

CLINICAL DIRECTOR MANUAL



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For questions or support, please contact the Special Olympics International team at: healthyhearing@specialolympics.org

Dear Healthy Hearing Clinical Director,

Thank you for your interest in the Special Olympics Healthy Hearing Program. This handbook provides essential information to help you plan and implement a successful event. It includes details about Special Olympics, its various programs, and specific guidelines for conducting a Healthy Hearing event.

Please review this handbook as you prepare. The handbook also outlines the role of volunteers and healthcare professionals who are crucial to the success of these events. It will guide you through the steps required to set up hearing screenings, manage logistics, and ensure that all athletes receive the best possible care.

Moreover, you'll find recommendations on how to engage with the local community, promote awareness about the importance of hearing health, and encourage participation from athletes and their families. The handbook also contains contact information for support and resources available to assist you throughout the planning and execution stages.

We deeply value your commitment to enhancing the well-being of Special Olympics athletes and are here to support you every step of the way. Your dedication helps create a positive impact on the lives of many individuals.

Kind regards,
Healthy Hearing

INTELLECTUAL DISABILITY

What is an Intellectual Disability?



Intellectual disability (ID) is a term used when a person has certain limitations in cognitive functioning and skills, including communication, social and self-care skills. These limitations can cause a child to develop and learn more slowly or differently than a typically developing child. Intellectual disability can happen any time before a child turns 18 years old, even before birth.

Intellectual disability is the most common developmental disability.

According to the American Association of Intellectual and Developmental Disabilities (AAIDD), an individual has an ID if they meet three criteria:

- IQ below 70-75
- a significant limitation in two or more adaptive areas (= skills that are needed to live, work, and play in the community, such as communication or self-care)
- the condition manifests itself before the age of 18.

What can cause an Intellectual Disability?

ID can be caused by injury, disease, or a problem in the brain. For many children, the cause of their ID is unknown.

Some causes of ID, such as Down syndrome, Fetal Alcohol Syndrome, Fragile X syndrome, birth defects, and infections, can happen before birth. Some happen while a baby is being born or soon after birth.

Other causes of ID do not occur until a child is older. These might include severe head injury, infections, or stroke.

What are the most common causes of an Intellectual Disability?

The most common causes of ID are:

Genetic conditions: Sometimes an ID is caused by abnormal genes inherited from parents, errors when genes combine, or other reasons. Examples of genetic conditions are Down syndrome, Fragile X syndrome, and phenylketonuria (PKU).

Complications during pregnancy: An ID can result when the baby does not develop inside the mother properly. For example, there may be a problem with the way the baby's cells divide. A woman who drinks alcohol or gets an infection like rubella during pregnancy may also have a baby with an ID.

Problems during birth: If there are complications during labor and birth, such as a baby not getting enough oxygen, they may develop an ID.

Diseases or toxic exposure: Diseases like whooping cough, measles, or bacterial meningitis can cause an ID. They can also be caused by extreme malnutrition, not getting appropriate medical care, or by being exposed to poisons like lead or mercury.

We know that an ID is not contagious: you can't catch an ID from anyone else. We also know it's not a type of mental illness, like depression. There are no cures for ID. However, children with an ID can learn to do many things. They may just need to take more time or learn differently than other children.

How common is ID?

Approximately 6.5 million people in the United States have an ID. According to the World Health Organization (WHO) approximately 1 to 3% of the global population has an ID, which is as many as 200 million people worldwide.

ID is significantly more common in low-income countries: 16.41 in every 1,000 people. Disabilities overall are more common in low-income countries. The United Nations Development Program estimates that 80% of all people with disabilities live in low-income countries. While people with disabilities represent approximately one in 10 people worldwide, they are one in every five of the world's poorest people.

SPECIAL OLYMPICS: MORE THAN SPORTS

Healthy Communities:

In order to help athletes achieve their best performances on and off the field, more and more SO Programs are providing year-round on-going wellness opportunities, follow-up health care, education and support for athletes, families and the public as part of the Healthy Communities (HC) model made possible by the Golisano Foundation.

The ultimate goal of the HC project is to increase access to health care and resources for people with ID and increase their health status.

The criteria to become a HC are:

- 70% of athletes who receive referrals at the Healthy Athletes Program (HAP) have a place to go for follow-up care following a HAP examination.
- Programs offer health and wellness programming for athletes outside of HAP-events involving partners, coaches and/or families as appropriate.
- Sufficient sustainable resources to achieve the above criteria and deliver the project.

It's thanks to the Golisano Foundation that the HC projects are possible. In 2012, Tom Golisano donated \$ 12 million to launch the SO Healthy Communities (HC) initiative over a 4-year period. In 2015, the Golisano Foundation gave \$ 25 million to grow SO Health work, including scaling the HC model to 100 SO Programs by 2020.



Unified Schools:



Unified Schools is an education and sports-based strategy powered by an engaged youth community that increases athletic and leadership opportunities for students with and without ID, while creating communities of acceptance for all.

Unified Sports:



Dedicated to promoting social inclusion through shared sports training and competition experiences, Unified Sports joins people with and without ID on the same team. In Unified Sports, teams are made up of people of similar age and ability, which makes practices more fun and games more challenging and exciting for all. Having sport in common is just one more way that preconceptions and false ideas are swept away.

Young Athletes Program:



Young Athletes™ (YA) is a unique sport and play program for children with ID. The focus is on fun activities that are important to mental and physical growth.

Children ages 2 to 7 enjoy games and activities that develop motor skills and hand-eye coordination. YA is an early introduction to sports and to the world of SO. The children learn new things, play and have lots of fun!

Unified Leadership:

Through sports training and competitions, SO helps people with ID achieve joy, acceptance and success. They gain the confidence that comes with achievement. They feel empowered. The Athlete Leadership Programs can take athletes even farther - as leaders and spokespeople respected in their communities.

The athletes can become mentors for other athletes. They can train to become coaches and officials. They can also move toward a more public role as a speaker or spokesperson, telling audiences and journalists about the remarkable changes that SO helped bring to their lives.

HEALTHY ATHLETES

About Healthy Athletes

Special Olympics Healthy Athletes® is designed to help Special Olympics athletes improve their health and fitness. The goal of Healthy Athletes is to improve each athlete's ability to train and compete in Special Olympics as well as other sports activities.

The **key objectives** of Special Olympics Healthy Athletes are to:

- Improve access to care at event-based and other health screening clinics.
- Make appropriate referrals for follow-up to community health professionals.
- Train health care professionals and students about the needs of people with intellectual disabilities
- Collect, analyze and disseminate data on the health needs of people with intellectual disabilities.
- Advocate for improved health policies and programs for people with intellectual disabilities.

Health screenings are conducted at World Games as well as local, State and National Games, and occasionally at special events. Healthy Athletes screenings have provided free care to hundreds of thousands of Special Olympics athletes. All Healthy Athletes screening areas maintain confidentiality of each athletes' health information. Screening data are aggregated and assessed to improve individual athlete health, and to assist in policy recommendations and advocacy for improved health care for Special Olympics athletes around the world.

The **Healthy Athletes Disciplines** are:

- Lions Clubs International Foundation Opening Eyes® (Vision Care)
- Special Smiles® (Dentistry)
- FUNfitness (Physiotherapy)
- Healthy Hearing (Audiology)
- Health Promotion (Preventative Medicine)
- Fit Feet (Podiatry)
- MedFest® (General Medicine)
- Strong Minds (Mental Health)
- Healthy Young Athletes (Pediatrics)



HEALTHY ATHLETES PROGRAM: DISCIPLINES

Fit Feet:

A discipline of Healthy Athletes, Fit Feet is a podiatric screening for Special Olympics athletes and people with intellectual and developmental disabilities (IDD) that focuses on athletes' ankle & foot health, lower extremity biomechanics, as well as footwear fit and condition. Many Special Olympics athletes are wearing the wrong size or type of shoes while competing, which can contribute to or worsen the presence of foot and ankle pain and dysfunction. Together, these issues can negatively impact an athletes' navigation of everyday life and sport performance. During Fit Feet screenings, volunteer foot care specialists & students work with athletes to identify areas of concern. Using the results of the screening, volunteers provide athletes, coaches, families, and caregivers education on proper foot care and health to maximize the athlete's ability to step lively onto the playing field of everyday life.



FUNFitness:

FUNfitness is a physiotherapy (physical therapy) screening that examines the flexibility, strength, balance, and aerobic fitness of Special Olympics athletes and people with intellectual and developmental disabilities (IDD). Dysfunction in any of these areas can result in pain, discomfort, and sub-optimal activity performance in sports and everyday life. During these screenings, physiotherapists, students, and other related health professionals, identify areas of concern in the above areas to offer education and expert guidance on suggested follow-up care including exercise recommendations, sport-specific training tips, and when appropriate, referral recommendations.



Health Promotion:

Health Promotion, a discipline of Special Olympics Healthy Athletes, focuses on healthy living, healthy lifestyle choices, and nation-specific health issues. In addition to health education activities, Health Promotion offers screenings for bone density, blood pressure, and body mass index (BMI). Its goals include encouraging and enhancing healthy behaviors and improving self-efficacy and self-advocacy.



Healthy Hearing:

Healthy Hearing, a discipline of Healthy Athletes, provides comprehensive hearing screenings, hearing aid maintenance and minor repairs, hearing aid fittings, and audiologic services, such as earwax removal, to Special Olympics athletes. The goals of Healthy Hearing screening are to detect possible ear and hearing problems, recommend medical and audiologic follow-up, promote the necessity of regular ear and hearing screenings, for people with intellectual and developmental disabilities (IDD).



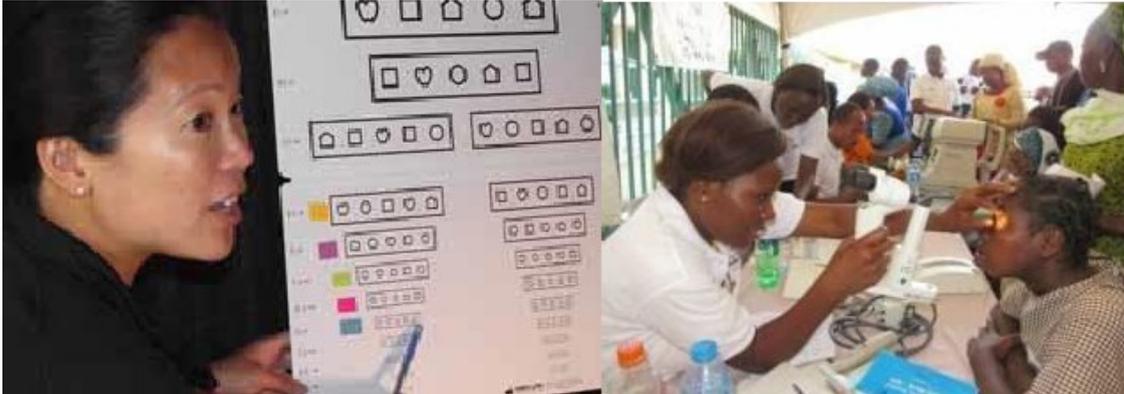
MedFest:

MedFest was created to offer the physical exam that all athletes need prior to participating in Special Olympics sports programming. It is sometimes the first exposure these athletes have to medical care. For some Special Olympics athletes, life-threatening conditions have been identified through MedFest and subsequently treated through referral and connection to community-based care. Led by volunteer physicians, nurses, physician assistants, and medical students, the MedFest screening consists of the following stations: medical history, height and weight, blood pressure, cardiology test, musculoskeletal test, orthopedic tests, abdominal evaluation, and a check out station.



Lions Clubs International Foundation Opening Eyes® (Vision)

A discipline of Healthy Athletes, the Lions Clubs International Foundation Opening Eyes® program provides non-dilated vision screenings, refractions, and fabrication of prescription eyewear to Special Olympic athletes. Opening Eyes strives to positively impact the attitudes of the optometrists, ophthalmologist, opticians, eye care professionals, along with optometry students and ophthalmology residents, who volunteer to care for people with intellectual and developmental disabilities (IDD). Opening Eyes Clinical Volunteers serve to educate the athletes, their guardians, and coaches about the importance of vision in performance in sports, school, and work. Through generous donations from our corporate sponsors, Safilo who provides frames, and OneSight Essilor Luxottica Foundation who provides lenses, athletes will receive appropriate eyewear at the culmination of the screening.



Special Smiles:

The Special Smiles® discipline of Healthy Athletes provides comprehensive oral health care information, including free dental screenings and instructions on correct brushing and flossing techniques to Special Olympics athletes. Volunteer dental health professionals and students perform oral health screenings, oral hygiene instruction, mouthguard adaptation, and apply fluoride varnish for athletes participating in the screening. Special Smiles has demonstrated remarkable success in creating awareness and improving access to dental care for people with intellectual and developmental disabilities (IDD).



Strong Minds:

Strong Minds is an interactive learning activity focused on developing adaptive coping skills. Competition provides a natural opportunity to develop active strategies for maintaining emotional wellness under stress, such as thinking positive thoughts, releasing stress, and connecting with others. Strong Minds is currently being further developed to include formal mental health screening measures (i.e., CORE-LD30 and WEMWBS-ID) to identify athletes at-risk for mental health concerns. Screening results will inform a more robust referral system to connect these athletes with community-based healthcare professionals.



Healthy Young Athletes:

Healthy Young Athletes is a holistic pediatric screening offered to children 2 – 7 years old, with and without Intellectual and Developmental Disabilities (IDD), as an initial offering by Healthy Athletes. The screening can be implemented across the three Young Athletes implementation models—school, community, and home—as well as in conjunction with large-scale Healthy Athletes events. The screening is intended to complement a child’s primary care and provides an additional review of the child’s health and development. It is therefore paired with a comprehensive referral and community support strategy that links families with local providers, community services, and education resources for follow-up and continued support. It also serves as an educational experience to increase health and development knowledge amongst parents and caregivers. This is achieved by identifying medical, developmental, and behavioral concerns that parents and caregivers may have about their child and directing them to the appropriate resources.



REFERENCES

- American Association of Intellectual and Developmental Disabilities
Centers for Disease Control and Prevention
- National Center on Birth Defects and Developmental Disabilities
Special Olympics International website
- United Nations Development Program World Health Organization

ACKNOWLEDGEMENT

The Healthy Hearing Program relies on our Clinical Directors, who generously contribute their time and expertise to benefit our athletes. Their dedication ensures the delivery of high-quality hearing care and support, making a significant difference in the lives of many individuals. Our Clinical Directors play a crucial role in evaluating and managing hearing health, providing valuable insights and recommendations.

We are thrilled to have you on the team. Your involvement not only enhances the effectiveness of our program but also exemplifies the spirit of community and collaboration. Your service is invaluable and greatly appreciated by both the athletes and the entire Healthy Hearing organization. Together, we can continue to promote and ensure better hearing health for all.

Thank you for serving!
Healthy Hearing

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SPECIAL OLYMPICS – RELATED LINKS

- Unified Schools: <https://www.specialolympics.org/our-work/unified-schools>
- Inclusive Health: <https://www.specialolympics.org/our-work/inclusive-health>
- Unified Sports: <http://www.specialolympics.org/unified-sports.aspx>
- Young Athletes Program: <http://www.specialolympics.org/young-athletes/>
- Unified Leadership:
http://www.specialolympics.org/Sections/What_We_Do/Athlete_Leadership.aspx
- How to speak to individuals with disabilities:
https://media.specialolympics.org/resources/video/10-Commandments-How-to-Speak-with-People-with-Disabilities.mp4?_ga=2.251948681.1622762331.1548884715-1137030687.1519746336

HEALTHY HEARING – RELATED LINKS

- HH Resource page: <https://resources.specialolympics.org/health/healthy-hearing>
- HH Health Athletes System Form: <https://resources.specialolympics.org/health/healthy-athletes-system>
- HH equipment request form:
<https://app.smartsheet.com/b/form/e22a6992f5bc488cbf8b7d4f671a82a6>
- HH data requests: healthdata@specialolympics.org
- HH HAS data system: <https://has.specialolympics.org/healthone>
- HH post event report:
https://specialolympics.qualtrics.com/jfe/form/SV_4ixjGhQb8vErnZH
- HH videos: <https://www.youtube.com/watch?v=OfpAGrFhK64&feature=youtu.be>
- HH 1-minute promotional video: https://www.youtube.com/watch?v=hRLHkf_4D6o

WHAT CLINICAL DIRECTOR SHOULD KNOW/DO PRIOR TO EVENT

- Review the Healthy Athletes System (HAS) Form that you will be using during the event
 - Enables the electronic capture of screening data across the Healthy Athletes disciplines. Can be found on the Healthy Hearing Resource page and linked in “Related Links” page of this manual.
- Event information
 - When is the event?
 - Where is the event?
 - How many athletes will compete?
- Need by date of equipment
- Submit equipment request form at least 60 days prior to event
- OAE tips request (S, M and L)
- OAE-units needed
- Tympanometers needed
- Audiometers needed
- Voltage requirements
- Local screening equipment availability
- Shipping information for equipment (name + address)
- Number of volunteers needed
- Secure sponsors
- Review clinical director manual in its entirety
- Review hold harmless agreement form and make sure each volunteers signs day of event https://media.specialolympics.org/resources/health/disciplines/Hold-Harmless-Agreement.pdf?_ga=2.131091535.1385627676.1694533469-45813867.1684762500

WHAT CLINICAL DIRECTOR SHOULD DO FOLLOWING EVENT

- Data entry
 - Healthy Hearing Report
- Return local screening equipment if borrowed
- Return SOI equipment if borrowed via SOI.
 - Request equipment return label from healthyhearing@specialolympics.org
 - Return of materials and supplies one business day following event
- Thank you cards for volunteers and sponsors

REQUESTING HEALTHY HEARING EQUIPMENT

Please make your request for Healthy Hearing equipment at least **60 days** prior to your event, we cannot guarantee equipment fulfillment for submissions outside of this timeframe.

Use the following link **for requesting equipment in North America** <https://app.smartsheet.com/b/form/e22a6992f5bc488cbf8b7d4f671a82a6>. For any other Region, please visit the Healthy Hearing Resource Page for your respective link.

Healthy Hearing Inbox for any questions, comments, or concerns
healthyhearing@specialolympics.org

Please DO NOT contact the distributor directly. If you have multiple events, please complete 1 form for each event.

FOR YOUR INFORMATION

Please allow time to charge and do behavioral check of equipment before use. **All units are to be returned the next business day following your event.** SOI pays for units being shipped back to the distributor only.

Please DO NOT discard enclosed air bills and DO hold on to the original shipment packaging. Please do not discard or remove documents from the packaging.

Insurance Information: While in use at events and during transport, the equipment distributor and SOI jointly carry insurance to cover hearing equipment for property damage or loss and damages due to business activities. It is not necessary to acquire additional coverage per event.

RECEIVING YOUR EQUIPMENT

- Please immediately check all equipment to ensure you have received the correct type and quantities.
- When unpacking the box, carefully remove all equipment and save all original packaging for returning equipment.
- Test all equipment to ensure it is working properly.
- Charge any equipment as needed.
- If equipment is not working properly or there are any urgent issues, please contact Healthy Hearing immediately at healthyhearing@specialolympics.org
- Note: Many issues with the OAE unit can be resolved by tightening or adjusting the probe tip nozzle. An additional nozzle is enclosed as a backup for any issues you may experience.

SENDING YOUR EQUIPMENT

- Schedule UPS pick-up or drop off at a UPS location the **NEXT BUSINESS DAY** after your event. If this is an issue, please alert Healthy Hearing immediately at healthyhearing@specialolympics.org
- Utilize original packaging to **carefully pack all equipment.**
- Make sure all test probes for OAE unit and tympanometer are cleaned and disinfected before return.
- Unplug all cords from units including headphones. Ensure that all cords are packed appropriately in carrying cases.
- Separate different size OAE foam ear tips and place in original bags. **PLEASE SEND EXTRA TIPS BACK TO SPECIAL OLYMPICS.**
- Remove any labels and other previous shipment markings on the box that are no longer applicable.
- Use adequate cushioning material that was originally sent with equipment to wrap each item in bubble wrap.
- **Make sure that all equipment is well protected.**
- Use strong tape designed for shipping.
- Please report any equipment issues to healthyhearing@specialolympics.org and place a note with a description of the problem on the equipment.
- Ensure the address label is clearly printed out and displayed on packages.
- Place international shipping paperwork (if needed) in box.

EQUIPMENT AND SUPPLY LIST

Please visit the Healthy Hearing Resource Page where the clinical director will be able to access the equipment and supply list with suggested quantities. Example below.

Screening Station Supplies					
Straight Back Chairs		need stable chairs for waiting area, check in/out and stations	35 per 80 athletes	<i>Contact Health Program Manager to procure from venue</i>	
Tables		Utilized for check in, check out, data review, stations amount may vary based on use of mat table availability	183cm (6ft) tables - 12 per 80 athletes	<i>Contact Health Program Manager to procure from venue</i>	
Tablecloths		used to cover tables in various tables at stations	based on table #	local store/online (e.g. amazon)	Cost varies
Otosopes		used to check inside athletes ears	1-2 per station	online (e.g., amazon)	Cost varies
Otoscope Specula (pediatric and adult sizes)		end tip of otoscope	150 (2 different sizes) per 80 athletes	online (e.g., amazon)	Cost varies

SPECIAL OLYMPICS HEALTHY HEARING – TO DO LIST

Volunteers:

- ✓ Search volunteers:
 - Creation of letter/mail for:
 - Student volunteers
 - Clinical volunteers (audiologists + medical doctors)
 - Non-clinical volunteers (check-in, guidance, data entry)
 - Mailing volunteers:
 - Postal addresses/email addresses
 - Educational Programs
 - Professional Societies (audiology + medical doctors)
 - Service Clubs (e.g., Lions, Rotary, ...)
- ✓ Register volunteers:
 - Digital registration
 - Extra insurance for medical doctors if ear wax removal is available
- ✓ Inform volunteers:
 - General info
 - HH-manual + screening form
- ✓ Train volunteers:
 - Practical training at the venue, pre-screening
- ✓ Thank you note (+ results) for volunteers

General:

- ✓ Equipment and supply list: adapt numbers
- ✓ SOI Grant (SO Program)
 - Necessary info for HH
 - Submit to Regional HA Manager (SO Program)
- ✓ Contact potential sponsors:
 - Audiological equipment
 - ENT equipment
 - Supplies
 - Giveaways
- ✓ SOI Equipment request form (min. 2 months prior to event):
 - Fill in and submit via [Healthy Hearing Resource](#)
- ✓ Reminder sponsors:
 - Practical: receiving and returning of materials and supplies
 - Necessary information for insurance
- ✓ Purchase additional supplies
- ✓ Copies
- ✓ Thank you note (+ results) for sponsors

Forms: number of copies is dependent on number of anticipated athletes attending the screening

- ✓ HH HAS screening forms: located via [Healthy Hearing Resource](#)
- ✓ HH PASS recommendation forms: located via [Healthy Hearing Resource](#)
- ✓ HH NO PASS recommendation forms: located via [Healthy Hearing Resource](#)
- ✓ Guidelines for referral follow-up: located via [Healthy Hearing Resource](#)
- ✓ Guidelines for urgent referral: located via [Healthy Hearing Resource](#)
- ✓ Guidelines for general advice: located via [Healthy Hearing Resource](#)
- ✓ Manuals for volunteers: located via [Healthy Hearing Resource](#)
- ✓ Return labels for boxes – request via healthyhearing@specialolympics.org

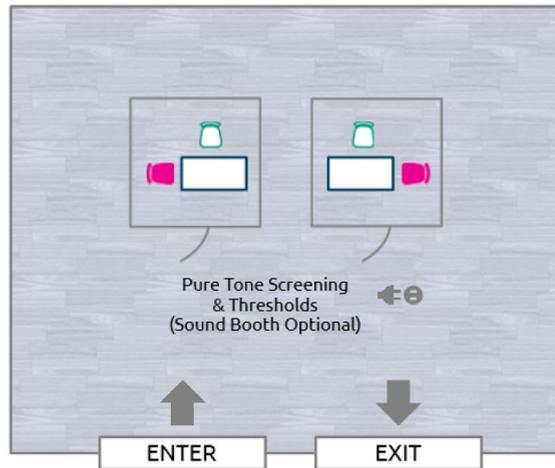
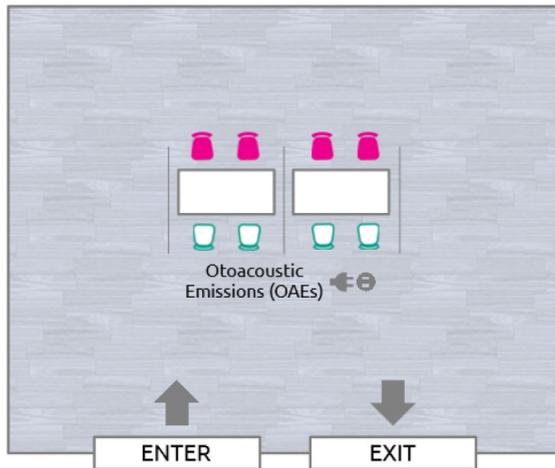
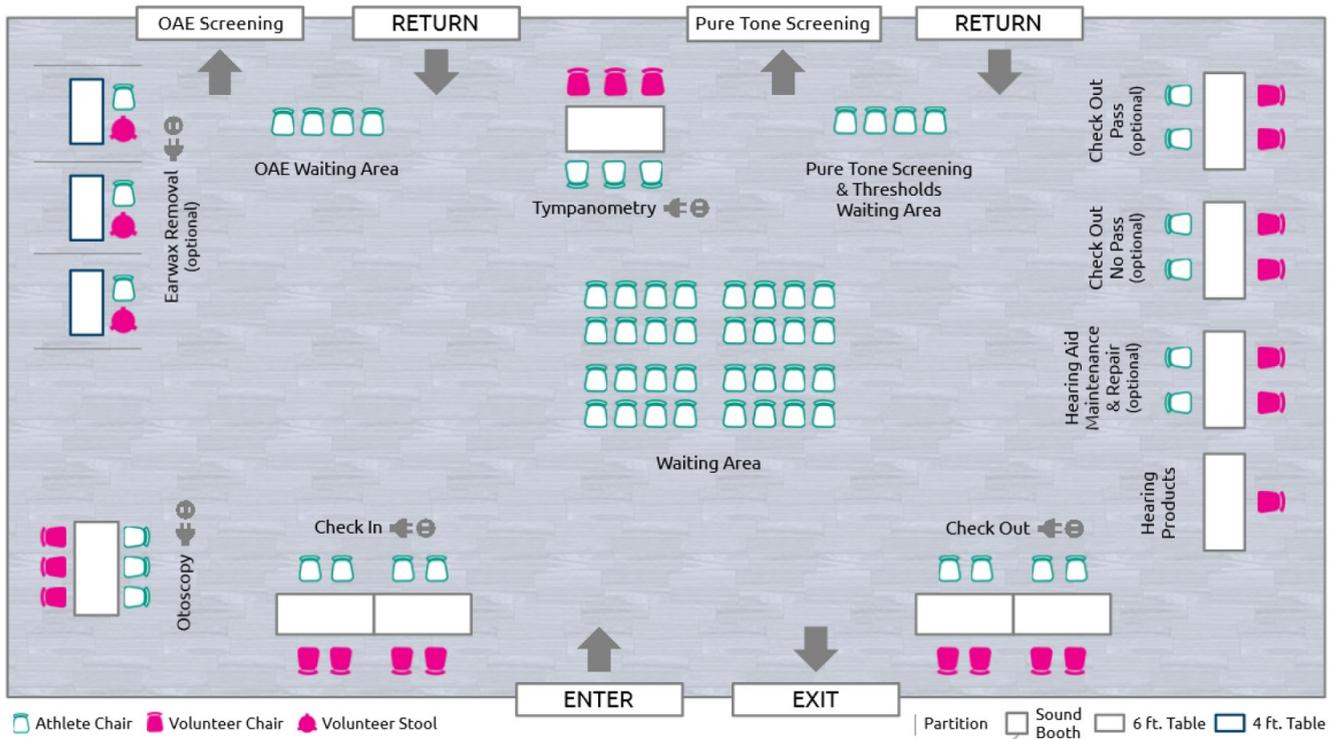
Clinical Directors:

- ✓ Visit screening location (min. 2 months prior to event)
- ✓ Insurance: [Hold Harmless Agreement](#)
 - Volunteers
 - Medical Doctors (if ear wax removal) make sure that they have separate coverage
 - Equipment ordered 60 days in advance

Post-event:

- ✓ Returning equipment
- ✓ Data-input
- ✓ Post-event reports
- ✓ Thank you note volunteers
- ✓ Thank you note sponsors

Healthy Hearing Proposed Venue Layout: Healthy Hearing Resource Page (Layout may change based on the actual space)



HEALTHY HEARING STATION REQUIREMENTS

Station 1: Check In

Procedure:

- ✓ Request athlete's data
- ✓ Questions regarding hearing: ask the athlete (not the coach) / no suggestive questions:
 - Do you think you have hearing loss?
 - Do you wear hearing aids? Which ear(s)?
If yes, Do you have your hearing aid(s) with you?

After check-in:

- ✓ Guide the athlete with their screening form to the waiting area or a volunteer takes the athlete with them to Station 2: Otoscopy

Station 2: Otoscopy

Procedure:

- ✓ Wear gloves
- ✓ Perform otoscopy in each ear
- ✓ Use same speculum for both ears, unless visible infection or blood in first ear
- ✓ Plastic ear specula = garbage bag;
- ✓ Metal ear specula = box to clean and disinfect/sterilize

Note of results:

- ✓ Take note of any abnormality of the pinna, in the ear canal or at the ear drum. Let the decision on the necessity of referral for these abnormalities be made by the Clinical Director.

Remarks:

- ✓ If extra otoscopic findings are noted, please select all that apply.

Next step:

- ✓ After otoscopy, all athletes continue to station 3 (OAE), regardless of results, unless contra- indication UNLESS there is an optional station.

Optional Station: Removal of Ear Wax / Foreign body

Station 3: Otoacoustic Emissions

Procedure:

- ✓ Wear gloves
- ✓ Perform OAE screening in each ear
- ✓ Use the same foam ear tip for both ears, unless visible infection or blood in first ear
- ✓ Foam ear tip = garbage bag

Note of results:

PASS = PASS on screening unit

NO PASS = REFER on screening unit

UNABLE TO TEST = if OAE screening not possible + check one of the reasons
= NO REFERRAL NEEDED

Next step:

- ✓ If bilateral “pass” → check-out
- ✓ If unilateral or bilateral “refer” / “no pass”
 - Athlete goes to station 4 (tympanometry) and 5 (pure tone screening), unless contra-indication

Station 4: Tympanometry

Procedure:

- ✓ Wear gloves
- ✓ Perform tympanometry in each ear
- ✓ Use the same ear tip for both ears, unless visible infection or blood in first ear
- ✓ Used ear tips → box to clean and disinfect

Note of results:

PASS = all values within the values of the normative data

NO PASS = type B-tympanogram or at least one of the numeric results outside of the normative data

UNABLE TO TEST = If tympanometry not possible + check one of the reasons
= NO REFERRAL NEEDED

Normative data for tympanometry: ("rule of 2")

PASS = admittance between 0.20 and 2 mmho
middle ear pressure between +20 and -200daPa
ear canal volume between 0.60 and 2 ml

NO PASS =

type B (flat)

type C (under pressure) with pressure more positive than +20 daPa or more negative than - 200daPa

type As with value for admittance < 0.20 mmho

type Ad with value for admittance > 2 mmho ear canal volume <0.60 ml or > 2 ml

Comments:

- ✓ Note type of tympanogram when "no pass", this way Clinical Director can decide on follow-up recommendations.
- ✓ Type D-tympanogram, without any further abnormalities on otoscopy = "pass"
- ✓ When unilateral or bilateral "no pass" on tympanometry, but all other screening results are normal, then the athlete will not be referred for follow-up, unless the Clinical Director at the event decides otherwise.

Next step:

- ✓ After tympanometry, all athletes continue to station 5 (Pure Tone Screening at 25dB HL), regardless of results.

TYMPANOMETRY NORMATIVE DATA

Ear canal volume: 0.60 – 2.00 cc
Middle ear pressure: +20 --200 daPa
Admittance: 0.20 – 2.00 cc

Station 5: Pure Tone Screening at 25dB HL

Procedure:

- ✓ Test frequencies: 2000 and 4000Hz (ear by ear)
- ✓ Intensity level: 25dBHL = "pass"
- ✓ Interrupted (pulsed) tones
- ✓ Screening procedure: starting level = 50dBHL → 35dBHL (if response at 50dBHL) → 25dBHL.
- ✓ Requested response = raise hand; play audiometry if needed
- ✓ Short training and/or conditioning if needed
- ✓ Disinfect headphones before usage with new athlete

Note of results:

PASS = reliable response at 25dBHL

→ check-out if 4x "pass" (both frequencies in both ears)

NO PASS = no (reliable) response at 25dBHL, or athlete refused testing

→ station 6

Next step:

- ✓ If 4 times PASS → check-out
- ✓ If NO PASS for at least 1 of the 4 frequencies → station 6 (threshold testing)

Station 6: Pure Tone Threshold Testing

Procedure:

- ✓ Test frequencies air conduction: 250, 500, 1000, 2000, 4000, 6000 and 8000Hz
- ✓ Test frequencies bone conduction: 500, 1000, 2000, 4000Hz
- ✓ Mask if necessary and possible
- ✓ Determine hearing threshold, ear by ear, also for ear with "pass" at pure tone screening

Comments:

- ✓ Test as many thresholds for air and bone conduction as possible. If attention or reliability decreases, try to test at least 1 threshold for bone conduction (1000Hz).
- ✓ Ask for assistance if needed.

Station 7: Check Out



Goal:

- ✓ Check if all parts of the screening form are completed (correctly) before data input (= quality control).
- ✓ Check screening results for follow-up care recommendations.
- ✓ Make individual follow-up care recommendations if necessary.
- ✓ Give general ear and hearing screening advice.
- ✓ Explain screening results, recommendations and general advice to the athlete, their coach, carer, or family.
- ✓ Complete screening form and referrals.

Procedure:

The screening results are explained to the athlete, and if necessary, also the recommended follow-up care. Also, every athlete receives advice on regular ear and hearing screening. All information presented is written down on the HH recommendation form and given to the athlete.

About half of the athletes will receive follow-up care recommendations because of possible ear and/or hearing problems. A good recommendation can only be made if the athlete went through all their required screening stations and when all parts of the screening form are completed correctly.

- **Step 1 = every screener:**
 - ✓ Checks if screening form is completed correctly for their station.
- **Step 2 = Healthy Hearing Clinical Director**
 - ✓ Checks screening form before any recommendations are given or before data entry.
 - ✓ Checks if the athlete went to all necessary stations.
 - ✓ Checks if screening form is complete; if screening results are unclear then ask the volunteer who performed the screening (name can be found on the screening form) to check and/or complete the results.
 - ✓ Checks the necessity for swim plugs and/or hearing aid repair and maintenance.
 - ✓ Makes individual follow-up care recommendations, based on the screening results.
 - ✓ Completes the final part of the screening form: "extra services provided at the event" and "recommended follow-up care"

- ✓ Completes the “Recommendation form”:
- ✓ Explains the screening results and the individual recommendations to the athlete, their coach, carer and/or family.
- ✓ Explains the necessity of regular ear and hearing screening to the athlete.
- ✓ Gives the recommendation form to the athlete.
- ✓ Give a thank you present to the athlete for attending the screening, if available.
- ✓ Keep the original HH-screening form at the check-out desk.

Recommendation forms:

Every athlete receives a recommendation form in their own language whenever possible. This form contains the different screening tests done, the individual recommendations for follow-up care, and the general advice for regular ear and hearing screening. The original screening forms must stay at check-out for data entry.

There are 2 different recommendations forms:

- ✓ For athletes with clear ears and hearing screening pass results, who don’t need any follow-up care recommendations (see page 35: **Recommendation Form “Pass”**)
- ✓ For athletes with possible ear and/or hearing problems, who receive follow-up care recommendations (see page 36: **Recommendation Form “No Pass”**)

Guidelines for follow-up care recommendations and general advice on regular ear and hearing screening can be found on pages 37, 38 and 39.

Optional Station: Removal of Ear Wax and/or Foreign Body

Can be completed by clinical audiologists or ENTs

Goal:

Dry removal of ear wax by an ENT, PCP, or audiologist.

Materials:

Ear hooks, ear loops or micro forceps of different sizes.

Procedure:

- Wear gloves. The ENT or Clinical Director may remove ear wax if necessary, after informing and obtaining consent from the athlete.
 - A second volunteer assists, reassures the athlete, records findings on the screening form, and ensures all lines are completed.
 - Store used materials separately in labelled boxes for regular disinfection/sterilization.
 - Guide athletes to Station 3 (OAE) or assign a volunteer to do so, except if there is significant ear discharge or other contraindications.

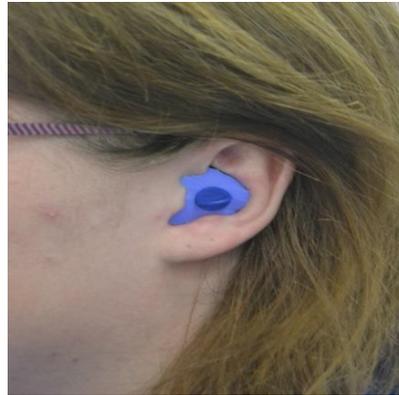


Comments: Guidelines for cerumen management

- Seek advice from the ENT or Clinical Director if needed; use this opportunity to learn.
 - Allow the Physician, ENT, or Clinical Director to remove ear wax if necessary.
 - Let Clinical Director decide if referral is needed for reasons other than excessive ear wax.
 - Use a video-otoscope, if available, to show the athlete or coach the reason for referral.
 - Clearly document any contraindications on the screening form. Excessive ear wax is not a contraindication, even if the ear canal is completely blocked.

Optional Station: Swim Plugs

Can be completed by clinical audiologists or ENTs



Goal: Free custom-made swim plugs for athletes that need them (perforation of the ear drum, tympanic tubes, mastoid cavity).

Materials: Otoscope with plastic ear speculi (2 sizes), cotton/foam balls with thread, pen light, instant swim plug material (2 colors), syringe, cutter knife, box or plastic bag to store swim plugs, hand mirror.

Position: The athlete and the volunteer both sit down, next to a table.

Procedure:

- ✓ Inform the athlete and their coach/family/carer about the need for swim plugs for water sports, when bathing, taking a shower, and washing hair.
- ✓ Ask permission of the athlete and their coach/family to make free custom swim plugs at the event after informing them that this process will take an extra 15 minutes.
- ✓ Ask permission of the athlete and their coach/family to make free custom swim plugs at the event after informing them that this process will take an extra 15 minutes.
- ✓ Explain to the athlete the procedure of how swim plugs are made.
- ✓ Make the swim plugs. Write down the athlete's name on the box or plastic bag in which the swim plugs will be stored.
- ✓ Show the athlete the finished and inserted swim plugs with a hand mirror.
- ✓ Teach the athlete and their coach/family/caregiver how to deal with the swim plugs: when to wear, how to put in the ears, how to take them out, how to clean them, how to store them, difference between right and left swim plug.

Comment:

If no swim plugs can be made at the event, but the athlete would benefit from swim plugs, recommend the athlete and coach/family to obtain swim plugs after the event. Explain the need for swim plugs.

Optional Station: Hearing Aid Maintenance and Repair

Program can only provide hearing aid maintenance and repair services

Goal: For Program to check for maintenance and repair of hearing aids.

Materials: Program should secure necessary materials and supplies for basic maintenance and repair of different types of hearing aids e.g., listening tube, cleaning wipes and tools; replacement ear mold tubes and scissors, glue and threading tools or different sized domes, hearing aid hooks and microphone covers – all for common hearing aid models. Spare hearing aid batteries of different sizes e.g., 13, 312, 675.

Procedure: If Program is conducting hearing aid maintenance and repairs

- ✓ The volunteer at check in or a screener has informed one of the clinical volunteers that an athlete has their hearing aid(s) with them. The clinical volunteer asks the athlete, and if possible, also his coach/carer, for permission to check the hearing aids at the end of the screening.
- ✓ One clinical volunteer will check and carry out necessary maintenance of the hearing aid(s) at an optional station right before check-out/education station.
- ✓ Take note of the name and identification number of the athlete.
- ✓ Clean the ear molds and the hearing aids. Check the hearing aid visually and with a listening device. Replace flat batteries and tubing, etc. if necessary and possible.
- ✓ Explain to the athlete and his coach/family what you have done and what you advise.

HEALTHY HEARING PROGRAM SPECIAL OLYMPICS INTERNATIONAL

SCREENING SUMMARY RESULTS

Athlete's Name
(print)

Special Olympics Event
(print)

Date

- **CONGRATULATIONS!** You **PASSED** your hearing screening in both

- **It is still important to:**
 - have your ears checked by a medical doctor for ear wax 1 / 2* times a year
 - have a hearing evaluation by an audiologist / ENT-specialist every 1 / 3 / 5* year(s)

- **Services provided at the Special Olympics event:**
 - Ear canal inspection
 - Hearing screening
 - Ear wax removal
 - Middle ear screening
 - Swim plugs
 - Ear protection (noise plugs)
 - Other:
.....

Special Olympics
Healthy Hearing



ENGLISH

Forms can be found on the Healthy Hearing resource page

PASS FORM

HEALTHY HEARING PROGRAM SPECIAL OLYMPICS INTERNATIONAL

SCREENING SUMMARY RESULTS

Athlete's Name (print)

Special Olympics Event (print)

Date

➤ **THANK YOU** for attending the Healthy Hearing screening.

You are advised to take further action as you **DID NOT PASS** your hearing screening.

➤ **You need to:**

- | | | |
|--|--------------------------------|-------------------------------|
| <input type="checkbox"/> See medical doctor for earwax removal | <input type="checkbox"/> Right | <input type="checkbox"/> Left |
| <input type="checkbox"/> See ENT for possible middle ear problems | <input type="checkbox"/> Right | <input type="checkbox"/> Left |
| <input type="checkbox"/> See audiologist for hearing evaluation | <input type="checkbox"/> Right | <input type="checkbox"/> Left |
| <input type="checkbox"/> See audiologist for hearing aid evaluation | <input type="checkbox"/> Right | <input type="checkbox"/> Left |
| <input type="checkbox"/> See audiologist for routine hearing care | <input type="checkbox"/> Right | <input type="checkbox"/> Left |
| <input checked="" type="checkbox"/> Urgent follow-up needed | <input type="checkbox"/> Right | <input type="checkbox"/> Left |

Reason for urgent follow up: _____

➤ **It is also important to:**

- Have your ears checked by a medical doctor for ear wax 1 / 2* times a year
- Have a hearing evaluation by an audiologist / ENT-specialist every 1 / 3 / 5* year(s)

➤ **Services provided at the Special Olympics event:**

- Ear canal inspection
- Hearing screening
- Middle ear screening
- Ear wax removal
- Hearing aid fitting
- Hearing aid repair / maintenance
- Ear mold for hearing aid
- Swim plugs
- Ear protection (noise plugs)
- Other:

Special Olympics
Healthy Hearing



NO PASS FORM

GUIDELINES FOR REFERRAL FOLLOW-UP:

- ✓ **Otoscopy:** “Partially Blocked” or “Blocked” ear canals in one or both ears that was unable to be removed
→ referral to Audiologist OR ENT, Non-Urgent Referral, Earwax removal
- ✓ **Otoscopy:** If selecting Yes for “Visual inspection revealed right/left ear extra otoscopic findings”, depending on selections:
→ referral to ENT, Non-Urgent Referral, Medical evaluation of ears
OR
→ referral to ENT or Audiologist, Urgent Referral, Contraindications noted during Otoscopic screening
- ✓ **OAE:** “No Pass” in one or both ears
→ no referral → recommendation will depend on the results on pure tone audiometry
- ✓ **Tympanometry:** “No Pass” in one or both ears (no normal type A- tympanogram OR abnormal small or abnormal big ear canal volume OR type B-tympanogram)
→ referral to ENT, Non-Urgent Referral, Medical evaluation of ears
- ✓ **Pure Tone Screening at 25db HL:** “No Pass” on pure tone audiometry in one or both ears (response > 25dBHL at 2000 and/or 4000Hz)
→ referral to Audiologist, Non-Urgent Referral, Requires Audiological Evaluation and/or Hearing aid fitting
- ✓ **Pure Tone Thresholds:** Unreliable AND [cannot condition to test, OR non-measurable thresholds, OR athlete refused]
→ referral to Audiologist, Non-Urgent Referral, Requires Audiological Evaluation
- ✓ **Pure Tone Thresholds:** For either ear, 3 or more frequencies >25dB HL
→ referral to Audiologist, Non-Urgent Referral, Requires Audiological Evaluation and/or Hearing aid fitting
- ✓ **Pure Tone Thresholds:** Asymmetrical Hearing Loss, Mixed Hearing Loss
→ referral to ENT or Audiologist, Urgent Referral, Requires Audiological Evaluation

BUT, to avoid over-referral:

- ✓ If the only “No Pass” is on tympanometry, no referral is made, unless the Clinical Director decides that it is necessary.
- ✓ If there is a “No Pass” on pure tone audiometry for 1 or 2 test frequencies at 30dBHL (instead of 25dBHL), no referral for possible hearing loss is needed, unless the Clinical Director decides it is necessary.

GUIDELINES FOR URGENT REFERRAL FOLLOW-UP:

CONDITION	URGENT REFERRAL TO EAR, NOSE, AND THROAT PHYSICIAN IF ...	PREVALENCE
Othematoma = cauliflower ear	Visual inspection shows a purplish hard swelling of the external ear. This can result from direct hit on ear e.g., basketball	Sporadic
Foreign body in the ear canal	Visual inspection with an otoscope shows foreign body e.g., peanuts, hearing aid dome, cotton wool.	Sporadic
Otitis externa	Visual inspection with an otoscope shows pink ear canal mucosa, if painful during inspection, or bleeding or moist/fungal spores in dead skin in the ear canal.	More common
Myringitis	Visual inspection with an otoscope shows obvious infection (fever, red or bulbous ear drum) or if painful when flying, driving up and down hills.	Sporadic
Acute otitis media	Visual inspection with an otoscope shows obvious infection (fever, red or purple ear drum) or if painful when flying or driving over hills.	More common e.g., with a cold/sinus trouble.
Draining ear	Visual inspection with an otoscope shows purulent flow in the ear canal of thin or thicker moisture.	Sporadic with perforation

GENERAL ADVICE GUIDELINES:

Ear wax removal and hearing evaluations depend on Down syndrome status, age, and hearing aid use:

- **No Down syndrome, no hearing aids:**
 - Ear wax removal: once yearly
 - Hearing evaluation: every 5 years

- **Down syndrome, no hearing aids:**
 - Ear wax removal: twice yearly
 - Hearing evaluation: every 3 years if ≤ 35 years old; yearly if > 35 years

- **With hearing aids (any athlete):**
 - Ear wax removal: twice yearly
 - Hearing evaluation: yearly

The individual results as well as the specific recommendations need to be explained to the athlete as well as to the coach, carer and/or family.



Special Olympics Healthy Hearing (Audiology) identifies potential ear and hearing issues and determines additional ear care needs for Special Olympics athletes and people with intellectual and developmental disabilities (IDD).

Through Healthy Hearing, volunteer ear health professionals and students provide education to athletes on potential ear and hearing issues and offer follow-up medical services, including earwax removal, swim mold preparation, hearing aid maintenance, and minor repairs. Additionally, recommendations are provided for community-based follow-up care.

Facts and Impact:

Healthy Hearing screenings have found that a large percentage of Special Olympics athletes in the U.S. have untreated ear and hearing conditions including:

- **17%** reported hearing concerns.
- **41%** have earwax impaction.
- **34%** have failed hearing screenings.
- **43%** require follow-up care.

Contact:
Healthyhearing@specialolympics.org

Purpose of the Screening and Goals:

The goal of Special Olympics Healthy Hearing is to **enhance the ear health** of Special Olympics athletes and people with IDD. This is achieved by:

- Expanding access to hearing care.
- Sharing knowledge regarding ear canal hygiene in children and adults with IDD.
- Offering educational and clinical opportunities for students training in Audiology, Otolaryngology, and Speech Language Pathology.
- Identifying medical issues causing hearing loss and facilitating referrals for follow-up care to the appropriate medical professionals.
- Increasing audiologists' awareness of the hearing concerns of people with IDD, including awareness of the challenges encountered in diagnosing and accessing treatment options.
- Providing participating athletes with a list of regional audiologists and ear, nose, and throat specialists who specialize in caring for individuals with IDD.

