.** Record both left and right heel scores. Record results carefully. -1.0 is not the same as -0.1 and this is a common mistake. Please watch your testers throughout the day to make sure that these mistakes are avoided.

7. If you get repeated **asterix*** for an athlete, their heel may be too narrow or too wide or the foot wasn't correctly positioned for an accurate result. Repeat test up to 3 times as the problem may also be that the machine. Check the second heel. If you can't get a reading without an *, thank the athlete, tell them they did a great job and note this on the HAS form. If you get multiple asterix * readings for different athletes, you may need to follow the Quality Control (QC) procedure to reset the machine
8. Those with T scores of -1.0 or lower need medical follow up. Some athletes, especially weight lifters and distance runners, may have very high scores, nevertheless those with T scores of +3.5 or higher need follow-up due to the rare possibility of lead poisoning.
9. **Print** the results if your Healthy Athletes program has a plan to get them to the athlete, the athletes' parent or guardian.

If your questions are detailed and this "reminder list" doesn't answer them,

- a. Refer to the Hologic Operations Guide for additional instruction, http://media.specialolympics.org/soi/files/healthy-athletes/Health_promotion_Sahara_manual or
- b. Call Hologic Customer Care at 1-800-321-4659 during regular business hours EST, or
- c. Call Mary at home at 406-543-8892 or cell 406-544-3969.

Do not store the black rubber testing cube, referred to as the "phantom" anywhere except in its foam container, bubble wrap or zip lock bag. If it is touching the Sahara machine when not in use, the machine can be damaged due to an internal magnet in the phantom.

Make sure to repack the machine exactly as per instructions to avoid damage in shipment. Be sure to move the transducers such that they are "inside" the machine housing before placing the round plastic rings around each transducer, and before inserting the white foam block. Don't scratch the transducers with the white foam spacer. **If you lose the white rings or foam block DO NOT SHIP THE MACHINE BACK until we get you replacement parts.** If parts get lost, and replacement parts are needed, Mary will ship to parts to you overnight. On the label, identify machine as "medical equipment" and insure the Sahara for \$7,000. We have found that using ground shipping with FedEx is usually the least expensive shipping method.

The return address in the US is:

Peyton Purcell,
Special Olympics International
1133 19th St, NW,
Washington, DC 20036
Office: 202-824-0287
Cell: 914-844-4598
Email: ppurcell@specialolympics.org



Request Loan of Sahara Equipment
for Upcoming United States Healthy Athletes Health Promotion Event
Once completed, this Form should be returned to Peyton Purcell
(ppurcell@specialolympics.org)

Name of Special Olympics Program _____

Screening event dates _____ HP Clinical Director _____

Phone _____ Email _____

Address _____

How many athletes do you anticipate screening for bone density? _____

Person authorized to **receive** and sign for equipment:

Name and Title _____

Shipping address _____

Daytime Phone _____ Email _____

Person who guarantees the machine will be **protected** from theft; stored and used in an appropriate environment; and use will follow instructions in the Health Promotion Clinical Directors Manual 2015

Name and Title _____

Shipping address _____

Daytime _____ Phone _____ Email _____

Person responsible for assuring **return** of the equipment within 24 hours following close of the screening event; as per the detailed repacking instructions:

Name and Title _____

Shipping address _____

Daytime _____ Phone _____ Email _____

Special Olympics _____ *(Insert Program Name)* will refer athletes with low bone density to their health care provider for follow up on the identified condition. A description of our programs' plan is included with this Sahara request form. I will submit a brief report of the outcome of these referrals within 3 months after the event.

After use, repack the machine EXACTLY as instructed to avoid costly damages. Return machine according to the Hologic representative's information. Ship the machine out within 24 hours after the close of your event so the equipment will be available for the next programs' event.. Follow "repacking Sahara" instructions including purchase of insurance of the Sahara (medical equipment) for \$7,000.

Ship machine by FedEx to:

Special Olympics (C/O Peyton Purcell)
1133 19th Street, NW,
11th Floor
Washington DC 20036
Phone: 202-824-0287

NOTE: Please Email the tracking number to Peyton at ppurcell@specialolympics.org



**Request Loan of Sahara Equipment for Upcoming
For Upcoming **International** Healthy Athletes Health Promotion Event**
Once completed, this Form should be returned to Peyton Purcell
(ppurcell@specialolympics.org)

Name of Special Olympics Program _____

Screening event dates _____ HP Clinical Director _____

Phone _____ Email _____

Address _____

How many athletes do you anticipate screening for bone density? _____

Person authorized to **receive** and sign for equipment: Name and Title

Shipping address _____

Daytime Phone _____ email _____

Person responsible for guaranteeing the machine will be **protected** from theft, stored and used in an appropriate environment and will be used as instructed in the Health Promotion Clinical Directors Manual 2015.

Name and Title _____

Shipping address _____

Daytime Phone _____ email _____

Person responsible for assuring **return** of the equipment within 24 hours following close of the screening event as per the detailed repacking instructions:

Name and Title _____

Shipping address _____

Daytime Phone _____ email _____

Special Olympics _____ (insert Program Name) plans to refer athletes with low bone density to their health care provider for follow up on the identified condition. A description of the programs plan is included with this Sahara request form. I will submit a brief report of the outcome of these referrals within _____ months after the event.

After use, repack the machine EXACTLY as instructed to avoid costly damages. Return machine according to the Hologic representative's instruction.



Height & Weight

Body Mass Index (BMI Screening Station)

Background Information:

Special Olympics Health Promotion conducts height and weight measurements, and calculates the athlete's Body Mass Index (BMI) or BMI percentile (individuals under 20 years of age). The BMI index is a simple index of weight for height that is commonly used to classify underweight, overweight and obesity.

BMI is a screening tool, **not** a diagnostic tool. The number simply defines who is at risk for weight related issues. In the US and other countries, the BMI for children under 18yrs is age and gender specific and should be reported as a percentile.

How to calculate an individual's BMI

The BMI for an adult and child is calculated the same way. See below for the formulas.

Measurement Units	Formula and Calculation
Kilograms and meters (or centimeters)	<p>Formula: $\text{weight (kg)} / [\text{height (m)}]^2$</p> <p>With the metric system, the formula for BMI is weight in kilograms divided by height in meters squared. Since height is commonly measured in centimeters, divide height in centimeters by 100 to obtain height in meters.</p> <p>Example: Weight = 68 kg, Height = 165 cm (1.65 m)</p> <p>Calculation: $68 \div (1.65)^2 = 24.98$</p>
Pounds and inches	<p>Formula: $\text{weight (lb)} / [\text{height (in)}]^2 \times 703$</p> <p>Calculate BMI by dividing weight in pounds (lbs) by height in inches (in) squared and multiplying by a conversion factor of 703.</p> <p>Example: Weight = 150 lbs, Height = 5'5" (65")</p> <p>Calculation: $[150 \div (65)^2] \times 703 = 24.96$</p>

Interpretation of BMI

Adult

Special Olympics Healthy Athletes Program uses the World Health Organization's (WHO) BMI Classification. Within the WHO, there has been discussion of a different BMI cut-off points for different ethnic groups. At this time there are no WHO countries or regional standards for BMI.

Weight Status Classification	BMI
Underweight	<18.5
Healthy Weight	18.5 - 24.9
Overweight	≥ 25
Obese	≥ 30

WHO 2014

Child (*birth to the 20th birthday*)

A BMI for children is age and gender specific and is expressed as a BMI percentile. The first step is to calculate the BMI as described above. The second step is to determine the BMI percentile. SO Health Promotion provides each Clinical Director with a BMI calculator wheel to determine the athlete's BMI percentile. If one is not available an online calculator or a smart phone app or a pediatric BMI table can be used. The Healthy Athletes Software (HAS) will calculate the BMI/BMI percentile when the data is entered in the system.

Pediatric BMI Weight Status Category	Percentile Range
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

U.S. Centers for Disease Control 2014

Online BMI calculators

Adults

- U.S. Centers for Disease Control: http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html
- European Food Information Council: <http://www.eufic.org/article/en/rid/eufic-bmi-calculator/>

Children

- U.S. Centers for Disease Control: <http://apps.nccd.cdc.gov/dnpabmi/>
- Kids Health Nemours: http://kidshealth.org/parent/growth/growth/bmi_charts.html

Equipment Standards

Scale Requirements (weight measurement)

- High quality beam balance or electronic digital
- Weighs in 0.1 kg (100 gm) or 1/4 lb increments
- Weight can be 'locked' in
- Weight is read at 'eye level' of measurer
- Stable weighing platform- a platform large enough to support the individual being weighed
- Can be easily 'zeroed'
- Can be calibrated
- No stature device attached
- No wheels on scale

Do not use spring balance and home use scales. These scales are not accurate over time. In addition, these scales often cannot be read to the nearest one-half or one-quarter pound.

Stadiometer Requirements (height measurement)

- A vertical board with an attached English/metric rule
- An easily moveable horizontal headboard that can be brought into contact with the most superior part of the head
- A wide and stable platform or firm uncarpeted floor as the base
- Firmly mounted on a stable wall
- Easily read, stable tape or digital readout in 0.1cm or 1/8 inch increments

The measuring rod attached to a scale should not be used to measure height. They are inaccurate, they do not provide a firm platform for the measurement, the headpiece is unsteady, too narrow and the base (scale weighing platform) will sink because of the individual's weight. The rod is somewhat sharp and can pose a safety hazard for the individual being measured. A tape affixed to the wall should not be used. The baseboard and accurate estimation of the height contribute to errors in measurement.

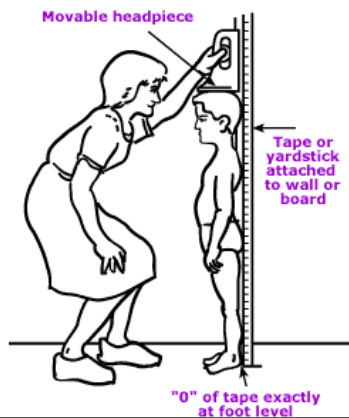
See HP Logistics and Administrative Topics ([Equipment and Supplies List – Chapter 2](#)) for information on ordering approved scales and stadiometers. These items can be purchased with Special Olympics Healthy Athletes Health Promotion grants.

Measurement Protocol

In the appendix of this Chapter there are two measurement posters (one for height and one for weight) which can be hung by the height and weight station to remind volunteers about the proper process for taking height and weight.

Height

Many athletes may have shoes, boots, caps, sports packs, jacket, hair accessories and other bulky items that interfere with measurement. Request that they remove these for the height measurement. It is most important to get the height without shoes or boots.



Permission to use from Washington State
Department of Health



Correct procedure

Step 1-Athlete placement on stadiometer- Have the athlete stand with his/her back against the measuring surface. The feet should be flat on the floor or foot piece, with both heels comfortably together and touching the base of the vertical board. When possible, the head, shoulder blades, buttocks, and heels should touch the measuring surface.

Step 2-Measure athlete- With the athlete looking straight ahead; slide the headboard firmly down to the top of the head compressing the hair. Be sure that the headboard is level and at right angles to the tape. Have the athlete move out from under the headboard.

Step 3-Record Measurement- With your eyes level to the bottom of the headboard, read the height to the nearest 0.1cm or 1/8-inch* and record the measurement on the athlete's HAS form.

* A stool may be needed by the volunteer to read the height if the athlete is taller than the volunteer is.

Weight

Athletes should be weighed in light clothing. All shoes, boots, jackets and heavy clothing should be removed. In addition, many athletes have fanny packs, medals, and other items that will impact their weight. Request that they remove these for the weight measurement.



Step 1-**Balance** the scale at zero before weighing each athlete.

- **Digital scales**- push the button to zero the scale if it does not self-zero.
- **Beam balance**- move both weights left to zero before each use. If the scale does not balance at the midpoint, adjust the counterweight until it does.

Step 2- **Weigh** the athlete

- **Digital scales** –ask the athlete step up on the scale, wait until the digital reading has stopped and record the weight.
- **Beam scales** – ask the athlete to step up on the scale, then move the 50-pound weight to the approximate area for centering the arrow, and then move the pound to the right until the arrow is centered.

Step 3- **Record** the Measurement

- Read the measurement to the nearest ounce or 0.1 kg and record the measurement on the athlete's HAS form.

NOTE: If you are using a digital scale or balance beam scales, there is a chart on page 80 that shows how to easily convert decimals or ¼ pound measurements to ounces to enter the data into the HAS form.

Thank the athlete for their assistance in gathering the height and weight.

How to Avoid Measurement Errors

Make sure that measurements are accurate by:

- Using the correct equipment and checking it regularly for accuracy.
- Using the correct technique and always following standard procedures.

Frequent causes of error in measurement

- Using incorrect equipment. Do not measure using the height rod on scales. Bathroom scales should never be used to weigh.
- Misreading the measurement. Practice reading the fractional division of inches/centimeters or ounces/kgs. on your equipment. Confirm with your volunteers if you are going to use English or Metric and stick with only one.
- Failure to balance scales at zero before each use. Follow the described procedure for balancing scales before measuring every individual.
- Not positioning the athlete properly before measuring, check to be sure feet are flat on the floor and heels touch the back of the stadiometer.
- Measuring height with shoes on and weight with excess clothing. All athletes should be measured without shoes and excess clothing, fanny packs and other gear.
- Failure to use a right angle headboard when measuring height. Make sure that your venue has this equipment and it is used each time height is measured.
- Recording errors on HAS form- only put English measures in the English line or metric in the metric line.

Alternative Methods for Measuring Height and Weight

If the athlete has physical limitations that make it impossible to allow standard procedures, please refer below alternate methods for taking weight and height measurements.

Arm Span

Arm span can be used to estimate a person's stature. Arm-span is measured from the tip of the middle finger on one hand to the tip of the middle finger on the other hand, with arms outstretched as far as possible during measurement. This measurement is preferably done with an anthropometer, a straight rod which has measurements etched on it. There is an immobile tab at one end and a sliding tab at the other for the middle finger tips to touch (similar to an adjustable curtain rod). An expandable tape measure is used if an anthropometer is not available. Arm span has been found to correlate directly to stature.



Knee Height

Stature can be estimated from knee height when standing height cannot be measured. The knee height is measured with a sliding broad-blade caliper, such as the Ross ® Knee Height Caliper. With the subject lying on his/her back, both the left knee and ankle should be bent to a 90-degree angle. The fixed blade of the caliper is placed under the heel and the sliding blade is pressed down against the thigh about 2 inches behind the knee cap. The shaft of the caliper is held parallel to the shaft of the tibia, and pressure is applied to compress the tissue. The average of two measurements is converted to stature (cm) using one of the following equations:

- White Males 6 – 18 years: $\text{Stature} = (\text{knee height in cm} \times 2.22) + 40.54$
- Black Males 6 – 18 years: $\text{Stature} = (\text{knee height in cm} \times 2.18) + 39.60$
- White Males 19 – 59 years: $\text{Stature} = (\text{knee height in cm} \times 1.88) + 71.85$
- Black Males 19 – 59 years: $\text{Stature} = (\text{knee height in cm} \times 1.79) + 73.42$
- White Females 6 – 18 years: $\text{Stature} = (\text{knee height in cm} \times 2.15) + 43.21$
- Black Females 6 – 18 years: $\text{Stature} = (\text{knee height in cm} \times 2.02) + 46.59$
- White Females 19 - 59 years:
 $\text{Stature} = (\text{knee height in cm} \times 1.86) - (\text{age in yrs.} \times 0.05) + 70.25$
- Black Females 19 – 59 years:
 $\text{Stature} = (\text{knee height in cm} \times 1.86) - (\text{age in yrs.} \times 0.06) + 68.10$

Sitting Height and Crown-Rump Length

Sitting height or crown-rump length may be used when children are unable to stand or have severe contractures. A standard recumbent length board and stadiometer are the measuring devices. The only additional equipment needed for these measures is a sitting base for sitting height. Using the sitting surface and a wall mounted stadiometer, the child sits on the base as erect as possible with the buttocks, shoulders and head in contact with the backboard of the stadiometer. It is ideal to have the legs hanging freely, hands resting on thighs, and knees pointed straight ahead. The head is positioned in the same manner as when doing a standing

height, and the headboard is brought down for the measurement. Repeat the measurement for accuracy.

After the measurement, the height of the sitting surface is subtracted from the reading to estimate sitting height. Sitting height percentiles are available for assessment purposes and are included in this handout. It is also possible to record the sitting height on the CDC growth charts and over time the series of measurements may indicate a pattern of growth, even though a percentile will not be indicated.

For crown-rump length the child lies on a recumbent length board. The head is positioned as in doing a normal length. The legs are raised so that the thighs are at a 90 degree angle to the board and held in that position during the measurement. The sliding footboard is brought up against the buttocks with firm pressure and the reading is taken. It should be repeated for accuracy.

Adapted from NC Nutrition Services Section- Pediatric Nutrition Course 12/08

Waist Circumference

Excess abdominal fat is an important, independent risk factor for disease. The evaluation of waist circumference to assess the risks associated with obesity or overweight is supported by research. The measurement of waist-to-hip ratio provides no advantage over waist circumference alone. Waist circumference measurement is particularly useful in patients who are categorized as normal or overweight. It is not necessary to measure waist circumference in individuals with BMIs ≥ 35 kg/m² since it adds little to the predictive power of the disease risk classification of BMI. Men who have waist circumferences greater than 40 inches, and women who have waist circumferences greater than 35 inches, are at higher risk of diabetes, dyslipidemia, hypertension, and cardiovascular disease because of excess abdominal fat. Individuals with waist circumferences greater than these values should be considered one risk category above that defined by their BMI. The relationship between BMI and waist circumference for defining risk is shown in Table 2 on page 10.

https://www.nhlbi.nih.gov/files/docs/guidelines/prctgd_c.pdf

For additional information on measuring the height of children with special needs refer to: <http://depts.washington.edu/growth/cshcn/text/page3d.htm>

Training and Teaching Aids for Volunteers

See Appendix for height/weight protocol training/teaching aids and equipment resources information.

1. BMI Chart Boys ([Chapter 3 – BMI Appendix](#))
2. BMI Chart Girls ([Chapter 3 – BMI Appendix](#))
3. Avoid Measurement Error
4. Weight Poster
5. Height Poster
6. Stadiometer Set Up
7. Alternate Methods for Measuring Linear Growth
8. BMI Resource List
9. BMI Equipment and Supplies Resources ([Chapter 2 - Supplies and Equipment](#))

Height and Weight Quality Assurance Tool

Equipment Set up

- Scale plugged in or batteries work
- Set on flat surface
- Close to stadiometer
- Stadiometer- measurement numbers line up on both sides
- Set on flat surface
- Close to scale
- Chairs in area for athlete to take on/off shoes
- Area for shoes

Remember: Athletes should take off hats, shoes, fanny packs, etc. before having their height and weight taken.

Quality Assurance

- ✓ Set a regularly scheduled time for quality assurance observation of measurements
- ✓ Check all equipment before the training session begins
- ✓ Review the manual materials related to weighing and measuring before the session begins
- ✓ Establish Measurement teams of two individuals
- ✓ Each team completes a height and weight on two athlete- compare results

Training Skill Session BMI- Height and Weight Recording Form

When you are training volunteers, you can use a simple training tool like this to have the volunteers practice their skills at taking height and weight.

Date _____/Location _____

Health Promotion Clinical Director signature _____

Team # _____

Athlete # 1	Athlete # 1	Athlete # 2	Athlete # 2
Weight:	Weight:	Weight:	Weight:
Height:	Length:	Stature:	Stature:
Measurer:	Measurer:	Measurer:	Measurer:
Recorder:	Recorder:	Recorder:	Recorder:

Body Mass Index (BMI) Frequently Asked Questions

What is Body Mass Index (BMI)

- Body Mass Index is a number calculated from a person's weight and height.
- BMI is a reliable indicator of body fatness for most people.
- BMI does not measure body fat, directly, but research has shown that BMI correlates to direct measures of body fat, such as underwater weighing and dual energy x-ray absorptiometry (DXA)

How is BMI used?

- BMI is used as a screening tool to identify possible weight problems, but it is not a diagnostic tool.
- To determine if excess weight is a health risk, a healthcare provider would need to perform further assessments.

How is BMI Calculated?

- Formula
 - Weight (kg)/[height (m) x height (m)] OR Weight (lb)/[height (in) x height (in)]
- BMI numbers for Adults are based on the above formula.
- BMI numbers for children and youth are based on the above formula and then converted to percentile specific to Sex and age using pediatric charts/tables available at: <http://nccd.cdc.gov/dnpabmi/calculator.aspx>

Weight Status Categories

- For Adults: see chart on right.
- For children, refer to the BMI charts in the Chapter 3 BMI - Appendix or use the pediatric conversion wheels (available on the equipment and supplies list in Chapter 2)

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and Above	Obese

What are the consequences of being overweight or obese?

- Individuals who are overweight or obese are at increases risk for many diseases and health conditions including: hypertension, type 2 diabetes, heart disease, stroke, osteoarthritis, respiratory problems and some cancers.

If I am overweight or obese, how can I take care of myself or help myself get to a normal weight

- Eat a better diet (make half your plate fruit and vegetables)
- Be vigilant of portion sizes when eating meals.
- Exercise regularly (60-90 minutes, 5 times a week at moderate intensity)
- Reduce soda and sugary drink consumption -- drink more water.

When should I worry about being underweight?

- You should consult your doctor to determine if you should gain weight, as low BMI can decrease your body's immune system, which could lead to illness such as bone loss, malnutrition, disappearance of periods (for women), and other conditions.

What are the treatments?

- In most cases, maintaining an active lifestyle, exercising regularly,, and eating a better diet will be the treatment to achieving a healthy weight status.
- However, Special Olympics suggests meeting with a doctor to discuss a plan and ensure no other health issues.

We do not currently have a doctor -- what should I do?

- Talk with your SO Program as they may have resources to help connect you with a doctor or medical services for follow-up.

Body Mass Index (BMI) Screening Station Appendix

Body Mass Index Chart - Adults

BMI Chart (Kgs/m²) for use with the Weight Management Treatment Algorithm

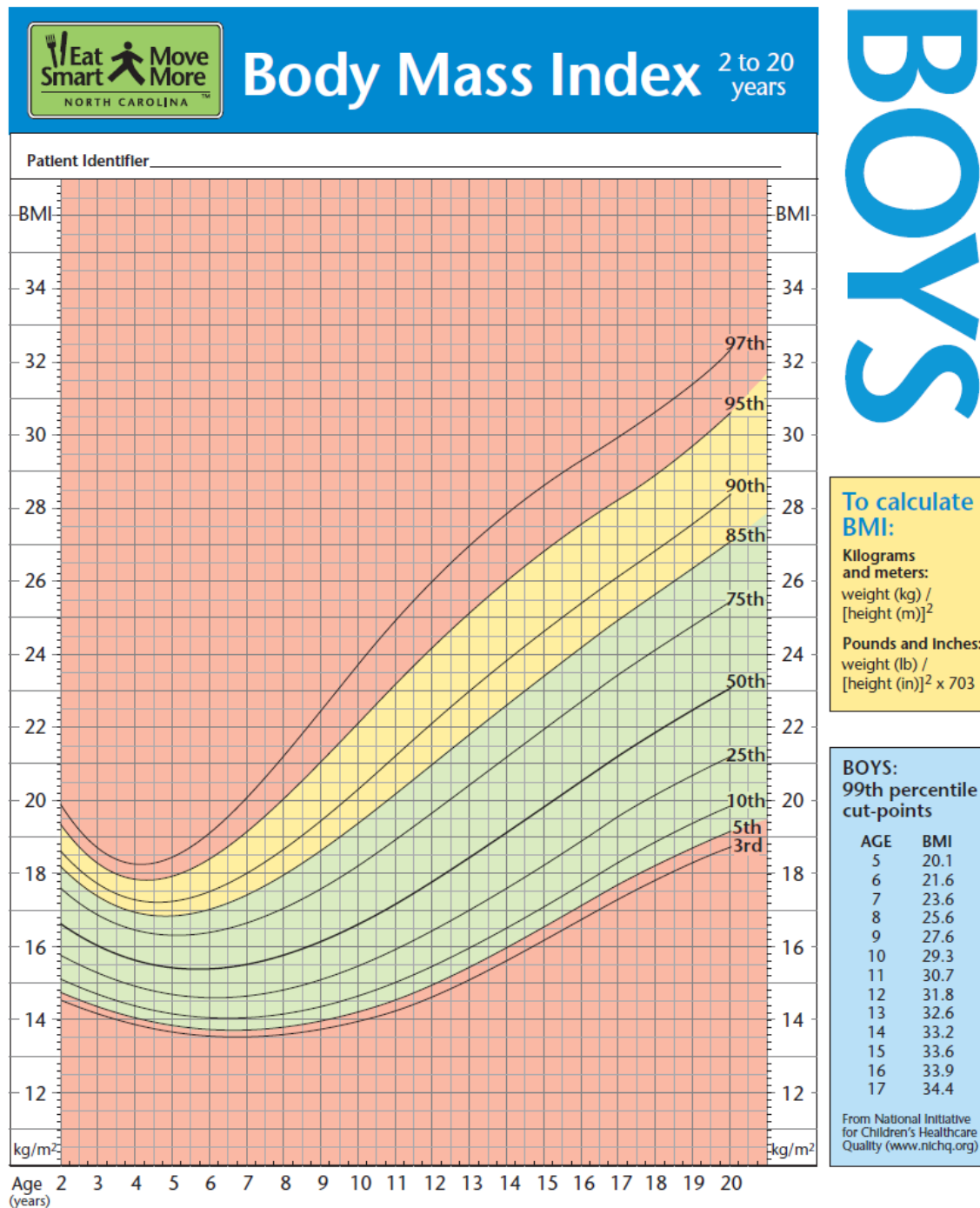


A Quick Reference Guide For Primary Care Staff

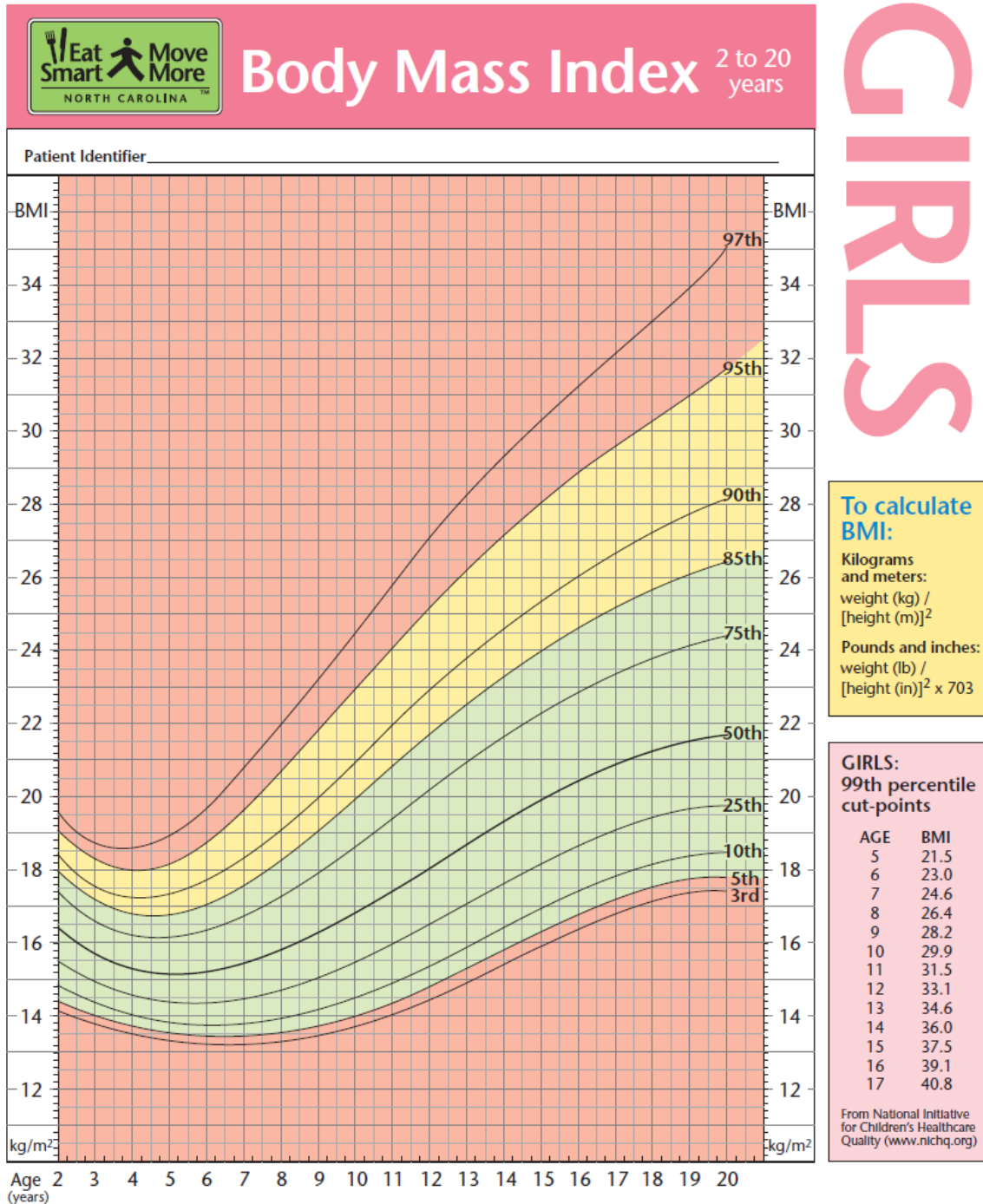
(See www.icgp.ie/weightmanagement or www.hse.ie for additional online resources)

Underweight (<18.5 kgs/m ²)		Healthy weight ($18.5 - 24.9$ kgs/m ²)				Overweight ($25 - 29.9$ kgs/m ²)				Obese Class I ($30 - 34.9$ kgs/m ²)				Obese Class II ($35 - 39.9$ kgs/m ²)				Obese Class III (> 40 kgs/m ²)			
Stone	lbs	4' 10"	4' 11"	5' 0"	5' 1"	5' 2"	5' 3"	5' 4"	5' 5"	5' 6"	5' 7"	5' 8"	5' 9"	5' 10"	5' 11"	6' 0"	6' 1"	6' 2"	6' 3"	kgs	
7st 2lbs	100	20.9	20.2	19.6	18.9	18.3	17.8	17.2	16.7	16.2	15.7	15.2	14.8	14.4	14.0	13.6	13.2	12.9	12.5	45.5 kgs	
7st 7lbs	105	22.0	21.3	20.5	19.9	19.2	18.6	18.1	17.5	17.0	16.5	16.0	15.5	15.1	14.7	14.3	13.9	13.5	13.2	47.7 kgs	
7st 12lbs	110	23.0	22.3	21.5	20.8	20.2	19.5	18.9	18.3	17.8	17.3	16.8	16.3	15.8	15.4	14.9	14.5	14.2	13.8	50 kgs	
8st 3lbs	115	24.1	23.3	22.5	21.8	21.1	20.4	19.8	19.2	18.6	18.0	17.5	17.0	16.5	16.1	15.6	15.2	14.8	14.4	52.3 kgs	
8st 8lbs	120	25.1	24.3	23.5	22.7	22.0	21.3	20.6	20.0	19.4	18.8	18.3	17.8	17.3	16.8	16.3	15.9	15.4	15.0	54.5 kgs	
8st 13lbs	125	26.2	25.3	24.5	23.7	22.9	22.2	21.5	20.8	20.2	19.6	19.0	18.4	18.0	17.5	17.0	16.5	16.1	15.7	56.8 kgs	
9st 4lbs	130	27.2	26.3	25.4	24.6	23.8	23.1	22.4	21.7	21.0	20.4	19.8	19.2	18.7	18.2	17.7	17.2	16.7	16.3	59.1 kgs	
9st 9lbs	135	28.3	27.3	26.4	25.6	24.7	24.0	23.2	22.5	21.8	21.2	20.6	20.0	19.4	18.9	18.3	17.8	17.4	16.9	61.4 kgs	
10st 0lbs	140	29.3	28.3	27.4	26.5	25.7	24.9	24.1	23.3	22.6	22.0	21.3	20.7	20.1	19.6	19.0	18.5	18.0	17.5	63.6 kgs	
10st 5lbs	145	30.4	29.3	28.4	27.5	26.6	25.7	24.9	24.2	23.5	22.8	22.1	21.5	20.8	20.3	19.7	19.2	18.7	18.2	65.9 kgs	
10st 10lbs	150	31.4	30.4	29.4	28.4	27.5	26.6	25.8	25.0	24.3	23.5	22.9	22.2	21.6	21.0	20.4	19.8	19.3	18.8	68.2 kgs	
11st 1lbs	155	32.5	31.4	30.3	29.3	28.4	27.5	26.7	25.8	25.1	24.3	23.6	22.9	22.3	21.7	21.1	20.5	19.9	19.4	70.5 kgs	
11st 6lbs	160	33.5	32.4	31.3	30.3	29.3	28.4	27.5	26.7	25.9	25.1	24.4	23.7	23.0	22.4	21.7	21.2	20.6	20.0	72.7 kgs	
11st 11lbs	165	34.6	33.4	32.3	31.2	30.2	29.3	28.4	27.5	26.7	25.9	25.1	24.4	23.7	23.1	22.4	21.8	21.2	20.7	75 kgs	
12st 2lbs	170	35.6	34.4	33.3	32.2	31.2	30.2	29.2	28.3	27.5	26.7	25.9	25.2	24.4	23.8	23.1	22.5	21.9	21.3	77.3 kgs	
12st 7lbs	175	36.7	35.4	34.2	33.1	32.1	31.1	30.1	29.2	28.3	27.5	26.7	25.9	25.2	24.5	23.8	23.1	22.5	21.9	79.5 kgs	
12st 12lbs	180	37.7	36.4	35.2	34.1	33.0	32.0	31.0	30.0	29.1	28.3	27.4	26.6	25.9	25.2	24.5	23.8	23.2	22.5	81.8 kgs	
13st 3lbs	185	38.7	37.4	36.2	35.0	33.9	32.8	31.8	30.8	29.9	29.0	28.2	27.4	26.6	25.9	25.1	24.5	23.8	23.2	84.1 kgs	
13st 8lbs	190	39.8	38.5	37.2	36.0	34.8	33.7	32.7	31.7	30.7	29.8	28.9	28.1	27.3	26.6	25.8	25.1	24.4	23.8	86.4 kgs	
13st 13lbs	195	40.8	39.5	38.2	36.9	35.7	34.6	33.5	32.5	31.5	30.6	29.7	28.9	28.0	27.3	26.5	25.8	25.1	24.4	88.6 kgs	
14st 4lbs	200	41.9	40.5	39.1	37.9	36.7	35.5	34.4	33.4	32.3	31.4	30.5	29.6	28.8	28.0	27.2	26.4	25.7	25.1	90.9 kgs	
14st 9lbs	205	42.9	41.5	40.1	38.8	37.6	36.4	35.3	34.2	33.2	32.2	31.2	30.3	29.5	28.7	27.9	27.1	26.4	25.7	93.2 kgs	
15st 0lbs	210	44.0	42.5	41.1	39.8	38.5	37.3	36.1	35.0	34.0	33.0	32.0	31.1	30.2	29.4	28.5	27.8	27.0	26.3	95.5 kgs	
15st 5lbs	215	45.0	43.5	42.1	40.7	39.4	38.2	37.0	35.9	34.8	33.7	32.8	31.8	30.9	30.0	29.2	28.4	27.7	26.9	97.7 kgs	
15st 10lbs	220	46.1	44.5	43.1	41.7	40.3	39.1	37.8	36.7	35.6	34.5	33.5	32.6	31.6	30.7	29.9	29.1	28.3	27.6	100 kgs	
16st 1lbs	225	47.1	45.5	44.0	42.6	41.2	39.9	38.7	37.5	36.4	35.3	34.3	33.3	32.4	31.4	30.6	29.7	28.9	28.2	102.3 kgs	
16st 6lbs	230	48.2	46.6	45.0	43.5	42.2	40.8	39.6	38.4	37.2	36.1	35.0	34.0	33.1	32.1	31.3	30.4	29.6	28.8	104.5 kgs	
16st 11lbs	235	49.2	47.6	46.0	44.5	43.1	41.7	40.4	39.2	38.0	36.9	35.8	34.8	33.8	32.8	31.9	31.1	30.2	29.4	106.8 kgs	
17st 2lbs	240	50.3	48.6	47.0	45.4	44.0	42.6	41.3	40.0	38.8	37.7	36.6	35.5	34.5	33.5	32.6	31.7	30.9	30.1	109.1 kgs	
17st 7lbs	245	51.3	49.6	47.9	46.4	44.9	43.5	42.1	40.9	39.6	38.5	37.3	36.3	35.2	34.2	33.3	32.4	31.5	30.7	111.4 kgs	
17st 12lbs	250	52.4	50.6	48.9	47.3	45.8	44.4	43.0	41.7	40.4	39.2	38.1	37.0	35.9	34.9	34.0	33.1	32.2	31.3	113.6 kgs	
18st 3lbs	255	53.4	51.6	49.9	48.3	46.7	45.3	43.9	42.5	41.2	40.0	38.9	37.7	36.7	35.6	34.7	33.7	32.8	31.9	115.9 kgs	
18st 8lbs	260	54.5	52.6	50.9	49.2	47.7	46.2	44.7	43.4	42.1	40.8	39.6	38.5	37.4	36.3	35.3	34.4	33.5	32.6	118.2 kgs	
18st 13lbs	265	55.5	53.6	51.9	50.2	48.6	47.0	45.6	44.2	42.9	41.6	40.4	39.2	38.1	37.0	36.0	35.0	34.1	33.2	120.5 kgs	
19st 4lbs	270	56.5	54.6	52.8	51.1	49.5	47.9	46.4	45.0	43.7	42.4	41.1	40.0	38.8	37.7	36.7	35.7	34.7	33.8	122.7 kgs	
19st 9lbs	275	57.6	55.7	53.8	52.1	50.4	48.8	47.3	45.9	44.5	43.2	41.9	40.7	39.5	38.4	37.4	36.4	35.4	34.4	125 kgs	
20st 0lbs	280	58.6	56.7	54.8	53.0	51.3	49.7	48.2	46.7	45.3	43.9	42.7	41.4	40.3	39.1	38.1	37.0	36.0	35.1	127.3 kgs	
20st 5lbs	285	59.7	57.7	55.8	54.0	52.2	50.6	49.0	47.5	46.1	44.7	43.4	42.2	41.0	39.8	38.7	37.7	36.7	35.7	129.5 kgs	
20st 10lbs	290	60.7	58.7	56.8	54.9	53.2	51.5	49.9	48.4	46.9	45.5	44.2	42.9	41.7	40.5	39.4	38.3	37.3	36.3	131.8 kgs	
21st 1lbs	295	61.8	59.7	57.7	55.9	54.1	52.4	50.7	49.2	47.7	46.3	44.9	43.7	42.4	41.2	40.1	39.0	38.0	36.9	134.1 kgs	
21st 6lbs	300	62.8	60.7	58.7	56.8	55.0	53.3	51.6	50.0	48.5	47.1	45.7	44.4	43.1	41.9	40.8	39.7	38.6	37.6	136.4 kgs	
21st 11lbs	305	63.9	61.7	59.7	57.7	55.9	54.1	52.5	50.9	49.3	47.9	46.5	45.1	43.9	42.6	41.5	40.3	39.2	38.2	138.6 kgs	
22st 2lbs	310	64.9	62.7	60.7	58.7	56.8	55.0	53.3	51.7	50.1	48.7	47.2	45.9	44.6	43.3	42.1	41.0	39.9	38.8	140.9 kgs	
22st 7lbs	315	66.0	63.8	61.6	59.6	57.7	55.9	54.2	52.5	50.9	49.4	48.0	46.6	45.3	44.0	42.8	41.6	40.5	39.5	143.2 kgs	
22st 12lbs	320	67.0	64.8	62.6	60.6	58.7	56.8	55.0	53.4	51.8	50.2	48.8	47.4	46.0	44.7	43.5	42.3	41.2	40.1	145.5 kgs	
23st 3lbs	325	68.1	65.8	63.6	61.5	59.6	57.7	55.9	54.2	52.6	51.0	49.5	48.1	46.7	45.4	44.2	43.0	41.8	40.7	147.7 kgs	
23st 8lbs	330	69.1	66.8	64.6	62.5	60.5	58.6	56.8	55.0	53.4	51.8	50.3	48.8	47.4	46.1	44.8	43.6	42.5	41.3	150 kgs	
23st 13lbs	335	70.2	67.8	65.6	63.4	61.4	59.5	57.6	55.9	54.2	52.6	51.0	49.6	48.2	46.8	45.5	44.3	43.1	42.0	152.3 kgs	
24st 4lbs	340	71.2	68.8	66.5	64.4	62.3	60.4	58.5	56.7	55.0	53.4	51.8	50.3	48.9	47.5	46.2	45.0	43.7	42.6	154.5 kgs	
24st 9lbs	345	72.3	69.8	67.5	65.3	63.2	61.2	59.3	57.5	55.8	54.1	52.6	51.1	49.6	48.2	46.9	45.6	44.4	43.2	156.8 kgs	
25st 0lbs	350	73.3	70.8	68.5	66.3	64.1	62.1	60.2	58.4	56.6	54.9	53.3	51.8	50.3	48.9	47.6	46.3	45.0	43.8	159.1 kgs	
25st 5lbs	355	74.4	71.9	69.5	67.2	65.1	63.0	61.1	59.2	57.4	55.7	54.1	52.5	51.0	49.6	48.2	46.9	45.7	44.5	161.4 kgs	
		147.3 cms	148.9 cms	152.4 cms	154.9 cms	157.5 cms	160 cms	162.6 cms	165.1 cms	167.6 cms	170.2 cms	172.7 cms	175.3 cms	177.8 cms	180.3 cms	182.9 cms	185.4 cms	188 cms	190.5 cms		

Body Mass Index Chart - Male Youth



Body Mass Index Chart – Female Youth



Tool For Easily Convert to Ounces for Reporting on HAS Form

Digital scale reading

Digital scales report weight measure and report in pounds and 1/10th pound (decimal) increments. Use the chart below to convert from a decimal to ounces.

Decimal	Ounce Conversion
.0	0 oz
.1	2 oz
.2	3 oz
.4	6 oz
.5	8 oz
.6	10 oz
.7	11 oz
.8	13 oz
.9	14 oz

Balance beam scale reading

Balance beam scales measure and report in 1/4 pound increments. Use the chart below to convert from 1/4 pound increments to ounces.

1/4 pound measure	Ounce Conversion
1/4 pound	4 oz
1/2 pound	8 oz
3/4 pound	12 oz

NOTE: This poster can be displayed at the height/weight station for all screeners to reference.

Weight Measurement Poster



1. Equipment Requirements

- High quality beam balance or electronic scale.
- Weighs in 0.1KG increments
- Weight can be locked in
- No sature device attached
- No wheels on scale
- Do not use spring balance or home-use scales.



2. Athlete/Equipment Preparation

- Ask the athlete to remove shoes, hat, coat, sweater, fanny pack and medals
- Zero the scale, be sure it is on KG
- Ask athlete to step on the scale.



3. Athlete Placement

- Ask the athlete to stand at the center of the scale and to stand still while the scale measures.



4. Read and Record Weight

- Record the weight to the nearest 0.1 KG on the form.

NOTE: Be sure to have the scale on level ground (preferably not on carpet). Have an area for athletes to sit down and remove their shoes close to where they will have their height and weight taken.

NOTE: This poster can be displayed at the height/weight station for all screeners to reference.

Height Measurement Poster



1. Equipment Requirements

- A stadiometer with a 6 inch or wider headboard.
- OR
- A non stretch tape affixed to the wall
 - Headboard with right angle.



2. Athlete Preparation

- Ask the athlete to remove shoes, hat, coat, sweater, fanny pack and medals
- Stand tall and face the volunteer, looking straight ahead.



3. Athlete Placement

- Make sure there are three points of contact with the stadiometer/ wall
 1. Shoulder
 2. Buttocks
 3. Heels



4. Athlete Measurement

- Lower the headboard until it touches the top of the athlete's head and creates a right angle with the measurement surface.
- Read the height (where the bottom of the headboard touches the measuring tape) to the nearest centimeter.



Stadiometer Set Up



1. Stadiometer pieces (3-- head board, board, measuring rod)

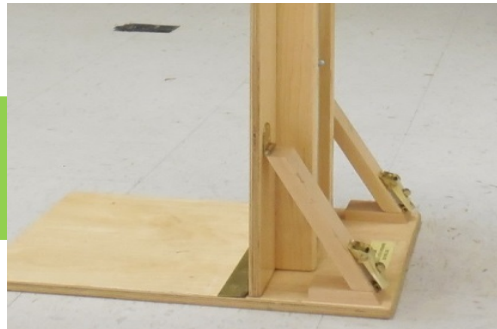
2. Clasp



3. Secure the clasp



4. What it looks like when the clasp is in place



5. Insert measuring rod -- be sure the numbers line up properly



6. Read the measurements



BMI Equipment and Supplies Resources

Please refer to the full [Equipment and Supply list in Chapter 2](#) for all materials needed for a HP event.

Scales- must meet the specifications defined in the BMI Screening Protocol of this manual.

Approved equipment includes the following:

- Doran DS6100- portable, battery operated, 500 # capacity, has a pound or kilogram switch, 3 year warranty.
- SECA 869- portable, battery operated, 550 # capacity, has a pound or kilogram switch, 2 year warranty.
- Health O Meter 752 KL- portable, battery operated, 600 # capacity, has a pound or kilogram switch, 2 year warranty.

Stadiometer- must meet the specifications on page 1 of this manual. Contact the Health Promotion Manager if considering purchase of a different stadiometer.

- Perspective Enterprises Portable Adult Measuring Unit [™]- a freestanding stadiometer. A removable stature rod and hinged support legs and base allow this unit to be folded for transport and storage. Comes with a separate head piece. Order the carrying case for easy transport.

Recommended Equipment Vendor- Perspective Enterprises is the recommended vendor for Special Olympics Health Promotion height and weight equipment. They offer special pricing for Special Olympics.

Contact: <http://www.perspectiveent.com/>

Perspective Enterprises
7829 S. Sprinkle Road.
Portage, MI 49002
Phone: (269) 327-0869
Toll-Free: (800) 323-7452
Fax: (269) 327-0837

BMI Wheels- for manual calculation of BMI (or use smart phone apps)

Adult BMI Wheel Calculator

Trowbridge & Associates- Wheel for adults, available for Metric or English-\$5 plus shipping

Contact: <http://bmiwheel.com/>

E-mail: trowbridge-associates@comcast.net

Telephone: (404) 728-0705

Fax: (866) 536-9370

Pediatric BMI Wheel Calculator

McGill Discount Nurse Supplies- Calculates pediatric BMI on one side and BMI percentile (based on gender) on the other side. \$4.90 plus shipping.

Contact: <https://www.macgill.com/home>

1000 N. Lombard Rd.

Lombard, Illinois 60148

Toll Free Order Line 1-800-323-2841

Toll Free Fax 1-800-727-3433

E-mail: macgill@macgill.com



Blood Pressure

Blood Pressure Screening Station

Background Information:

Blood pressure screening is included in Health Promotion (HP) for several reasons; to

- Identify athletes with abnormal blood pressure readings so action can be taken to prevent adverse medial events before, during and after completion.
- Provide appropriate lifestyle counseling and referrals to improve opportunity for athletes' to normalize blood pressure and improve their health.
- Add information relative to blood pressure to the data base on hyper and hypo tension, for this high risk population.
- Encourage inclusion of preventive health strategies for SOI athletes.

Many individuals are skilled at taking blood pressures. However, Special Olympics Healthy Athletes established procedures to assure that standardized screening, counseling, referrals and on site actions for abnormal blood pressures are followed.

Equipment Standards:

Each program needs at least three sizes of cuffs, pediatric, adult and an extra - large cuff.

For SOI screenings, use of digital sphygmomanometers is recommended because they are easy to operate with minimal training, and can be used in noisy environments. To improve accuracy of the devices, test individuals need to be tested on all cuffs to confirm that comparable results are obtained on each machine.

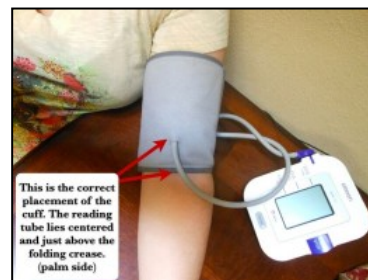
How to choose an appropriate blood pressure monitor:

- The common digital monitors can measure blood pressure on the upper arm. Wrist devices are not recommended for use at HP events.
- Blood pressure cuffs come in different sizes. Make sure the cuff size fits the athlete's arm as using an incorrect cuff may give inaccurate results.
- The width of the cuff should cover two-thirds of the upper arm. The cuff should be long enough to encircle the whole arm. People with brawnier arm or who are overweight may need bigger cuffs.

How to measure blood pressure using digital monitors

Blood pressure is the pressure exerted by circulating blood upon the walls of blood vessels. "Systolic pressure" is the blood pressure when the heart contracts. "Diastolic pressure" is the pressure when the heart relaxes

Hypertension (high blood pressure) is a chronic disease. An adult is said to have hypertension if his systolic blood pressure (SBP) is persistently above or equal to 140 mmHg or diastolic blood pressure (DBP) is persistently above or equal to 90 mmHg. Generally, an adult should keep his SBP below 120 and DBP below 80 mmHg



Easy-to-use digital blood pressure monitors are available and are highly accurate when properly used. It is important that blood pressure is measured properly to avoid inaccurate results, leading to inappropriate referrals and possible exclusion from participation in the day's sporting events.

Validate accuracy of your monitors: Read the manual carefully before operating the device, and follow the manufacturer's instructions. The blood pressure monitor should be periodically validated by testing one individual on each of the size appropriate devices. The results should be the same on all devices.

Before taking measurements: To improve accuracy of the reading, athletes should avoid smoking, eating, and physical activity 30 minutes prior to taking a reading. If he or she is showing signs of stress, avoid taking the measurement until the feeling subsides.

Measuring blood pressure: Make sure the athlete's arm is supported on a tabletop at an even level with their heart.

Ask the athlete to keep their feet on the floor and do not cross the legs. Roll up the sleeve to expose the upper arm and wrap the cuff around it.

Place the cuff on the exposed arm 2cm (about two finger-breadths) above the elbow. Make sure the tubing is placed at the center of the arm facing the front, and that the sensor is correctly placed. Pull the end of the cuff so that it is wrapped evenly and firmly around the arm. Check that the tightness of the cuff is appropriate: you should be able to just slip two fingertips beneath the cuff, near its edge at the top end. When the cuff inflates it should not cause any painful sensation



Before starting, carry on a pleasant conversation with the athlete, and explain what test you are doing. When the athlete seems relaxed, press the "start" button. During measurement, ask athlete to stay relaxed, while you continue to chat.

The cuff will inflate, then slowly deflate. When the measurement is complete, readings of the systolic and diastolic blood pressures and pulse rate will be displayed on the digital panel. Record the reading on the HAS form and refer to the SOI HP chart (in [Chapter 5, Check-Out Station](#)) for correct referral action, based on reading. Do not round up or down.

Blood Pressure

Right arm _____/_____

Left Arm _____/_____

Referral made for BP follow Up? ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

If an athlete has high BP on initial screening:

1. Remove cuff from arm.
2. Let the athlete sit for a few minutes
3. Hold a light conversation with the athlete, asking:
 - Do you drink coffee, tea, soda? How much each day?
 - Do you smoke or chew tobacco?
 - Do you take medicine for your blood pressure? If yes, did they take it today?
 - What exercise did you do today?
 - How are you feeling today? Probe to find out if anxious, stressed out or unhappy.
4. Repeat reading with another cuff
5. If still high, confirm a third time, using alternate arm
6. If still high, refer to blood pressure triage chart ([Chapter 5 – Check-Out Station](#)).

Troubleshooting: If any abnormality with the reading occurs during use, please check and correct the following:

Condition	Correction
Display is blank when power is on.	Check and correct the polarity of the installed batteries. Reinstall or replace batteries.
Cuff pressure does not increase after pressing “start” button.	Check and reconnect cuff attachment and hose.
Measurement incomplete or abnormally low or high values displayed.	Review and follow “Applying Your Blood Pressure Cuff” and “Taking Your Blood Pressure Reading” sections.
Measurements are different from those typically measured by physician or every measurement reading is different.	Blood pressure readings are influenced by physical and mental conditions and/or even the time of day.
Cuff pressure falls very slowly or not at all. Measurement is not obtainable.	Tubing connector ring may be missing and must be reattached.

Key Messages for Athletes About Preventing High Blood Pressure

1. Enjoy regular physical activity
2. Maintain a healthy weight
3. Manage stress
4. Avoid tobacco use and second hand smoke
5. Comply with medication prescriptions
6. If you drink, limit alcohol
7. Eat a diet that's rich in:
 - Fruits and vegetables
 - Whole-grain, high-fiber foods
 - Fat-free and 1 percent dairy products
 - Beans
 - Skinless poultry and lean meats
 - Fish, especially salmon, trout and herringAnd low in saturated and trans-fats and salt
Low in fast foods and processed foods, with few added sugars

Resources

1. Preventing High Blood Pressure: Healthy Living Habits
www.cdc.gov/bloodpressure/healthy_living.htm
2. Your Guide to Lowering Your Blood Pressure with DASH)
www.nhlbi.nih.gov/health/resources/heart/hbp-dash-index.htm
3. Preventing High Blood Pressure: Healthy Living Habits
www.cdc.gov/bloodpressure/about.htm
4. WHO Hypertension guidelines
who.int/cardiovascular_diseases/guidelines/hypertension/en/
5. Blood Pressure Tables for Children and Adolescents: from the Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents* www.nhlbi.nih.gov/health-pro/guidelines/current/hypertension-pediatric-jnc-4/blood-pressure-tables.htm

Blood Pressure Screening Station Appendix

Have this factsheet out at the station for volunteer reference.

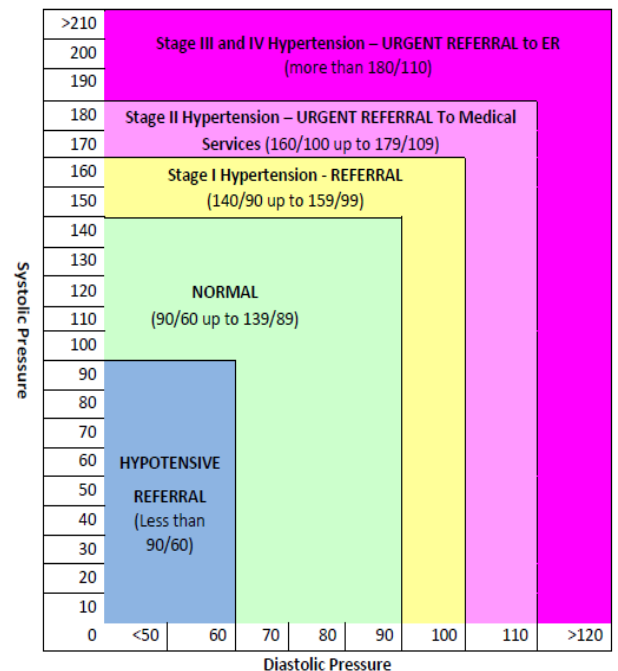
Counseling Suggestions for Adults, Depending on BP Reading

BP in Normal Range:

Tell the athlete "Thank you, you did a great job. Your blood pressure is in the healthy range."

If BP in Hypertensive Range: Stage 1, Stage 2 or Stage 3 or Stage 4

1. Remove cuff from arm.
2. Let the athlete sit for a few minutes
3. Hold a light conversation with the athlete, asking:
 - Do you drink coffee, tea, soda? How much each day?
 - Do you smoke or chew tobacco?
 - Do you take medicine for your blood pressure? If yes, did they take it today?
 - What exercise did you do today?
 - How are you feeling today? Probe to find out if anxious, stressed out or unhappy.
4. Repeat reading with another cuff
5. If still high, confirm a third time, using alternate arm
6. Refer to blood pressure screening guide for referrals (in Chapter 5 – check-out stations)



IMPORTANT NOTE FOR BP on Stage 2, 3, or 4 Hypertensive Range:

If, after the confirmation, the range is still above either 160 (for systolic) or 100 (diastolic), refer the athlete to EMT or medical personnel on site for confirmation and medical clearance. No sports allowed for the athletes with BP in these ranges until they have been cleared by a physician.

This factsheet is available on the SOI website:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

Other Tips for Counseling:

Sodium: A Good Thing in the Right Amount

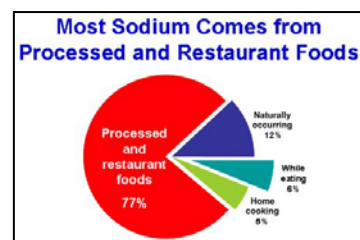
Sodium plays an important role in the body. It's essential for fluid balance, muscle strength, and nerve function. Iodized salt is table salt mixed with a minute amount of iodine salts. Worldwide, iodine deficiency affects about two billion people and is the leading preventable cause of mental retardation. Deficiency causes thyroid gland problems, including "endemic goiter". In many countries, iodine deficiency is a major public health problem that can be cheaply addressed by iodization of salt. Iodized salt is not used in processed food. Unfortunately, most of us get too much. U.S. guidelines call for less than 2,300 milligrams of sodium per day, about 1 teaspoon of table salt. And half of all adults should drop to 1,500 milligrams a day. Surprisingly, most of our salt intake is hidden in the foods we buy at the grocery store.

Why do processed foods contain so much sodium?

Salt helps prevent spoiling by inhibiting bacteria growth, yeast and mold. Salt brings out flavors in food. **Fast foods are higher in sodium, to increase thirst, and result in people buying beverages to quench their thirst.** Many people eat far more sodium than they need, with processed foods contributing as much as 75 percent of the sodium in the typical American diet. The 2010 Dietary Guidelines for Americans recommend limiting sodium to less than 2,300 mg a day, or 1,500 mg for those over the age 50, for African Americans or those with high blood pressure, diabetes or chronic kidney disease.

To reduce dietary salt try these tips:

- Eat more fresh foods, such as fresh fruits, vegetables, lean meats, poultry, fish and unprocessed grains. Only small amount of sodium is found naturally in these foods.
- Replace high-sodium foods with low-sodium products or products without added salt.
- Learn to cook foods such as soups, meat for sandwiches, deserts and casseroles. When home cooking, you control the salt that goes into a recipe.
- When eating out, ask that salt not be added to your food. Ask for sauces and salad dressings on the side so that you can control the amount you use.
- Instead of buying seasoning packets like taco spices, gravy, salad dressings, marinades, use herbs and spices, rather than salt to flavor your food.
- Remember to get iodine from a multivitamin if you don't use iodized salt at home. (restaurants and food processors use non-iodized salt)
- Adding fruit, leafy green vegetables and root vegetables, dairy products and dried beans provide potassium which helps control blood pressure.
- Maintaining a healthy level of vitamin D further reduces blood pressure.



Frequently Asked Questions (FAQs) – Blood Pressure

What is blood pressure?

•Blood pressure is the force of blood against your artery walls as it circulates through your body. The organs in your body need oxygen to survive. Oxygen is carried through the body by the blood. When the heart beats, it creates pressure that pushes blood through arteries and veins, also known as blood vessels and capillaries. The pressure --- blood pressure --- is the result of two forces. The first force occurs as blood pumps out of the heart and into the arteries that are part of the circulatory system. The second force is created as the heart rests between heart beats.

What does my blood pressure number mean?

•The first number is the systolic number, and represents the pressure when your heart beats. The second number is the diastolic number and represents the pressure when your heart is at rest.

Stages of Blood Pressure Levels

- Normal blood pressure—less than 120/80
- Prehypertension—120/80 or higher, but less than 140/90
- Stage 1 high blood pressure—140/90 to 159/99
- Stage 2 high blood pressure—160/100 or higher

What does it mean to have a high blood pressure?

- High blood pressure means the force of blood against your artery walls is higher than it should be.
- High Blood Pressure can be fatal or lead to serious health problems.
- When blood pressure is higher than normal most of the time, it starts to damage the blood vessels, heart, and kidneys. This can lead to heart attack, stroke, and other heart disease.

Why does [athlete] need to see a doctor for this?

- High Blood Pressure needs to be addressed so it is not damaging a person's body. A plan to reduce blood pressure or medication may be prescribed.

If I have high blood pressure, how can I take care of myself or manage my blood pressure level?

- Eat a better diet, which may include reducing salt and eating foods high in potassium like fruits, vegetables and legumes (beans).
- Do regular physical activity
- Maintain a healthy weight
- Manage stress
- Avoid tobacco smoke
- If you drink, limit alcohol
- Limit caffeine consumption

What causes high blood pressure?

- Many things can cause high blood pressure. Some unhealthy behaviors can contribute to high blood pressure such as not exercising enough, being overweight, smoking tobacco, or eating foods high in sodium. You should talk to your doctor about what might be causing high blood pressure and how you can prevent it in the future.
- It is also important that you talk to your doctor to make sure that you are not taking any medications that might raise blood pressure.

Why didn't I know that [athlete] had high blood pressure before?

- High blood pressure does not usually have warning signs or symptoms; so many people don't realize they have it. The only way to find out is to have a doctor or health care professional measure it.

What is the treatment for high blood pressure?

- It is best to talk to your doctor about potential treatments. We recommend you make an appointment with a primary care doctor to learn more. Possible recommendations include lifestyle changes or medication.

When should I worry about low pressure?

- Low blood pressure is a level lower than 90/60
- Low pressure is not an issue unless you have some of the follow symptoms: dizziness or lightheadedness; fainting; dehydration and unusual thirst; lack of concentration; blurred vision; nausea; cold, clammy, pale skin; rapid, shallow breathing; fatigue; depression
- If you have any of the above symptoms your should see a doctor.

We do not currently have a doctor - what should I do?

- Talk with your SO Program as they be able to direct you to resources to help find a doctor or medical care.

Where can I learn more information?

- For more information on blood pressure, visit <http://www.cdc.gov/bloodpressure/>

Training Skills Activity: Blood Pressure

Volunteers measure athlete blood pressure in the left arm as a general health screening.

This will help determine whether the athlete is hypotensive (low blood pressure), hypertensive (high blood pressure) or has normal blood pressure.

Trainee/Volunteer Objectives:

Trainees will be able to:

- 1) Estimate the number of blood pressure stations given the estimated size of the event.
- 2) Calibrate the blood pressure monitors
- 3) Choose the correct size and of blood pressure cuff.
- 4) Correctly place the blood pressure cuff on athletes' arm.
- 5) Learn proper cut-off values for medical referral and/or suspension of athletic activity.
- 6) Learn decision tree for confirming abnormal values.

Athlete Objectives:

Safe participation in sports activity based on blood pressure criteria

Materials Needed:

Blood pressure cuffs, in adult, pediatric and extra-large sizes

Method or Activity Instructions - Blood Pressure Checklist Instructions:

Using the following list, observe trainees for at least 15 minutes as they interact with one or more athletes in the Healthy Athletes Health Promotion screening venue. Make a hash mark for each interaction observed. These observations are designed to provide insight to tangible suggestions for trainees.

Date of Observation: _____ Location/Event _____

Name of Trainee _____ Observed
by _____

Number of unique role play – volunteer interactions observed: 4

See table on next page for tracking observations.

Blood Pressure Competencies	Role Play code for interaction observed				Observation Comments
	Hypo- tensive	Stage 1 or 2	Stage 3	Stage4	
Estimates number of BP stations needed based on event size and hours					300 athletes in 4 hours = 5 stations (based on 4 minutes per athlete)
Uses correct cuff size					
Aligns cuff with brachial artery					
Performs BP screening					
Identifies < 90/60 as hypotension					
Hydrates hypotensive athletes for retest 1/2 hour later					
Refers hypotension to physician and initiates STOP ACTIVITY order					
Identifies >140/100, <160/100 as stage 1 or 2 hypertension					
Retests stage 1 or 2 to confirm values					
Refers stage 1 or 2 to physician, once at home					
Identifies >160/100 as stage 3 or 4 hypertension					
Retests stage 3 or 4 to confirm values					
Refers stage 3 or 4 to physician and initiates STOP ACTIVITY order					

Ask trainees to identify action, based on the following results:

- Age 40 athlete with left BP of 91/51
- Age 20 athlete with left BP of 150/93
- Age 60 athlete with left BP of 145/89
- Age 25 athlete with left BP of 165/104
- Age 65 athlete with left BP of 208/128

In all cases, all results should be confirmed (confirmation values are the same as initial values for purpose of the role play). In cases where the value is high, the appropriate action and referral should be made.

Adaptations: All athletes can participate in the blood pressure program. The only physical adaptation necessary is to determine the proper size of the BP cuff. Some athletes may be averse to having their blood pressure taken. This can usually be overcome with demonstration of the procedure on another athlete or volunteer. For athletes' age 18 or younger, athlete's percentile of height for age, plotted on a gender specific growth chart is required to determine the blood pressure percentile. The pediatric chart in Chapter 3.c should be used.



Health Habits

Health Habits Survey

In addition to the health screenings, each athlete participates in a health habits survey. The health habits survey gathers information on a variety of health habits including nutrition, tobacco use, sun safety, hand washing and physical activity. Information gathered from the athlete during the health habits survey is used to:

- Gain knowledge about the athlete's individual health habits
- Determine areas the athlete may want more information
- Reinforce health habits the athlete currently practices
- Start the conversation with the athlete on health habits

Data gathered from all athletes along with the health screening measurements is used for:

- Health Promotion Program planning
- Profile of Special Olympic Athlete's health status and behaviors (National, Regional or Local)
- Analysis of specific health indices within the Healthy Athletes disciplines (i.e. bone health and oral health)

The Healthy Athletes Software (HAS) Health Promotion Form is used to document each athlete's health screening tests and the health habits survey. [A copy of the form and full survey is available in Chapter 4.](#)

Interview Protocol

Introduce yourself and explain to the athlete that you will be asking them questions about _____. Ask each question and remember to:

- Be a good listener; take your time; let the athlete take their time.
- Be non-judgmental throughout the discussion.
- Follow the question- open ended- Do you xxxx? Do not lead with the response- You do xxx.
- Affirm good health habits. *Keep it up: you're doing great. Congratulations, you are working hard to xxxxx.*
- Ask the athlete if they would like more information about xxx.
- Thank the athlete for talking to you about xxx.

The Special Olympics Health Promotion Training video includes techniques and tips for a successful athlete experience.

<https://www.youtube.com/watch?v=qWeRt54VbE0>

Options for Health Habits Interview

There are 2 ways to include the Health Habits Interview in the Health Promotion Venue. They are a designated interview station or conduct the interview in the education stations. Considerations on which method to use include, venue space, number of volunteers/athletes, volunteer skill level in interviewing and education and personal preference.

Option 1- Set up an interview station, where the entire Health Habits Survey is completed before the athlete moves to the interactive education stations. The athlete will bring their completed HAS form to each station, where the volunteer will view the athlete's responses and tailor the education to meet the athlete's identified issues.

Option 2- Conduct the interview questions at each station. Upon asking the relevant questions, the volunteer will transition to the education offered at the station.

Regardless of which option you choose, it is important for the volunteer to continue the conversation with the athlete relating the education and activity at the station to the topic. Provide the athlete an opportunity to state what they have learned about the topic, relate the information to their Special Olympics sport and respond to any questions they may have.

Tips for Success

Visual aids and pictures can contribute to the athlete's understanding of the questions being asked (see pictures below and examples on the next page). This is especially important for the Nutrition: Food and Beverage Habits questions. The Health Habits Survey appendix contains food pictures to use with each of the questions using a US example.

A modifiable template for the nutrition questions is available online for programs who want to develop their own food pictures to match regional and national foods. Access the template at: [http://resources.specialolympics.org/Topics/Healthy Athletes/Disciplines/Health Promotion.aspx](http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx)



Question to Ask the Athlete

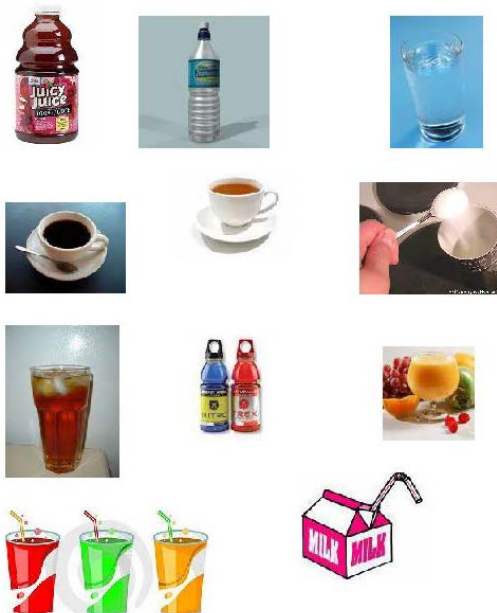
Example Images to show to the Athlete for the question to the left

Example 1:

What do you drink when you are feeling thirsty?

- ☐ Water
- ☐ Fruit juice
- ☐ Soft drink
- ☐ Sport drink
- ☐ Milk product (include soy milk)

What do you drink when you are thirsty?



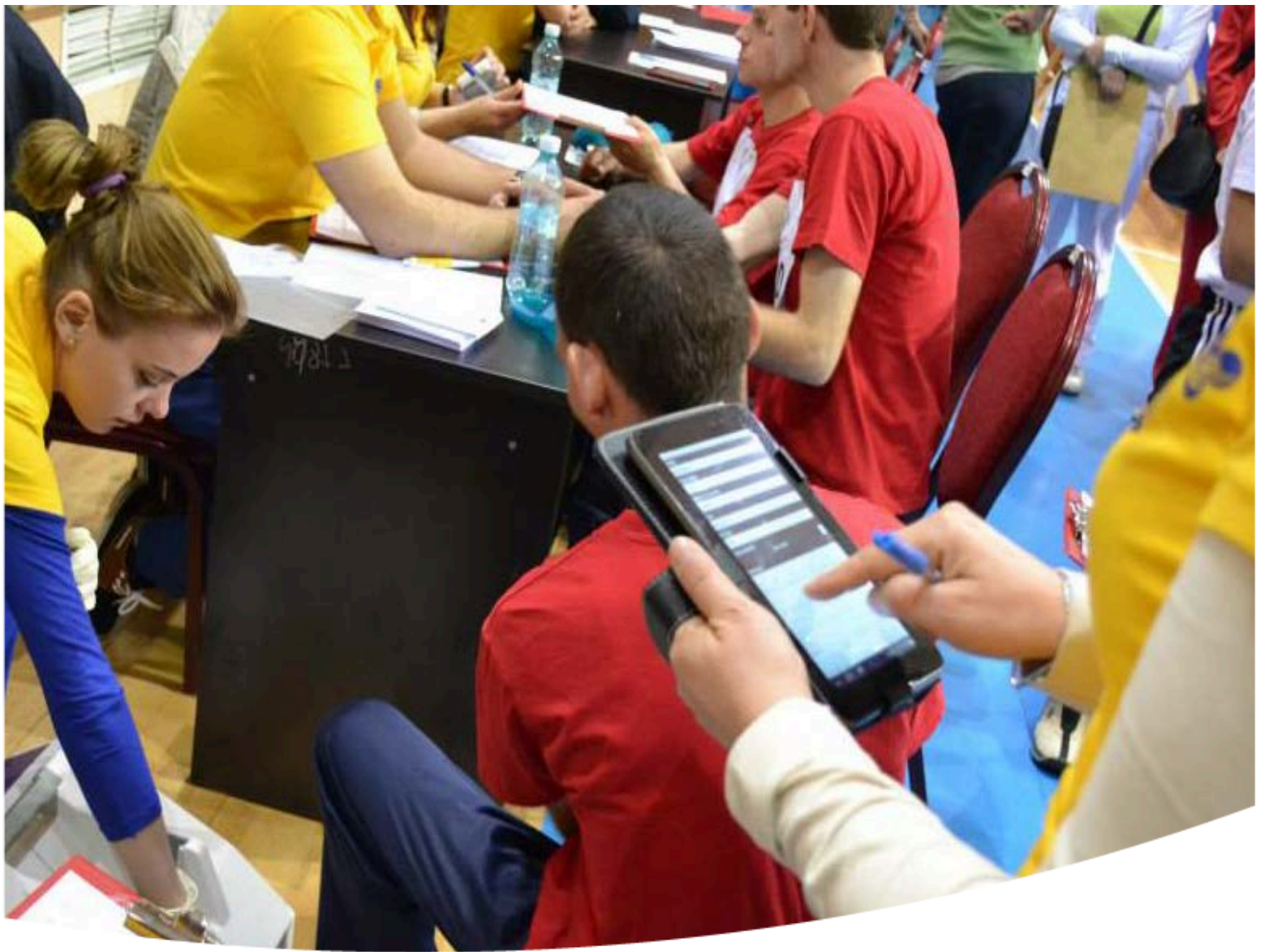
Example 2:

Do you eat or drink any of these foods?

- ☐ daily
- ☐ more than once a week
- ☐ never

Calcium Foods





Special Olympics **Health Promotion**

Clinical Director Manual
Chapter Four
Healthy Athletes Software (HAS)



Healthy Athletes Software system (HAS)

The Healthy Athletes Software system (HAS) enables the electronic capture of screening data across the Healthy Athletes disciplines and is the world's largest and highest quality health database on individuals with intellectual disabilities. As mentioned in Chapter 3, the survey can be done as one survey station where all the questions are asked at once or you can separate the questions and ask them at specific relevant stations (e.g., questions about eating habits at a nutrition education station and questions about sun safety at the sun safety education station). This is a decision that you as a Clinical Director, along with your Special Olympics Coordinator can make. Either way, be sure that you use the data during the check-out station counseling session.

One thing to note is that Special Olympics is currently in the process of transitioning the data collection process to a new system, but the questions will remain the same regardless of the platform (e.g. paper or tablet). However with the development of the tablet software Programs will have the option to do direct data entry using a tablet (if they own tablets), instead of using paper copies. For those Programs still using paper copies (as many Programs will), they will be able to more easily enter their data into the online system, post-event. For Programs that choose to use the electronic tablet process, you will receive a separate instruction guide for using the tablets from your local Special Olympics Program coordinator.

The local Special Olympic Program that you are working with will advise you as to the process they are using to collect and report the data, but this Chapter will give you a sense of the data being collected in the Health Promotion HAS form and also shares an example data report. In [Chapter 5](#), you will also see how the questions correspond to each individual screening and education station, if you have chosen to ask the questions at the individual station, rather than at a single survey station.

2015 Health Promotion HAS Form: Available at:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Resources.aspx

Tips for Completing the HAS Form

- Make sure you **indicate the Location and Date of the event for all forms** (it may help to have Special Olympics local office pre-populate those fields before printing the forms for the event – that will save the check-in volunteers from having to do that).
- Be sure to write legibly.
- Ensure that the Athlete Last Name and First Name, Gender, and Birth Date is included on the form for each athlete (this helps with Data analysis).
- If they have an ID, please make sure that is marked down.
- Make sure you are measure and write down the BMD for both the right and left heel and that you indicate a + or – before the t-score.
- If a measurement or survey question can't be answered just mark why not.

First Name	Lastname	HAS ID _____
-------------------	-----------------	---------------------

Date	O Male <input type="checkbox"/> Female <input type="checkbox"/>	DoB	Age (years) <input type="checkbox"/> Not sure <input type="checkbox"/>
Event	Location	<input type="checkbox"/> Athlete <input type="checkbox"/> Unified partner	Sport
Delegation		SO Program	
Cell phone number		Number is <input type="checkbox"/> Athlete's <input type="checkbox"/> Parent's / Guardian's	

Providing a phone number is optional. It may be used to call or send reminders if follow up is recommended after screening.

Body Composition

Height _____ • _____ cm
Measure up to 0.1 cm

Weight _____ • _____ kg
Measure up to 0.1 kg

_____ **BMI** (20 years of age and over)

Height _____ inches
Measure up to 1/8 inch

Weight _____ lbs. _____ oz.
Measure up to 1/2 oz

_____ **BMI** Percentile (under 20 years of age)

Referral made for BMI follow Up? ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

Special Olympics
Health Promotion



Bone Mineral Density Test (Athletes MUST be at least 20 years old to screen)

T-score Left heel _____ • _____ -4.0 to + 5.0

Right heel _____ • _____ -4.0 to + 5.0

☐ Unable to test

☐ Age under 20

☐ Athlete refused

☐ Athlete unable to cooperate

☐ Unusual heel shape

Referral made for BMD follow Up? ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

Blood Pressure

Right arm _____/_____

Left Arm _____/_____

Referral made for BP follow Up? ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

Nutrition – Food and Beverage Habits

Do you take vitamin D supplements? ☐ Yes ☐ No ☐ Don't know

What do you usually drink when you are thirsty? (select all that apply)

☐ Water

☐ Fruit juice

☐ Soft drink ☐ diet ☐ non-diet

☐ Sports drink

☐ Milk product (includes soy)

☐ Energy drink

☐ Other

Calcium Foods and Beverages <input type="radio"/> less than 1 serving per day <input type="radio"/> 1-2 servings per day <input type="radio"/> 3-5 servings per day <input type="radio"/> more than 5 servings per day <input type="radio"/> never	Sweetened Beverages <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> never	Fast food <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> never
Fruits and Vegetables <input type="radio"/> less than 1 serving per day <input type="radio"/> 1-2 servings per day <input type="radio"/> 3-5 servings per day <input type="radio"/> more than 5 servings per day <input type="radio"/> never	Snack Foods <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> never	

First Name	Lastname	HAS ID _____
-------------------	-----------------	---------------------

Physical Activity

How many days each week do you exercise for at least 30 minutes?

☐ no days ☐ 1 day ☐ 2 days ☐ 3 days ☐ 4 days ☐ 5 days ☐ 6 days ☐ 7 days

Do you exercise outside of your Special Olympics training? ☐ Yes ☐ No

If yes, what do you do? (Select all that apply)

☐ Weights ☐ Run/Jog ☐ Walk ☐ Dance ☐ Sports ☐ Exercise DVD, Wii ☐ Job ☐ Other

If no, what is the reason? (Select all that apply)

☐ No interest ☐ No money ☐ No time
☐ Do not know how ☐ Physically unable ☐ No place to exercise
☐ No transportation ☐ No one to do it with ☐ Other

How many hours a day do you watch television or play computer/video games?

☐ 0 hours ☐ 1–2 hours ☐ 3-4 hours ☐ 5-6 hours ☐ Over 6 hours

Hand Washing

When are the most important times to wash your hands? (select all that apply)

☐ After using the toilet ☐ Before eating or touching food ☐ other reason ☐ No reasons given

Did you use soap when last washing your hands? ☐ Yes ☐ No **Do you have soap at home?** ☐ Yes ☐ No

Sun Safety

Do you do anything to protect your skin in the sun? ☐ Yes ☐ No

If yes, what do you do to protect your skin in the sun? (select all that apply)

☐ use sunscreen ☐ wear a hat ☐ wear long sleeves ☐ seek shade ☐ wear sunglasses ☐ I do nothing

If no, what is the reason? (select all that apply)

☐ Did not know it was important ☐ No money to buy protection ☐ Other
☐ Don't get sunburned ☐ Like to be tan

Tobacco Use

Do you use tobacco? ☐ Yes ☐ No **If yes, how frequently?** ☐ daily ☐ weekly ☐ monthly

Do any of your friends or family members smoke near you? ☐ Yes ☐ No

If yes, what do you do when they are smoking near you? (select all that apply)

☐ Ask them to stop ☐ Leave the room ☐ Smoke ☐ I do not do anything ☐ Other

Check out: Follow up care recommended?

BMI ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

BMD ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

BP ☐ Yes ☐ No ☐ Urgent ☐ Not Urgent

Health Promotion Healthy Athletes Screening



		Number of athletes	Percent of athletes ¹
Number of athletes registered for Event		1132	
Number of athletes screened		288	25.4 %
Male		176	61.1 %
Female		112	38.9 %
Age Range	8y 12m to 113y 5m		
Mean Age	28y 12m		
Weight			
Adults aged 20 or over			
Underweight (BMI <18.5)		3	1.6 %
Healthy weight (BMI 18.5 - 24.9)		47	25.5 %
Overweight (BMI 25 to 29.9)		52	28.3 %
Obese (BMI 30 and over)		82	44.6 %
Children and adolescents under age 20			
Underweight < 5th percentile		0	0.0 %
Healthy weight 5th to 84th percentile		0	0.0 %
Overweight 85th to 94th percentile		0	0.0 %
Obese >= 95th percentile		2	100.0 %
Bone Density - Adults (aged 20 or over)			
At risk for Osteopenia		8	26.7 %
At risk for Osteoporosis		0	0.0 %
Blood pressure			
Adults (aged 20 or over)			
Hypotension		4	2.1 %
Normal		128	68.4 %
Hypertension Stage 1		35	18.7 %
Hypertension Stage 2		15	8.0 %
Hypertension Stage 3		3	1.6 %
Hypertension Stage 4		2	1.1 %
Children and adolescents under age 20			
Hypotension		7	7.4 %
Normal		64	67.4 %
Hypertension Stage 1		15	15.8 %
Hypertension Stage 2		3	3.2 %
Hypertension Stage 3		1	1.1 %
Hypertension Stage 4		4	4.2 %

Health Promotion Healthy Athletes Screening



	Number of athletes	Percent of athletes ¹
Athlete Self Reported Tobacco Habits		
Use tobacco products	12	4.3 %
What do athletes do if someone smokes around them:		
Asks smoker to stop	11	19.3 %
Leaves the room	17	29.8 %
Smoke	1	1.8 %
Do not do anything	26	45.6 %
Other	2	3.5 %

Health Promotion Healthy Athletes Screening



	Number of athletes	Percent of athletes ¹
Athlete Self Reported Beverage and Food Habits		
Reported beverage when thirsty:		
Water	210	73.9 %
Fruit juice	60	21.1 %
Soft drink	147	51.8 %
Diet	0	0.0 %
Non diet	0	0.0 %
Sports drink	34	12.0 %
Milk product (including Soy milk)	73	25.7 %
Energy Drink	1	0.4 %
Reported frequency of consuming:		
Sources of calcium		
Less than 1 serving per day	39	17.3 %
1-2 servings per day	63	27.9 %
3-5 servings per day	44	19.5 %
More than 5 servings per day	1	0.4 %
Never	79	35.0 %
Fruits and Vegetables		
Less than 1 serving per day	43	19.4 %
1-2 servings per day	89	40.1 %
3-5 servings per day	75	33.8 %
More than 5 servings per day	1	0.5 %
Never	14	6.3 %
Snack foods		
Daily	138	50.5 %
Weekly	82	30.0 %
Monthly	9	3.3 %
Never	44	16.1 %
Sweetened beverages		
Daily	167	62.3 %
Weekly	79	29.5 %
Monthly	7	2.6 %
Never	15	5.6 %
Fast foods		
Daily	15	7.0 %
Weekly	118	55.1 %
Monthly	63	29.4 %
Never	18	8.4 %

Health Promotion Healthy Athletes Screening



	Number of athletes	Percent of athletes ¹
Athlete Self Reported Sun Safety Risk, Knowledge and Behavior		
What do you do to protect your skin in the sun (assessed behavior)		
Use sunscreen	180	66.9 %
Wear a hat	121	45.0 %
Seek Shade	22	8.2 %
Wear sunglasses	47	17.5 %
Wear long sleeves	0	0.0 %
I Do not do anything	56	20.8 %
Use sunscreen in the winter months?	3	1.9 %
Reasons given for not protecting their skin in the sun:		
Did not know it was important	8	15.1 %
No money to buy protection	1	1.9 %
Do not get sunburned	39	73.6 %
Like to be tan	6	11.3 %
Other	1	1.9 %

¹ As % of athletes screened in each section
 Printed on 2014/12/02 at 16:06 Page 4 of 5

Health Promotion Healthy Athletes Screening



	Number of athletes	Percent of athletes ¹
Athlete Reported Physical Activity Habits		
Exercise for at least 30 minutes		
No days	17	7.6 %
1-2 days	39	17.4 %
3-6 days	62	27.7 %
Every day	106	47.3 %
Exercise outside of Special Olympics Training		
Yes	200	97.1 %
No	6	2.9 %
If yes, how		
Weight training	22	11.1 %
Run/Jog	46	23.1 %
Walk	109	54.8 %
Dance	11	5.5 %
Sports	42	21.1 %
Exercise Video	7	3.5 %
Other	28	14.1 %
Reasons for not exercising outside of Special Olympics		
No interest	2	100.0 %
Physically unable	0	0.0 %
Do not know how	0	0.0 %
No money	0	0.0 %
No transportation	0	0.0 %
No one to do it with	0	0.0 %
No available exercise facility	0	0.0 %
No time	0	0.0 %
Other	0	0.0 %
Hours per day spent watching television or playing computer/video games		
0-2	81	36.2 %
3-4	68	30.4 %
5-6	53	23.7 %
Over 6 hours	22	9.8 %
Education Given	288	100 %

¹ As % of athletes screened in each section
 Printed on 2014/12/02 at 16:06 Page 5 of 5



Special Olympics **Health Promotion**

Clinical Director Manual
Chapter Five:
Education Stations





Nutrition

Nutrition Education Station

Why We Address Nutrition

Individuals with intellectual disabilities (ID) are at increased risk for obesity, osteoporosis, heart disease, seizures, poor physical conditioning and fitness as well as other medical conditions. The 2005, U.S. Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities noted that: Persons with disabilities of all kinds share many of the same challenges as those without disabilities when it comes to their own health and well-being.



Individuals with ID often experience nutrition challenges including growth alterations such as failure to thrive, obesity, and growth retardation, metabolic disorders, medication-nutrient interactions, and food/sensory challenges. Foremost among those challenges is having the tools and the knowledge to help the individual enjoy and maintain full, healthy lives. A number of the health habits that contribute to chronic disease, including nutrition choices are within the control of the individual. The goal of the nutrition component of the Special Olympics Healthy Athletes Health Promotion (HP) Program is to provide the athlete with information and tools to make healthy food choices.

HP conducts hands on screening in key areas that impact the athlete's nutrition/health status. There are three health screenings in Health Promotion.

- Height and Weight for body mass index (BMI) calculation
- Blood Pressure
- Bone Density

Data collected at previous Special Olympics World Games, regional and local events indicate that many of the athletes are overweight or obese; are at risk for osteoporosis and osteopenia and consume less than the recommended servings of dairy foods, and fruits and vegetables. Results from the individual athlete's screening and health habits survey information form the starting point for athlete nutrition education. HP nutrition education provides interactive nutrition education opportunities targeted to the individual athlete's needs and interests.

Through displays, interactive education stations, food samples, food demonstrations positive messages about foods are given to athletes. Key focus areas in nutrition include: bone building, eating 5 fruits and vegetables a day and drinking water.

Screening Protocol/Equipment/Supplies

Health Habits Survey- Nutrition-Beverage Questions Screening Protocol

The HAS Nutrition Questions include several questions on eating habits. Below are the nutrition-related questions on the Health Habits portion of the HAS form. Full information about the HAS form is available in [Chapter 4](#).

Do you take vitamin D supplements? ☐ Yes ☐ No ☐ Don't know

What do you usually drink when you are thirsty? (select all that apply)

- ☐ Water ☐ Sports drink
☐ Fruit juice ☐ Milk product (includes soy)
☐ Soft drink ☐ Diet ☐ non diet ☐ Energy drink
☐ Other _____

Sources of Calcium <input type="radio"/> less than 1 serving per day <input type="radio"/> 1-2 servings per day <input type="radio"/> 3-5 servings per day <input type="radio"/> more than 5 servings per day <input type="radio"/> never	Sweetened Beverages <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> never
Fruits and Vegetables <input type="radio"/> less than 1 serving per day <input type="radio"/> 1-2 servings per day <input type="radio"/> 3-5 servings per day <input type="radio"/> more than 5 servings per day <input type="radio"/> never	Snack Foods <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> never
Fast food <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> never	

TIP: Use the food pictures that best represent the county or region in which the athlete lives. An example template for the US as well as a modifiable template is available online for programs who want to develop their own food pictures to match regional and national foods. Access the templates at:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

Contact your Regional Clinical Advisor for Regional Food Pictures. Additional props to assist in the food questions include food models and actual foods.



Tips for Health Promotion Food Questions

Introduce yourself and explain the purpose of interview

Explain to the athlete that you will be showing them pictures of foods and are interesting in learning about what foods they eat.

- Be a good listener; take your time; let the athletes take their time.
- Be non-judgmental throughout the interview.
- Use open-ended questions to solicit unbiased information.
- Sometimes you will get a response that may not seem accurate- they never eat any grain foods. A follow up question always is helpful. Ask – What do you eat in the morning or when you wake up? Often the response is cereal. Follow with- What do you put on your cereal? Often the response is milk. Then you can ask about the frequency during the week.

If you are having difficulty in getting a response the following trigger questions may be helpful.

- Which meals do you usually eat during the day? How often do you snack? How many times a week do you skip breakfast? Other meals?
- What kinds of things do you like for snacks?
- Are there any foods you won't eat? Which ones?

If time is available, many athletes want to discuss what they eat and changes they can make for their health. The following questions can often assist in starting the conversation.

- How do you feel about the food you eat?
- Are there any changes would you like to make in the way you eat?
- How often do you make your own meals/snacks? Do you purchase any of your own food or snacks?
- How many days per week do you eat fast food?
- How do you feel about your body and the way you look?
- Are you trying to change your weight? How are you going about doing this? How much would you like to weigh?
- How much physical activity time do you get in a week? What types?
- How much time per day are you spending watching TV/on the Internet?
- Do you have any concerns about your diet/weight/growth?

Recommendations for nutrition equipment and supplies can be found in [Chapter 2](#).

Key elements to developing a successful nutrition station include the use of colorful props such as foods, food models, pictures of foods, balloons and items which will attract the attention of the athletes and support the education message.



Global Nutrition Guidelines

Nutrition represents what one eats on a daily basis. Food habits are individual and based on geographic, cultural, religious, economic and other factors. Most countries have nutrition guidelines for their population. Examples include:

United States My Plate



Korea- Food Bicycle



Belgium- La Pyramide Alimentaire



Do you know your country's nutrition guidelines?

Key Nutrition Messages

- Choose water instead of sugar sweetened beverages
- Eat at least 5 fruits and vegetables every day
- Choose healthy snacks every day
- Include bone building foods every day

The key messages used in HP Nutrition represent nutrition guidelines from around the world and have global support among medical and governmental health authorities as considered key behaviors to prevent obesity and chronic disease.

Nutrition Education Resources

A number of countries, states, medical and health authorities have well developed nutrition education and health promotion materials available in an electronic format. Some may be appropriate or need adaptation for a HP event. A good place to start is your local government health authority such as your Ministry of Health or State Health Department. Many food related companies or non-profit organizations offer nutrition education materials.

Choose to Change Card - Nutrition

"I choose to have strong bones" can be used to give the athlete a take home message on the importance of Bone Health either at the bone health station, or better yet, at the check-out station where the athlete will receive feedback and recommendations from a trained clinical professional. The cards for all the topics (in 6 languages) can be found at: http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx The "Choose to Change" cards are described in more detail in [Chapter 6](#).

I choose to eat more fruits and vegetables

Here are things I can choose to do:

- Eat a fruit a day with lunch.
- Make half my plate fruits and vegetables every day.
- Have a salad for lunch.
- When I want crunchy foods, I can eat apple slices, little carrots, celery sticks, or snap peas.
- Make a fruit smoothie with skim milk or nonfat plain yogurt for dessert.

I choose to change!

Special Olympics Health Promotion

Food images © 2006 Silverlining Multimedia. Used with permission.

Bone Health



Bone Health Education Station - Strong Bones, Strong Athletes

Background Information - Bone Health for Sport Success

Bone health is important for Special Olympics Athletes around the world. For many athletes, getting enough calcium, vitamin D and other nutrients, can be a challenge. Many athletes do not engage in daily physical activity, and even for those who do, the exercise might not be vigorous enough to positively stress bones. For all athletes it is important to include good bone building nutrients and vigorous physical activity into their daily lives.

Bone and tooth enamel are the hardest mineral substances in your body. Most people know the value of strong teeth, but how many consider the value of strong bones until a problem develops? Strong bones do much more than provide strength, balance and support for your body; they also enable better posture to improve your appearance and make you look and feel more youthful.

Bones protect our internal organs and provide support for muscles. Strong bones support participation in Special Olympics sports as well as social activities like dancing and group activities. Strong bones carry us through busy work days and allow us to enjoy playing, running, jumping, climbing all the fun-filled physical activities we love. As the athlete trains and competes, if the bone nutrients are available, bone density will improve. Exercise without adequate calcium, vitamin D, magnesium and potassium doesn't improve bone strength. Likewise, even the most excellent nutrition will not improve bone density without exercise.

Nutrition

A large part of our bones are made of calcium. If we do not get enough calcium from foods or supplements, then we may have weak bones, bone loss, and increase the chance of having a breaking a bone. The calcium recommendation is based on age, ranging from 1000 -1200 milligrams per day. This is the amount of calcium in four 8-ounce glasses of milk or soy milk (1 quart/liter). Many of us do not get the recommended calcium in our diets even though calcium is found in many foods.

- Milk, yogurt, and cheese are the main food sources of calcium for most people.
- Kale, broccoli, and Chinese cabbage are fine vegetable sources of calcium.
- Fish with soft bones that you eat, such as canned sardines and salmon are good animal sources of calcium.
- Most grains (such as breads, pastas, and unfortified cereals), have small amounts of calcium.
- Calcium is added to some breakfast cereals, fruit juices, soy and rice beverages, and tofu. If sufficient dietary sources of calcium and not consumed, calcium supplements are needed.
- Other bone building nutrients that most people don't get enough are vitamin D, vitamin K, magnesium and potassium.

Physical Activity

Bone health is also dependent on routine physical activity. Many of the sports practiced in Special Olympics help build stronger bones. Different types of weight bearing and strength building activities produce different effects on the skeleton. Bones need three kinds of exercise to keep them strong:

1. **Weight bearing** is any activity using our body's major muscle groups makes a difference in strengthening bones. Exercise that makes our muscles to pull on bone causes our body to build more bone mass; power walking, running, court sports, dance, aerobics and others.
2. **Strength training** a type of exercise using resistance to cause muscular contraction which builds the strength, anaerobic endurance, and size of skeletal muscles and bone density; weight lifting, use of resistance bands, some kinds of yoga and others.
3. **Balance enhancing exercises** include those that help reduce risk of falling. They involve side to side and backward movements; standing on one foot for increasing lengths of time, dance, yoga, court sports and others.

Athlete Medications and Low Bone Density

Bone health can be affected by some medications – see a [Medication Watch List available on SOI website](#). People with ID with certain health conditions, such as Down syndrome, Fragile X and Marfan syndrome have lower peak bone mass than others. Many people with I/DD are prescribed needed medications that affect bone metabolism, vitamin D metabolism, and nutrient absorption. Some other routine medications depress estrogen levels, and still others cause photosensitivity, so sun exposure is avoided to prevent sun burn. The lack of hormone replacement therapy for people with I/DD (for women after menopause and older men with hypogonadism), accelerates bone loss. The following are examples of substances and drugs that may put the athlete at risk for bone loss (osteopenia and osteoporosis):

1. Alcohol and tobacco
2. Anti-seizure medications
3. Many anti-depressants
4. Medications with corticosteroids or steroids, including asthma inhalers
5. Depo-Provera, a contraceptive shot
6. Many psychotropic medications
7. Non-steroidal anti-inflammatory medications (NSAIDS)

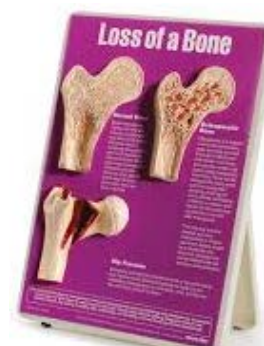
Building and maintaining strong bones takes a lifetime commitment to healthy behaviors, including healthy eating, daily physical activity, avoiding alcohol and tobacco, assuring safe sun behavior or taking supplements to insure adequate vitamin D.

Training and Teaching Aids for Volunteers

- ✓ Comparison of "Milk Beverages. Which are healthiest?"
- ✓ Sports and Activity Discussion Tool
- ✓ Medication Watch List
- ✓ Vitamin D References

[illegible]Milk and Alternative
Beverages SOI HP

Sports and Activities Discussion Sheet
SOI HP Website



Loss of a Bone Easel

See [Bone Health Lesson Plan](#) for instructions on interactive education

The education station for strong bones features information and pictures (or packages) for foods and beverages that contain calcium, vitamins D and K. It may also include calcium + D, and vitamin D supplements. Graphic displays of exercises that promote bone health are essential.

Colorful and informative table top displays can illustrate:

- ✓ the importance of food sources of calcium and vitamin D
- ✓ supplement bottles of Ca + D and a separate vitamin D bottle for those who don't get recommended amounts through food and sun exposure
- ✓ graphics of sports and activities that enhance bone strength
- ✓ plastic skeleton to enhance conversation

Athlete Incentive Items

- String cheese, low-fat yogurt, carton or bottle of unflavored milk
- Got Milk incentive items (see [Equipment and Supplies List](#) for ordering info)
- Skeleton (spine) key chain

Health Habits Survey

The Healthy Athletes Software Nutrition questions include questions on vitamin D use and beverage choices. The responses to these questions will give the volunteer information on the athlete's vitamin D supplementation and their general beverage consumption including dairy/soy products, if these questions are done at the Bone Health Station, rather than a separate survey station. More about the HAS Form and Health Habits Survey included in [Chapter 4](#).

Do you take vitamin D supplements? ☐ Yes ☐ No ☐ Don't know

What do you usually drink when you are thirsty?

- ☐ Water
☐ Fruit juice
☐ Soft drink ☐ Diet ☐ non-diet
☐ Other
- ☐ Sports drink
☐ Milk product (includes soy)
☐ Energy drink

Sweetened Beverages

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Never

Key messages for athletes about protecting their bone health

1. Drink low fat cow's or soy milk daily, instead of soda, soft drinks, sports and energy drinks and other sweetened beverages.
2. Don't smoke or chew tobacco.
3. Eat healthy foods like dark green vegetables, fruit and almonds instead of candy or other sweetened foods.
4. Choose plain low fat yogurt and add your own fruit.
5. Take a calcium pill and a vitamin D pill.
6. Discuss your bone health with your doctor.
7. Ask your doctor about having a vitamin D test.
8. Become physically active.
9. Practice for your sport every day.

Choose to Change Card - Bone Health

"I choose to have strong bones" can be used to give the athlete a take home message on the importance of Bone Health either at the bone health station, better yet, at the check-out station where the athlete will receive feedback and recommendations from a trained clinical professional. The cards for all the topics (in 6 languages) can be found at:

[http://resources.specialolympics.org/Topics/Healthy Athletes/Disciplines/Health Promotion.aspx](http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx) The "Choose to Change" cards are described in more detail in [Chapter 6](#).



or

Resources

1. The Surgeon General's Report on Bone Health and Osteoporosis: U.S. Department of Health and Human Services, Office of the Surgeon General, 2012. <http://www.ncbi.nlm.nih.gov/pubmed/20945569>
2. Emphasizing the health benefits of vitamin D for those with neurodevelopmental disorders and intellectual disabilities. Nutrients. 2015, 7, 1538-1564. Grant WB, Wimalawansa SJ, Holick MF, Cannell JJ, Pludowski P, Lappe JM, Pittaway M, May P. www.mdpi.com/2072-6643/7/3/1538
3. American Academy of Developmental Medicine and Dentistry Medication Watch List (for side effects) for People with Intellectual Disability. [aadmd.org/sites/default/files/Medication Side Effect Watch List 07-29-10.pdf](http://aadmd.org/sites/default/files/Medication_Side_Effect_Watch_List_07-29-10.pdf)
4. Relationship Between Bone Quantitative Ultrasound and Fractures: A Meta-Analysis† Fernando Marín MD, PhD et al; 15 MAY 2006 DOI: 10.1359/jbmr.060417 Journal of Bone and Mineral Research Volume 21, Issue 7, pages 1126–1135, July 2006 onlinelibrary.wiley.com/doi/10.1359/jbmr.060417/full#fn1
5. What impact do intellectual and developmental disabilities have on an individual's bone health?" Mary Pittaway, MA, RD; National Osteoporosis Foundation December 2014: Ask the Expert, <http://nof.org/files/nof/public/content/file/4309/upload/1051.pdf>
6. Vitamin D Status Around The World: Interactive global map for Vitamin D status. 2015 www.iofbonehealth.org/facts-and-statistics/vitamin-d-studies-map
7. Screening Tests for Adults with Intellectual Disabilities Joanne E. Wilkinson, MD, MSc, Larry Culpepper, MD, MPH and Mary Cerreto, PhD J;; Am Board Fam Med July-August 2007 vol. 20 no. 4 399-407

















Comparison of Milk and Milk Replacements

This is a useful factsheet that shows a comparison of milk and milk replacements.

Special Olympics
Health Promotion



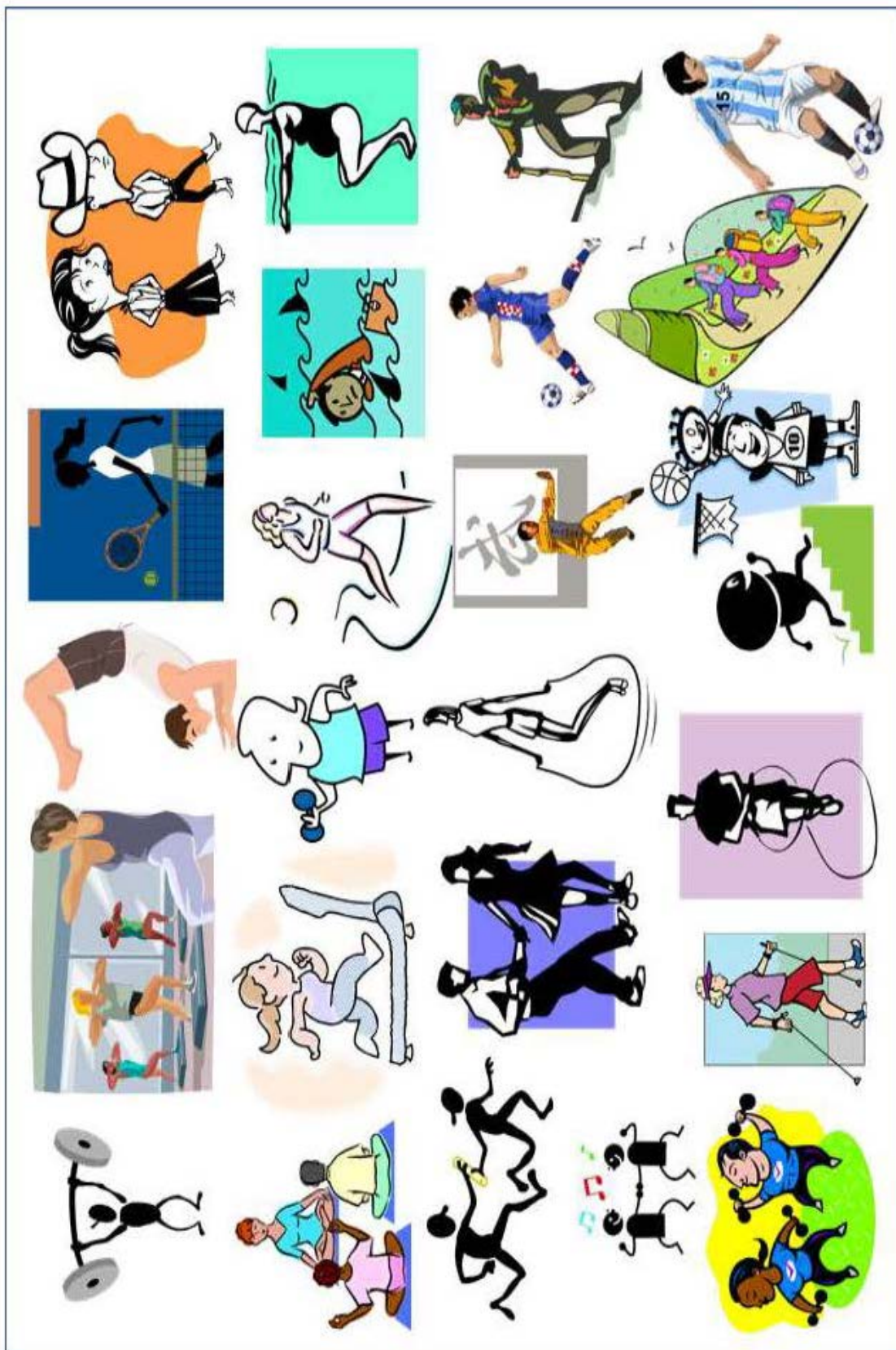
Comparison of Milk and Milk Replacements

Beverage/ 8 oz		Calories	Protein Gms	Fat Gms	Sat Fat Gms	Carb Gms	Vit D IUs	Calcium Mgs	Sodium Mgs
Almond Milk		60	1	2.5	0	8	100	300	150
Coconut Milk		80	1	5	5	0	0	450	30
Cows Milk 1%		100	8	2.4	1.5	12	100	300	100
Cows Milk 2%		120	8	5	3.1	11.4	100	300	100
Cows Milk Flavored 1%		190	10	3	1.5	32	100	300	230
Cows Milk Skim		86	8	0.4	0.3	12	100	300	127
Cows Milk Whole		150	8	8	5	13	100	300	100
Goats Low Fat Milk		100	8	2.5	1.5	11	0	300	115
Goats Milk Whole		140	8	7	4	11	0	300	115
Hemp Milk		160	4	5	0.5	24	0	500	135
Muscle Milk		160	15	8	3.3	6.5	72	300	150
Oat Milk		80	9	0	0	12	0	300	125
Rice Milk		120	1	2	0	25	100	300	90
Soy 8th Continent Original		80	8	2.5	0	0	100	300	95
Soy Milk Sweetened		90	7	1.5	0.5	13	100	300	190
Soy Pacific Ultra Vanilla		130	10	4	0.5	0	100	500	150
Soy Silk Plain		100	8	5	0.5	8	120	300	120
Orange juice with Ca & D (non dairy)		110	2	0	0	26	100	350	0

USDA National Nutrient Database for Standard Reference, Release 24 (2011) www.ars.usda.gov/Services/docs.htm?docid=8964

Comparison of Milk and Milk Replacements Updated 1/2/2014

What are your favorite sports? Which of these sports help your bones stay strong?



This handout may be used in both the Physical Activity and the Bone Health station to talk about how physical activity is an important aspect of bone health.

Hydration



Hydration Education Station

Background Information:

Water is important for the health of Special Olympics Athletes across the world. In some countries, athletes need to understand the importance of clean and safe water. In countries like the United States, athletes should try to limit the number of sweetened beverages and choose more water. For all athletes regardless of location, it is important to drink adequate amounts of water during exercise and sports.

Hydration for Sport

Adequate hydration and fluid replacement is one of the most important nutritional concerns for an athlete. Ensuring that all athletes are adequately hydrated is important. As small as a loss as 4 percent of body weight (4 pounds in a 100 pound person) can seriously affect performance.

Dehydration – Key Facts and Information:

Adequate hydration is important throughout the athlete's participation in sport but particularly during the following times:

- Prior to practice and competition
- During practice and competition and

After practice and competition

As the athlete trains and competes, fluid is lost through the skin through sweat and the lungs while breathing. If the lost fluid is not replaced during this time, it can lead to dehydration. Dehydration is entirely preventable. Athletes, coaches and families should plan for adequate hydration of all athletes, regardless of age or gender.

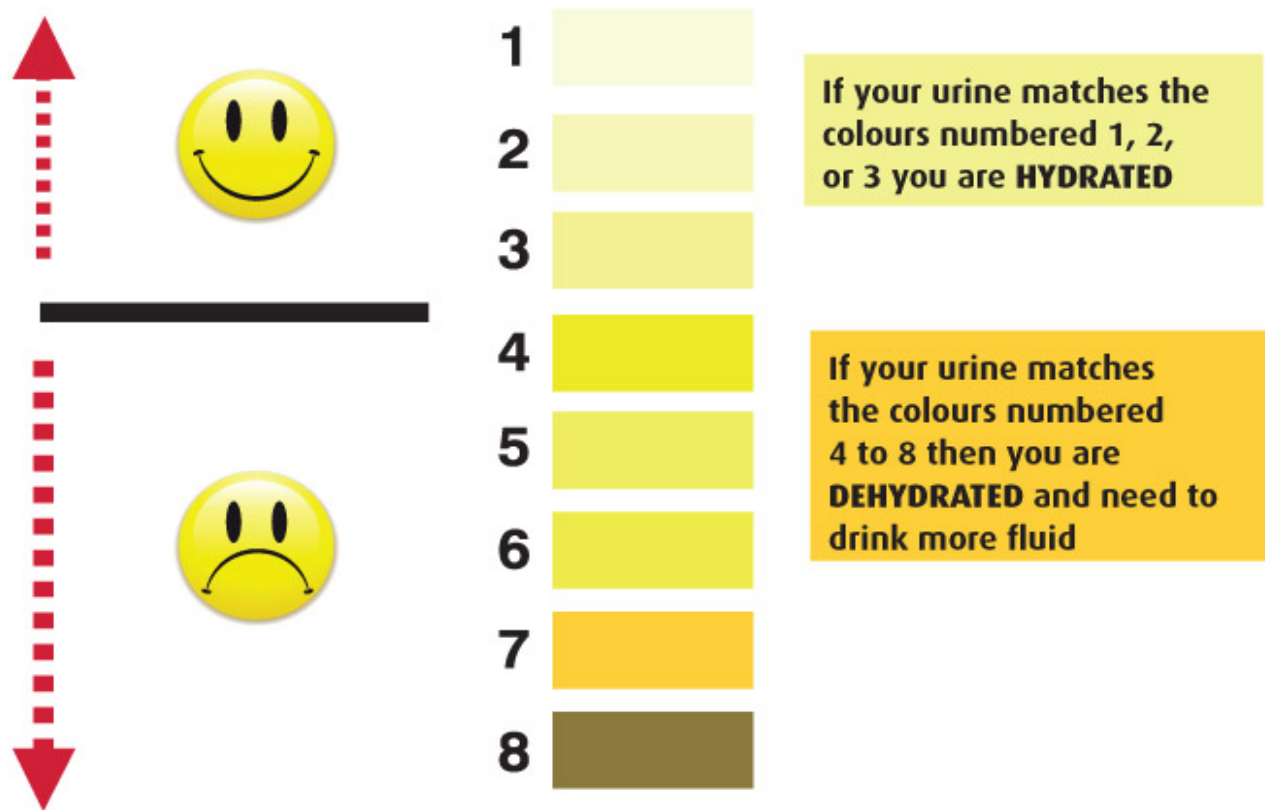


Dehydration means the athlete has a decreased volume of blood circulating through the body, and results in:

- A decrease in the amount of blood pumped with each heart beat
- Exercising muscles do not receive enough oxygen
- Exhaustion sets in and the athlete's performance suffers

Symptoms of dehydration include: dry mouth, dizziness, inability to produce tears or saliva, inability to sweat or produce urine, a rapid heart rate, delirium, altered mental status, and loss of consciousness. In serious cases, dehydration can cause sudden cardiac arrest, seizures, kidney failure, hypovolemic shock, heat injury, cerebral edema and could ultimately result in death.

One very simple way to determine if an athlete is hydrating properly is to weigh them before exercise and after. If the athlete is hydrating properly, there will be very little difference between the weight of the athlete before and after exercise. If a scale is not available, checking the color of the athlete's urine is helpful. Urine that is dark gold in color indicates dehydration. Urine similar in color to pale lemonade or weak tea is a sign of a hydrated athlete. (We suggest laminating this chart for use at hydration station.)



McEnroe, John. "Urine Chart to Estimate Need for Additional Fluid." Chart. *JMTA Blog John McEnroe Tennis Academy*.N.p. 22 Apr. 2013.

Additional situations that will impact athlete hydration include the climate, altitude and temperature where the athlete practices and competes as well as the intensity of the sport. Special attention should *be paid to hydration in climates with extreme heat, prolonged cold and sports such as cycling, track and field.

Athlete Medications and Dehydration

Several serious medical conditions can occur from not having enough water. The following are examples of substances and drugs that may put the athlete at risk for dehydration:

1. Alcohol
2. Some asthma medications
3. Some blood pressure medications
4. Some psychotropic medications
5. Vitamin D derivatives.

The link: www.rightdiagnosis.com/symptoms/dehydration/side-effects.htm, lists prescription medications that can cause dehydration Coaches should be aware of any medications the athlete is taking. If the medications put the athlete at risk for dehydration, the coach should instruct the athlete to drink adequate amounts of water and monitor the athlete for potential dehydration. See a [Medication Watch List available on SOI and AADMD websites](#).

Screening Protocol/Equipment/Supplies

Health Habits Survey

The Health Habits Survey on the HAS form includes questions on vitamin D use and beverage choices. The responses to these questions will give the volunteer information on the athlete's vitamin D supplementation and their general beverage consumption including dairy/soy products, if these questions are done at the Bone Health Station, rather than a separate survey station. More Information on the Health Habits survey and the HAS form available in [Chapter 4](#).

Do you take vitamin D supplements? ☐ Yes ☐ No ☐ Don't know

What do you usually drink when you are thirsty?

- | | |
|--|--|
| <input type="checkbox"/> Water | <input type="checkbox"/> Sports drink |
| <input type="checkbox"/> Fruit juice | <input type="checkbox"/> Milk product (includes soy) |
| <input type="checkbox"/> Soft drink <input type="radio"/> Diet <input type="radio"/> nondiet | <input type="checkbox"/> Energy drink |
| <input type="checkbox"/> Other _____ | |

Sweetened Beverages

- | | |
|---------------------------------|----------------------------------|
| <input type="checkbox"/> Daily | <input type="checkbox"/> Monthly |
| <input type="checkbox"/> Weekly | <input type="checkbox"/> Never |

See [Hydration Lesson Plan 5](#) for instructions on interactive education and information on Hydration.

The education station for hydration should feature information on athlete recognition for when water is needed, promotion of water as the beverage of choice and sugar in sweetened beverages and sports drinks.



Colorful and informative table top displays illustrating the importance of water for sport and providing information beverages can be developed. Check out resources at: The California Department of Public Health "Rethink Your Drink" campaign has numerous resources (posters, beverage cards, lesson plans) to develop an education station. Resources are available at: <http://www.cdph.ca.gov/programs/cpns/Pages/RethinkYourDrink-Resources.aspx>.

Athlete Incentive Items

- Water bottle with instructions on use
- Water bottle carrier
- Bottle of water
- Keychain, bookmark or pin with healthy beverage message

Key Messages for the Athletes

The goal is to keep the athlete hydrated and not allow the athlete to become dehydrated. A simple routine that all athletes should follow includes:

1. Hydration

- Drink one bottle of water before an athletic event.
- Drink one bottle of water after an athletic event
- Drink a glass of water before each meal
- Don't wait until you are thirsty to drink (you are already dehydrated)

2. Water as a Beverage of Choice

- Drink water instead of sweetened beverages each day.
- Select 100% fruit juice, in limited amounts (children 4-6 oz. /day, adults up to 8oz./day).
- Drink plain low fat (1%) or fat free milk.

Water as a Beverage of Choice

An important hydration consideration is the importance of water as the beverage of choice. Health concerns related to consumption of sugary drinks. These include risk for:

- overweight and obesity
- certain chronic diseases such as type 2 diabetes and heart disease
- dental cavities

Sugary drinks include a number of beverages such as:

- Soda/Soda pop
- Sports drinks
- Energy drinks
- Juice drinks
- Flavored milk (e.g., chocolate, strawberry, vanilla)
- Coffee drinks (hot or iced) with sweeteners or flavoring
- Blended coffee drinks
- Mocha
- Vitamin-added waters
- Milk tea
- Boba/ Bubble/ Pearl tea or drink
- Sweetened teas (hot or iced)
- Horchata
- Agua Fresca
- Yogurt drinks
- Grass jelly drinks

About Sports and Energy Drinks

- Carbohydrate fluid replacement drinks (PowerAde, Gatorade) - should not be used frequently. They contain excess calories can contribute to unnecessary weight gain and dental caries. If used, they are more appropriate for the more intense sports such as cycling and track and field.
- **Note-** Energy drinks are NOT recommended. They contain stimulants (such as caffeine) and could impact the athlete's health. In addition some medications the athletes take can be impacted by excessive caffeine.

Choose to Change Card Hydration

"I choose to drink water everyday" can be used to give the athlete a take home message on the importance of Hydration either at the Hydration station, or better yet, at the check-out station where the athlete will receive feedback and recommendations from a trained clinical professional. The cards for all the topics (in 6 languages) can be found at:



http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx
The "Choose to Change" cards are described in more detail in [Chapter 6](#).

Example of Hydration materials. These and other materials are available at:
<http://www.scandpg.org/nutrition-info/>

Nutrition Fact Sheet | Issue 5 | April 2009

Exercise Hydration

Athlete Scenario

For my resistance training and cardio workouts at the gym, I bring a water bottle and drink when I get thirsty. My workout usually lasts about 1–1 ½ hours and I tend to sweat a lot. After I leave the gym, I am physically spent and don't feel completely recovered before the next workout. If I have time, I grab a sports drink for the ride home. When, what, and how much should I drink to improve my energy at the gym?

Goals of Hydration

- Begin exercise well hydrated by drinking fluids during the day and within the hour before the exercise session.
- Replace sweat losses by drinking fluids regularly during exercise.
- Rehydrate after exercise to replace weight lost as fluid during exercise.
- Follow a personalized fluid replacement plan to prevent the consequences of excessive (>2% body weight loss) dehydration such as early fatigue, cardiovascular stress, increased risk of heat illness, and decreased performance.

Fluids Surrounding Exercise

- For short duration (<60 minutes), low to moderate intensity activity, water is a good choice to drink before, during, and after exercise.
- Sport drinks (6-8% carbohydrate) are good options for moderate to high intensity activity lasting longer than 60 minutes, especially when the goal includes replacing carbohydrate and electrolytes.
- For those who experience high sodium losses during exercise, eat salty foods in a pre-exercise meal or add salt to sports drinks consumed during exercise.
- Rehydrate following exercise by drinking enough fluid (water or sports drinks) to replace fluid lost during exercise. Replace fluid and sodium losses with watery foods that contain salt (soup, vegetable juice). Replace fluid and potassium losses by consuming fruits and vegetables.

Written by SCAN registered dietitians (RDs). The key to optimal meal planning for athletes is individualization. For personalized nutrition plans contact a SCAN sports dietitian or Board Certified Specialist in Sports Dietetics (CSSD) by accessing "Find a SCAN Dietitian" at www.scandpg.org | 800.249.2875.

© 2009 Sports, Cardiovascular, and Wellness Nutrition (SCAN)

Photo Credit: Ivanna Buldakova-Fotolia.com

**Sports,
Cardiovascular,
and Wellness
Nutrition**
a dietetic practice group of the
American Dietetic
Association



Tips to Take With You

1. Replace fluids early and often during and after exercise, particularly in hot environments.
2. Good sources of fluid include water, sports drinks, juices, soups, smoothies, fruits and vegetables.
3. A sports dietitian can assist you in designing a personalized hydration plan that considers thirst, urine color, and body weight changes under varying conditions of exercise.

Contact SCAN

Web site: www.scandpg.org

Voice: 800.249.2875

Hydration for the Teen Athlete

Athlete Scenerio

Ever since football practice started in August, I've been getting headaches, feeling tired, and having trouble paying attention in class. I've been thirsty during the day, so I drink juice or soda at meals and stop at the water fountain on my way to class. During practice, I drink a 20-oz sports drink and, occasionally, I drink water from the cooler. Am I getting enough fluids? How much and when I should be drinking?

Goals of performance hydration:

- Begin exercise well-hydrated and hydrate within the hour before practice or games.
- Minimize fluid loss during exercise and avoid excessive dehydration (>2% loss of body weight). Dehydration negatively affects athletic performance, causes early fatigue, electrolyte imbalance and may alter attention and decision-making on the field.
- After exercise, replace sweat losses as soon as possible.

Strategies to help you stay hydrated on and off the field

- Drink according to thirst during the day and include fluids with meals.
- Develop and follow a personal hydration plan to avoid excessive dehydration.
- Drink 8-20 oz. of fluid (water or sports drink) an hour before exercise.
- Continue drinking during exercise, up to 16-24 oz. of fluid per hour (4 to 6 oz. every 15 minutes).
- Track your sweat loss by weighing yourself before and after exercise. Drink 16-24 oz. of fluid for every pound lost through sweat.
- Use water to hydrate if exercising under an hour; consider a sports drink to replace fluid and electrolytes lost in sweat if exercising over an hour or if you are a salty sweater.

Written by SCAN registered dietitians (RDs). The key to optimal meal planning for athletes is individualization. For personalized nutrition plans contact a SCAN sports dietitian or Board Certified Specialist in Sports Dietetics (CSSD) by accessing "Find a SCAN Dietitian" at www.scandpg.org | 800.249.2875.

© 2012 Sports, Cardiovascular, and Wellness Nutrition (SCAN) Photo Credit: © Yuri Arcurs - Fotolia.com

TEEN

**Sports,
Cardiovascular,
and Wellness
Nutrition**
a specialty practice of the
Academy of Nutrition
and Dietetics



Tips to Take With You

1. Check your urine color—clear to light yellow usually indicates adequate hydration.
2. Drink frequently during exercise by following your personal hydration plan. One gulp equals about an ounce of fluid.
3. A sports RD (registered dietitian) can help you develop a personalized hydration strategy.

Contact SCAN

Web site: www.scandpg.org
Voice: 800.249.2875



Sun Safety

Sun Safety Education Station

Background Information

Health Promotion addresses the topic of Sun Safety, to help reduce the athlete's risk of sunburn and skin cancer, while still obtaining adequate levels of vitamin D. The incidence of skin cancers over the past decades continues to rise. Experts believe that four out of five cases of skin cancer could be prevented. Over exposure to sunlight is widely accepted as an underlying cause for harmful effects on the skin, eye and immune system. Inadequate vitamin D blood levels increase risk of melanoma and other cancers.

"Global Burden of Disease from Solar Ultraviolet Radiation", a WHO publication, provides estimates of UV-associated disease burden worldwide, using the best available estimates on UV-related mortality and morbidity. This report estimates that annually around 1.5 mill DALYs (Disability-adjusted life years) are lost through excessive UV exposure. The report gives region, age and sex-specific estimates and includes detailed methodological considerations. However, a counterfactual zero population exposure to UV would generate a substantial burden of disease through diseases of vitamin D deficiency. ¹

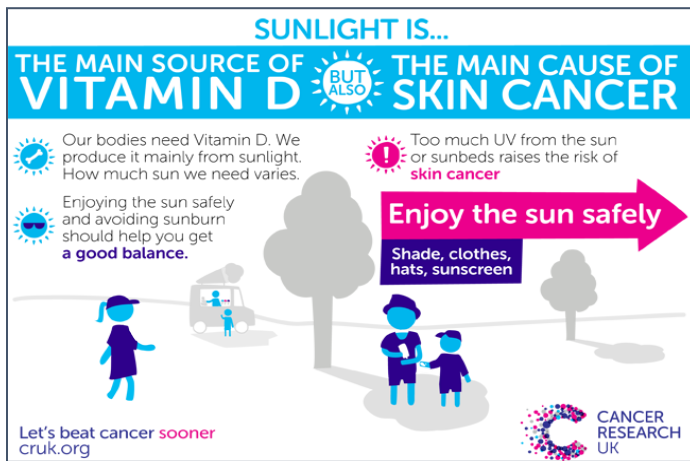
Sun Safety issues affecting SOI Athletes:

1. Unprotected skin exposure that leads to sunburn.
2. Use of medications that cause photosensitivity.
3. Low vitamin D levels due to reduced sun exposure, low vitamin D supplement use and use of medications that result in vitamin D depletion.

The Call to Action to Prevent Skin Cancer presents five goals for skin cancer prevention in the US:

1. Increase opportunities for sun protection in outdoor settings
2. Provide individuals with information needed for informed, healthy choices about ultraviolet (UV) exposure
3. Promote policies that advance the national goal of preventing skin cancer; reduce harms from indoor tanning; and strengthen research, surveillance, monitoring, and evaluation related to skin cancer prevention.

Humans traditionally have obtained most of their vitamin D from sun exposure. Although excessive exposure to sunlight increases the risk of non-melanoma skin cancer, (easily detected and treated) there is no evidence that sensible sun exposure, as our hunter-gatherer forefathers likely experienced, increases risk. ²



www.sunsmart.org.uk/prod_consump/groups/cr_common/@nre/@sun/documents/image/cr_120062.png

Exposure Category	UV Index
LOW	0 - 2
MODERATE	3 - 5
HIGH	6 - 7
VERY HIGH	8 - 10
EXTREME	11 +

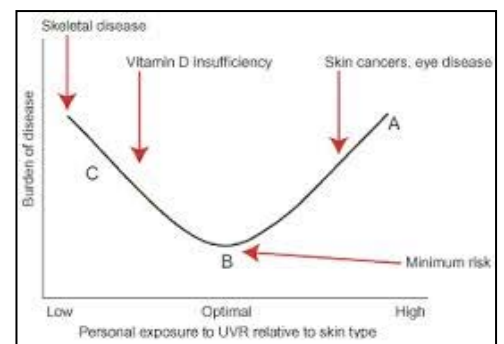
Local TV Weather Reports often post the UV Exposure Index information daily. Teach athletes what these mean.

Adopting the following the following simple precautions provide protection from sun burn and reduce skin cancer risk.

Key Messages:

- **Limit time in the midday sun:** UV sunrays are the strongest 10 am - 4 pm. "Be careful not to burn."
- **Use shade wisely:** Seek shade when UV rays are the most intense. Trees, umbrellas or canopies may not offer complete sun protection. The shadow rule: "Watch your shadow – Short shadow, seek shade!"
- **Wear protective clothing:** A hat with a wide brim offers good sun protection for your eyes, ears, face, and the back of your neck. Sunglasses with 99 to 100 percent broad spectrum protection will reduce eye damage from sun exposure. Tightly woven, loose fitting clothes will provide additional protection from the sun.
- **Use sunscreen:** Apply a broad-spectrum sunscreen of SPF 15+ liberally and re-apply every two hours, or after working, swimming, playing or exercising outdoors.
- **Avoid sunlamps and tanning parlors:** Sunbeds damage skin and unprotected eyes.
- **Take a vitamin D pill daily.** The correct daily supplement dose is individualized based on blood levels, weight, age, latitude, skin color and other variables.

Photosensitization: The use of certain medicines produce a photosensitizing effect on exposure to UVA. Many medications and other agents contain ingredients that may cause photosensitivity, defined as a chemically induced change that makes an individual unusually sensitive to light. The individual may develop a rash, sunburn, or other adverse effect from exposure to light of an intensity or duration that would normally not affect that individual. Photo or sun sensitivity is skin inflammation induced by the combination of sunlight and certain medications or substances, causing redness and a look similar to sunburn.



Vitamin D depletion by use of certain medications. Steroids can interfere with vitamin D metabolism and affect calcium absorption. Weight loss drugs including orlistat and the cholesterol-lowering drug cholestyramine reduces vitamin D absorption. Anti- seizures medications increase vitamin D metabolism, reducing blood levels of vitamin D and calcium absorption.

Certain medications can make athletes more sensitive to sun exposure. See a [Medication Watch List on SOI and AADMD website.](#)

Vitamin D, Sun Safety Controversy:

Debate exists over whether it's better to get vitamin D from diet and vitamin supplements rather than from sun exposure. Dietary sources and vitamin supplements do not increase risk for skin cancer, and can be reliable ways to get the vitamin D needed. Compliance with routine use of vitamin D supplements and consumption of dietary sources of vitamin D is a challenge for many.

The relationship between outdoor UV exposure, vitamin D, and human health is complex. The amount of sun exposure needed for meaningful vitamin D production depends on many factors including time of day and year, latitude, altitude, weather, skin type, amount of skin exposed to UV rays, and reflective surfaces, such as snow, water and sand. Vitamin D can be obtained safely through food and supplements without increasing exposure to UV radiation. Entirely avoiding UV sun rays is not realistic nor advisable for most humans. Spending time outdoors is associated with positive health benefits, such as increased levels of physical activity and improved mental health¹

Skin cancer incidence rates have continued to increase in recent years. Melanoma is responsible for the most deaths of all skin cancers, with nearly 9,000 people dying from it each year. Despite efforts to address skin cancer risk factors, such as inadequate sun protection and intentional tanning behaviors, skin cancer rates, including rates of melanoma, continue to increase in the United States and worldwide. This steady rise may be associated with sun avoidance, and our indoor life style that has resulted in decrease levels of vitamin D in many populations.³

Sun Exposure and Vitamin D: Except during the summer months, the skin makes little if any vitamin D from the sun at latitudes above 37 degrees north (in the United States, the shaded region in the map) or below 37 degrees south of the equator. People who live in these areas are at greater risk for vitamin D deficiency.⁸ Combined efforts to reduce the risk of sunburn, while assuring vitamin D adequacy may be the most effective approach to help reduce skin cancer risk for Special Olympics Athlete.



Health Habits Survey

The Health Habits Survey in the Healthy Athletes Software (HAS) includes questions on behaviors related to skin cancer. The responses to these questions will give the volunteer a sense of what sun protection behaviors the athlete follows. A question on vitamin D supplementation is also included in the Foods & Beverages section of the HAS. More information on the HAS in [Chapter 4](#).

Do you do anything to protect your skin in the sun?

- ☐ Yes
- ☐ No

If yes, what do you do to protect your skin in the sun?

- ☐ Use sunscreen
- ☐ Seek shade
- ☐ Wear long sleeves
- ☐ Wear a hat
- ☐ Wear Sunglasses
- ☐ I do not do anything

If no, what is the reason? (select all that apply)

- ☐ Did not know it was important
- ☐ Did not get sunburned
- ☐ Wear long sleeves
- ☐ No money to buy protection
- ☐ I like to be tan
- ☐ Other

Choose to Change Card Sun Safety

"I choose to protect myself in the Sun" can be used to give the athlete a take home message on the importance of Sun Safety either at the Sun Safety station, or better yet, at a check-out station where the athlete will receive feedback and recommendations from a trained clinical professional. The cards for all the topics (in 6 languages) can be found at:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

The "Choose to Change" cards are described in more detail in [Chapter 6](#).



See Sun Safety Lesson Plan 6



The Sun Safety Bean Bag Toss game that reinforces the sun safety messages. See HP Equipment and Supplies



Solar Active Bracelets (see HP Supplies & Equipment to order)

Taking Sun Safety Education Outside and On to the Field



UV Derma Scan Device: Your local dermatologists, universities and clinics may loan your program a device for use at events.

Sun Safety Suggested Supplies, Equipment and Teaching Materials

- ***I Choose to Change*** Sun Safety Cards
- Broad spectrum sunscreen that blocks UVA rays
- Picture of a sunburn vs slightly pink skin
- Sunglasses with UV protection label
- Colorful tablecloths and seasonal items like beach balls, sand pails in summer to display
- Incentives such as sunscreen, sun safety pamphlets, bottled water, UV protecting lip balm, Solar Active bracelets
- Examples of hats for men and women, including hats with neck covering
- A variety of sunscreen containers
- A colorful umbrella to emphasize shade
- Grapes (plastic ones are okay) and raisins
- Doll that is washable for practicing application of sun screen
- Supplement bottles to demonstrate how to read labels, to help athletes choose supplements that better meet their needs.
 - Vitamin D supplement bottles 1000 IU and 5,000 IU
 - a multivitamin supplement for adults
 - calcium citrate +vitamin D supplement bottle

References

1. [World Health Organization - Ultraviolet Radiation
www.who.int/topics/ultraviolet_radiation/en/](http://www.who.int/topics/ultraviolet_radiation/en/)
2. Surgeon General's Call to Action to Prevent Skin Cancer
surgeongeneral.gov/library/calls/prevent-skin-cancer/
3. In defense of the sun: an estimate of changes in mortality rates in the United States if mean serum 25-hydroxyvitamin D levels were raised to 45 ng/mL by solar ultraviolet-B irradiance. Grant WB. *Dermatoendocrinol.* 2009;1(4): 207-214.
www.ncbi.nlm.nih.gov/pmc/articles/PMC2835876
4. Vitamin D for Health: A Global Perspective; Hossein-nezhad, Arash et al. Mayo Clinic Proceedings Volume 88 Issue 7 , 720 – 755 www.ncbi.nlm.nih.gov/pubmed/23790560
5. Landscape and well-being: a scoping study on the health-promoting impact of outdoor environments. Abraham A, Sommerhalder K, Abel T. *Int J Public Health.* 2010;55(1):59-69.
www.ncbi.nlm.nih.gov/pubmed/19768384
6. Evaluation, Treatment, and Prevention of Vitamin D Deficiency: Endocrine Society Clinical Practice Guideline; Michael F. Holick, Neil C. Binkley, Heike A. Bischoff-Ferrari, Catherine M. Gordon, David A. Hanley, Robert P. Heaney, M. Hassan Murad, and Connie M. Weaver
http://www.grassrootshealth.net/media/download/endocrine_guidelines_060611_jcem_article_6-3-11.pdf
7. Hypovitaminosis D in developing countries—prevalence, risk factors and outcomes: Asma Arabi, Rola El Rassi & Ghada El-Hajj Fuleihan *Nature Reviews Endocrinology* 6, 550-561 (October 2010) doi:10.1038/nrendo.2010.146
www.nature.com/nrendo/journal/v6/n10/fig_tab/nrendo.2010.146_ft.html
8. Time for more vitamin D: September 2008 Harvard Women's Health Watch
health.harvard.edu/newsweek/time-for-more-vitamin-d.htm

Hand Washing



Handwashing Education Station

Background Information: Why We Address Handwashing

Infectious diseases that are commonly spread through hand-to-hand contact include the common cold, flu, as well as many others. If an individual does not wash their hands frequently enough, they can become infected with germ through the action of touching their eyes, nose or mouth. Other people can become infected after coming into contact with a surface that the person carrying the germ has already touched.

Handwashing is our best defense against many kinds of bacteria and viruses that cause infection. It is especially important for Special Olympics athletes, coaches and volunteers, where many individuals share sports equipment, practice facilities, food and beverages to practice good handwashing habits.



Soap and Water or Hand Sanitizer?

Washing hands with soap and water is the best way to reduce the number of germs on them in most situations. If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol. Alcohol based hand sanitizers can inactivate many types of germs effectively; sanitizers do not eliminate all germs. Hand sanitizers may not be as effective when hands are visibly dirty or greasy. Consider the dirt and grime that may accumulate on hands as a result of some sports activity, soap and water should always be used after playing sports, handling food, working in the garden or other similar activities.

Whatever your language the message is clear.



“Handwashing is the single most important means of preventing the spread of infection” - U.S. Centers for Disease Control

Healthy Habits Survey

The Healthy Athletes Software Health Habits questions include three questions on handwashing. The responses to the questions will give the volunteer a sense of what the athlete's general handwashing knowledge and practice is.

1. **When are the most important times to wash your hands? (select all that apply)**
☐ After using the toilet ☐ Before eating or touching food ☐ other reason
☐ No reasons given
2. **Did you use soap when last washing your hands?** ☒ Yes ☐ No
3. **Do you have soap at home?** ☐ Yes ☐ No

Education Station - Hydration

While handwashing is an everyday activity and many think they know the proper technique, it is important to make the education station activity fun and interactive for all participants. Involving coaches and others in the HP venue will contribute to the importance of the message. There are several options for an interactive education station.

- **Glo Germ Kit** The Glo Germ Kit contains special solution a hand washing activity. Fluorescent powder is used and if not completely washed off, the powder will show under an UV light. Lesson Plan 8 provides a full description of the activity and alternative to the Glo Germ solution. Note: Hand sanitizers don't remove the Glo Germ powder so this teaching tool must be removed with warm water and soap.
- **UNICEF “Do the Global Handwashing Dance”**- Initially developed in Japan to support a handwashing initiative, this video has been seen worldwide and continues to be a popular activity at Health Promotion Venues. When shown to a group, the dancing starts and is followed by the athletes demonstrating how to wash their hands. Download the file to play on computer or DVD player.



<http://www.youtube.com/watch?v=825qGELjB98>

Lesson Plans

[Lesson Plan 8- Handwashing and germs](#) provides recommendations about what to include in your hydration education stations. The germ demo visually demonstrates to Special Olympics athletes how germs live on hands, how they can be transmitted from person-to-person, and how properly washing hands with soap can help get rid of germs that make people sick and make our hands clean and smell good. The Handwashing Prize Wheel Game- An interactive game to describe when handwashing is important. Good to use when a source of water is not readily available.

Choose to Change Cards

"I choose to have clean hands" can be used to give the athlete a take home message on the importance of Hygiene either at the Handwashing station, or better yet, at a check-out station where the athlete will receive feedback and recommendations from a trained clinical professional. The cards for all the topics (in 6 languages) can be found at:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

The "Choose to Change" cards are described in more detail in [Chapter 6](#).



Athlete Incentive Items

- Soap
- Hand Sanitizer
- Sticker promoting handwashing
- Keychain, bookmark or pin with handwashing message

Key Messages for Athletes

- Germs from when you cough, sneeze or go to the bathroom can live on your hands and can make you sick.
- Germs on your hands can be passed from person-to-person.
- Hand washing with soap is more effective at killing germs and preventing illness than hand washing with water alone.
- The critical times each day to hand wash with soap.
- The proper technique for handwashing with soap.

Resources:

- **Hand Wash Poster**
 - http://media.specialolympics.org/soi/files/healthy-athletes/How_To_HandWash_Poster.pdf
- **Tippy Tap Instructions**
 - <http://media.specialolympics.org/soi/files/healthy-athletes/tippy-tap%20instructions.pdf>
 - <http://www.webstaurantstore.com/search/black-cambro-handwashing-station.html>



Tobacco Prevention

Tobacco Education Station

Background Information: Why we cover Tobacco avoidance?

The 1982 United States Surgeon General's report stated that "Cigarette smoking is the major single cause of cancer mortality [death] in the United States." This statement is as true today as it was then. Tobacco use is responsible for nearly 1 in 5 deaths in the United States. Because cigarette smoking and tobacco use are acquired behaviors – activities that people choose to do – smoking is the most preventable cause of death in our society.

Tobacco use by Special Olympics Athletes varies considerably. Some athletes may not use tobacco themselves, but may be in the presence of others who smoke, and therefore are exposed to second hand smoke. The tobacco avoidance station will help address the concerns relevant to each athlete. Some may use chew or cigarettes, and want to quit. Some may want to know how to ask others around them to not smoke in their air. Still others may be worried about the tobacco use of family or friends. The suggested activity helps demonstrate the long term impact of cigarettes on breathing.

Key Messages:

1. Smoking or chewing tobacco is dangerous, expensive and hurts your health.
2. If you use tobacco, your doctor can help you quit.
3. Breathing smoke from someone else's cigarette is also bad for your health.
4. If people smoke around you, ask them either to move away, or to quit if there is nowhere else to move to.
5. Using tobacco is not good for your health and sports.
6. Quitting may be hard. Many people try several times before they quit for good. But they do succeed. Quitting is hard, but— You Can Quit

Tobacco Avoidance Lesson Plan

[Lesson Plan 7 Tobacco and My Body](#) is an activity that athletes can do individually or as a group. The activity demonstrates the effect of cigarette smoking on the athlete's ability to exercise and then breathe. Athletes breathe through a straw prior to and after vigorous activity. Difficulty in breathing demonstrates the smoking effect. Music and a group of athletes make this a fun education station.

Additional activities include use of a lung (healthy vs. not healthy) model, Tar Jar (graphic display of tar in tobacco and impact on lungs), Dip and Decay model (display of dental decay caused by dipping tobacco) and other teaching aids can reinforce the education provided.

Health Habits Survey Questions

The Healthy Athletes Software Tobacco Use questions include questions on first and second hand smoke inhalation and key behaviors. The responses to these questions will give the volunteer information on the athlete's exposure to smoke and provide recommendations to reduce their exposure, if possible. More information about the Health Habits Survey and HAS available in [Chapter 4](#).

1. **Do you use tobacco?** ☐ Yes ☐ No
 - a. **If yes, how frequently?** ☐ daily ☐ weekly ☐ monthly
2. **Do any of your friends or family members smoke near you?** ☐ Yes ☐ No
 - a. **If yes, what do you do when they are smoking near you? (select all that apply)**
☐ Ask them to stop ☐ Leave the room ☐ Smoke ☐ I do not do anything ☐ Other

Choose to Change Card Tobacco

"I choose sports, not tobacco" can be used to give the athlete a take home message on the importance of tobacco avoidance either at the Tobacco station, or better yet, at a check-out station where the athlete will receive feedback and recommendations from a trained clinical professional. The cards for all the topics (in 6 languages) can be found at:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

The "Choose to Change" cards are described in more detail in [Chapter 6](#).



Resources

Volunteers from local public health departments and university respiratory therapy programs may be great places to recruit help for your event.

References

1. Conference of the Parties to the WHO Framework Convention on Tobacco Control will meet in Moscow for the sixth time. www.who.int/tobacco/en/
2. A Report of the Surgeon General: How Tobacco Smoke Causes Disease – The Biology and Behavioral Basis for Smoking-Attributable Disease Fact Sheet, 2010; and Tobacco Control: Reversal of Risk After Quitting Smoking. IARC Handbooks of Cancer Prevention, Vol. 11. 2007, p 341 www.surgeongeneral.gov/initiatives/tobacco/
3. Tobacco Control: Reversal of Risk After Quitting Smoking. IARC Handbooks of Cancer Prevention, Vol. 11. 2007.
4. TobaccoFree.org: "Empowering smokers to quit successfully; Motivating Youth to Stay Tobacco Free;" <http://www.tobaccofree.org/>
5. BeTobaccoFree.gov <http://betobaccofree.hhs.gov/quit-now/index.html>
6. How Smoking Harms Your Vision www.allaboutvision.com/smoking/ Infographic: <http://www.allaboutvision.com/smoking/infographic.htm>
7. Tobacco and Blood Pressure www.heart.org/HEARTORG/Conditions/HighBloodPressure/PreventionTreatmentofHighBloodPressure/Tobacco-and-Blood-Pressure_UCM_301886_Article.jsp
8. Smoking and Bone Health www.niams.nih.gov/Health_Info/Bone/Osteoporosis/ConditionsBehaviors/bone_smoking.asp
9. Tobacco and Cancer www.cancer.org/cancer/cancercauses/tobaccocancer/



Physical Activity

Physical Activity Education Station

Background Information: Why we cover Physical Activity?

Physical activity is an essential component of a healthy lifestyle, beginning in early childhood and extending throughout life. Regular physical activity increases lean body mass, muscle, and bone strength and promotes good physical health. In addition it improves psychological well-being and can increase self-esteem. Special Olympics athletes compete in a number of different sports and daily physical activity contributes to their training routine and sports improvement.

Government health ministries, professional health and sports affiliations have published physical activity recommendations. A few examples include.

U.S. Centers for Disease Control Recommendations for Adults

2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity (i.e., brisk walking) every week and muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

Or

1 hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity (i.e., jogging or running) every week and muscle strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

Or

An equivalent mix of moderate- and vigorous-intensity aerobic activity and muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

World Health Organization

1. Adults aged 18–64 should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week or an equivalent combination of moderate- and vigorous-intensity activity.
2. Aerobic activity should be performed in bouts of at least 10 minutes duration.
3. For additional health benefits, adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
4. Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.

Do you know your country's recommendations?

Physical activity can be defined as bodily movement of any type. It may include recreational activities such as jumping rope, playing soccer or lifting weights. It may also include daily activities, such as walking to the park, taking the stairs or raking leaves. It should include aerobic activities, muscle-strengthening activities and bone-strengthening activities. Young people should avoid prolonged periods (two hours or more) of physical inactivity.

Aerobic activities help strengthen heart and lungs. Aerobic activities increase breathing and heart rates. Examples include:

- Walking fast
- Doing water aerobics
- Riding a bike on level ground or with few hills
- Playing doubles tennis
- Pushing a lawn mower

Examples of **vigorous aerobic activities** include:

- Jogging or running
- Swimming laps
- Riding a bike fast or on hills
- Playing singles tennis
- Playing basketball

Muscle-strengthening activities help strengthen and build healthy muscles. These activities make muscles work harder than normal and should be done at least three days of the week. Examples are:

- Lifting weights
- Working with resistance bands
- Doing exercises that use your body weight for resistance (i.e., push-ups, sit ups)
- Heavy gardening (i.e., digging, shoveling)
- Yoga

Bone-strengthening/weight bearing activities help promote bone growth and strength. These activities involve a force produced against the bone, most often by impact with the ground, and should be done at least three days of the week. Examples include:

- Walking, Jogging, or running
- Tennis or Racquetball
- Field Hockey
- Stair climbing
- Jumping rope
- Basketball
- Dancing
- Hiking
- Soccer
- Weight lifting

Health Habits Survey

The Healthy Athletes Software (HAS) has 4 questions on physical activity. The responses to the questions will give the volunteer a sense of what the athlete's general physical activity habits are.

1. How many days each week do you exercise for at least 30 minutes?

☐ no days ☐ 1 day ☐ 2 days ☐ 3 days ☐ 4 days ☐ 5 days ☐ 6 days ☐ 7 days

2. Do you exercise outside of your Special Olympics training? ☒ Yes ☐ No

a. If yes, what do you do? (Select all that apply) ☐ Weights ☐ Run/Jog ☐ Walk ☐ Dance ☐ Sports ☐ Exercise DVD, Wii ☐ Job ☐ Other

b. If no, what is the reason? (Select all that apply)

☐ No interest ☐ No money ☐ No time ☐ Do not know how ☐ Physically unable ☐ No place to exercise ☐ No transportation ☐ No one to do it with ☐ Other _____

3. How many hours a day do you watch television or play computer/video games?

☐ 0 hours ☐ 1-2 hours ☐ 3-4 hours ☐ 5-6 hours ☐ Over 6 hours

Supplies/Equipment

Supplies or equipment are not required.

[Lesson Plan 10 Physical Activity](#) provides information on interactive activities to promote physical activity with athletes, coaches and families.

Athlete Incentive Items

- Pedometer with instructions for use
- Keychain, bookmark, pin and water bottle with physical activity message

Key Messages for the Athletes

- Regular physical activity is important for everyone.
- Physical activity is anything you like that makes you MOVE.
- Physical activity can be fun and incorporated into the athlete's daily activities.
- Some physical activities are important for bone health, improving strength and healthy weights.
- There are Special Olympics programs to assist the athlete in tracking their physical activity efforts.

Resources

Special Olympics Resources – Physical Activity

- **SO Ireland- Health Promotion Toolkit**

The Health Promotion Toolkit includes all the tools needed to deliver a health promotion program for a Special Olympics group. It is divided into 15 workshops, each focusing on a different aspect of health. The workshops are designed to provide athletes with the knowledge and information to make healthier choices in their lives. The toolkit includes posters and games.

<http://www.specialolympics.ie/WHATWEDO/HEALTHSERVICES/HEALTHRESOURCES.aspx>

- **Special Olympics Ontario, Canada Physical Activity Healthy Living (PAHL)**

PAHL is a project created to promote healthy active living to Special Olympics athletes and students across Ontario. PAHL resources include a Nutrition Guide-. It includes sample menus and recipes.

<http://pahl.specialolympicsontario.ca/home>

- **Special Olympics Indiana Physical Activity Videos**

Special Olympics Indiana – YouTube videos of physical activity exercises for Special Olympics are online for athletes in training for the 2014 USA National Games. There are several short videos at the beginner, intermediate and advanced level. The videos are intended for coaches to use prior to training athletes. <http://soindiana.org/programs/2014-usa-national-games-team-indiana/>

- **Special Olympics Young Athletes**

Special Olympics Young Athletes™ is a unique sport and play program for children with intellectual disabilities. The focus is on fun activities that are important to mental and physical growth. The Young Athletes Toolkit offers basic instructions for leading the activities, equipment recommendations and tips for leaders in the program.

http://resources.specialolympics.org/Topics/Young_Athletes/Young_Athletes_Toolkit.aspx

Other Resources – Physical Activity

- U.S. CDC Recommendations physical activity for adults with disabilities recommendations. <http://www.cdc.gov/vitalsigns/disabilities/>

Check-Out



Health Promotion Check-Out Station

Background Information:

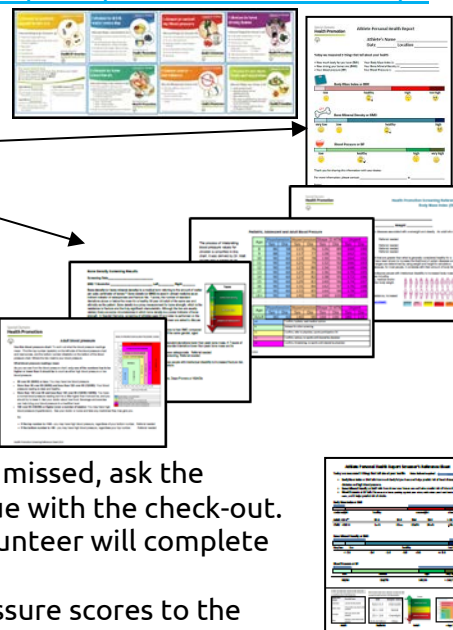
The Health Promotion (HP) check-out station is one of the most important stations in the HP venue. It is where the athlete's screening results and HAS form will be reviewed and when education and referral recommendations are discussed. Volunteers with clinical backgrounds should be assigned to this station as they will have the skill set needed to review screening results. Critical thinking and analysis skills are needed to synthesize information, address the referral needs and provide education on the findings. The clinical volunteers for the check-out station must be familiar with the HP screening exams, health habits questions and the Choose to Change Cards. [Lesson Plan 1](#) describes how to use the Choose to Change Cards. Prior to the event, the HP CD should check with their Healthy Athletes Coordinator to see if there are specific medical practices, public health agencies or community health centers serving as a referral source and assure that the check-out station volunteers are aware of this information.

Station Set-Up

All printed materials mentioned are available on SOI website:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

- Four-foot table with 2 chairs on each side (for athlete and volunteers). *More tables/chairs, depending on # of athletes expected.*
- Box to collect HAS forms.
- Supply of **Choose to Change Cards**
- **Athlete Personal Health Report**
- **HP Screening Reference Sheets** for BMI, BMD & BP
- Reference materials on screening tests.
- Supply of athlete incentive items, if available.



Working with Athletes at the Check-out Station

- Greet the athlete and introduce yourself. Review the HAS form for completeness and determine if complete and if referrals are needed. **Note:** If a screening exam was missed, ask the athlete if they can be tested. If the athlete says no, continue with the check-out. If the Health Habits Survey is not complete, the clinical volunteer will complete the questions with the athlete.
- Transfer the bone density, body mass index and blood pressure scores to the **Athlete Personal Health Report**.

- **Screener's Tool.** Use simple terms and graphics on the tool to aid in the discussion, compare the athlete's results with those on the **Athlete Personal Health Report Screener's Tool.**
- Following the required referral protocol, document referrals on the HAS form and place completed HAS form in the collection box. Note: The reverse side of the Choose to Change card may also be used to record the same information, if desired.
- Ask the athlete if they would like additional information on any of the topics they learned about in the HP venue. Follow [Lesson Plan 1, I Choose to Change](#) to discuss the various topics and cards the athlete can choose.
- Discuss the changes or continuation of good health habits the athlete chooses to follow.
- If no referrals needed, congratulate the athlete on their good health.
- Thank the athlete for their participation in HP and give them the HP incentive item.

Check-Out Station Resources

There are a number of resources required for the checkout station. The resources will assist the volunteer in explaining the screening results, education highlights and required referrals.

Volunteers should have printed copies of all resource materials to use as ready references at the checkout station. Ideally have the reference sheets laminated or in a booklet.

All the resources listed below are also available on the SOI website for printing:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx

General Resources and Report

- [Health Promotion Screening Reference Sheets](#)
- [Athlete Personal Health Report](#) - each athlete received a Personal Health Report

Bone Health Resources (Chapter 3 and 5)

- Explaining Bone Density Results
- Comparison of Milk and Milk Replacements

Body Mass Index Resources ([Chapter 3](#))

- BMI chart Boys
- BMI Chart Girls
- BMI Chart Adult

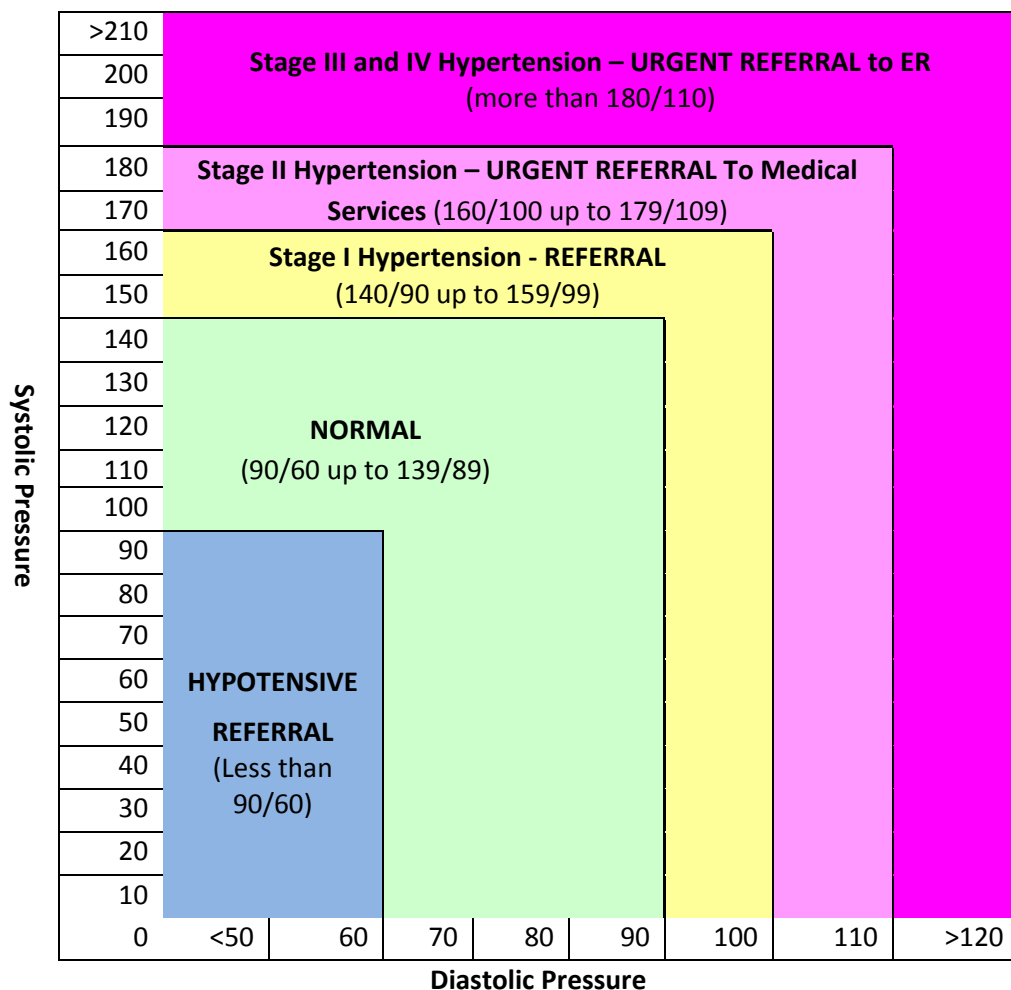
Blood Pressure Resources ([Chapter 3](#))

- Adult and Pediatric Blood Pressure Charts
- Counseling Suggestions for Adults, Depending on BP Reading
- Sodium Education for Parents, Coaches, and Guardians

Choose to Change Cards - [Chapter 6, Lesson Plan 1](#) provides details and examples about the Choose to Change cards

Adult Blood Pressure – Summary Reference Sheet

Use this blood pressure chart to work out what the blood pressure readings mean. Find the top number systolic on the left side of the blood pressure chart and read across, and the bottom number diastolic on the bottom of the blood pressure chart. Where the two meet is the blood pressure. **NOTE: BP is consider abnormal if either value (systolic or diastolic) is outside the normal range.**



KEY:

Hypo	Reconfirm. If still low, NON-URGENT REFERRAL NEEDED
Normal	No referral needed - continue with other screenings.
Stage I	Reconfirm. If still high, NON-URGENT REFERRAL for Follow-up . Advise athlete to ask a doctor how food, beverages, and exercise can help bring blood pressure to a healthier level.
Stage II	Reconfirm. If still high, URGENT REFERRAL NEEDED . Talk with coach/guardian and send the athlete medical services for evaluation, if competing that day. No sports allowed until cleared by physician.
Stage III Or Stage IV	Reconfirm. If still high, notify coach to take athlete to Medical Services for IMMEDIATE REFERRAL and transfer to the emergency room. No sports allowed until cleared by physician. This is SOI policy.

Recommended Screening Process

1. Test BP in right arm. If the right side is in normal range – you are done. No need to test left arm
2. If the right side is abnormal, do the left arm. If the left confirms the right (either hypertensive or hypotensive), then we are done (*and referral is needed*).
3. If the left is normal, but the right is not, then let the athlete rest, drink water, and redo the right. If right is now normal too, then the patient is normal. If the right is persistently abnormal, then the right side rules the diagnosis (*and referral is needed*)
4. In the rare case that the left is more abnormal than the right, the most abnormal reading wins (*and referral is needed*), but we recommend you let the athlete rest, drink water, and reconfirm.
5. **If the right is more than 20 mm/hg greater than the left, not only is the person hypertensive, but they should be referred for a medical evaluation to rule out possible coarctation of the aorta (*referral required*)**

Pediatric and Adolescent Blood Pressure - Summary Reference Sheet

Follow the same screening process as for adults, but use this chart to determine referral needs for pediatric athletes.

Age	Hypotension		Normal BP		Stage I Hypertension		Stage II Hypertension		Urgent Hypertension	
	Systolic	Diastolic	Systolic	Diastolic	Systolic	Diastolic	Systolic	Diastolic	Systolic	Diastolic
	86	58	87	75	115	76	126	89	169	100
9	88	59	89	76	117	77	128	90	162	101
10	90	60	91	77	119	78	130	91	164	102
11	90	60	91	78	121	79	132	92	166	103
12	90	60	91	79	123	80	134	93	168	104
13	90	60	91	80	125	81	136	94	170	105
14	90	60	91	81	127	82	138	95	172	106
15	90	60	91	82	129	83	140	96	174	107
16	90	60	91	83	131	84	142	97	176	108
17	90	60	91	84	133	85	144	98	178	109
18+	90	60	91	89	140	90	160	100	180	110

KEY:

Hypo	Reconfirm. If still low, NON-URGENT REFERRAL NEEDED.
Normal	No referral needed - continue with other screenings.
Stage I	Reconfirm. If still high, NON-URGENT REFERRAL for follow-up. Advise athlete to ask a doctor how food, beverages, and exercise can help bring blood pressure to a healthier level.
Stage II	Reconfirm. If still high, URGENT REFERRAL NEEDED for further evaluation – send athlete to medical services, if competing that day. No sports allowed until cleared by physician.
Stage III	Reconfirm. If still high, notify coach for IMMEDIATE REFERRAL and transfer to the emergency room. No sports allowed until cleared by physician.

NOTE: Per SOI Policy, if the athlete is competing and in Hypertension II or Hypertension III/IV for repeated readings, you are required to notify the coach and send the athlete to the medical event staff for immediate medical clearance prior to competition.

The complex process of interpreting blood pressure values for children is simplified in this chart. It was derived by Dr. Matt Holder, Medical Advisor, Special Olympics International. It is based on an algebraic formula applied to blood pressure values at the 50th percentile height. It was tested against the National Heart, Lung, and Blood Institute, National Institutes of Health, U.S. Department of Health and Human Services. The resulting color coded chart in an imperfect but implementable screening tool appropriate for use in Special Olympics Health Promotion and MedFest. Referrals for abnormal pediatric blood pressures may be made based on the colored coded chart.

www.nhlbi.nih.gov/health-pro/guidelines/current/hypertension-pediatric-jnc-4/blood-pressure-tables.htm

Pediatric, Adolescent and Adult Body Mass Index - Summary Reference Chart

Maintaining a healthy weight may reduce the risk of chronic diseases associated with overweight and obesity. An adult who has a BMI of

- 18.4 or less is considered underweight
- 18.5 to <25 is considered normal weight
- 25 to <30 is considered overweight
- 30 to <35 is considered obese
- 35 or greater is considered morbidly obese

referral required

referral required

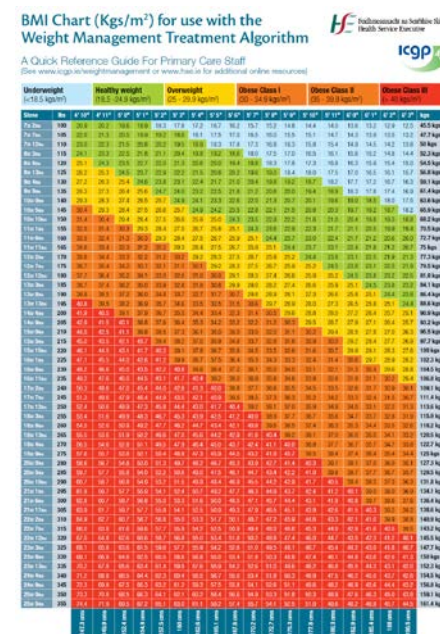
referral required

referral required

Overweight and obesity are both labels for ranges of weight that are greater than what is generally considered healthy for a given height. The terms also identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems. For adults, overweight and obesity ranges are determined by using weight and height to calculate a number called the "body mass index" BMI. BMI is used because, for most people, it correlates with their amount of body fat.

Individual risk factors including any of the following may predispose people with intellectual disability to increased body mass index, with concurrent increase risk of some chronic disease including diabetes, heart disease, and some cancers risk. For some, medical and/or lifestyle intervention may help the individual obtain a healthier body weight.

- Excess consumption of empty calorie foods and beverages
- Inadequate physical activity
- Use of some medications that are associated with insulin resistance, increased body fat or impaired appetite.
- Dental disease impeding ability to chew without pain.



Pediatric BMI Weight Status Category	Percentile Range
Underweight	Less than the 5th percentile Referral Required
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile Referral Required
Obese	Equal to or greater than the 95th percentile Referral Required

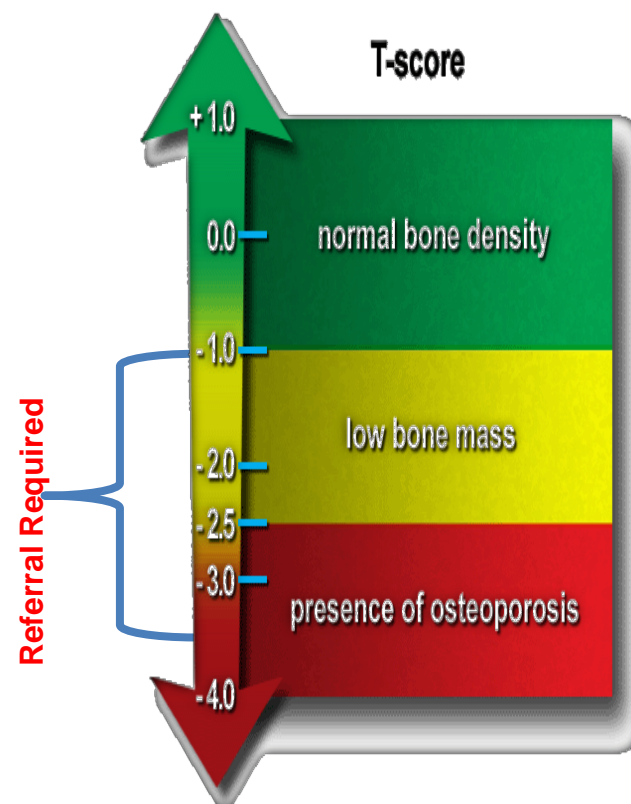
Bone Mineral Density Screening – Summary Reference Sheet

Bone density or **bone mineral density** is a medical term referring to the amount of matter per cubic centimeter of bones.^[1] Bone density or **BMD** is used in clinical medicine as an indirect indicator of osteoporosis and fracture risk. T-score, the number of standard deviations above or below the mean for a healthy 30 year old adult of the same sex and ethnicity as the patient. Bone density is a proxy measurement for bone strength, which is the resistance to fracture and the truly significant characteristic. Although the two are usually related, there are some circumstances in which bone density is a poorer indicator of bone strength. In Special Olympics, screening of athletes ages 20 and older is performed on the Hologic Sahara Ultrasound Device. Athletes with scores of -1 or lower are asked to discuss the results with their physician.

BMD can be expressed as T-score, which represents a comparison of their bone density with the average bone mineral density of a healthy 30 year old.	
• A T-score of -0.9 to +3.4 is considered normal BMD	No referral required
• A T-score of -1.0 is considered osteopenia.	Referral required
• A T-score lower than -2.5 is considered osteoporosis.	Referral required
• A T-score higher than +3.5 needs a medical referral to rule out lead poisoning.	Referral required

Individual risk factors including any of the following may predispose people with intellectual disability to increased fracture risk. For some, medical intervention may help reduce risk of future fracture.

1. Low circulating blood levels of vitamin D
2. Inadequate nutrition intake of calcium and other nutrients
3. Use of anti-seizure medications, anti-psychotic medications, Depo-Provera or NSAIDs
4. Tobacco use
5. Alcohol abuse
6. Estrogen or testosterone deficiency
7. Sedentary lifestyle
8. Certain medical conditions and syndrome



Athlete Personal Health Report

Special Olympics
Health Promotion



Athlete Personal Health Report

Athlete's Name _____

Date _____ Location _____

Today we measured 3 things that tell you about your health. We recommend that you share these results with your doctor.

- How much body fat you have (BMI)
- How strong your bones are (BMD)
- Your blood pressure (BP)

Your Body Mass Index is: _____

Your Bone Mineral Density is: _____

Your Blood Pressure is: _____/_____ in your Right Arm AND/OR
_____/_____ in your Left Arm



Body Mass Index or BMI



Bone Mineral Density or BMD



Blood Pressure or BP



Don't forget to share this with your caregiver and doctor.

For more information, about the screening event, please contact _____
at _____.

Notes: _____



Special Olympics **Health Promotion**

Clinical Director Manual
Chapter Six:
Lesson Plans





Lesson Plan 1 “I Choose to Change” Behavior Change Tool

Activity Description

The “I Choose to Change” Series is designed to be given to athletes as they leave the Health Promotion venue. Use of the cards helps athletes to set health behavioral goals and take control of their well-being. Concepts of evidence based practices, self-determination, motivation, goal setting, choice making, and health literacy form the basis of the “I Choose to Change” series.

The lesson plan suggests one of several ways the “I Choose to Change” series to effectively encourage athletes to begin to make small changes toward health goals that interest them.



Purpose:

To provide visual cues and first steps to positive behavior changes for health recommended in the Health Promotion venue. The cards are also useful reminders of key messages for each station for your volunteers-have the relevant card available for volunteers to reference at their station.

Trainee/Volunteer Objectives:

Volunteers will demonstrate effective communication skills with athletes when sharing the “I Choose to Change” information.

Athlete Objectives:

1. Athletes will choose one Health Promotion topic to focus on.
2. Athletes will verbally state, mark, or point to which actions on their selected “I Choose to Change” card they will work on first.
3. Athletes will acknowledge the recommended follow-up for body mass index, bone density or blood pressure screening results by repeating verbally, marking, or pointing to the recommendation.

Method or Activity Instructions:

1. Provide “I Choose to Change” cards that match the venue topics. For example, if your venue does not include a smoking cessation education area, do not include that card.
2. After completing all stations in Health Promotion, ask each athlete to select their chosen topic at the Check-Out Station.

3. Share the screening scores with the athlete using the Health Promotion Athlete Personal Health Report, completing the bone density (BMD) body mass index (BMI) and blood pressure scores. Note: If your program does not use the Athlete Personal Health Report, the reverse side of the Choose to Change card may be used to share that information with the athlete.

BMI: Referring to the HAS form say: *"Today we measured your height and your weight, which gave me this number. It tells me if you need to gain weight, lose weight, or stay the same. What do **you** think you need to do?"* Many athletes know if they need to lose weight or gain weight. Show the athlete the recommended follow-up as you mark it. Have the athlete re-state, point to, or mark the action you wish them to take after the venue.

BMD: Referring to the HAS form say *"When you put your foot in the machine, we measured how strong your bones are. This number means ____."* If they need to follow up, be specific about what they need to do if you can. Show the athlete the recommended follow-up as you mark it. Have the athlete re-state, point to, or mark the action you wish them to take after the venue.

BP: Referring to the HAS form say *"When we checked your blood pressure, we measured how hard your heart beats. Your blood pressure result means ____."* If they need to follow up, be specific about what they need to do if you can. Show the athlete the recommended follow-up as you mark it. Have the athlete re-state, point to, or mark the action you wish them to take after the venue.

4. Review the athletes' educational topic choice and potential goals for the topic.
 - a. Ask, *"You chose (insert topic of card). What is it about (topic) that you would like to work on?"*
 - b. Have the athlete choose one action step they are interested in taking by pointing, marking, or verbally stating their choice.
 - c. Encourage them and remind them that goal setting is a great way to make changes for better health.

Adaptations:

Educational materials must fit the situation. You may want to change photos of foods and options that are culturally appropriate for your program. Please let us know if you want to adapt the card photos to better reflect foods and actions that best fit your region. ***"I Choose to Change" series.***

Copyright ©2006 Special Olympics, Inc., Healthy Athletes, Health Promotion. Designed for use by Special Olympics Programs world-wide.

Resources:

The following cards are examples of the available cards in English.

You can find the printable Choose to Change Cards (in a variety of languages) on the SOI website:

http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Choose_to_Change.aspx

Printing the "I Choose to Change" Cards: ***The PDF files are formatted to print four cards per page, front and back. Print the cards double sided on bright-white card stock using colored ink, for the best contrast. This makes it easier for the athletes to read the messages.***

NOTE: If you are using the Personal Health Report to share the screening results with the athlete, you do not need to print the back-side of the Choose to Change Cards.

I choose to eat more fruits and vegetables

I choose to change!

Here are things I can choose to do:

- Eat a fruit a day with lunch.
- Make half my plate fruits and vegetables every day.
- Have a salad for lunch.
- When I want crunchy foods, I can eat apple slices, little carrots, celery sticks, or snap peas.
- Make a fruit smoothie with skim milk or nonfat plain yogurt for dessert.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

I choose to control my blood pressure

I choose to change!

Here are things I can choose to do:

- Eat fruits and vegetables instead of junk food.
- Eat more whole grain foods.
- Drink low-fat milk or eat low-fat yogurt every day.
- Eat my food without adding extra salt.
- Exercise 30 minutes every day.
- Not smoke.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

I choose to protect myself in the sun

I choose to change!

Here are things I can choose to do:

- Stand in the shade when I can.
- Wear clothes that cover my skin when I am in the sun a long time.
- Wear a hat.
- Wear shades.
- Use sunscreen.
- I will buy sunscreen with SPF 15 or higher.
- Take a vitamin D pill every day.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

I choose to drink water every day

I choose to change!

Here are things I can choose to do:

- Drink water instead of sweetened drinks once each day.
- Eat fresh, juicy fruits when I am hot, like berries, watermelon, oranges, and apples.
- Drink one bottle of water before my event.
- Drink one bottle of water after my event.
- Drink a glass of water before each meal.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.

I choose to have clean hands

I choose to change!

Here are things I can choose to do:

- Use soap every time I wash my hands.
- Wash my hands with soap for 20 seconds and scrub the front and back of my hands and wrists and:
 - Between my fingers and thumbs.
 - Under my fingernails.
- Wash my hands with soap every time:
 - After I use the toilet.
 - After I change a diaper.
 - Before I touch food or eat.
- Cough or sneeze into my elbow instead of my hand.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

I choose to have strong bones

I choose to change!

Here are things I can choose to do:

- Drink a glass of milk instead of a soda.
- Keep working on my sport!
- Choose not to smoke.
- Eat foods that build my bones:
 - Broccoli
 - Almonds
 - Dark leafy lettuce
 - Yogurt
- Take a vitamin pill with calcium and vitamin D.
- Take a vitamin D pill every day.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

I choose sports— not tobacco

I choose to change!

Here are things I can choose to do:

- If I smoke, I will ask to my Doctor to help me quit.
- If I chew tobacco, I will ask my Doctor to help me quit.
- If I smoke or chew tobacco, I will ask my friends and family to support me to quit.
- If I do not use tobacco, I choose not to start.
- I will ask people not to smoke around me.



Special Olympics
Health Promotion



Food images © 2006 Silverlining Multimedia. Used with permission.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.

Personal Health Card

Today we measured three things that tell about your health:

1. How much body fat you have **(BMI)**
2. How strong your bones are **(BMD)**
3. Your blood pressure **(BP)**

Your BMI is:

- ☐ You are at a healthy weight.
- ☐ Your weight is not healthy.
Show this card to your doctor.

Your BP is:

- ☐ Your blood pressure is normal.
- ☐ Your blood pressure is too high or too low. Show this card to your doctor.

Your BMD score is:

- ☐ Your bones are healthy.
- ☐ Your bones need to be stronger.
Show this card to your doctor.



Lesson Plan 2: Milk Mustache Photo Booth (MMPB)

Activity Description:

Stage your own Milk Mustache Photo Booth (MMPB) to draw athletes to the Health Promotion Venue and promote drinking milk to build strong bones. The MMPB provides a dynamic, fun, and memorable activity for the bone health aspect of Health Promotion. Athletes receive a copy of their photo taken in front of a special backdrop with a “milk mustache” to take home and share with friends and family.

Purpose:

The MMPB activity reinforces many of the strong bones messages with a visual reminder for athletes that “Milk builds strong bones.” The activity should be placed to reinforce the health education messages of the Health Promotion area. That is, position the MMPB near the bone density screening or food tasting rather than next to the Sun Safety area. This is a great activity to position in the middle of the bone density and bone health area to keep things moving.

The photo can be used as a “give-away” for the athlete as well. Take the photo near the beginning of the screening and pick it up at the end as a “thank you” for coming through the venue and a visual reminder regarding the role of milk products and bone health.

Trainee/Volunteer Objectives:

Using this lesson plan, trainees or volunteers will be able to:

- State key messages that relate to the “Got Milk?” message.
 - *Dairy products are great foods to build strong bones.*
 - *Milk is a great food for building strong bones.*
 - *Athletes who don't use dairy products need to find an alternate beverage with protein, calcium and vitamin D.*
- Use effective communication and listening skills with athletes for the process of creating the milk mustache photo.

Athlete Objectives:

By participating in the MMPB, athletes will:

- Have fun and be able to take home a visual reminder that milk builds strong bones and a souvenir from the HP Venue.

Materials Needed:

- Camera.
 - Smart phone or digital camera- athlete or friend can take picture on their personal phone/camera- no need for printer, etc.
 - If you chose to print photos for athletes and their teams, you'll need a digital camera: photo paper, printer, docking station, multiple memory cards or multiple cameras and electricity.
- Lighting if in a dark area.
- Backdrop for photo (see resources below).
- A table and chairs for volunteers and to store supplies.
- Milk Mustaches:
 - “Real” mustaches: use milk shakes, ice cooler, blender, dish soap, hand soap, place to rinse blender, small cups, tissue and garbage can.
 - Milk Mustache stickers (preferred) may be obtained directly from Special Olympics.
- Dairy products (kept at appropriate temperatures) to taste. (optional) Contact your local health department to check out local food service regulations if you are going to mix and use a dairy product based moustache.

Method or Activity Instructions:

Some considerations when conducting the MMPB:

- This is an optional activity.
- Using the athlete, athlete's friend or coach's smart phone or digital camera are the simplest options for this activity.
- Make sure to spend a few minutes training volunteers in communication strategies and answer any questions they may have.

Adaptations:

There are few adaptations needed for this activity. Plan the location of the MMPB for easy to access for all athletes.

Resources:

To order **Got Milk?** Incentive items including milk mustache stickers, celebrity posters, lanyards, backdrops, inflatable cows and more.

<http://www.spartanestores.com/gotmilk/>

To find the National Dairy Council Affiliate for your location, go to the National Dairy Council URL and click on your state in the drop down box.

<http://www.nationaldairycouncil.org/Pages/Home.aspx>

<http://www.nationaldairycouncil.org/AboutNDC/DairyCouncilDirectory/Pages/Select%20State....aspx>

Local photography studios may be interested in volunteering to take photos for your event.

Local retailers who sell cameras, printer ports, film and other photo supplies may donate these supplies for your event.



Additional Information:

Obtaining Backdrops

- Contact Special Olympics International Health Promotion manager to request a celebrity backdrop, if you are a US Program.
- Use the natural setting of the venue as the back drop (tennis court, photos in a field, etc.).
- Create a theme-based backdrop for your venue. Some past ideas include Harry Potter (magician robes, crowns, wands, with a star-filled back drop) and farm scenes (hay bales, pumpkins, hay covered tables or chairs, and so on).

Plan how you will hang the backdrops before the event. Have the necessary tools with you will need to hang the laminated Got Milk banners which are perfect for photo backdrops.



Lesson Plan 3: Strong Bones, Strong Athletes

Activity Description:

People with ID are at higher risk for bone fracture than the general population. An important component of the Health Promotion Venue is to provide educational opportunities to promote health. The *Strong Bones, Strong Athletes* section outlines the primary educational messages to promote bone health. Included are ideas for visual tools to enhance the experience. Although not a game, this is an interactive, facilitated discussion.

This instruction plan includes three activities designed to promote the key messages for bone health:

- Loss of a Bone Easel (see Supplies and Equipment Ordering Information)
- Foods I Like that Build Strong Bones
- Activities that Build Strong Bones and

It is not necessary to include all of these activities. Choose the activities that will fit your environment and athlete's best.

Purpose:

The purpose of the *Strong Bones, Strong Athletes* discussion is to introduce athletes to key messages that promote bone health. In the media, bone health is seen as a concern for older women. However, people with intellectual and developmental disabilities are at a greater risk for bone health issues than the general public. Therefore, it is important to introduce athletes, parents, support personnel, and coaches to targeted approaches for promoting strong bones as early as possible. The key messages for the *Strong Bones* venue are:

- **Message: Good nutrition helps build strong bones and helps keep them strong for life.**
- **Message: Being active helps keep bones strong, and balance steady to prevent falls.**
- **Message: If bones are not strong, they can break more easily.**

Trainee/Volunteer Objectives:

Using this instruction plan, volunteers will be able to:

1. Present and explain, using visual tools and plain language, the key Strong Bones messages to athletes.
2. Set up a functional and pleasant *Strong Bones* station with both physical and educational accessibility.

Athlete Objectives:

Through participation at this station, athletes will:

1. Match, select, or name foods and beverages that promote bone health.
2. Describe or show physical activities that enhance bone health.
3. Choose one step they will take to promote bone health from the *Choose to Change* card.
4. Identify a healthy, strong bone using a model for bone health (see materials).

Activity 1: Loss of Bone

Materials Needed:

1. Food pictures with foods, beverages and supplemental sources of vitamins D and K.
2. Instruction card showing a variety of examples of physical activity including sports that are weight bearing, strength building and balance enhancing
3. Loss of a Bone Easel

Method or Activity Instructions:

Discuss how strong bones help us to get around, handle falling. Using the *Loss of a Bone Easel*, ask the athlete to guess which of the two bones is stronger. Discuss the visual difference between strong and weak bones. The following are some suggestions for building a conversation around the *Loss of Bone Easel*.

Conversation Starters	Key Messages
<ul style="list-style-type: none">• <i>Can you tell which of these bones is broken?</i>• <i>How does it look compared to the other bone?</i>	<ul style="list-style-type: none">• <i>Eat foods that promote bone health.</i>• <i>These are foods that include calcium, vitamins D and K.</i>
<ul style="list-style-type: none">• <i>What sorts of activities help to keep your bones nice and strong?</i>• <i>What sports do you participate in that are good for your bones?</i>	<ul style="list-style-type: none">• <i>Weight bearing activities such as running, walking, jumping, balancing on one foot.</i>• <i>Point to pictures on physical activity sheet that promote bone health.</i>

Adaptations:

Those staffing the station need to be able to adapt their delivery to the capability of the athletes through questions, observation of non-verbal behaviors, and expressed level of interest and communication competence of the athlete. Some ideas include:

- Bringing visual tools (food models, *Loss of a Bone*) to eye-level.
- Use photos or photo cards of foods and activities that will answer the questions.
- Pointing to pictures on the food cards that contain calcium, vitamins D and K.
- Pointing to weight-bearing sports on food cards.
- Ask athletes to select the foods and beverages they like, grouping them in one area of the table.
- Ask athletes to identify the bone enhancing activities they enjoy. Discuss those that are particularly helpful e.g. swimming doesn't promote bone health, but is excellent for overall health.
- If photos are laminated, bring a dry erase pen so athletes can mark or circle the foods they like with a dry-erase pen.

Activity 2: Identifying foods that Promote Strong Bones

Materials Needed:

1. Nasco plastic food models including 8 oz. milk, yogurt, cheese*
2. Empty carton of orange juice fortified with calcium and vitamin D*
3. Food pictures with foods, beverages and supplemental sources of vitamins D and K.

Teaching Tip: *Most athletes won't care about the vitamin or minerals found in food (calcium, Vitamin D or K). They may take home the message, "these are foods that build strong bones." Keep the message simple and strong. Those who want more information about "how" or "why" will ask. Too much information will confuse the message.*

Method or Activity Instructions: Food Models and Photos

This activity provides a way for athletes to discover which foods they like to eat that are good for building strong bones. Encourage the athlete to talk about their decisions to improve bone health with the parent or caregiver.

Conversation Starters	Action
<p>Take a look at these pretend foods. They all promote strong bones.</p> <ul style="list-style-type: none">• Can you put the foods you like in this group over here? (Indicate a spot on the table)• How often do you eat these foods or drink these beverages?	<p>Group the food models or cards together.</p> <ul style="list-style-type: none">• Ask the athlete to group their preferred foods in that group of foods on to a plate, placemat, or another specific area on the table.• Have them take out foods they might like to try and put them in a different spot on the table
<ul style="list-style-type: none">• Is there a food you would like to try? Which one? Put them over here.• How often do you eat these foods you like?• Here are four things you can do to keep your bones strong.• What will you do at home to keep your bones strong?	<ul style="list-style-type: none">• Wait for an answer. Any answer is ok. Try to get a feel for how much influence they have on their food choices.• Listen carefully. Reinforce positive decisions and choices. Do not respond or correct those that are off-base. Read through options on the Choose to Change Card and check the one that the athlete seems most interested in.

If you do not have plastic food models, use high quality photos to create printed sheets with foods that are good sources of vitamins D and K. Or you may want to use photo food models from the Dairy Council using those foods that are good sources of vitamins D and K. Learn how often they eat these foods to determine something of a food frequency.

Method or Activity Instructions: Sport and Activity Photos

Using high quality photos, use the same technique to create a conversation about weight-bearing activities.

Conversation Suggestions	Action
<ul style="list-style-type: none">• "What are your favorite Special Olympics sports?"• "This is a great sport for building strong bones. It helps you do this by....."• "What other sports or activities are you involved in?" "How often do you do this?"• "What kind of work do you do?"• "Do you think this helps build strong bones?" "Are there activities you would like to do? Let's see if we can find them!"	<ul style="list-style-type: none">• Work with the athlete to find a photo of the sport and put it in a separate place.• Describe actions in the sport that promote bone health such as walking, running, jumping, etc.• Locate images of those sports. Try to learn about frequency of activity and encourage a regular schedule.

Adaptations:

Volunteers for this station will adapt their delivery to the athlete's interests. Some ideas include:

- Bring visual tools (food models or photo sheets) to eye-level.
- Have photos or photo cards of foods and activities that will answer the questions.
- Point to bone enhancing foods and beverages on the food cards when discussing with an athlete.
- Ask athletes to put foods or beverages they like in defined area of the table so they can see how many options there are.
- Have athletes to point to the bone enhancing activities they enjoy.
- If photos are laminated, have athletes use a dry erase pen to mark the foods they like

Resources:

1. **Dairy Council:** "Google "dairy council" plus your state, for example, Dairy Council Ohio). Call to see if your region is able to help with materials, sending a "milk tasting travel trailer", dairy products and handouts for your event. →



2. **MilkPep:** Google "MilkPep California merchandise" to select incentives for enhancing your area including items like GotMilk posters, Frisbees, cups.

3. **Spartan Stores:** www.spartanestores.com/gotmilk/ Source of GotMilk incentives, stick on Milk Moustaches inflatable cows. →



4. **Nasco:** To order plastic food models → www.nasco.com



5. **Health Edco:** To order Loss of a Bone easel go to www.healthedco.com →





Lesson Plan 4: Mystery Fruits & Vegetables Box

Activity Description:

The *Mystery Fruits and Vegetables Box* introduces athletes to a variety of fruits and vegetables. This interactive activity is a fun ice breaker for conversations about increasing the number of fruits and vegetables eaten or trying new ones. The activity involves reaching into a box to pull out different fruits and vegetables. Use foods of different shapes, sizes, and textures to provide depth to the activity. This is a sensory-oriented activity, which may be challenging for some athletes. This activity can be modified for other education topics.

Purpose:

To provide an opportunity for interaction between the athlete and volunteer that focuses on fruits and vegetables. Use the activity to lead into goal setting with the *Choose to Change Card* for fruits/veggies.

Trainee/Volunteer Objectives:

Using this lesson plan, trainees or volunteers will be able to:

- To describe or discuss attributes (sensory or health-related) of fruits and vegetables in the Mystery Box with athletes.
- To apply concepts for effective communication with athletes when executing the activity.
- To be able to describe the taste, smell, texture, and health benefits of the foods in the Mystery Box.
- To be able to describe how to incorporate foods in the Mystery Box to meet healthy eating goals.

Athlete Objectives:

After participating in this activity, athletes will be able to:

- Match food to photo, or name foods in the mystery box.
- Select a new fruit or vegetable they will explore or taste from the Mystery Box.

Materials Needed:

- Paper bag or box/black cloth cover
- Fruits and vegetables (about 5-7) representing different shapes, size, and texture such as:
 - apple- smooth and round,
 - kiwi fruit- small, round and fuzzy,
 - banana- long and smooth,
 - star fruit
- Samples of fruits and vegetables in the mystery box for tasting. Keep these out of sight to further the discussion. Note- the fruits should be cut and prepared prior to the event, some local health codes do not allow any food preparation at the site without a food handler permit or there are not adequate facilities to wash and cut fruit.
- Napkins, small cups, sanitizing wipes or hand sanitizer, garbage can.
- Utensils and small cutting board to cut samples.
- Choose to Change Card-Fruits and Vegetables:
[http://resources.specialolympics.org/Topics/Healthy Athletes/Healthy Athletes Choose to Change.aspx](http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Choose_to_Change.aspx)

Directions for making the Bag or Box:

Bag (Choose a paper bag big enough that the fruits and vegetables have room to move around.)

- Place the fruits and vegetables in the paper bag.
- Roll up the top so athletes cannot peek in.

Box

- Place the fruits and vegetables in the box,
- Cover the box with the black cloth or turn the box upside down and cut a hole in the top or side large enough for a hand to reach in the box

Method or Activity Instructions:

- Describe the activity to the athlete with words and show them how to do it. For example, *"You will reach in the box through this hole. When you find a fruit or vegetable in the box, feel it. Try to describe it. Tell me what you think it is. Or you can point to the picture of what you think it might be on this card."*
- Ask the athlete to:
 - Reach in the bag/box,
 - Feel an item
 - Guess the item by naming it, describing it, or pointing to the picture of the item.
- Talk with the athlete about the fruit or vegetable.
 - Is it one they have tried before?
 - What do they know about it?
 - If they do not like it, explore why not.
 - Would they like to try it?
 - Is this something they'd like to learn how to cook?
- Repeat 3-5 times.
- Offer the athlete a sample of the fruit/vegetables they found, asking:
 - How does it taste?
 - How does it smell?
 - What does it feel like?
 - Would they like to eat that more often?

Additional Information:

Suggestions for food samples:

- Cut the fruit/vegetable samples ahead, choose items that do not have to be refrigerated and can be a grab and go snack.
- Ask local grocery store or farmers' market to donate the foods.

Sensory defensiveness or aversion may be a problem for some athletes with this activity. They may not want to reach into a box or bag they cannot see. If so, start by offering to share what is inside the box. Show them other samples of the fruits and vegetables. Ask them to find ___ in the box/bag.

Athletes may not want to taste the food. Or they may not want to keep it in their mouth. If hesitant about trying a new fruit or vegetable, let them know they do not have to eat it. Also assure them that if they try it and they do not like it, they can just spit it into their napkin to throw away. There is **no** obligation to try anything.

If sensory aversion or defensiveness is present, focus instead on the size, shape, texture, and smell of the food. Describe it. Talk about what it does for the body. The more exposure to a new and different food without pressure, the better the chance the athlete will attempt to try it later.

Communication

For athletes with communication issues, or who speak a different language than the volunteer, use photos of the fruits and vegetables in the box to name them. A communication board with background-free photos of the foods in the box or bag will assist in most conversations regardless of communication skills.

Mobility

- Set up the activity at an appropriate height for the athlete to reach in. Athletes using wheel chairs or scooters may find it easier to use the bag method.
- Make the hole in the box large enough for all sizes and shapes of hands.
- Keep the box or bag somewhere that is easy for the athlete to reach into, such as the edge or corner of a table.
- Avoid having athletes make an extended reach, lean on the table, or bend over to reach into the box/bag.

Resources:

Kranowitz, CS. *The Out of Sync Child and The Out of Sync Child has Fun*. These are essential to read for more information on sensory issues.

Health Promotion Lesson Plan 5: Spin the Water Wheel Hydration



Activity Description:

Spin the Water Wheel uses an inexpensive prize wheel, to focus attention on healthy hydration practices. The Prize Wheel can be used for any topic and with a variety of educational goals and can be adapted for various literacy levels. It is a fun, engaging way to promote healthy behaviors.

Purpose:

The purpose of this activity is to promote water as the primary source of hydration during sporting events. The purpose is to show the benefits of water and adequate hydration with this fun and interactive game.

Trainee/Volunteer Objectives:

Using this instruction plan, the trainee or volunteer will be able to:

- Use the Prize Wheel with Water Inserts to engage athletes.
- Describe and execute the activity for athletes verbally and through gestures.
- Initiate conversations or opportunities to communicate insights with athletes regarding hydration or drinking water.

Athlete Objectives:

Through participation in *Spin the Water Wheel*, athletes will:

- Communicate answers or engage in activities on the Prize Wheel.
- Communicate where they can find water during the current sporting event and at practice.
- Communicate what beverages are healthy options that promote good sport performance.

Materials Needed:

- Prize Wheel
- Visuals of healthy beverages (water, juice, etc.).
- Bottles of water to give participants (see HP Manual for ideas on donations).

Method or Activity:

Use the Prize Wheel Game templates to make the questions to insert in spaces on the wheel. There are twelve slots to fill. Sample templates are available on the Health Promotion Resources web page under Graphics and Brochures-

[resources.specialolympics.org/Topics/Healthy Athletes/Disciplines/Health Promotion.aspx](https://resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx)

Steps to the Game

- Invite the athlete to participate in the game and spin the wheel.
- When the wheel stops, ask the question or read the activity that goes with the slot. (i.e. Are You Thirsty? Then ask the question-How do you know you are thirsty?)
 - Create templates for conversations around each question before starting the game. This helps keep the conversation focused on an education topic.

Additional Information:

- Drinking water – or making an effort to be very well hydrated – is often more important for people with disabilities than those without. Many people with disabilities take medications that impact hydration.
- Consider including information about washing water bottles that are reused.

Adaptations:

Mobility

- Ask athlete permission to spin the wheel for them.
- Provide a step for those who may be short, but able to reach.

Communication

- Provide visuals (communication board or cards) for those who need visual cues or who speak a different language.
- Keep in mind the keys to effective communication, especially giving time for an answer.
- Use gestures and sign language that make sense to augment the question.

Resources:

1. Free bottled water for athletes

2. Spin the Wheel Game- available from www.Prizewheel.com

"The Prize Wheel is simple to customize! You determine your own prizes and create your own inserts. We provide templates in Microsoft Word or Adobe Illustrator format. You can use a color printer or colored paper. You add your company logo or any other images you like. It is easy and fun!"



3. Dry erase wheel available at www.spinningdesigns.com

*"Using dry erase markers, write and erase over and over. **Dry erase prize wheels** can be anything you want them to be, customize them yourself. Choose your size and sections. Complete, ready to spin, made from wood, with adjustable clicker, hardwood table stand, rubber tipped pegs, and rubber edge trim. Add a custom stationary logo to the center of your wheel!"*



Activity Description:

The incidence of skin cancers (non-melanoma and melanoma) has been increasing in the past decade. The primary factors that predispose an individual to skin cancer are recreational exposures to the sun and a history of sunburn. Following simple action steps can reduce an individual's risk of sunburn and contribute to the prevention of skin cancer. Action steps include; seeking shade, being aware of the UV index in your area, limiting time in the midday sun, wear protective clothing, use sunscreen, and avoid tanning parlors and sunlamps. Encourage athletes to ask your doctor if their vitamin D blood level is in the healthy range.

The activities in the Sun Safety Education Lesson Plan focus on key messages used by the U.S Centers for Disease Control (CDC), World Health Organization, and the Vitamin D Council. The goal of the activity is to provide repeated exposure to key messages that reduce risk of sun burn, and yet assure vitamin D adequacy. Suggestions include a variety of activities that meet athletes' different learning styles.

Purpose:

To introduce athletes to icons (visual cues) which correspond to actions to promote Sun Safety behaviors:



Wear a hat



Wear UV shades



Cover up!



Seek shade



Wear sunscreen



Have safe sun exposure



Take vitamin D pills

Trainee/Volunteer Objectives:

Using this lesson plan, trainees or volunteers will be able to:

- Understand why sun safety and UV exposure in all seasons is an important issue for Special Olympic athletes.
- Recall that many athletes use medications that make them more sun-sensitive.
- Explain that skin cancer is among the most common cancers in the U.S. and is increasing throughout the world.
- Explain that vitamin D supplements may be needed by athletes who limit their sun exposure.
- Demonstrate or describe best practice of communicating sun safety concepts to the athletes.

Athlete Objectives:

After participating in the Sun Safety education activities, athletes will be able to demonstrate knowledge of key messages by repeating, gesturing, or describing

- The messages of the Sun Safety icons.
- What is safe sun exposure
- When to wear UV protective sun glasses
- When it's important to seek shade
- How much sun screen to put on.
- Ways to cover up to protect from the sun.
- What to do when the UV bracelet turns color.
- The need for supplemental vitamin D.

Materials Needed:

1. Choose to Change Card for Sun Safety <http://media.specialolympics.org/soi/files/healthy-athletes/choose-to-change/Choose%20to%20Change%20Sun%20-%20English.pdf> for your volunteers to reference for key messages.
2. Solar Active bracelets
3. A colorful umbrella to emphasize shade
4. Examples of hats for men and women, including hats with neck covering
5. Sunglasses with UV protection labels
6. Pictures of people in the shade vs. direct sun
7. Samples of broad spectrum UV protecting lip balm and sun screen
8. Vitamin D supplement bottles
9. Grapes (plastic ones are okay) and raisins
10. Doll that is washable for practicing application of sun screen
11. Colorful tablecloths and items like beach balls, sand pails in summer to display
12. The Sun Safety Game (bean bag toss game that reinforces the sun safety messages) or
13. The Spin the Wheel Game (with sun safety messages)

Method or Activity:

- Have the athletes play the Sun Safety Game to begin to see the visual images that should be emphasized at the venue.
- If the game is unavailable, then use the Sun Safety banner doing the same activity by tossing a Nerf ball, tennis ball or bean bag at each of the sun safe activity symbols. The volunteer should ask the athlete what the symbol means to them and then to ask the athlete how can they apply these concepts when outside during training and competition.
- The Prize Wheel Game may be used to discuss the Sun Safety messages. Graphics are available on the Health Promotion Resource page under Graphics & Logos.
- Using grapes and raisins, explain how the sun over time causes the change in the fruit. Use this teachable moment to help athletes understand the importance of avoiding sun burn.
- Using a washable doll, the athlete can apply sunscreen with the volunteers help so they become aware how much to apply to the skin.
- Show vitamin D supplement bottle and discuss the need to take vitamin D if they avoid the sun.
- Some programs borrow a **UV Derma Scan Device** from local dermatologists, universities or clinics. This device shows individuals evidence of unprotected sun exposure on their face.

Adaptations:

Be watchful for those who may have trouble getting the bracelet on. Offer to help if needed. Some athletes have very sensitive skin so the volunteer might ask the coach or the parent if using the sunscreen provided by the venue is ok for the athlete. Do not pass out sunscreen without asking some questions about this.

Most athletes will visit the Opening Eyes (OE) venue. If athletes receive sun glasses at the OE venue, reinforce the importance of wearing sunglasses. If the athlete has not visited OE, encourage them to attend and receive their free UV protective sunglasses.

Sun Safety Squad- An innovative Activity: Members of the University of Milwaukee Basketball Team roamed throughout the athletic fields during the Special Olympics events. Wearing colorful hats and carrying bright baskets, they distributed sun safety bracelets and sunscreen samples to fans and athletes. This activity could be enhanced to include distribution of water to athletes and fans.



Resources:

1. American Academy of Dermatology provides basic information on skin cancer prevention and how to contact dermatologists all over the U.S www.aad.org
2. Centers for Disease Control & Prevention: www.cdc.gov/cancer/skin/chooseyourcover/
3. World Health Organization: www.who.int/uv/sun_protection/en/
4. Vitamin D for Health: A Global Perspective; Arash Hossein-nezhad , MD, PhD; Michael F.Holick, PhD, MD Mayo Clinic Proceedings , Volume 88 , Issue 7 , 720 – 755
5. Sun Safety Game Order- www.baggo.com _& Prize Wheel www.prizewheel.com
6. If a US-based program. Request UV Awareness Bracelets and Sun Safety Banner's through Peyton Purcell (ppurcell@specialolympics.org)
7. Sun Smart Victoria (Australian site- information on prevention and activities in communities) www.sunsmart.com.au/



Background:

Tobacco use by Special Olympics Athletes varies considerably. Some athletes may not use tobacco themselves, but may be in the presence of others who smoke, and therefore are exposed to second hand smoke. The tobacco avoidance station will help address the concerns relevant to each athlete. Some may use chew or cigarettes, and want to quit. Some may want to know how to ask others around them to not smoke in their air. Still others may be worried about the tobacco use of family or friends. The suggested activity helps demonstrate the long term impact of cigarettes on breathing.

Activity Description:

Athletes will first breathe through a straw and again after vigorous activity (running in place or jumping jacks). After the vigorous activity, the athlete will experience some difficulty in breathing. This experience is similar to breathing problems a person who smokes may have.

Purpose:

The purpose of this activity is to demonstrate the effect of cigarette smoking on the athlete's ability to exercise and then breathe.

Trainee/Volunteer Objectives:

Volunteers will guide the athlete in an activity to demonstrate the effect of cigarette smoking on their breathing.

Athlete Objectives:

1. Demonstrate the physical impact of cigarette smoking on the athlete's breathing after vigorous activity.
2. Engage the athlete in a discussion on tobacco use and the effect on their health and sports performance.
3. Explore ways an athlete can comfortably ask others to not smoke in the "athlete's airspace".
4. Athlete will state the harmful effects of tobacco use.

Materials Needed:

- Disposable drinking straws cut to approximately 20 cm (just under 8 inches).

Method or Activity:

This activity is best done with a small group of athletes together (3-5 individuals)

1. Explain to athletes that they will see how smoking affects their breathing after exercise.
2. Give each athlete a straw and ask them to breathe through the straw.
3. Ask the athletes how they feel- it was easy and all is OK.
4. Ask the athletes to run in place for 30 seconds and then breathe through the straw again. (You run with them and if music is available, you can run to the beat of the song.)
5. Ask the athletes if they feel different? Most will say yes, it is harder to breathe and some may be coughing.
6. Explain to the athletes that cigarette smoking is not good for their health and sports performance.

Additional Information:

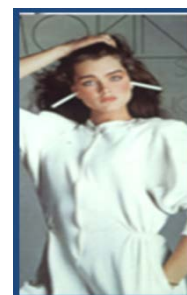
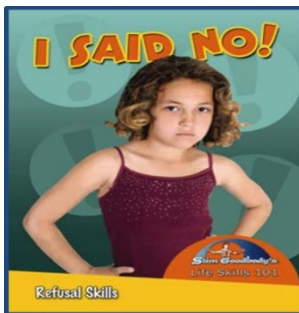
Other educational materials at the Tobacco station may be used to reinforce the no smoking message. For example, government sponsored anti-tobacco posters can be helpful conversation starters; eg. Ask athletes what they think posters such as those below, mean to them?

Adaptations:

Athletes who cannot participate in the activity can observe and see the experiences of those participating.

Resources:

1. Choose To Change Card-Tobacco
http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Choose_to_Change.aspx for your volunteers to reference for key messages.
2. Boom box with fast paced music, if space allows.
3. Tobacco avoidance posters. (Google, "anti-tobacco posters")
4. Volunteers: local health departments, university respiratory therapy programs, American Lung Association and American Heart Association representatives.





Activity Description:

Disgust is sometimes used to motivate health behavior. Handwashing with soap education should provide the connection between a disgust elicitor, an object contaminated by it, and the hand that touches that object. This “disgust” may provide the motivation for participants to wash their hands.

The germ demo visually demonstrates to Special Olympics athletes how germs live on hands, how they can be transmitted from person-to-person, and how properly washing hands with soap can help get rid of germs that make people sick and make our hands clean and smell good.

Purpose:

The germ demo is a fun, interactive activity designed to help athletes develop the habit of washing their hands with soap, using proper technique, at critical times throughout the day.

Trainee/Volunteer Objectives:

Using this lesson plan, trainees or volunteers will be able to:

1. Assess athletes’ frequency, technique and barriers to handwashing with soap.
2. Using plain language, explain how germs from coughing, sneezing or from going to the latrine can live on our hands and make us sick. Athletes’ who are ill don’t compete at their best. Daily handwashing with soap at critical times helps remove germs from their hands so that they don’t get sick as much.
3. Visually illustrate to athletes how many germs are on hands before they are washed, and how they are spread by our hands from person-to-person.
4. Demonstrate the proper technique for handwashing with soap and review the critical times to do so each day.

Athlete Objectives:

After participating in this activity, athletes will know:

1. Germs from coughing, sneezing or from using the latrine, live on our hands and make us sick.
2. Germs on hands can be passed from person-to-person.
3. Handwashing with soap is more effective than handwashing with just water at killing germs and preventing illness.
4. The critical times each day to wash hands with soap.
5. The proper technique for handwashing with soap.

Materials Needed:



The Glo Germ Kit contains special solution for a hand washing activity. Fluorescent particles “germs” are used and if not completely washed off, will show under an UV light. If the Glo Germ Kit is not available the instructions and materials below can be used.

Warm running water and paper towels are REQUIRED for this activity. Handwashing gels and sprays will not remove the Glo Germ particles or the alternate solution. If this station does not have a source of running water, a portable handwashing unit may be used. One example is the Cambro Handwashing Unit.

Alternate Solution for demonstration - Vegetable oil, butter or other sticky, non-toxic substance; cinnamon (or coffee grounds, or other powdered or grainy, non-toxic substance); soap; water; proper technique for handwashing with soap poster or brochure.

You may want to demonstrate using one athlete to teach a group of athletes, to simplify teaching and to avoid sticky and dirty hands throughout the HP venue.



Potential giveaway items: soap, hand sanitizer packets, silly band bracelets (hand shaped), stickers

Volunteers Needed:

Health educators and nurses are preferred, but general volunteers can be trained.

Method or Activity Instructions:

1. HAS questions
 - Ask the HAS handwashing with soap questions and complete that portion of the form.
2. Ask the athletes if they know why washing our hands with soap is important. If they say “yes,” have them tell you. Confirm or tell them that:
 - When we cough, sneeze or go to the latrine germs live on our hands and make us sick, and being sick doesn’t let us compete at our best.
 - Germs on our hands can be passed to other people and make them sick, so we should wash our hands after we use the latrine and before we eat to clean the germs off our hands.
 - It makes our hands feel clean and smell good.
3. Visually illustrate to athletes how many germs are on our hands before we wash them, and how they are spread by our hands from person-to-person.
 - Mix vegetable oil with cinnamon in a small bowl. Let one athlete rub “cinnamon oil” on his or her hands and tell them it is what germs are like on our hands.
 - If you’re working with only one athlete, have them try to rub the “germs” off over a large plastic tub; if you’re working with more than one athlete have the one with the “germs” shake hands with the athlete next to him/her and have each athlete continue to shake hands.
4. Go to the sink, portable handwashing unit or tippy tap to scrub the “germs” off.
 - First have the athlete use water only, to see how many “germs” they can get off, then have them use soap and water.
 - The volunteer should:
 1. Explain how rinsing hands with water alone removes fewer germs than washing hands with soap. Soap breaks down grease, oil, dirt and feces that carry the germs that make us sick. Using soap also makes your hands feel clean and smell good.
 2. Demonstrate proper handwashing technique:
Cover wet hands with soap; scrub all surfaces, including palms, back of hands, between the fingers, thumbs, wrists and especially under fingernails for about 20 seconds; rinse well with running water rather than still water, and dry on a clean cloth or by waving in the air.

NOTE: Have the athletes sing “Row, row, row your boat”, or their favorite song for 20 seconds to help them gauge how long they should wash their hands.

5. Remind the athlete(s) that to avoid getting sick or making other people sick, it’s important to wash their hands with soap after using the latrine, after changing a person’s diaper and before eating.
6. Provide athlete with soap or hand sanitizer to take home.

Do the Global Handwashing Dance! | UNICEF

This YouTube video on handwashing is another interactive and fun dance to show at the hand washing station. Volunteers may lead groups of athletes in the dance using exaggerated motions to add to the fun. You’ll need a flat screen TV or laptop computer screen to show the film.

<https://www.youtube.com/watch?v=825qGELjB98>



Adaptations:

Germ: Glo germ kit, craft glitter, non-toxic, washable magic markers.

Water: Proper handwashing requires soap and only a small amount of water. Running water from a tap is not necessary; a small basin of water, buckets or “Tippy Tap” - cans or plastic bottles that release just enough for a clean hand wash each time they are tipped are sufficient.

Teaching Tip: To limit the amount of germs transmitted, if you are using a tap with a spout, one volunteer should be assigned to turn the water on/off.



Commercial hand sanitizer is not a sustainable solution to proper handwashing with soap and water. Hand sanitizer may be used where access to soap and water is not available to demonstrate proper handwashing technique.

Choose to Change- Clean Hands

http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Choose_to_Change.aspx for your volunteers to reference for key messages.



Resources:

1. Handwashing with soap poster, brochure and tippy tap instructions (for display and distribution): http://resources.specialolympics.org/Sections/Healthy_Athletes/Resources.aspx
2. Glo germ kit: <http://www.teachersource.com/BiologyLifeScience/Germs/GloGerm.aspx>
3. Teaching the Importance of Handwashing: Instructions for using cinnamon and oil strategy. blog.calverteducation.com/calvert/a-great-way-to-teach-the-importance-of-handwashing/



Activity Description

This activity encourages athletes to explore healthy food choices that can replace items that may taste good but are high calories compared their nutrients. Using plastic food replicas, food packages, cans or bottles with labels; pictures of foods and drinks on “card stock”, athletes will select items they like to eat or drink, and will be asked to sort them into those that make them health and strong, and ones that don’t.

After the athlete has selected and sorted a few items, the volunteer comments on what the athlete has correctly place on the “healthy face”. Items that were mistakenly identified as “healthy” e.g. french fries, sugared beverages, candy or cookies can be replaced with similar items that are healthier choices. Suggested comparisons might be:

Athlete chooses	Volunteer replaces with to suggest	Have comments about the healthier choices
Candy	Fresh fruit or nuts: Eating 1.5 ounces per day of peanuts: almonds, hazelnuts, pecans, pistachios or walnuts, can reduce heart disease risk."	Nuts (or fruit) help to make your hair shiny and your skin soft. Nuts are a better choice than cookies, chips and other such snacks.
Chips	Carrots or raisins: Vegetables and fruits are full of vitamins and minerals. They help your body become strong, fit and healthy. What are your favorite vegies? Your favorite fruits?	Chips don't make muscles and skin and good eyes, but carrots and raisins make you healthy.
Cookies	Bagels or nuts: Go for whole wheat bagels, and cut into small pieces. Choose unsalted nuts or sunflower seeds instead. Share info about eating half a bagel rather than a whole one.	Do you like nuts? What's your favorite kind of nuts?
Corn or whole grain tortillas	Flour tortilla (white), corn tortillas, whole wheat tortillas 6 inch corn tortilla = 58 calories 1g fat 12 g carb 1g fiber, 1g protein 6-inch flour tortilla = 94 calories 2.5 g fat 15 carb 1g fiber 2.5g protein (Whole wheat tortilla = 2 g fiber)	Corn and whole wheat tortillas are healthy foods. Which one do you like best?
French fries or chips	Baked potato: French fries have about 500 calories a cup. A baked potato has about 200. Add a pat of butter or sour cream, and it's still less than 300 calories.	When you eat out, can you ask for fruit or a baked potato instead of fries?
Hot dogs, bologna.	Beef, chicken or tuna (packaged) hard boiled eggs: Hot dogs and bologna aren't as healthy for us as some other foods.	Our bodies need protein, not salt, flavoring, and preservatives. Try to eat eggs, real meat, chicken and fish.

Athlete chooses	Volunteer replaces with to suggest	Have comments about the healthier choices
Juice	Milk a better choice: Unlike fruit juice or soda, milk provides seven to eight grams of high-quality protein per cup, and it is recognized as an aid to muscle recovery after intense workouts. The proteins in milk are invaluable to muscle-building, and when compared with soy protein, milk protein comes out on top in recovery.	Cow's milk and soy milk help make you get taller and have strong bones, muscles and teeth."
Packaged sweets	Carrot slices, nuts, dried fruit, whole wheat toast. Help the athletes start to recognize other "whole foods" as snacks that taste good, are nice colors, and make them healthier.	Carrots make your eyes work well so you see more. Have you ever seen a rabbit with glasses?"
Ramen noodles	Whole wheat macaroni and regular macaroni in zip lock bags: Ramen noodles and "cup noodles" are deep fried in saturated fat then dried. The flavor packet has lots of salt, preservatives and flavor agents: <ul style="list-style-type: none"> Whole wheat pasta=125 calories per cup + 4 mg sodium White pasta = 220 per cup + 8 mg per sodium Ramen = 300 per cup plus +1700 mg sodium 	Ramen has lots of salt that isn't good for your heart. Macaroni tastes good too and makes you healthy.
Sugar sweetened cereals	Cereals that are not sugar sweetened (use little boxes). The average sweetened cereal has 3 teaspoons of sugar a serving. If you think your cereal needs sugar, just add a little yourself. Put fruit on top to make it healthier.	Sugary cereal can cause cavities but un-sugared cereal fills you up!
Sugar sweetened soda or drinks	Water: Sugared beverages have up to one teaspoon of sugar per ounce. They do not make us healthy; they make us fatter and can damage our teeth. Do you like water? When?	When you are thirsty, water is a good choice for your body. Soda has sugar and will make you even thirstier.
Sugared yogurt or ice-cream	Plain fat free Greek yogurt: Protein is vital for your body because it helps promote healthy skin, bone and muscles <ul style="list-style-type: none"> 8 oz. of nonfat yogurt contains 120 calories, 8 oz. of full-fat yogurt has 170 calories Yogurt with "added fruit" which is mostly added sugar, puts another 80 calories of sugar. Get plain fat free yogurt and add fruit or a little jam for flavor.	Greek yogurt makes your bones, muscles and teeth stronger than sugared yogurt
White bread	Whole wheat breads' fiber keeps the digestive system clean and running smoothly. High fiber foods are more filling, helping prevent overeating. When joined with ample fluid intake, fiber helps move food through the digestive system and might reduce the risk of certain cancers, diabetes, heart disease, and digestive disorders.	"White bread is good for you but whole wheat bread is even better"

Purpose:

This activity provides a fun and positive way to help the athletes feeling more confident in making good food choices. All kinds of foods and beverages can be used to help athletes learn how to choose what's healthiest. It's easy to become confused about what foods make us healthy and strong, and which foods don't. Use the "Smiley Face, Sad Face" sorting activity to help athletes learn to make healthier choices.

A Special Olympics athlete from Greece shows volunteers which foods he likes.**Trainee/Volunteer Objectives:**

Using this lesson plan, trainees or volunteers will be able to effectively listen and communicate with athletes to teach which food choices make them health and which don't. Help athletes see better alternatives to the food and drinks that add more calories than nutrition.

Athlete Objectives:

By participating in "Foods that Make Me Healthy", athletes will learn to substitute healthier choices for foods and drinks that don't promote health

Materials Needed:

- Black electrician tape; one long table and at least 4 chairs.
- An assortment of plastic foods, popular snack food packages, beverage containers, pictures of foods.
- Choose To Change Card-Fruits and Vegetables
http://resources.specialolympics.org/Topics/Healthy_Athletes/Healthy_Athletes_Choose_to_Change.aspx for your volunteers to reference for key messages.

Method or Activity Instructions:

Some considerations when conducting the **Foods that Make Me Healthy** activity:

- It works well, following the healthy habits interview.
- It can be used with individual athletes or with two or more.
- Be sure to spend a few minutes training volunteers in communication strategies and answer any questions they may have.
- Make sure athletes leave having had a good time.

Resources:

- **Health Edco Nutrition Replicas** www.healthedco.com/
- **Nasco Plastic Food Models** www.nasco.com/ Life/form® food replica kits
- **Firehouse Medical** www.firehousemedical.com/store3/health-management/nutrition.html



Firehouse Medical



Nasco EL11082HR



Nasco WA28381HR



Health Edco HE-79716



Check EBay for “play food”



Lesson Plan 10: Physical Activity

Activity Description:

This is an interactive educational area designed to show athletes a variety of ways to increase their physical activity outside of Special Olympics training.

Purpose:

Teach the health benefits of physical activity, increase awareness of daily physical activity requirements, demonstrate fun examples of how to achieve daily physical activity requirements.

Trainee/Volunteer Objectives:

Using this lesson plan, trainees or volunteers will be able to:

1. Assess athletes frequency, type and barriers to physical activity
2. Present and explain to athletes in plain language the recommended daily physical activity requirements and how exercise improves health and athletic performance.
3. Demonstrate a variety of examples to athletes to exercise outside of Special Olympics training.

Athlete Objectives:

After participating in this activity, athletes will know:

1. Physical activity makes your heart, lungs and bones strong.
2. Physical activity helps you lose weight OR helps you to maintain your weight.
3. Adults should do 2 hours and 30 minutes (150 minutes) a week of moderate-intensity, or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity
4. Aerobic activities or vigorous activities are important to include and they should do at least 1 hour and 15 minutes (75 minutes) in a week. Episodes of at least 10 minutes should be the standard time.
5. Children/adolescents should do 1 hour (60 minutes) or more of physical activity every day.
6. Physical activity is anything you like to do that makes you MOVE.

Materials Needed:

Deck of cards, Photo Cubes, Prize Wheel Game- each of these resources can be customized to offer a variety of physical activity selections. Examples of activities include:

- **Warm Up**
 - March in place
 - Arm swing- swing arms overhead (inhale up, exhale down)
 - Shoulder shrugs
 - Trunk twists
- **Exercise**
 - Jump Rope 10 times, increase the speed during the activity
 - Side Step or Toe Touch -slide together to the right, slide to the left- pick up the pace
 - Knee Side Step
 - Front Punch- slight bend in the elbow and punch the air in front of you to the right, then the left and back and forth.
 - Dance, jog in place, beach ball toss
- **Cool Down**
 - Arm swing- swing arms overhead (inhale up, exhale down)
 - Shoulder rolls
 - Neck Rolls- roll forward and sideward **not** backward
- **Stretches**
 - See examples in Physical Activity Appendices

Volunteers Needed:

Personal trainers, exercise scientists or student, physical activity teachers or students, fitness instructors

Method or Activity Instructions:

1. HAS questions
 - Ask the HAS physical activity questions and complete that portion of the form.
2. Deck of Cards- Cards customized for Health Promotion- not Fit Deck Cards. Have the athlete choose a physical activity from the deck of cards.
 - Demonstrate that activity for the athlete.
 - Have the athlete perform that activity 5-10 times.
 - Correct form as needed.
 - Allow the athlete to choose from the deck of cards as often as they like.
3. Soft Block Toss- ask the athlete to toss the block, after the toss the block will land side up with a picture of a physical activity.
 - Demonstrate that activity for the athlete.
 - Have the athlete perform that activity 5-10 times.
 - Correct form as needed.
 - Allow the athlete to toss the cube as often as they like.
4. Prize Wheel - have the athlete spin the wheel to select an activity for the group
 - Demonstrate to the athlete the activity that the spinner lands on.
 - Have the athlete perform the activity for the two minutes and spin the wheel for a second activity
 - Spin the wheel for a minimum of 5 times to allow for 10 minutes of physical activity
 - If there are not additional athletes waiting, allow the athlete to spin the wheel as often as they like.

Ask the athletes if they know why physical activity is important. If they say “yes,” have them tell you. Confirm or tell them that:

- Physical activity makes our hearts, lungs and bones strong.
- Physical activity helps us lose weight OR helps us to maintain your weight.
- Adults should do 2 hours and 30 minutes (150 minutes) a week of moderate-intensity, or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity
- Aerobic activities or vigorous activities are important to include and they should do at least 1 hour and 15 minutes (75 minutes) in a week. Episodes of at least 10 minutes should be the standard time.
- Children and adolescents should do 1 hour (60 minutes) or more of physical activity every day.
- Physical activity is anything you like to do that makes you MOVE.

Ask the athlete if there is anything they like to do for exercise.

- Point out some other not-so-common things listed that can be considered physical activity. (example: gardening, dancing, walking the dog, cleaning their room)

Encourage! It is important to motivate and encourage the athletes during the physical activity challenge, for example:

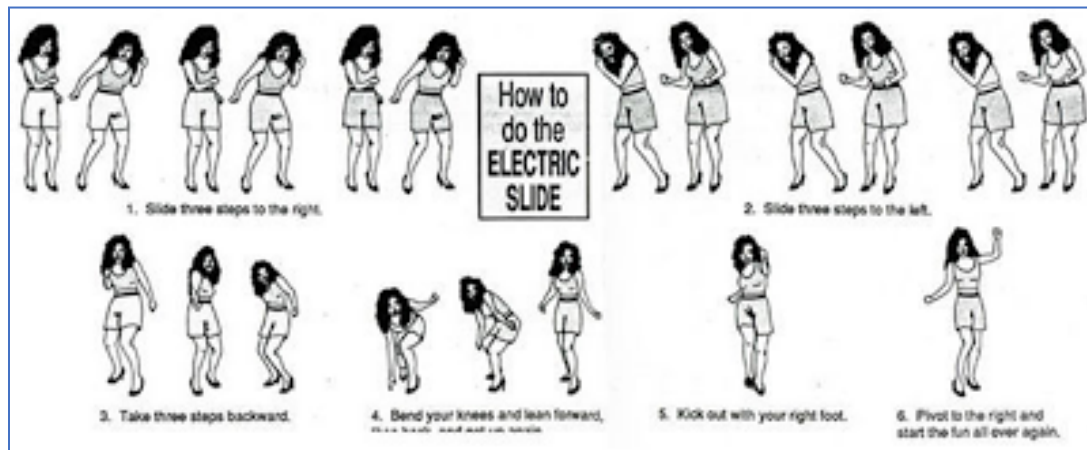
- Everybody is looking great, keep it up!
- You are doing a great job!
- Remember to: clap with the beat, keep your arms up, and bend your knees!
- Your body thanks you!
- You are next for Dancing with the Stars!

Adaptations:

All athletes can participate in the physical activity area. Adaptations should be made for athletes with physical disabilities and exercise options should be available. (e.g.: seated arm swing) or those in a wheelchair- beach ball toss and catch, arm exercises. Partner with mobile individual for dancing and group activities. Exercises can be done in groups (as a team) to offer a more fun and engaging area.

Dance and Music: Music and dance enhances the physical activity experience and adds to the fun, especially for group activities- suggested resources include:

Electric Slide- Moves can be seen on YouTube at: www.youtube.com/watch?v=-mOY2eWO2qw



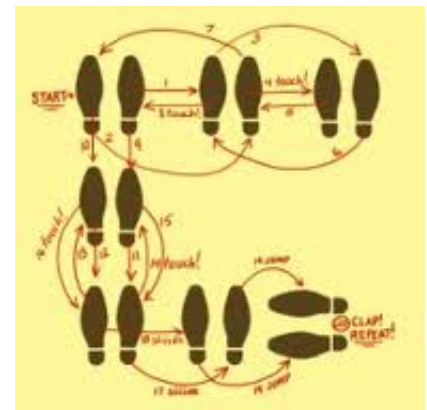
This "line dance" is fun and easy to learn:

- Three slides to the right (the clap)
- Three slides to the left (then clap)
- Three steps backwards (then clap)
- Left knee up and lean forward
- Jump to turn your body to the right.
- Start all over again.

Chicken Dance - Moves can be seen on YouTube -

www.youtube.com/watch?v=4xmV5uHWNag

- Pinch your fingers and thumbs together in front of your chest 4 times.
- Flap your arms 4 times.
- Wiggle side to side 4 times while getting your back side as close to the ground as you can
- Clap 4 times.
- Swing your partner and start at step 1 for a second round.



Macarena- feel free to simplify, instructions are helpful if leader is not familiar with the dance. Dance moves can be seen on YouTube at www.youtube.com/watch?v=TBeg7puGPU8



Resources:

1. Custom physical activity cards with selection of activity choice, dance routines and physical activity questions on the card.
2. Prize Wheel with custom inserts for activity choices, dance routines and questions on the wheel. www.Prizewheel.com See HP Resources page Graphics and Brochures for Prize Wheel templates for this lesson plan.
resources.specialolympics.org/Topics/Healthy_Athletes/Disciplines/Health_Promotion.aspx
3. Photo Stacking Blocks (customize for activities) www.amazon.com/Constructive-Playthings-Photo-Stacking-Blocks/dp/B002S3RW62
4. CD or MP3 Player for music
5. Recommended daily physical activity guidelines for your country.




Special Olympics **Health Promotion**

Clinical Director Manual
Chapter Seven: Powerpoint
Presentations

Special Olympics Healthy Athletes:
A Public Health Program for People with
Intellectual Disabilities

*Darcie Mersereau, Vice President, Health
Programs, Special Olympics International*

Special Olympics
Healthy Athletes®



1 - Special Olympics

The Backyard in 1962... Special Olympics
Healthy Athletes®



Camp Shriver: Shriver family lawn and home, 1962

2 - Special Olympics

The first Games in 1968... Special Olympics
Healthy Athletes®



Soldier's Field, Chicago

3 - Special Olympics

Today: 175 Countries Special Olympics
Healthy Athletes®

ATHLETES SERVED
4,205,630
+53,976
+225,122

COMPETITIONS
70,278
193 GAMES / DAY
8 GAMES / HOUR

VOLUNTEERS
1,361,891
+31%
+16,677




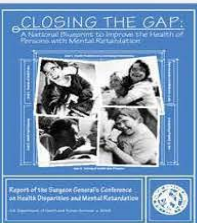
4 - Special Olympics

But... Special Olympics
Healthy Athletes®

How did a sports organization become a
public health organization?

Special Olympics

Becoming a Public Health
Organization Special Olympics
Healthy Athletes®

Report of the Surgeon General's Conference
on Mental Disorders and Mental Retardation
U.S. Department of Health and Human Services - 1991


Special Olympics

What we learned:

Special Olympics Healthy Athletes®

On average, on a team of 19 SO athletes:

- 4 have obvious untreated tooth decay and 1 needs an urgent referral to a dentist
- 4 need eyeglasses and 2 have some kind of eye disease (e.g. glaucoma)
- 3 would fail a hearing test
- 2-3 will have low bone density, even though they might look healthy
- 5 will have significant problems with flexibility, and 4 with balance, placing them at risk for injuries
- 6 will be overweight/obese and at risk for chronic health conditions



Special Olympics

What we learned:

A cascade of health disparities

Special Olympics Healthy Athletes®

Doctors are not trained

Parents are told to have no expectations

Those with ID do not receive health education

Many with ID are still hidden at home

Governments do not count those with ID

Families deprioritize health resources

Health problems are seen as part of ID

Special Olympics

What we learned:

One underlying cause

Special Olympics Healthy Athletes®

People with ID are de-valued by every society in the world.

Special Olympics

Becoming a Public Health Organization

Special Olympics Healthy Athletes®



SPECIAL OLYMPICS- LIONS CLUBS INTERNATIONAL OPENING EYES

HEALTHY HEARING

FUNFITNESS

HEALTH PROMOTION

MEDFEST

SPECIAL SMILES

FIT TEST

Special Olympics

Goals of Healthy Athletes

Special Olympics Healthy Athletes®

- IMPROVE access and health care for Special Olympics athletes at event based health screenings.
- Make REFERRALS to local health practitioners when appropriate.
- TRAIN health care professionals and students.
- Collect, analyze and disseminate DATA on the health status and needs of persons with intellectual disabilities.
- ADVOCATE for improved health policies and programs for persons with intellectual disabilities.

Special Olympics

Linking Health and Sports

Special Olympics Healthy Athletes®



Special Olympics

Training Providers: The Foundation of HA

Special Olympics
Healthy Athletes®

*The 10
Commandments
for Caring for
Persons with
Disabilities*



Special Olympics

HA Accomplishments

Special Olympics
Healthy Athletes®



Special Olympics

HA Accomplishments

Special Olympics
Healthy Athletes®

- Over 1.4M health exams
- Over 120K healthcare professionals trained
- Over 90,000 eyeglasses, as well as hearing aids, dental care, orthotics, and other products provided through partnerships



Special Olympics

Where are we going?

Special Olympics
Healthy Athletes®

- Partnerships for follow-up care after events.
- SMS reminders to athletes/families after events
- Year-round health and wellness programming by coaches, families, and community partners
- More locally relevant health programming



Special Olympics

Thank You!!


Special Olympics
Healthy Athletes®

Special Olympics

Special Olympics
Healthy Athletes®

Special Olympics

Special Olympics
Health Promotion



Healthy Athletes is a program designed to help Special Olympics athletes improve their health and fitness leading to enhanced sports experience and improved well-being.

Mary Pittaway, MA, RD
Global Clinical Advisor
Health Promotion
Special Olympics International
mpitt59802@aol.com

Alice Lenihan, MPH, RD, LDN
Global Clinical Advisor
Health Promotion
Special Olympics International
alenihanai@aol.com

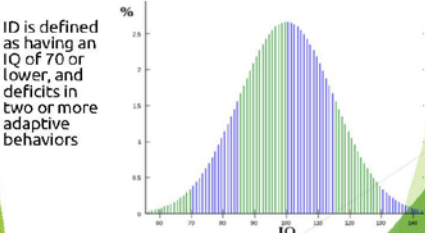
Presentation Overview

- Causes of Intellectual Disability
- Health Promotion Activities Overview
- Communication
- Core Elements
- Screenings and referral: BMI, BMD, BP, Health Habits, Check-Out
- Surveillance: HAS, dissemination of findings
- Health Education Stations: Interactive activities, health messages, role modeling

Scope of Intellectual Disability

About 2% of the population are people with ID


ID is defined as having an IQ of 70 or lower, and deficits in two or more adaptive behaviors



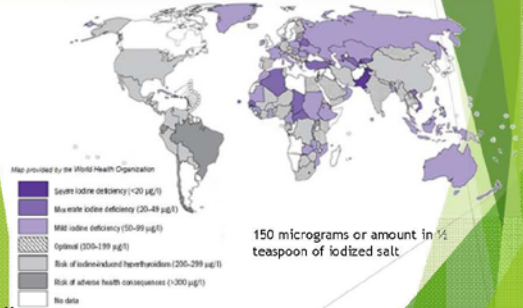
Nutrition and Intellectual Disability

Nutrient deficiencies or excesses

- Iodine
- Protein
- Iron and zinc
- Alcohol prenatal
- Folic acid prenatal
- Vitamin D prenatal
- Excess vitamin A prenatal

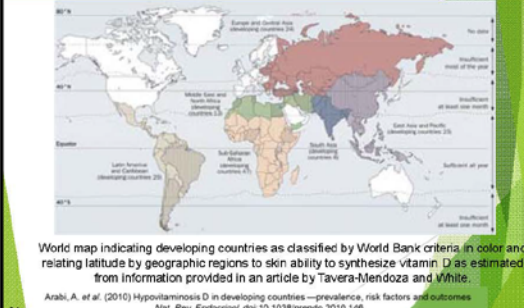


Iodine Deficiency World Map



150 micrograms or amount in 1/2 teaspoon of iodized salt.

Vitamin D Deficiency World Map



World map indicating developing countries as classified by World Bank criteria, in color and relating latitude by geographic regions to skin ability to synthesize vitamin D as estimated from information provided in an article by Tavera-Mendoza and White.

Anabi, A. et al. (2010) Hypovitaminosis D in developing countries—prevalence, risk factors and outcomes. *Nat. Rev. Endocrinol.* doi:10.1038/nrendo.2010.146

Other Causes of Intellectual Disability

- Brain injury or infection before, during or after birth
- Growth or nutrition problems (pre, peri or postnatal)
- Abnormalities of chromosomes and genes
- Premature birth
- Poor maternal diet
- Severe physical abuse
- An autism spectrum disorder
- Prenatal drug or alcohol abuse and smoking
- Medication induced insult such as thalidomide

25

Healthy Athletes Screening in 7 Areas



"Special Olympics is the largest global public health organization dedicated to serving people with intellectual disabilities"



26

Healthy Promotion Enhances Athletes Well-Being



27

What Is Health Literacy?

"Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions." U.S. Department of Health and Human Services. 2000.



<https://www.youtube.com/watch?v=qWeRt54v0F0>

28

Key Messages in Video

- Person first language
- Establish rapport
- Eye contact
- Use visual cues
- Use age appropriate tools
- Wait for a response
- Be a good role model

29

Person-First Language

- Put the **person** first.
- Leave the diagnosis in the office.
- Look for the person's personality.
- Look for common ground.
- **Wait** for a response. Have fun.

Don't Use

She or he is.....
retarded, challenged, or defective
or slow
Down's syndrome or mongoloid

Instead, Use

Person with
an intellectual disability
Down syndrome

30

Core Health Areas Health Promotion

Screening & Surveillance Topics

- Height/Weight- Body Mass Index (BMI)
- Blood Pressure (BP)
- Bone Mineral Density (BMD)
- Healthy Habits Interview



Education Priorities

- Nutrition
- Bone Health
- Sun Safety
- Tobacco Avoidance
- Physical Activity
- Handwashing
- Hydration

31

Screening vs. Surveillance

Surveillance is the collection of health data for use in health planning, prevention and health promotion

Screening helps identify athletes with certain risk factors to hasten intervention. Referral and follow-up is necessary.

BMI, height, weight

Blood pressure

Bone density bi-lateral heel scan



32

Body Mass Index Screening Protocol

33

BMI Screening Protocol

BMI predicts risk of diabetes, arthritis, some cancers and heart disease



34

BMI Screening Protocol

- Proper equipment
- Athlete preparation
- Athlete placement
- Read and record measurement



35

BMI: Weight Equipment Standards

- Weighs in 0.1 KG increments
- Weight can be locked in.
- No stature device attached.
- No wheels on scale.
- Preferable to have scale that weighs up to 400#
- High quality beam balance or electronic scale.
- Do not use spring balance and home-use scales.
- Use on flat hard surface, not carpet, lawn, dirt.



36

BMI: Height Equipment Standards

- A stadiometer with a 6 inches or wider headboard OR
- A non-stretch tape affixed to the wall.
- Headboard with a right angle.
- See **Supplies and Equipment** list for ordering information



37

BMI: Prepare and Measure Athlete

- Remove shoes, hat and coat, sweater, fanny pack, medals and hair items if they interfere with head board
- Step on stadiometer base and face forward
- Three points of contact
 1. Shoulder
 2. Buttocks
 3. Heels
- Zero the scale, be sure it is on KG (Kilograms)
- Ask athlete to step on the middle of the scale platform and to stand still while measuring the weight
- Record the weight to the nearest 0.1 kilogram on the HAS form or the HAS Tablet



38

BMI: Measure & Record Data

- Lower headboard until it touches the top of athlete's head and creates a right angle with the measurement surface.
- Read the height (where the bottom of the headboard touches the measuring tape) to the nearest centimeter.



Read Here-
from the side



Read Here-
from the front

- Arrange an area for athletes to sit down and remove their shoes in the vicinity of the height/weight area.

39

BMI Screening Pediatric & Adult

HAS calculates BMI/BMI percentile when data is entered in the system.

Adult BMI (BMI) is a simple index of weight-for-height commonly used to classify underweight, overweight and obesity in adults.

- BMI 18.5 – 25 normal
- BMI < 18.5 underweight
- BMI 25 – 30 overweight
- BMI > 30 obese



Pediatric BMI is calculated as for adults, and then compared to typical values for other children of the same age and gender.

- BMI 5th - 85th normal
- BMI < 5th underweight
- BMI 85th - 95th overweight
- BMI > 95th obese



40

Factors that Impact BMI



41

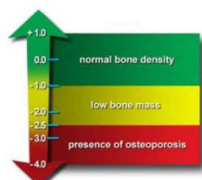
Which issues are within the athlete's control? That is where HP's education is focused.

Bone Mineral Density Screening Protocol

42

Bone Mineral Density Protocol

BMD predicts risk of fracture, tooth loss, bone pain and delayed fracture healing.



43

BMD Testing

Detailed instructions with graphics for each of the following issues are included in the Bone Health handouts, how to

- Unpack and set up
- Calibrate and run quality assurance procedure
- Communicate with athlete about test
- Conduct the test and record results
- Test non-ambulatory athletes and those with unusual heel size
- Provide nutrition education for the athlete
- Change printer tape
- Find troubleshooting reference section in manual
- Safely clean the equipment
- Print calibration tape and repack for shipping



44

BMD Testing: Step 1

- Plug the machine into a grounded outlet and turn power on at the black box. A green light will appear.
- Press on button and screen will say: "Power on Self-Test" "In Progress....."
- After a few moments the screen will say "Ready Press ON"
- Press the "On" button
- The screen will say "initializing"
- Use this time to describe the screening, letting athletes know that it won't hurt and that you are testing to see how strong their bones are



45

BMD Testing: Step 2

- When the screen says, "See gel pads" "Press Open"
- The transducers will come together, touch and retract.
- The screen will say, "Opening, Insert foot, press measure"
- Press "Open" to retract transducers.
- Touch the athlete's left knee and ask that they left foot in the machine.
- The athlete's heel should touch the back of the foot cradle. Rest your hand on top of the foot to hold it still and provide reassurance.
- Press "Measure." The transducers will close on the sides of the athlete's foot. Sound waves measure for about 30 seconds



46

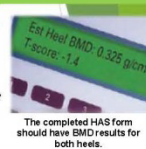
BMD Testing: Step 3

- The transducers open on their own. When fully open, ask the athlete to remove their foot.
- The transducers will center and touch during the "resetting" process. Athletes may rest their foot to the side of the foot cradle in case you need to remeasure. E.g. if the result has an * beside it. Provide a tissue to wipe the gel from their heel. Press "Measure."
- The transducers will close on the sides of the athlete's heel. Sound waves measure for about 30 seconds. The transducers will open on their own.
- When they are fully open, ask the athlete to remove their foot.
- The transducers will return to center during the "resetting" process. Athletes may rest their foot to the side of the foot cradle in case re-measuring is necessary. Provide a tissue to wipe the gel from their heel.

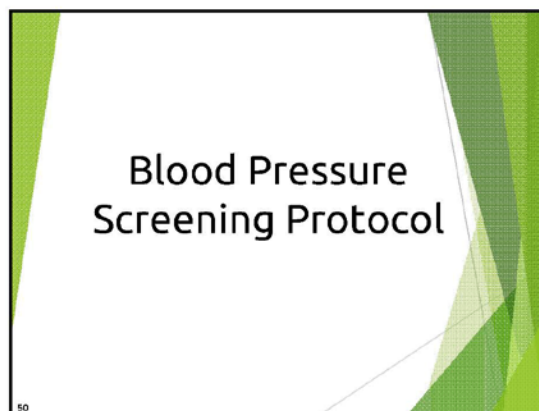
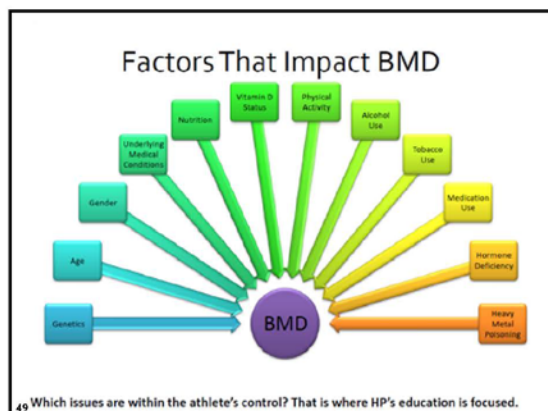
47

BMD Testing: Step 4

- Record score on the HAS form, include the + or -.
- Push "On" while printing, to reset the machine.
- Screeners can reinforce the key messages for the Strong Bones Choose to Change card while the machine prints and re-sets for the next scan.
- Repeat on right heel. Print result if it is lower than the left heel.
- Staple results to right corner of the Athlete's Personal Health Record
- Don't record or attach results with an asterisk* as these scores are invalid. Redo test up to 3 times, and if a * appears each time, thank the athlete for their time, and note on HAS form "unable to test"
- Note: See **Supplies and Equipment** list for ordering information.



48



Blood Pressure Screening Protocol

BP screening helps predict risk of stroke, aneurism, heart and kidney disease.

- Proper equipment
- Athlete preparation
- Athlete placement
- Read and record measurement

51

Blood Pressure Equipment

- Electronic blood pressure monitor
- Supply of batteries or close to wall plug for power
- Manual sphygmometer and stethoscope (only used by trained and experienced medical personnel)
- Appropriate cuff size (pediatric, medium and large)
 - The width of the cuff should cover two-thirds of the upper arm. The cuff should be long enough to encircle the whole arm.
- Do not use wrist monitors
- Check accuracy of monitors by testing one person on each of the cuffs. If consistent results are not achieved, determine which machine is unreliable and don't use it.

52

Athlete Preparation and Placement

- Before measuring, athletes should avoid smoking, eating, and physical activity 30 minutes prior to testing. If showing signs of stress, avoid taking BP measurement until the feeling subsides.
- Athlete should be seated at table, their arm should be supported on the table at an even level with their heart.
- Ask the athlete to keep their feet on the floor, uncross legs. Roll sleeve up to expose upper arm. Wrap the cuff around it. Follow instructions for BP monitor "on & off".
- Place cuff on the exposed arm 2cm (about two finger-breadths) above the elbow. Assure that tubing is placed at the center of the arm facing the front, and that the sensor is correctly placed.
- Pull the end of the cuff so it is wrapped evenly and firmly around the arm. Check that the tightness of the cuff is appropriate: you should be able to just slip two fingertips beneath the cuff, near its edge at the top end.

53

Read and Record BP Measurement

- The cuff will inflate, then slowly deflate. When the measurement is complete, readings of the systolic and diastolic blood pressures and pulse rate will be displayed on the digital panel.
- Record the BP reading on the HAS form. Do not round up or down.
- Repeat for the second arm and record
- Refer to the Health Promotion chart for and other actions, based on reading.

54

Retest if either BP value is greater than 160 or 100

- Ask the athlete to drink water and rest for 10-15 minutes
- Retest blood pressure
- If the reading is still greater than 160/100 (either measure) notify the athlete their blood pressure is high
- Notify the athlete's coach of the blood pressure measurement
- The athlete should not leave the Health Promotion venue until their coach has been informed.
- Request that the athlete have their blood pressure checked later in the day or the next morning

Note- athletes with a blood pressure reading greater than 160/100 cannot participate in sports unless they are cleared by a physician

55

Factors that Impact Blood Pressure



Which issues are within the athlete's control? That is where HP's education is focused.

56

Some Medications Increase Risk of

bone loss, sun sensitivity, obesity, heart conditions, hypertension & dehydration

American Academy of Developmental Medicine & Dentistry www.AADMD.org

57

Health Habits Survey Protocol

58

Health Habits Survey Protocol

Why a Health Habits Survey?

- Learn about the athlete's individual health habits
- Determine areas the athlete may want more information
- Reinforce healthy habits the athlete currently practices
- Start the conversation with the athlete on health habits
- Consider the summary data (HAS Event Report) when tailoring your HP venue.
- Topics include nutrition, physical activity, handwashing, sun safety, and tobacco use

59

Health Habits Survey

Photo guided food frequency & lifestyle questions are nutrition and health education conversation starters



60

Tips on Asking the Questions

- Introduce yourself and explain to the athlete that you will ask them questions about _____. Ask each question and remember to:
- Be a good listener; take your time; let the athlete take their time.
- Be non-judgmental throughout the discussion.
- Follow the question- open ended- Do you _____? Do not lead with the response, "You do _____?"
- Affirm good health habits. Keep it up; you're doing great. Congratulations, you are working hard to _____.
- Ask the athlete if they would like more information about _____.
- Thank the athlete for talking to you about _____.

61

Tips for Success

- Visual aids and pictures can contribute to the athlete's understanding of the questions being asked. This is especially important for the Nutrition: Food and Beverage Habits questions.
- The Health Habits Survey appendix contains food pictures to use with each of the questions. The Health Habits Station will have food pictures representing a variety of countries and geographic regions.



62

Health Promotion Education Stations

Focused, interactive, population based, colorful, inviting with lesson plans and suggested resources.

- Station overview with key messages
- Lesson plans (in manual)
- Equipment, supplies, materials
- Examples of effective stations
- Partner ideas
- Population based strategies

- Nutrition
- Hydration
- Bone Health
- Tobacco
- Handwashing
- Sun Safety

Health Fair Planning Guide

<http://fcs.tamu.edu/health/hfpg/Health-Fair-Planning-Guide-with-Appendix.pdf>

63

Instructions & References Materials

Available at each education station

- Detailed lesson plan for station
 - ❖ Set up
 - ❖ Working with the athletes
 - ❖ Incentive items (for some stations)
 - ❖ Resources
- Key reference materials



64

Nutrition Station Overview & Key Messages

Food choices throughout life influence our health and well being.

Healthy foods and beverages improve sports performance.

This station provides situations to teach which foods and beverages promote athletes' health and which do not.



65

Nutrition Education Station: Supplies, Equipment, Materials & Partners



Partner Ideas: Health department and extension staff; local dietitians; Heart Association, health sciences students. Other partners?

66

Nutrition Education Station



Which foods make us strong and healthy?



67

Some Ways To Engage Athletes With Food. Pros and cons of these?



Population Strategies for Enhanced Nutrition

What's most effective, teaching about healthy foods and beverages? Offering only healthy foods and beverages? Or both?



69

Hydration Station Overview & Key Messages

Hydration is important for everyone, especially for athletes.

This station teaches

- which beverages are ideal for hydration
- signs of dehydration and
- importance of limiting sugar sweetened beverages



70

Hydration Station Examples



How do you know when you are thirsty?



Signs of Dehydration

- Constant hunger/thirst
- Dry skin and chapped lips
- Constipation
- Dizziness
- Yellow urine
- Dry mouth



71



Population Strategies for Improved Hydration

- WeTapApp for Smart phones
- Map water fountains on campus
- Colorful signs at fountains
- Offer water bottles as incentives
- Offer water where other beverages are available



72

Hand Washing Station Overview & Key Messages

Keeping our hands clean is one of the best things we can do to keep from getting sick and avoid spreading germs to others.

This station teaches effective handwashing techniques and important times to wash our hands.



73

Hand Washing Station Supplies, Equipment, Materials and Partners



Glo Germ Gel, powder, LED flashlight & folding box



CAMBRO: Portable handwashing station used where there is no sink to demonstrate handwashing. Insulated beverage container, plus soap and towel topper.



TIPPY TAP: Hands free way to wash hands in areas without running water. Foot lever operated, reduces germ transmission as the user touches only the soap.



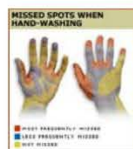
"Do the Global Handwashing Dance!" from UNICEF. TV necessary

Partner Ideas: Health Department Restaurant Inspectors, County Extension, Local Water Company. Other partner ideas?

74



Population Based Handwashing Strategies



One Strategy: Select handwashing posters, brand with your logo, laminate and post in bathrooms, at handwashing sinks around your campus. Use the same posters at the HP Handwashing Station and invite athletes to find them throughout the Special Olympics areas.

75

Bone Health Station Overview & Key Messages

Bone health involves nutrition, physical activity and avoiding tobacco and alcohol and insuring vitamin D adequacy.

This station teach which foods, beverages and activities promote healthy bones.



76

Bone Health Station: Supplies, Equipment, Materials and Partners



Partner Ideas: Health Department and County Extension staff; Dairy Council, dairy processors, health sciences students. Other partner ideas?

77

Bone Health Education Station



78

Milk Moustache Photo Booth

Partner Ideas: Local photographers, County Extension staff; Dairy Council, health sciences students, local celebrities and athletes. Other partner ideas?

Tobacco Avoidance Station Overview & Key Messages

Tobacco and second hand smoke avoidance throughout life influence our health and well being.

This station provides situations to teach which foods and beverages promote athletes health and which ones do not.

Tobacco Avoidance Station: Supplies, Equipment, Materials and Partners

Partner Ideas: Health Department Tobacco experts; Lung Association; Cancer Society; Heart Association, pulmonology staff. Other partners?

Tobacco Avoidance Education Station

Athletes run in place for 30+ seconds. Stop, pinch nostrils and try to breathe through a straw. Folks will gasp for air just like a smoker with damaged lungs.

What are the pros and cons of using pigs lungs to demonstrate tobacco damage?

How would you use a moist sponge and a dry one to teach about tobacco?

Please Don't Smoke In My Air

Population Based Tobacco Avoidance Strategies

Idea! Select or create "no smoking here" posters, brand with SO-HP logo, laminate and post around your campus. Use the same posters at the HP Tobacco Avoidance Station, and invite athletes to find them throughout the Special Olympics areas. Learn about your programs' tobacco policy.

Sun Safety Education Station Overview & Key Messages

Sunlight is the main source of vitamin D and the main cause of skin cancer.

This station gives a balanced message of how to protect skin and eyes from sunburn, enjoying the sun safely by using protective measures and the importance of a daily vitamin D supplement.



85

Sun Safety Station: Supplies, Equipment & Materials



86

Sun Safety Partners & Population Strategies



Partner Ideas: Sun Safety Alliance; Vitamin D Council; local dermatologists and staff, public health agencies (cancer prevention team). Other partners?

87

Physical Activity Education Station Overview, Key Messages & Partners

This station is designed to engage athletes in activities that they can enjoy outside of Special Olympics training. Ideally, planned activities and demonstrations will be ones that athletes can do

- at little or no cost
- at home rather than in a fitness center
- with or without others
- safely in the heat or cold
- which are aerobic, build strength, flexibility and/or balance

Partner Ideas: Dance studios; YMCA, Parks and Recreation; public health staff; health and exercise science students; yoga instructors, county extension agents. Other partners?

88

Physical Activity Education Station Supplies, Equipment and Materials



89

Population Based Physical Activity Strategies



90

Check-Out Station Overview & Key Messages

After completing the screening and education station activities, athletes stop at the Check-Out Station to:

- Review each of their screening results
- Discuss BMD, BMI and/or BP referral needs athlete & parent/coach/guardian
- Identify a health behavior goal that meets the athletes' interests and needs
- Turn in completed HAS forms
- Receive an incentive or gift as thanks for participation in the venue



91

Adult Referral Criteria

- Bone Mineral Density
 - ✦ Less than -1.1 or lower
 - ✦ Greater than +3.5
- BMI
 - ✦ 18.4 or less -underweight
 - ✦ 25 to <30 - overweight
 - ✦ 30 to <35 - obese
 - ✦ 35 or greater -morbidly obese referral required
- Blood Pressure
 - ✦ 90 over 60 or lower
 - ✦ 140 over 90 or higher for either number

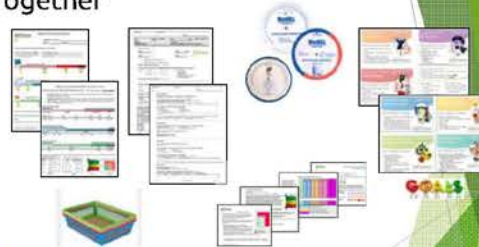
92

Pediatric Referral Criteria (up to age 19)

- BMI Percentile for age and gender
 - less than the 5th percentile (underweight)
 - greater than the 85th percentile (overweight)
 - greater than the 95th percentile (obese)
- Blood Pressure
 - Follow the pediatric table in the Health Promotion Screening Reference Sheet

93

Check-Out Station: Supplies, Equipment, Materials & Partners: Pulling It All Together



Partner Ideas: Individuals with health sciences background, health sciences students, public health staff. Other partners?

94

Young Athletes & Healthy Young Athletes

- [Young Athletes Fact Sheet](#)
- [Transition One Pager](#)
- [Young Athlete Registration Form - English](#)
- [Young Athlete Registration Form - Spanish](#)
- [Brochure - English](#)
- [Brochure - Spanish](#)
- [Activity Guide - English](#)
- [Activity Guide - Spanish](#)
- [Young Athletes Site Expectations](#)



95

Special Olympics Health Promotion Volunteers



96

Special Olympics
Health Promotion

Special Olympics International
Healthy Athletes
Health Promotion Team

Darcie Mersereau, MPH Vice President, Health Programs Special Olympics International dmersereau@specialolympics.org		Kyle Washburn, MBA, MEd Director, Healthy Athletes Health Promotion & MedFest kwashburn@specialolympics.org	
Peyton Purcell, MPH Health Promotion Manager ppurcell@specialolympics.org		Matt Holder, MD, MBA Global Medical Advisor Health Promotion & MedFest mattholder@aadm.org	
Alice Lenihan, MPH, RD, LDN Global Clinical Advisor Health Promotion Program alenihan@aol.com		Mary Pittaway, MA, RD Global Clinical Advisor Health Promotion Program mpitt59802@aol.com	


Join Us on Facebook
<http://www.facebook.com/Special.Olympics.Healthy.Athletes>

Special Olympics
Health Promotion

