



Special Olympics Coaching Quick Start Guide

# BOWLING



**Special Olympics**

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## Planning a Bowling Training and Competition Season

As with all sports, the Special Olympics bowling coach develops a coaching philosophy. The coach's philosophy needs to be consistent with the Special Olympics philosophy, which is that quality training and opportunities for fair and equitable competition are guaranteed for each athlete. However, successful coaches include having fun along with an athlete's acquiring sport-specific skills and knowledge of the program's objectives.

A season plan provides the road map to aid you in meeting your program's goals and objectives as well as goals for individual athletes. Although the minimum training requirement is eight weeks, serious consideration should be given to establishing a longer program; for example, a yearlong bowling program divided into fall, summer, spring and winter seasons. Using the bowling handicap system, it is simple to form teams that provide fair competition.

### Preseason Planning

- Improve your knowledge of bowling and of coaching athletes with mental impairments by attending a Special Olympics training school.
- Arrange for a bowling facility that will accommodate your needs throughout season.
- Arrange for equipment and include any adapted equipment if necessary.
- Recruit, orient and train volunteer assistant coaches.
- Coordinate transportation needs.
- Ensure that all athletes have been medically approved before the first practice.
- Obtain copies of medical and parental releases.
- Establish goals and develop a plan for the season.
- Consider establishing a bowling league sanctioned by your national bowling association or federation with the season lasting longer than eight weeks.
- Establish and coordinate seasonal schedule, including league play, training practices, clinics and demonstrations, and confirm any planned dates for local, area, sectional, state, national and Special Olympics Unified Sports® bowling competitions.
- Hold orientation for families, teachers, and friends of athletes and include information about the Home Training Program.
- Establish procedures for recognizing each athlete's progress.
- Establish a seasonal budget.

### In-Season Planning

- Use skills assessments to identify each athlete's skill level and to record each athlete's progress throughout the season.
- Design an eight-week training program
- Plan and modify each session according to what needs to be accomplished.
- Emphasize overall conditioning as well as skill development.
- Develop skills by progressively increasing difficulty.



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## Confirmation of Practice Schedule

Once your venue has been determined and assessed, you are now ready to confirm your training and competition schedules. It is important to publish training and competition schedules to submit to the interested groups below. This can help generate community awareness for your Special Olympics Bowling Program.

- Facility Representatives
- Local Special Olympics Program
- Volunteer Coaches
- Athletes
- Families
- Media
- Management Team Members
- Officials

The Training and Competition schedule is not exclusive to the areas listed below.

- Dates
- Start and end times
- Registration and/or meeting areas
- Contact phone number at the facility
- Coaches phone numbers



## Essential Components of Planning a Bowling Training Session

Special Olympics athletes respond favorably to a simple well-structured training outline with which they can become familiar. An organized plan, prepared before you get to the bowling center, will help establish such a routine and help make the best use of your limited time. Every practice session needs to contain the following elements. The amount of time spent on each element will vary because of several factors.

- Warm-ups
- Previously taught skills
- New skills
- Competition experience
- Feedback on performance

1. Time of the season: More skills practice is provided earlier in the season. In comparison, more competition experience is provided later in the season.
2. Skill level: More practice of previously taught skills is needed for lower ability athletes.
3. Number of coaches: The more coaches present and the more quality individual instruction offered, the more improvement will be seen.
4. Total amount of training time available: More time is spent on new skills in a two-hour session than in a 90-minute session.

If you have decided to establish a bowling league much of your training will revolve around each week's bowling session. Training can take place before, during and after league play. Before league play, you can work on teaching about equipment needed for bowling and have a warm-up period. During league play you can observe the athlete bowling and make comments regarding what they are not doing correctly, or praise them when they do something correctly; i.e., "Way to follow through" or "Great Strike." Instructions in scoring, bowling etiquette and sportsmanship can be also be accomplished. After league play you can work on new skills or work with athletes on improving previously learned skills. A recommend training plan is outlined below

### Warm-Up and Stretch (10-15 minutes)

Every player participates in a warm-up period on the lanes (i.e., shadow bowling). Stretch each muscle group while waiting to practice bowling.

### Skills Instruction (15-20 minutes)

1. Quickly review previously taught skills.
2. Introduce the theme of the skills activity.
3. Demonstrate the skills simply and dramatically.
4. Physically assist and prompt lower ability players when necessary.
5. Introduce and practice new skills early in the practice session.

### Competition Experience (1, 2, or 3 games)

Players learn a lot by simply bowling. The game is a great teacher.

### Specific Warm-Up Activities

- ♦ Swing arms back and forth, simulating the pendulum swing.
- ♦ Walk through the approach and delivery without the ball.
- ♦ Use 10-15 minutes as a warm-up period on the lane, bowling the ball.



## The Cool-Down

The cool-down is as important as the warm-up, however it is often ignored. Abruptly stopping an activity may cause pooling of the blood and slow the removal of waste products in the athlete's body. It may also cause cramps, soreness, and other problems for athletes. The cool-down gradually reduces the body temperature and heart rate and speeds the recovery process before the next training session or competitive experience. The cool-down is also a good time for the coach and athlete to talk about the session or competition.

<b>Activity</b>	<b>Purpose</b>	<b>Time (minimum)</b>
Slow aerobic jog	Gradually reduces heart rate and body temperature	5 minutes
Light stretching	Removes waste from muscles	5 minutes

## Principles of Effective Training Sessions

<b>Keep all active</b>	Athlete needs to be an active listener.
<b>Create clear, concise goals</b>	Learning improves when athletes know what is expected of them.
<b>Give clear, concise instructions</b>	Demonstrate – increase accuracy of instruction.
<b>Record progress</b>	You and your athletes chart progress together.
<b>Give positive feedback</b>	Emphasize and reward things the athlete is doing well.
<b>Provide variety</b>	Vary exercises – prevent boredom.
<b>Encourage enjoyment</b>	Training and competition is fun; help keep it this way for you and your athletes.
<b>Create progressions</b>	Learning is increased when information progresses from: <ul style="list-style-type: none"> <li>• Known to unknown – discovering new things successfully</li> <li>• Simple to complex – seeing that “I can do it”</li> <li>• General to specific – this is why “I” am working so hard</li> </ul>
<b>Plan maximum use of resources</b>	Use what you have, and improvise for equipment that you do not have – think creatively.
<b>Allow for individual differences</b>	Different athletes, different learning rates, different capacities.



## Tips for Conducting Safe Training Sessions

Though the risks can be few, coaches have a responsibility to ensure that athletes know, understand and appreciate the risks of bowling. The safety and well-being of athletes are the coaches' primary concerns. Bowling is not a dangerous sport, but accidents (smashed thumbs, toes, etc.) do occur when coaches forget to take safety precautions. It is the head coach's responsibility to minimize the occurrence of injuries by providing safe conditions and proper instruction. Work with the bowling center management to insure safe conditions and make necessary adjustments.

### **The Facility**

- The seating/scorekeeping area should be clean and free of any food or drinks. Street shoes, outdoor clothing, bowling bags, etc., should be placed in an appropriate location. The floor should be especially clean and dry.
- The approach area should be clean, dry and free from any debris. Lanes, foul lights, ball return and scorekeeping equipment should all be turned on.
- There should be easy access to bathrooms, telephone, water and first-aid kits. Ensure wheelchair accessibility if needed.
- First-aid kit is available and restocked with supplies as necessary.

### **Supervision**

- There is at least a 1-3 coach/assistant to athlete ratio present at all times; preferably, coaches with bowling coaches' certification; and at least one person with basic first-aid knowledge.
- Up-to-date copies of the athletes' medical forms are on-site.
- Provide emergency procedures. Train all athletes and coaches in these procedures.

### **Equipment and Clothing**

- Bowlers are properly fitted with appropriate bowling attire and shoes. No hats, combs, portable tape players, sunglasses, etc. need to be worn or carried on to the approach.
- If using a house ball, ensure the ball fits properly according to weight and grip.
- Any adaptive equipment, such as ramps, "push sticks" or other types of devices, is clean and in working condition.

### **Before Entering Bowling Area**

- Establish clear rules for behavior at your first practice and enforce them.
  1. Keep your hands to yourself.
  2. Listen to the coach.
  3. Ask the coach before you leave the bowling lane.
- Bowlers are well trained on bowler's etiquette and safety. For example, bowler on the right lane has right of way; wait until bowler on each side has completed roll and returned to ball-return area before stepping on to approach; be prompt and ready to bowl on your turn, etc.
- Street shoes and outdoor clothing are kept in the appropriate place away from the scorekeeping/bowlers seating area. No food or drinks are allowed in the pit area.
- Athletes have properly warmed up and completed a stretching routine.



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## Bowling Practice Competitions

The more we compete, the better we get. Part of the strategic plan for Special Olympics bowling is to drive more sport development at the local levels. Competition motivates athletes, coaches and the entire sport management team. Expand or add to your schedule as many competition opportunities as possible. We have provided a few suggestions below.

1. Host bowling games with adjacent local Programs.
2. Ask the local high school if your athletes can compete with them in practice bowling games.
3. Join the local community bowling league, club and/or associations.
4. Create your own bowling league or club in your community.
5. Host weekly bowling games for the area.
6. Incorporate competition components at the end of every training session.



## Training Principles Summary

### **Law of Overload**

- Body adapts to training loads—explain how training works
- Adequate training loads improve overall fitness and increase performance
- Factors impacting training load: frequency, duration and intensity

### **Law of Reversibility**

- Training loads that increase progressively create higher fitness levels
- No increase in fitness, if loading is too far apart or stays the same
- Overtraining or incomplete adaptation occurs when training loads are too great or too close

### **Law of Specificity**

- Specific training load produces specific response and adaptations
- General training prepares athletes for specific training
- Greater the volume of general training, greater the capacity for specific training

### **Principle of Individualism**

- Athletes bring their unique talent, capabilities and capacities to training
- Heredity determines many physiological factors that impact training
- Chronological, biological and training ages must be considered when designing a training and competition plan

### **Principle of Variety**

- Training is a long-term process, and loading and recovery can become boring
- Make it fun for the athlete
- Be creative

### **Principle of Active Involvement**

- Athlete has to want to actively and willingly participate in his/her training program
- Athlete has to be committed
- All aspects of an athlete's life contribute to his/her success



## Principles of Strength Training and Conditioning At-A-Glance

Strength and conditioning training is designed to assist athletes in their overall development. There are two types of strength training programs: general and specific. The exercises used in each program reflect the athlete's need for strength development. A general strength and conditioning training program gives athletes extra strength in the particular muscles that are needed to perform well in their sport-specific events. In addition, strength and conditioning training can help prevent injury to athletes by building healthier, flexible and stronger muscles and bones.

### **Flexibility**

- Stretch slowly and with control
- Do not bounce or feel pain
- Breathe slowly and rhythmically; do not hold your breath
- Easy stretch: slight tension to no tension—hold for 5-12 seconds
- Developmental stretch: stretch further, feeling slight tension again; hold for 15-30 seconds

### **Muscle Balance**

- Train both the front and the back muscles when strength training
- Example: if training the biceps, also train the triceps
- Important in preventing injury

### **Selection of Exercises**

- Emphasize total body conditioning

### **Order of Exercises**

- Very important to get the most out of each exercise
- Perform exercises and lifts that work many muscle groups and require more mental concentration early in the workout
- Perform exercises and lifts that work small muscle groups and require little concentration last in the workout

### **Frequency of Training**

- Always include one day of rest between strength training workouts

### **Number of Sets**

- One set of each exercise is recommended during the first and second week of training. Increase the number of sets as your training program progresses.

### **Rest between Sets**

- Depends upon the desired results of the workout
- Muscular endurance: short rest period- full recovery not required
- Strength and power: longer rest period- full recovery required

### **Active Rest**

- An active period, recreational level, after the completion of a season of sport
- May or may not include strength training
- Gives athletes a break and their bodies time to regenerate and rest



### Sample Training Circuit Routines

When prescribing exercises for bowling, you need to focus on the exercises that will help the specific needs of your athlete in a particular event. The table below is a basic guideline to help you get started. These exercises can be incorporated into a training circuit to provide a variety of exercises for all your athletes that will be fun to do. Change the exercises a little, if you notice that an athlete has mastered the exercise and is getting bored.

All Bowlers	<i>can benefit from</i>	Agility & Conditioning Abdominal, Legs, Arms & Back
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Using conditioning circuits takes the pressure off athletes by focusing on the time at each station, not the number of repetitions. The goal is to get the athletes to do as many repetitions as they can, as correctly as they can, in the specified time.

Exercise	Time (5 Minutes)
Push-ups	30 seconds
Crunches	30 seconds
Leg raises	1 minute
Back Extension	30 seconds
Lunges	1 ½ minutes
Triceps dip	30 seconds
Side Stretch	30 seconds

### General Conditioning Circuit- Sample

Number of circuits:	1-5
Time at each station:	30 seconds to 1½ minutes
Recovery between exercises:	15-45 seconds
Recovery between circuits:	2-5 minutes



## Selecting Team Members

The key to the successful development of a traditional Special Olympics or Special Olympics Unified Sports team is the proper selection of team members. We have provided some primary considerations below for you.

### Ability Grouping

Bowling teams work best when all team members have similar sports skills. Partners with abilities that are far superior to other teammates will either control competition or accommodate others by not competing to their potential. In both situations, the goals of interaction and teamwork are diminished and a true competitive experience is not achieved.

### Age Grouping

All team members should be closely matched in age.

- Within 3-5 years of age for athletes 21 years of age and under.
- Within 10-15 years for athletes 22 years of age and over.

For example, in bowling, an 8-year old should not be competing against or with a 30-year old athlete.

## Bowling Skills Assessment

The sport skills assessment chart is a systematic method useful to determine the skill ability of an athlete. The Bowling Skills Assessment Card is designed to assist coaches in determining an athlete's ability level in bowling before they begin participation. Coaches will find this assessment a useful tool for several reasons.

1. Helps coach determine, with the athlete, events in which he/she will compete
2. Establishes the baseline training areas for athlete
3. Assists with grouping athletes of similar ability on training teams
4. Measures the athlete's progress
5. Helps determine athlete's daily training schedule

Before administering the assessment, coaches need to perform the following analysis when observing the athlete.

- Become familiar with each of the tasks listed under the major skills
- Have an accurate visual picture of each task
- Have observed a skilled performer executing the skill.

When administering the assessment, coaches will have a better opportunity to get the best analysis from their athletes. Always begin by explaining the skill you would like to observe. When possible demonstrate the skill.

### Remember

The bowler's average score is the ultimate determining factor in how well the athlete is bowling. Record the scores of each game and determine an average for the number of games bowled. Appropriate skill level is determined by average. What you are looking for is an increase in the bowler average from the start of training to the end of training. Remember, changes made to the way a bowler bowls or to his/her equipment often will result in lower scores at first as the bowler makes the necessary adjustments and becomes familiar with them.



## Special Olympics Bowling Skills Assessment Card

**Athlete's Name** \_\_\_\_\_ **Date** \_\_\_\_\_

**Coach's Name** \_\_\_\_\_ **Date** \_\_\_\_\_

### Instructions

1. Use this tool at the beginning of the training/competition season to establish a basis of the athlete's starting skill level.
2. Have the athlete perform the skill several times.
3. If the athlete performs the skill correctly three out of five times, check the box next to the skill to indicate that the skill has been accomplished.
4. Program Assessment sessions into your program.
5. Bowlers may accomplish skills in any order. Athletes have accomplished this list when all possible items have been achieved.

### Layout of the Bowling Area

- Knows where the control counter, lounge area, bowling area are located.
- Can identify the pit area.
- Can identify the approach area.
- Can identify the foul line/foul light and understand their functions.
- Can identify the ball return.
- Can identify the automatic scoring equipment.
- Understands how the balls are returned and the operation of the ball return equipment.

### Equipment Selection

- Understands where to locate shoes and ball.
- Asks appropriate person for correct bowling shoe size.
- Selects appropriate weight for a ball.
- Wears clothing that is comfortable and provides freedom of movement.
- Returns bowling ball and shoes to appropriate places after game.

### Scoring

- Understands to count pins knocked down.
- Recognizes strikes and spares.
- Understands basic terminology (i.e., open, split, strike, spare).
- Understands method of scoring.

### Rules of the Game

- Shows an understanding of the game.
- Understands that game consist of 10 frames.
- Knows which lane to bowl on when alternate lanes are being used.
- Knows not to cross the foul line when bowling.
- Knows that pins knocked down when a foul is committed do not count.
- Knows to bowl only one ball in a frame when a strike is scored.
- Knows to bowl no more than two balls per frame, unless in the 10th frame where three ball may be permitted.



- Knows to bowl only when pins are standing.
- Adheres to the rules of the bowling area.
- Follows official Special Olympics and ABC bowling rules.

### **Sportsmanship/Etiquette**

- While participating in bowling, the athlete will exhibit sportsmanship and etiquette at all times.
- Demonstrates competitive effort while bowling at all times.
- Takes turns with other team members.
- Selects and uses the same ball throughout the game.
- Waits for bowlers on adjacent lanes (one lane right or left of athlete) to finish before bowling.
- Bowls cooperatively and competitively; cheers for fellow teammates.
- Maintains knowledge of own score.
- Helps teammates with their scores.

### **Retrieving the Ball**

- Observes lane courtesy.
- Approaches ball return from correct side.
- Identifies his/her ball.
- Picks up ball correctly from ball return.
- Cradles the ball in one arm and moves to starting position on the approach.

### **Grip**

- Places fingers and thumb in the ball properly.
- Supports the ball by placing the non-bowling hand under the ball, with elbows in.

### **Stance**

- Locates starting position on approach
- Stands appropriately for making spares.
- Demonstrates proper foot placement—left foot forward if right-handed.
- Assumes correct stance with eyes focused on bowling pins or target arrows/dots.
- Holds ball under control with two hands.
- Holds ball at proper height relative to body position.

### **Approach**

- Performs pendulum swing without push away.
- Performs pendulum swing with push away.
- Performs, with consistent rhythm, three-, four-, five-step approach with push away and pendulum swing.
- Performs smooth three-, four-, five-step approach with push away and pendulum swing.
- Delivers ball without going over the foul line.

### **Delivery**

- Athlete's last step is a slide forward toward the foul line.
- Ball is delivered over the foul line toward the pins or target mark.
- Performs two-handed pendulum swing in straddle-standing position.
- Executes proper follow-through with arm swing.



## Nutrition

### Guidelines for a Balanced Diet

- ◆ Eat lots of different kinds of food: vegetables, fruits, fish, meats, dairy produce and grains
- ◆ Eat fresh food rather than ready prepared, canned or frozen foods
- ◆ Eat a high proportion of complex carbohydrate-rich foods (bread, pasta, potatoes, etc.)
- ◆ Grill, steam or bake foods. Avoid boiling or frying
- ◆ Avoid fatty meals and sweet and salty snacks
- ◆ Check fiber intake by eating whole grain breads, cereals, pastas
- ◆ Eat brown rice instead of white rice
- ◆ Flavor food with herbs and spices rather than salt
- ◆ Drink small amounts of water and fruit juices often

### Pre-Competition Meal/Nutrients

The body's energy levels need to be high before training and competition. The high performance diet above will supply this everyday requirement. Athletes are individuals and require different foods; their bodies respond differently to certain foods. Generally speaking, the guidelines below will help your athletes consume the proper nutrients before competition.

- ◆ Eat a small, easily digestible meal, usually less than 500 calories
- ◆ Eat about 2½-4 hours before competing
- ◆ Limit proteins and fats, since they digest slowly
- ◆ Avoid foods which form gas in digestive system
- ◆ Drink small amounts of water often—before, during and after competing

### During Competition Nutrients

- ◆ Besides hydration, nutrients are not needed for events that last less than one hour.
- ◆ For events that have more than one hour of continuous activity, carbohydrate drinks or fruit will supply the needed energy for continued effort.

### Post-Competition Nutrients

- ◆ To replenish energy, foods with readily available carbohydrates (fruit, carbohydrate drink, granola bars) should be eaten in small amounts immediately following exercise.
- ◆ Throughout the remainder of the day, meals should contain 65 percent complex carbohydrates to replenish energy.



## Bowling Attire

Athletes must wear appropriate clothing to train and complete successfully. Inappropriate clothing can impact an athlete's ability to bowl and, in some cases, may be a safety hazard. Almost any type of clothing is acceptable in a bowling center. Comfort and freedom of movement are the determining factors in selecting what to wear when bowling. Because bowling involves a lot of movement, loose fitting apparel, especially across the shoulders and under the arms, is best as long as it does not interfere with the motion of the arms and the legs. Remember, just keep it loose.

Although bowling does not require uniforms, you may want to have all bowlers in the program wear the same bowling shirt or, if you form teams, have each team wear different shirts. Wearing a specific shirt for bowling often instills a sense of pride in the athlete and may provide the athlete with motivation to train even harder.



**DRESS LIKE A WINNER! --- PLAY LIKE A WINNER!**

## Bowling Shoes

Bowling shoes are required and are made for both right-handed and left-handed bowlers. Each pair of shoes is designed to allow sliding and braking, one shoe for each purpose. The shoe on the sliding foot—typically left for right-hand bowlers and right for left-handed bowlers—is soled with leather or similar material that will permit athletes to slide easily to finish their delivery. Since the task of the non-sliding foot during the approach and at the finish is to provide traction and braking, the shoe on that foot has a sole made of rubber or another high-friction material. Most bowling centers provide rental shoes which have a padded toe sole on both shoes for use by right- or left-handed bowlers.



## Coaching Tip

- Coaches need to periodically check the athlete's shoes and ball to ensure they still meet the athlete's needs. Make sure that shoes are neither worn down nor have holes in them. In addition, make sure that the ball is free of chips and fits the bowler.



## Bowling Equipment

It is important for athletes to be able to recognize and understand how equipment works and impacts their performance for the specific events. Have your athletes name each piece of equipment as you show it, and give the use for each. To reinforce this, have athletes select the equipment used for their events as well.

### Athlete Readiness

- Understands where to locate shoes and ball
- Asks appropriate person for correct bowling shoe size
- Selects appropriate weight for a ball
- Wears clothing that is comfortable and provides freedom of movement
- Returns bowling ball and shoes to appropriate places after game

### Bowling Ball

A properly fitted bowling ball is essential. The most important factors in finding the right ball are appropriate fit and proper weight. The fit or the grip of the ball is determined by the size of the finger and thumbholes and the span between them. The most common grip is called the conventional grip and will be used by most athletes. This grip allows the bowler to insert the two middle fingers up to the second joint, and the thumb completely.



The fingers and thumb should fit relaxed and loose inside the holes and also touch the inside of the ball all the way around. The athlete should test the fit by lightly swinging the ball at arms length. The “span” between the finger holes and the thumbhole allows full extension of the hand between the second joint of the fingers and the thumb when placed in the holes. This conventional grip is found in most “house balls”- balls that can be used for free at most bowling centers. Although this is the least expensive means of bowling, house balls are very generic so that both right- and left-handed bowlers can use them. Intermediate and advanced bowlers need to seek out their own equipment.





Semi-fingertip and fingertip grips can also be used for more advanced bowlers. Both grips allow the thumb to be inserted completely and the fingers to either the first joints, fingertip or between the first and second joints (semi-fingertip). Adaptations, such as allowing holes to be drilled for all four fingers and the thumb for a better grip, can be made for physically challenged (i.e., those with weak hands, wrists or fingers). Inserts, normally made of rubber, can also be used to provide additional gripping.

The weight of the ball will be determined by the bowler's physical makeup. A very generalized gauge is that adult males often choose 14- to 16-pound balls; adult females, 10- to 14-pound balls; and youth, a wide range of 6- to 14-pound balls. A well-balanced swing is a good indication that ball weight is correct. For example, during the back swing, if the ball is too heavy, it will cause the shoulder to dip and pull the body off balance. If the bowler consistently drops the ball at the foul line or lofts the ball onto the lane, the ball is not properly fitted.

Ball speed can be an indication of proper weight. Decrease of speed toward the end of a session may mean the ball is too heavy. Often, when scores begin to decrease toward the end of a session, this is a sign that the ball is too heavy. The material and degree of hardness of the ball determine proper use on different lane conditions, the type of roll a bowler throws, and the way the ball impacts the pins. The ball cannot weigh more than 16 pounds. There are no minimum weight restrictions; however, some ball return machines have difficulty returning lighter balls. Balls generally range from 6- to 16-pounds. Some bowling centers have a "pro shop" staff, which can offer further advice and assistance.

It is recommended that athletes have their own ball if possible. This will provide the athlete with a ball that is the proper weight and fit for their hand. For many Special Olympics athletes, the most important consideration for bowling properly is having enough strength to hold the ball. Selecting a properly weighted house ball often results in the finger holes and span being too small for the athlete. Having their own equipment—bag, ball and shoes—is also a great source of pride for the athletes. Work with your local bowling center or pro shop to accomplish the goal of all athletes having their own balls. For little or no charge, they will often take donated balls and plug and re-drill them to fit your athletes.

### **Bowling Bag**

Bowling bag is used for storage of own ball.

### **Rosin Bag**

Rosin bag is used to provide athlete with dry hands.

### **Bowling Towel**

Bowling towel is used to wipe dirt, oil off of ball to keep it clean.

### **General Bowling Equipment List At-A-Glance**

Bowling Bag
Rosin Bag
Bowling Towel
Bowling Shoes

### **Coaching Tip**

- Coaches need to periodically check the athlete's shoes and ball to ensure they still meet the athlete needs. Make sure that shoes are neither worn down, nor have holes in them. In addition, make sure that the ball is free of chips and properly fits the bowler.



## Equipment Selection

The equipment required for bowling consists of a ball, a pair of bowling shoes and access to a bowling center. With that, you are ready.

### Proper Equipment Selection

If you are not professionally trained, it is advisable to check with the pro shop at the lanes. It is best for athletes to have their own bowling equipment if possible.

### Teaching Equipment Selection

#### Bowling Shoes

Bowling shoes allow bowlers to slide their feet properly. House shoes are designed so that the sole of both shoes allows the bowler to slide with either foot. The sole of the left shoe is the sliding shoe for a right-handed bowler using a four- or five-step approach. The sole of the right shoe is the sliding shoe for the left-handed bowler using a four- or five-step approach.

#### Bowling Balls

##### Weight

The correct weight and fit of a bowling ball are very important. Bowling balls weigh from 6-16 pounds. A rule of thumb in selecting the correct weight of a bowling ball is taking approximately one-tenth of the bowler's weight. This will not necessarily apply to all bowlers, but it is a good approximation to start with. It is necessary that the bowler be able to pick up the bowling ball with two hands and swing it back and forth with one hand with ease. If the bowler rolls the ball and tends to drop it, it is probably too heavy. However, if the bowler lofts it down the lane, it may be too light. House balls usually have the weight stamped on the ball, and the various weights are usually in different colors.

### Key factors to help the athlete acquire the proper equipment

- Assist the athlete in obtaining correct size shoes from control counter personnel.
- Have the athlete get the correct size shoes from the control counter without assistance.
- Assist the athlete in selecting his/her ball from available house balls; and show him/her how to identify his/her ball by a number (weight) and/or the color of ball.
- Help athletes obtain their own ball.
- Discuss with all athletes the wearing of appropriate clothing.

### Key Words

- What size shoe do you wear?
- Where do you get your shoes?
- What weight/color ball do you use?
- Remember to wear loose fitting clothes

For information on modification of equipment and adaptations on bowling, as well as teaching tips, please see Bowling CD



## Teaching the Rules of Bowling

The best time to teach the rules of bowling is during practice. Please refer to the Official Special Olympics Sports Rules Book for the complete listing of bowling rules.

### Athlete Readiness

- Shows an understanding of the game.
- Understands that game consist of 10 frames.
- Knows which lane to bowl on when alternate lanes are being used.
- Knows not to cross the foul line when bowling.
- Knows that pins knocked down when a foul is committed do not count.
- Knows to bowl only one ball in a frame when a strike is scored.
- Knows to bowl no more than two balls per frame, unless in the 10<sup>th</sup> frame where three ball may be permitted.
- Knows to bowl only when pins are standing.
- Adheres to the rules of the bowling area.
- Follows official Special Olympics and international bowling federation rules.

### Rules for Bowling Competition

1. Explain to athletes that contesting teams or individuals in league or tournament play successively alternate two lanes every frame until each has bowled five (5) times on each lane and the game is completed. Bowling requires that bowlers alternate lanes.
2. Explain to the athlete that every sport has its boundary lines and the foul line and gutters are the boundary lines of bowling.
3. Explain that when a part of the athlete's body steps on or goes beyond the foul line, a foul is committed and if any pins were knocked down, they do not count. Demonstrate how the foul light and bell will work when crossing the foul line.
4. Explain to the athletes that the only exception to bowling two balls per frame is the 10<sup>th</sup> frame, when three balls may be bowled if a strike or spare is recorded.
5. Make copies of the bowling area's rules and hand them out to athletes before going to bowl.
6. Read the rules to non-readers and/or show pictures of "do's" and "do not's."
7. Carefully explain the consequences of not adhering to the rules. Emphasize the fact that the whole group may have to leave because of one person's actions.

### Key Words

- No food or drink in the bowling area
- Remember to alternate lanes
- Do not cross the foul line

### Coaching Tip

- Rules of the bowling area are the rules you make for your program. These would include such things as the following.
  - Bowlers will remain in the bowling area ready to bowl.
  - No food or drink in the bowling area.
  - Who can press the reset button.



## Special Olympics Unified Sports® Rules

There are few differences in the rules for Unified Sports competition and the rules as stipulated in the official Special Olympics Sports Rules and modifications outlined in the rules book. The additions are highlighted below.

1. A roster consists of a proportionate numbers of athletes and partners. Although the exact distribution of roster spots is not specified, a bowling roster containing four athletes and one partner does not meet the goals of a Special Olympics Unified Sports program.
2. A line up during the competition consists of half athletes and half partners. Teams that have an odd number of players (e.g., 5 man teams) have one more athlete than partner in the game at all times.
3. Bowling teams are divisioned for competition based primarily on ability. In team sports, division assignment is based on the best players on the roster, not the average ability of all players.
4. Team sports must have an adult, non-playing coach. Player-coaches are not allowed in team sports.

## Protest Procedures

Protest procedures are governed by the rules of competition. The role of the competition management team is to enforce the rules. As coach, your duty to your athletes and team is to protest any action or events while your athlete is competing that you think violated Official Bowling Rules. It is extremely important that you do not make protests because you and your athlete did not get your desired outcome of an event. Making protest are serious matters that impact a competition's schedule. Check with the competition team prior to competition to learn the protest procedures for that competition.



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## Bowling Protocol & Etiquette

The rules of bowling etiquette are simple and can be easily understood. The most important points of bowling etiquette are who bowls first and be ready to bowl.

### **Who Bowls First**

When there are two people in the lanes on either side of your bowler, the general rule is the first bowler up bowls first. If there are any questions as to who bowls first, the bowler to the right bowls first.

### **Be Ready to Bowl**

Once a bowler is lined up in his/her stance and ready to bowl- he/she needs to bowl. Bowlers cannot knock down the pins by staring at them. They have to throw the ball down the lane at them. It is easy for bowlers to get into their stance and take too much time in getting their feet, hands, knees and body in the exact position. Teach your bowlers not to rush into their stance, approach and delivery. However, it is important to teach them to get into their stance and deliver the ball as efficiently as possible. This will keep the game moving and not annoy other bowlers and teammates.

### **Be Considerate**

Keep it simple. Teach your bowlers to always be considerate toward their teammates and other bowlers in the lanes on either side and of them and in the bowling area. Once your athletes understand this concept, they will learn to respect their teammates, other bowlers and adapt an attitude of good sportsmanship that will remain with them throughout their bowling days.



## Bowling Glossary

<b>Term</b>	<b>Definition</b>
<b>Alley, or Bowling Lane</b>	Playing surface on which the ball is rolled and where the pins are located. Also known as a lane. In its plural form, can mean a bowling center.
<b>Anchor</b>	Last bowler in a team's lineup.
<b>Approach</b>	Area behind the foul line on which the bowler takes his/her steps prior to delivering the ball. Known, too, as the runway. Also, the entire delivery process, from push away to release.
<b>Back End</b>	The two-part, rearmost part of a lane – the hook area and the pin deck.
<b>Back swing</b>	Path of the arm behind the body during the next to last step in the delivery.
<b>Backup</b>	A ball that curves left to right for a right-hander and right to left for a left-hander.
<b>Ball Rack</b>	Equipment used to store house balls.
<b>Ball Return</b>	Usually an under-the-lane track on which the ball is returned to the bowler from the pit. Also where the ball rests before and after all shots.
<b>Blind</b>	Score given to a team when a member is absent. Although based on the missing player's past performances, the score given is usually lower than the average for that bowler, thus penalizing him for the absence.
<b>Boards</b>	Strips of wood that make up a lane.
<b>Bowling Area</b>	The area behind the lane where bowlers wait to bowl. This is sometimes referred to as the settee area.
<b>Bowling Center</b>	A bowling establishment.
<b>Bridge</b>	Distance between finger holes on the ball.
<b>Concourse</b>	Area behind the lane where spectators sit.
<b>Control Desk</b>	The bowling center area where you make the arrangements and receive the equipment needed to bowl.
<b>Convert</b>	When you successfully make your spare.
<b>Count</b>	Number of pins knocked down on the first ball.
<b>Curve</b>	A ball that is rolled toward the outside of the lane and then curves back toward the center of the lane.
<b>Delivery</b>	Rolling of the ball.
<b>Double</b>	Two consecutive strikes.
<b>Error</b>	Failure to convert a spare. Also called a blow, miss or open.
<b>Fill</b>	Number of pins knocked down by the first ball after a spare. So called because those pins finish the scoring for the previous frame.
<b>Foul</b>	Touching or going beyond the foul line when delivering the ball.
<b>Foul Line</b>	A black line on the alley which separates the approach from the lane.
<b>Frame</b>	One-tenth of a game. Each large box on a score sheet indicates a frame. A player's turn during a game. A game consists of 10 frames.



Term	Definition
<b>Gutter Ball</b>	A ball rolled in the gutter.
<b>Gutter or Channel</b>	Drop off area on each side of the lane. Also called the channel.
<b>Handicap</b>	Pins added to a bowler's score to equalize competition. The lower a bowler's average, the higher the handicap so that he/she will have a better opportunity to defeat a bowler with a higher average.
<b>Headpin</b>	The number one pin.
<b>Hook</b>	A ball that breaks sharply to the left for a right-hander, to the right for a left-hander.
<b>House Ball</b>	A ball that is owned by the bowling center and can be used by anyone.
<b>Lane</b>	Name usually associated with the 60-foot wooden surface extending from the foul line to the end of the pin deck.
<b>Lead Off</b>	First bowler in a team's lineup.
<b>Leave</b>	Pins that remain standing after the first ball delivery.
<b>Lift</b>	Upward motion applied to the ball by the fingers at the point of release.
<b>Line</b>	A game of 10 frames, one full game. Also refers to the path a ball travels.
<b>Lofting</b>	Tossing the ball far out beyond the foul line. Normally caused by a late release.
<b>Mark</b>	A strike or a spare.
<b>Miss</b>	When no pins are knocked down on a single shot.
<b>Open</b>	A frame without a strike or a spare, pins are left standing after two shots.
<b>Perfect Game</b>	A 300 score. Strikes in all 10 frames. Twelve consecutive strikes.
<b>Pin</b>	Object which the bowler is trying to knock down.
<b>Pin Bowler</b>	A bowler who aims visually at the pin when delivering the ball.
<b>Pin Deck</b>	Area where the pins are placed.
<b>Pit</b>	Area below the far end of the lane into which the pins fall.
<b>Pocket</b>	Between the 1 and 2 pins for left-handers; between the 1 and 3 pins for right-handers. The ideal place for the ball to hit the pins in an effort to obtain a strike.
<b>Push away</b>	Moving the ball into motion, out and down during the first step of the delivery.
<b>Return</b>	Track or rails on which the ball rolls back to a player.
<b>Sanctioned</b>	Any bowling competition conducted in accordance with the rules set down by your national or international bowling federation.
<b>Scratch</b>	A bowler's actual score. Non-handicap bowling.
<b>Series</b>	Usually three games or more in a league or tournament.
<b>Settee</b>	Also referred to as bowling area.
<b>Soft Pocket Hit</b>	The action a ball makes as it enters the pin triangle when its rotation has reduced because the ball is too slow.
<b>Span</b>	The distance between the thumbhole and the finger holes on a ball.



<b>Term</b>	<b>Definition</b>
<b>Split</b>	A spare leave in which the headpin is down and the remaining pins have another pin down immediately ahead of or between them so that the gap is greater than the width of the ball.
<b>Spot</b>	Target on the lane at which a bowler aims.
<b>Spot Bowler</b>	A bowler who uses the finders or spots as their primary target. Opposite of pin bowler.
<b>Steps</b>	Number of steps bowler takes when delivering the ball.
<b>Strike</b>	Knocking down all 10 pins with the first shot of a frame. Indicated on the score sheet with an (X).
<b>Target Arrows</b>	A series of seven triangular darts (spots) placed in front of the foul line out on the lane. Used as sighting targets to help a player align the starting position on the approach with the ball path to the pocket.
<b>Turkey</b>	Three consecutive strikes.





## Appendix A: Stretches

### Upper Body

#### Neck/Shoulder Stretch - Side



#### Neck/Shoulder Stretch - Front



Stand/sit in comfortable position, shoulders and arms relaxed at sides  
Slowly turn head to left, back to center, turn to right  
Slowly tilt head to back, back to center, bend forward, chin to chest

#### Wrist Stretch



Clasp wrist of opposite hand  
Pull gently to loosen wrist

#### Chest Opener



Clasp hands behind back  
Palms facing in  
Push hands up, towards sky



Upper Body

**Side Arm Stretch**



Raise arms over head  
Clasp wrist of opposite hand and pull gently to the opposite side  
Push up toward sky with opposite arm  
Bend torso slightly to the opposite side

**Side Arm Stretch**

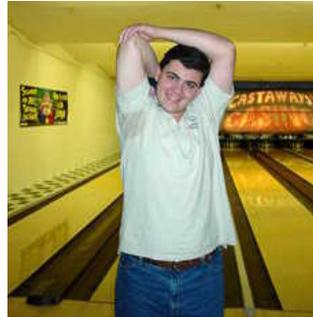


**Triceps Stretch (Back)**



Raise both arms over head  
Bend right arm, bring hand to back  
Grasp elbow of bent arm and pull gently toward the middle of the back  
Repeat with other arm

**Triceps Stretch (Front)**





## Upper Body

### Forearm Flexors



Clasp hands together in front, palms facing out  
Point fingers up, wrist bent  
Grasp fingers with other hand  
Gently pull fingers toward body  
Repeat with other hand

### Side Stretch



Raise left arm over head, keep other arm at side  
Bend sideways to the right  
Repeat with other arm to left side

### Side Stretch



This exercise can also be done with assistance;  
the athlete above is using his cane. Athletes can  
also use a stable assistive device to aid them in  
completing their stretching routine.



## Low Back & Glutes

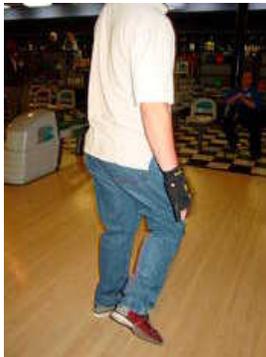
### Quadriceps



Balance on one leg while bringing the heel of opposite foot up to buttock  
Grasp the heel of the foot and gently push back with the quadriceps muscle, not the knee  
Repeat with other leg  
If your athletes have trouble keeping their balance, let them hold on to your shoulder or a teammate's

## Lower Body

### Ankle Rotations



Balance on both feet, standing tall  
Shift weight to left leg  
Point toe of right foot downward  
Rotate foot around ankle clockwise three to five times  
Rotate foot around ankle counterclockwise three to five times  
Shift weight to left leg and repeat

### Forward Bend with Crossed Legs



Stand, arms outstretched overhead  
Cross one ankle over the other ankle  
Slowly bend at waist  
Bring hands to ankle level without strain



## Lower Body

### Forward Lunge



Step out with left leg  
Bend left knee, extend leg and shift weight  
forward and hold  
Repeat with opposite leg

### Forward Lunge w/Assistance



This exercise can also be done with assistance;  
the athlete above is using his cane. Athletes can  
also use a stable assistive device to aid them in  
completing their stretching routine.

### Calf/Achilles Stretch



Place palms against wall  
Step back with left leg  
Bend right knee and extend as in the forward lunge until  
slight tension is felt and hold  
Repeat with opposite leg





## Appendix B: Skill Development Tips

### Grip

There are two basic types of grips used in bowling: conventional grip and fingertip grip.

#### Conventional Grip

Most Special Olympics bowlers use the conventional grip because it provides a firmer hold with the fingers. It also gives the bowler a more secure feeling about having full control of the ball. The conventional grip also allows the athlete to hold more of the ball, thus providing the feeling of a secure release. The finger hole depths are deep enough to allow the fingers to enter the ball up to the second knuckle. The thumbhole is drilled to allow the whole thumb to be inserted into the ball. The thumbhole is drilled the same for both the conventional and fingertip grip.

#### Fingertip Grip

The fingertip grip is recommended for the advanced bowler. The finger holes are drilled to allow only the tips of the fingers to be inserted into the bowling ball. This grip will spread the hand across more of the surface area of the ball known as the span (distance between the thumb and finger holes). The thumbhole is drilled the same as the conventional grip. The fingertip grip allows for more lift on the ball during the release.

#### Athlete Readiness

- Places his/her fingers and thumb in the ball properly.
- Supports the ball by placing the non-bowling hand under the ball with elbows in.

#### Teaching the Grip



1. Athlete places his/her fingers in the ball. The ring and middle fingers go in first, then the thumb.
2. Fingers always go in to the same depth.
3. The grip needs to feel natural and comfortable. Do not place any strain on the thumb, fingers or wrist.
4. Fingers not in the hole may be spread out from or held close to the fingers in the ball.

#### Key Words

- Fingers first - then thumb
- Non-bowling hand under the ball

#### Grip Faults & Fixes Chart

Error	Correction
Thumb in first	Demonstrate to athlete, placing fingers in first
Thumb falling out of ball before release	Insert bowlers' tape in thumbhole to secure grip
Finger holes are sticky	Make sure hands are clean and dry



## Coaches Tips for the Grip — At-a-Glance

### **Tips for Practice**

1. If the athlete is having difficulty with proper finger placement, try marking those fingers (stars, fingernail polish, magic marker, etc.) to further remind him/her.
2. Have the athlete pick the ball up from the ball return with both hands. While holding the ball with both hands, rotate the ball so that the holes of the ball are on top.
3. The non-bowling hand is under the ball, providing support, while the bowler places his/her fingers and thumb in the holes. Then have the athlete place the fingers and thumb in the ball.



## Ball Retrieval

### Retrieving the Ball

When retrieving the ball from the ball return, it is very important that it is picked up properly with both hands.

### Teaching the Bowling Ball Retrieval

1. Make sure the athlete knows the correct lane that he/she is to bowl on before stepping on the approach.
2. Ensure that there are no bowlers on the adjacent lanes, one lane right or left of the athlete, before stepping onto the approach.
3. Athlete reaches for his/her own ball. Bowlers always use the same ball.
4. Athlete grasps the ball with both hands, placing the hands on opposite sides of the ball, away from incoming balls. This prevents the fingers from getting crushed.
5. Athlete cradles the ball in one arm and moves to his/her starting position on the approach. For a right-handed athlete, the ball rests in his/her left arm and is supported on the side by the right hand and body.



## Coaches Tips for Retrieving the Ball — At-a-Glance

### Tips for Practice

1. To aid the bowler in identifying the correct lane, have the bowler look at the overhead automated scoring display which identifies the bowler to bowl next and identifies the lane to bowl on. If there is no such equipment, you may want to identify the person the bowler is to follow.
2. Explain to the athlete what could happen if his/her fingers are between the ball when another ball rolls onto the ball return rack. Although it does not enter the rack with much speed, a ball does not stop until it bangs against another ball or against someone's fingers.
3. Explain to the athlete why the use of two hands is better than one hand when picking up the ball from the return rack. It puts less stress on the fingers and wrist, saves energy needed to bowl for a long time and helps prevent the ball from falling to the floor or, worse yet, on their toes.
4. Do not pick up the ball with the fingers in the holes. Fingers are not inserted until the stance has been taken and the approach is ready to be made. Athlete cradles the ball in one arm and moves to his/her starting position.

### Key Words

- Use your own ball
- Remember lane courtesy—look left - look right
- Watch your fingers

### Skill Progression

- Observe lane courtesy
- Approach ball return from correct side
- Identify their ball
- Pick up ball correctly from ball return
- Cradle the ball in one arm and moves to their starting position on the approach



## Stance

For detailed teaching methods see Bowling CD

### Teaching the Proper Stance

#### Athletic Pose

The athletic pose is also referred to as the “coach’s eye.” This concept is used to analyze a bowler's delivery into four points.



1. Waist Down — Foot placement, knees and hips



2. Waist Up — Spine, shoulders, head and eyes



3. Ball Position — Height and position side to side



4. Hand Position — Grip, position of the fingers and thumb



### Skill Progression

- Locate starting position on approach for first ball.
- Stand appropriately for making spares.
- Demonstrate proper foot placement — Left foot forward, if right-handed.
- Assume correct stance with eyes focused on bowling pins or target arrows/dots.
- Hold ball under control with two hands.
- Hold ball at proper height relative to body position.

### Coaches Tips for the Proper Stance — At-a-Glance

#### **Tips for Practice**

1. To encourage proper foot placement for athletes standing at the foul line, use a mat with footprints for the beginning bowler. Remove the mat as athletes get used to the proper position.
2. A helpful hint in determining the athlete's starting point for the four- or five-step approach is to have him/her stand at the foul line, facing the seating area. Have the athlete take four-and-one-half to five steps toward the seating area. This is close to where the athlete's starting point is located.
3. Insure that the ball is between waist and chest high and to the side of the body so as to not block his/her view of the pins or target arrows. Have the athlete pick a target—either the pins or targeting arrows/dots. Tell the athlete to keep his/her eyes on the mark as they bowl.
4. The athlete's shoulders are at a slight angle because of the weight of the ball. The body is square to target.
5. Not all of these suggestions will work for everyone. Try them, modify them and use what works best for the athlete. Variations are acceptable provided they are comfortable and help the athlete bowl well.



## Teaching the Approach and Delivery

The proper approach involves the movement of the bowler and ball at the same time toward the goal of delivering the ball down the lane. There are three basic approaches:

1. Step and slide
2. Four-step approach
3. Five-step approach

Each of these includes the push away, the pendulum swing and the delivery. Although not called an approach, the one-step delivery is included here to provide a transition from standing at the foul line to a full four- or five-step approach.



Beginning bowlers have a hard time putting all the components of the approach together at first. Start bowlers at the foul line using the pendulum swing, then move to a swing-and-slide approach, and ultimately to a full approach. At first, the full approach will probably be nothing more than the athlete trying to take the proper steps up to the foul line and then performing the pendulum swing and delivery.

Have the athlete master each part before proceeding to the next part. Evaluation of the athlete during the first two training sessions will provide you with an idea of a starting point for training.



## Coaches Tips for Approach/Delivery — At-A-Glance

### Tips for Practice

1. When holding the ball at side, have athlete count his/her movements. This will help prepare the athlete for learning the four-step delivery.
  - ♦ "One" — ball swings forward
  - ♦ "Two" — ball swings back
  - ♦ "Three" or "Roll the ball" forward and release down the lane
2. If the athlete has too much back swing, a handkerchief placed under the armpit of the bowling arm may help correct the problem. On a proper back swing, the handkerchief remains in place and does not fall out.
3. Tell the athlete do not apply any muscle to the swing; just let the weight of the ball carry it back and then straight ahead.
4. Talk the athlete through the approach. "Let's begin: right foot, left foot, right foot, slide."
5. Once the athlete begins to use the proper movement, have the athlete get into an approach rhythm and count their steps. Count "One" for first step, "Two" for second step, "Three" for third step, "Slide" or "Roll the ball" for fourth step. Do this without a ball a few times, increasing the speed of action each time. Repeat after a few times, using a ball.
6. Stand behind the athlete, counting the steps, while the athlete performs the steps. After a few times, let the athlete practice on his/her own. Remember, have athlete count the steps out loud.
7. To get the athlete to release the ball over the foul line, place a bowling towel or small piece of rope on the foul line, and tell the athlete to throw the ball out over the towel/rope.
8. Position of arm and hand on the follow through can be demonstrated by taking a bowling towel and putting a knot in it. Give the towel to the athlete and then back away. Have the athlete do a one step delivery, throwing the towel to you, using your stomach as the target. Watch the follow through; the athlete should have his/her right arm extended with the right hand pointing at your stomach with the thumb pointing up. Explain that this is the same motion to use when bowling.
9. A home training method is to have the athlete and a friend practice pitching a softball underhanded back and forth to each other. The same motion is used to deliver the bowling ball. After the pitch, look at the position of the arm, hand and thumb.
10. Correct the athlete, if bowling hand finishes across and in front of the body.
11. Hand, arm and shoulder should follow through in a straight line with target. After the ball has left the athlete's hand, have him/her make a motion as if shaking hands with someone.

For detailed teaching methods see Bowling CD

### Skill Progression

- Perform pendulum swing with swing and slide.
- Perform, with consistent rhythm, four- or five-step approach with push away and pendulum swing.
- Perform smooth four- or five-step approach with push away and pendulum swing.
- Deliver ball without going over the foul line.



## Scoring

High scores are the goal in bowling. Athletes must be able to recognize bowling scoring symbols and have a general understanding of how bowling is scored. Automatic scoring equipment, in most cases, has eliminated the need for manual scoring and made the job of keeping score easy.

### Teaching Scoring

1. A game consists of 10 frames. Each frame is added together to get the score of the game. A traditional series is composed of three games.
2. The double-box system is displayed and is used for scoring each frame. The number of pins knocked down with the first delivery is shown in the left box of each frame.
3. The pins knocked down on the second delivery, if any, is shown in the right box.
4. When a bowler fails to knock down all the pins in one frame with two deliveries, it is called a miss. The symbol for a miss is a “-.”
5. When a bowler knocks down all the pins in one frame with two balls it is called a spare. The symbol for a spare is a “/”.
6. When a bowler knocks down all the pins in one frame with one ball it is called a strike. The symbol for a strike is an “X.” Three strikes in a row are called a “turkey.”
7. When a bowler comes in contact with the foul line or any portion of the lane or structure beyond the foul line, it is charged as a “foul” and no pins are counted for that delivery. If the foul occurs on the first ball, the pins are set for the second delivery and zero pins are counted for that delivery. The bowler then gets one ball to knock all 10 pins down. If all 10 pins are knocked down on the second delivery, it is counted as a spare.
8. Splits are pins left standing after the first ball is delivered with a pin or more gap between them. It is not considered a split if the headpin (number 1 pin) is left standing.

### Key Words

- Frame
- Strike
- Turkey
- Series
- Miss
- Foul
- Spare
- Split

### Skill Progression

- Understand to count pins knocked down.
- Recognize strikes and spares.
- Understand basic terminology (i.e., open, split, strike, spare).
- Understand basic scoring procedure.



## Coaches Tips for Scoring — At-a-Glance

### Tips for Practice

For most of your athletes, a general understanding of how scoring is done is all that is needed. For those athletes whose ability will permit them to learn to keep score, you can refer them to the ABC/WIBC/YABA rulebook or one of many books on bowling available in bookstores or libraries.

## Learning the Bowling Center

For further information on the Bowling Center and illustrations, please see Bowling CD

### The Bowling Center

The bowling facility or center is comprised of an even number of lanes on which the game is played. The lane is between 41 and 42 inches wide and is made up of 39 boards across. The bowling ball is rolled or delivered 60 feet down the lane lengthwise from the foul line to the rack of 10 pins. On each side of the lane is a 9-inch wide channel. The bowler begins the delivery on the approach. The approach consists of the area where the wood starts from the settee area to the foul line. There is one person on the approach at a time.

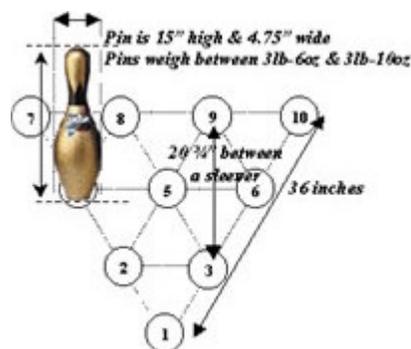
There are guide dots, also called locator dots, along the approach that are also in line with dots at the foul line and out on the lane that are used for accuracy in steps and delivery of the ball. There also are target arrows out on the lane used for this same purpose. Lanes are normally oiled daily to prevent friction and to allow better tracking for the ball.

The rack of pins is located in the pit and is arranged in a triangular formation, 12 inches apart from the center of another. A bowling pin is 15 inches tall, and each pin weighs between 3 pounds, 6 ounces and 3 pounds, 10 ounces. The pins are numerically identified 1-10, 1 being the headpin.

- ♦ Facing the pins, the number 2 pin is in the second row to the left of the number 1 pin.
- ♦ The number 3 pin is in the second row to the right of the number 1 pin.
- ♦ The third row consists of the number 4 pin to the left, number 5 pin in the middle and the number 6 pin to the right.
- ♦ The fourth row consists of the number 7 pin to the left, number 8 pin next, number 9 pin next and the number 10 pin on the right.

### Coaching Tips

- Discuss the general layout of the bowling center with the athlete, identifying the major components—control counter, lanes, approach area, pit area, etc.
- If permitted, you may want to take the athlete behind the pit area to see the pin-setting equipment in action.





## Teaching the Areas of the Bowling Center

At the beginning of each training season and at regular intervals, each athlete needs to be assessed to determine what knowledge and skills have been mastered and which areas require further work.

### **Control Counter**

This is the hub of the bowling center. Lane assignments are made here, and house shoes are distributed from this location. This is also where athletes go if there are any problems with their lanes and there is not an intercom.

### **Concourse Area**

This is usually the area behind the lanes where spectators watch bowling and where the bowling racks holding house balls are located. A restaurant is often located in this area.

### **Bowling Area**

This area consists of a number of lanes, normally set apart in pairs by the seating area. It is here that the athlete bowls. Explain to the athlete that the lanes are set apart in pairs because during competition bowlers are expected to alternate between the two lanes.

Competition requires that alternate lanes be used. Therefore, when bowling games, athletes alternate lanes.

### **Settee Area**

It is here the athlete will wait until it is his/her turn to bowl. In many bowling centers, space is provided here for coats, street shoes, bowling bags, etc. If a specific area is not provided, then the area under the seating area is where ball bags and street shoes will be placed.

### **Ball Return Equipment**

The reset button is located here. Teach your athletes the purpose of the reset, when to use it and who may use it (i.e., athletes, coaches, lane assistance, etc.). In addition, teach athletes the correct way to pick up the bowling ball from the ball return, so they will not hurt themselves.

### **Approach Area**

Have the athlete observe the dark “locator” dots or arrows on the approaches and lanes; discuss the purpose of these markings. They provide very visible reference points for athletes to use when they take their stance. The locator dots help athletes line up their approach and aim the ball.

### **Skill Progression**

- Locate the control counter, concourse area and bowling area.
- Identify the settee area.
- Identify the approach area.
- Identify the foul line/foul light and understand their functions.
- Identify the ball return.
- Identify the automatic scoring equipment.
- Understand how the balls are returned and the operation of the ball return equipment.



## Bowling Concepts & Strategies

### Spare Making

Spare shooting is the key to achieving good scores. Spares are easier to convert than they appear. An old bowling saying is, “If you cannot strike, spare them to death.” To pick up a spare, move to the side of the approach opposite the location of the standing pins. When multiple pins are left standing, the spare adjustment is based on the pin closest to the bowler. Three keys to spare shooting are:

1. Consistent delivery
2. Consistent arm swing
3. Rolling the ball over the target

### Team Play

Bowling is an individual sport. However, bowlers are often paired together to form teams to compete in bowling leagues. Pairing is also done to permit tournament competition in doubles events (two bowlers) or team events (three to five bowlers). Each bowler’s score is added together to arrive at doubles or team score. Special Olympics recognizes these groupings and has competition levels for both types.

### Targeting Techniques

Most bowlers use one of two basic targeting techniques to aim their delivery at the pocket: pin bowling or spot bowling.

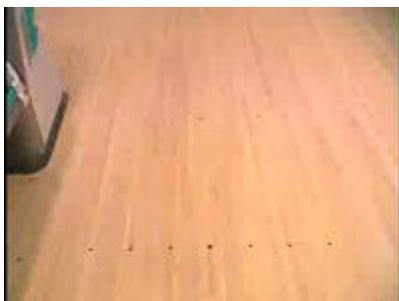
#### Pin Bowling

Bowlers using this technique fix their eyes on the pins from start of the approach to the follow through. The athlete proceeds, selecting the 1-3 pocket for right-handed bowlers or the 1-2 pocket for left-handed bowlers as their objective for the first ball. If all 10 pins do not go down on the first ball, then bowlers fix their eyes on the remaining pins when bowling their second ball.

#### Spot Bowling

Athletes, instead of aiming for the strike pocket 60 feet down the lane, use either of two sets of seven markings placed on the lanes. There are lane dots 6-8 feet beyond the foul line, or arrows approximately 15 feet down the lane. These serve as aiming aids; bowlers can figure out which board their ball lands on and what boards it rolls over on the way to the pins. The athlete must draw an imaginary line from the point of release to the target spot to have a precise idea of the path the ball will take.

Locator Dots



Athletic Pose & Feet Placement





## Four Basic Shots

### **Straight Ball**

The straight ball travels in a relatively straight line and will be subject to considerable deflection, since it will tend to shove its way through the pins. Therefore, a straight ball that enters the pocket at anything other than the precisely perfect spot- the right side of the headpin- is not likely to result in a strike. Therefore, the straight shot is not a high-percentage shot. The ball needs to roll close to the second arrow, rather than down the center of the lane, where the ball will have a better chance of entering the strike pocket and getting good mixing action among the pins.



### **Hook Ball**

Most beginning bowlers will have a tendency to bowl the hook ball or the curve ball. If the athlete has a natural hook, do not try to change it, let the athlete work with it. The hook ball is a very effective shot, since it allows for more margin of error than the straight ball. The hook of the ball comes from the lifting motion of the middle and ring fingers during the release. The primary reason it is so effective is the mysterious mixing action it generates among the pins.

### **Curve Ball**

In throwing the curve, an exaggerated hook, the arm and wrist will be turned to the left, and the thumb will generally come out of the ball at about the 9 o'clock position. Its wide circling path makes it hard to control. However, if the ball crashes into the strike pocket just right, it can sweep away all 10 pins.

### **Backup Ball**

Instead of breaking into the 1-3 pocket, the backup ball will break away from it. If it is the bowler's natural shot and you find that you are unable to have the athlete adapt to another one, have the athlete move to the left side of the approach and aim the ball over the second arrow from the left, the same as a left-handed bowler. That way it will break into the 1-2 strike area normally used by left-handers.



**Special Olympics**

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