Physical Activities for Visually Impaired Youth

Visual Impairment Knowledge Centre

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Introduction

This catalog is a compilation of activities that parents and educators of visually impaired children can utilize to keep their children healthy and active. The activities are easy to understand and teach and require minimal adaptation. Many adaptations are minor and will take relatively little time and money. Much of the equipment for these activities can be made from modified household items and sports equipment. The following contains activities that can be used in any setting from the classroom to home to outdoors.
Although parents and educators of visually impaired children may be concerned about their child's ability and safety in performing physical activities there are many exciting opportunities available. Just as any other child, these students should be allowed to “scrape their knees” with minimal additional precautions. Below you can see several of the fun opportunities that visually impaired children can participate in.

**Paralympics**

The Paralympics is a series of competitions for disabled participants, similar in style to the Olympics. Visually impaired athletes, as well as athletes with other disabilities, compete in a variety of games from goalball, designed specifically for the visually impaired, to alpine skiing which may, at first glance, seem completely inadaptable. These games, however, are completely safe and sure proof that people are limited more by their drive than by their disability. Games in which the visually impaired participate successfully include:

- Archery
- Track and Field
- Cycling
- Equestrian
- Sailing
- Shooting
- Swimming
- Skiing
- Goalball
- Judo
- Swimming

You can visit their website for more information: [http://www.paralympic.org](http://www.paralympic.org)

**Camps**

Camps are a great way for children to socialize and to increase their physical activity level. Most camps have time specifically for physical activity, which can help visually impaired children enjoy sports. In the United States there are summer camps that specifically focus on giving children who are visually impaired the opportunity to become physically active. One such camp is Camp Abilities, which is a week long summer camp that gives individual instruction and evaluation to children. Camps that have physical activities give an understanding of what visually impaired children are capable of doing on their own, as well as ideas for activities they might like to continue participating in. To find out more about camps that would be good for your child, talk to your local consultant.

[http://www.campabilities.org](http://www.campabilities.org)
Skling

Skiing is a fun activity for everyone. It is different from what we do in “normal life,” and therefore it is a great opportunity to escape from our day to day efforts and challenges. Skiing is an outdoor sport that lets you experience different climates and spend hours of fun in the snow. Skiing is one of the rare opportunities available which allows the blind individual to move freely at speed. With skiing there are a variety of experiences from cross country skiing to downhill skiing and much more!

For several years, a group of vision consultants from various municipalities have arranged skiing camps at Johnsgård for a group of visually impaired children, because the ski trip provided the kids with more than just skiing!

Boy, 15: "It’s great to get out with a bunch of other kids who are in the same situation as you – even if I feel fine in my own school back home."

Girl, 15: "Everybody’s just so nice here – whether you need to change your skis or put on a band-aid, Jan Ole and the others are always so helpful. And everything is right outside the door – and it’s not too big."

Boy, 15: "I am surprised that the lighting in the dining room is so good – I like that since my vision isn’t so good! And the area outside is nice and even, and it’s easy to find your way around."

Quotes and more information at http://www.johnsgard.no/. The original article was published at http://www.johnsgard.no/main?page_id=5&article_id=394.

Rappelling

There are several activities which are not generally associated with the blind, which may seem to dangerous to complete without sight. We may think of launching ourselves off of a mountain peak as too dangerous for the blind, but that’s exactly what some visually impaired people have done. Rappelling can be a fun and safe activity for people with visual impairments. Trips to tall cliffs are often planned by groups of visually impaired and instructors barely need more knowledge than they already have. Teaching the blind to rappel is nearly as easy as teaching the sighted. One young man quipped that he was glad he was blind; he couldn't see the bottom!
Ideas for Adaptation

Adaptations
The following adaptations are very common and can be applied to nearly every game or sport that a visually impaired child can participate in. Included are also some tips to remember when using these types of adaptations.

Tactile Cues
Different surfaces on the floor can improve orientation and signal field boundaries and out-of-bounds areas.
- Put a cord underneath tape so the child can feel when they have gone out of bounds (you may want to do this 3 or 4 rows deep to ensure that the child will not stride over the out of bounds marker)
- A thin strip of wood or mats can also be used to mark boundaries

Auditory Cues
Using auditory cues enables the student to know where balls are, where to run, and where boundaries are located. Descriptions of activities should be precise, consistent, and easy to follow.

When using auditory cues, do not use sounds at high frequencies because lower frequencies are easier to hear. Also, auditory cues are less useful in gyms and indoor swimming pools because the sound echoes off the walls making it difficult and confusing to locate boundaries and targets.
- Describe all activities verbally in good detail and/or print them in Braille or large print
- Start with basic commands and make sure the child understands and can perform those, before moving onto more complicated activities
- Provide immediate and accurate feedback so that necessary adjustments can be made
- When using music for activities, consider something instrumental, without lots of vocals that will compete with verbal commands
- Use audible balls, goals, and boundaries. These can be purchased commercially or created using common items such as bells and radios. Note that placing a bell in a light weight ball might cause the ball to move erratically
- Have the person that is receiving give an auditory signal, such as calling out
Visual Cues

Visual impairment varies largely, so ask the student which enhanced visual cues are more helpful.

- Use objects that are brightly colored and contrast sharply with the background. For example, goals, field markers, balls, and mats with different colors are helpful.
- Tape or paint floors or walls where changes (ledges, stairs etc) and boundaries occur with high contrast colors
- Use bright colored pinnies for different teams
- Increased lighting on targets may help, however make sure to reduce glare by putting nonglare paper on the surface

Other Common Adaptations

Even for individuals with a lot of training and practice, mobility, especially the fast paced mobility of some sports and games, is difficult for someone with a visual impairment. The following suggestions can be used to adapt the pacing of a game, making it easier for a visually impaired child to participate, without making the game less fun for sighted peers.

- Slow down the action by using lightweight balls (such as beach balls) and rolling instead of throwing the ball
- Decrease the playing area and the number of players; some trial and error may be needed to determine the best conditions for your play group
- Make games where students hit a stationary ball instead of a moving one
- If need be, install a handrail or grab bar
- Slow running games down; allow players to move only through a certain type of locomotion i.e. hopping, crawling, skipping
- For team games, pair visually impaired students with sighted students to slow down the game; the pairs move together and the children must remain in contact at all times

Ideas for Adaptation
The Game Wheel

This is a wheel of different principal aspects of all physical activities that can be adapted to make participation more inclusive.

Based on concept by Max
Ideas for Instruction

Safety

There are important safety considerations to remember. Make sure that all necessary precautions are taken.

- Orient the child within the facilities paying special attention to exits
- Allow the visually impaired child to examine the playing area prior to playing and practice using the equipment
- Once a child has become oriented, do not change equipment locations
- Keep doors closed or fully open
- Keep areas well lit
- Ensure safety rules are known by all students
- Remove hazards from the play area
- Approve possibly hazardous activities with an ophthalmologist

Kinesthetic Instruction

Moving the child’s body into the correct position will help them learn the correct way to do an activity. A doll can be used to help show how the body parts function together.

When manually guiding a child always:

- Request permission before touching them
- Explain how and where you will be moving and touching them
- Make sure to be gentle
- As you are moving the child explain the verbal command for the motion

Positive Reinforcement

- Encourage students to work independently, where possible
- Motivate the child by telling them if they are performing correctly and reassure them if it is taking a long time to learn a skill
- Make sure the teacher or parent chooses the teams
- Switch teams or partners often
- Physical games do not have to be competitive, they can be cooperative
Exercises and Strengthening Activities

Prior to participating in rigorous physical activities all children should participate in warm-up exercises and basic strengthening activities. These exercises and activities will ensure the safety of children, so that they don’t pull muscles, and increase muscle strength and flexibility. They will also improve balance and coordination, and other basic skills that are essential to all sports and games. There are many exercises that are inclusive and can be used for all children, with minimal modification necessary for the visually impaired child.

Some of the books in the Recommended Reading section of this catalog have excellent inclusive exercises. These activities can be done individually, with a partner, or in a group. Other strengthening and stretching activities that have been suggested by Danish instructors include:

- Yoga
- The Five Tibetan Rites
- Low Impact Aerobics
- Stretches such as, Lunges, Calf Raises, Shoulder, Bicep and Tricep Stretches, etc
- Hand weights are good for basic exercises, such as tricep curls, bicep curls, shoulder shrugs, side steps, lunges and side and knee bends

Instructions for these exercises and routines can be found online, in videos, or in many books.
Adaptations of Activities

Indoor Activities
Team Sports

**Basketball**
- Insert a bell into the basketball
- Use a bright colored ball
- Use nonglare paper on the backboard
- Place a sound source behind the backboard
- Have players use bounce passes
- Players may be allowed to shoot without interference.
- Score one point for hitting backboard, two points for hitting the rim, and three points for getting the ball in the net
- Lower the basketball hoop
- Call to the partially sighted child when passing

PRACTICE NOTE: Used at Texas School for the Blind and Visually Impaired and the Perkins School for the Blind. More information can be found at http://www.tsbvi.edu/Education/sports-mod.htm

**Curling**
- Use a sighted sweeper for curlers who are totally blind
- Have children walk the length of the ice to familiarize themselves with the distance of the shot
- Be sure curler is squarely aligned in the hack
- Tap on the ice to help child aim shot
- Provide an audible cue at the hog line

PRACTICE NOTE: Suggested by the Canadian Council for the Blind. Sports publications can be found at http://www.ccbnational.net/

**Dodge Ball**
- Pair the visually impaired child with a sighted child to assist them.
- When the blind student is attempting to hit someone with the ball the other children should clap hands or shout.

PRACTICE NOTE: Suggestions by expert in field of adapted physical activity, Charles Buell
Goalball

Goalball is a sport developed specifically for the visually impaired. Any participants should wear blindfolds to negate any advantage from residual vision. Goalball has become a fairly popular sport and has been a part of the Paralympics since 1976. The following is a short summary of the rules of Goalball. Official rules can be found at the IBSA website.

**Equipment:**
goalball (or bell ball)
tape and cords to mark boundaries

**Setup:**
The playing field is divided in half, with a team of three on each half. Each team's goal line lies at the far end of the playing field behind the respective team. Each side of the field is again divided in half and players are restricted to behind this quarter line. Another two lines are drawn about 1/5 of the distance from the center line to each goal line. These lines are called the overthrow lines. The purpose of the game is for one team to roll the goalball past the other team and over the goal line at the far end of the field.

**Play:**
Play starts with one team in possession of the ball. Offensive players have only a limited amount of time before they must throw the ball (in official rules, 8 seconds) and may only throw three times consecutively before another player must throw. Defensive players may use any part of their body to stop the ball. If the ball is thrown out of bounds, the opposing team takes possession. A point is awarded if the ball rolls over the opposing teams goal line after which the defending team gains possession of the ball. Note that the ball must be rolled and not thrown; the ball must touch the floor at least once before reaching the overthrow line.

PRACTICE NOTE: For more information visit http://www.ibsa.es/eng/deportes/goalball/presentacion.htm
Individual Activities

Aerobics

**Step Aerobics** - The child steps on and off a platform in different directions at varying tempos.

**Low Impact Aerobics** - Constant activity where the individual is moving and keeping their heart rate up. The child can march in place, walk briskly, do toe touches, kick forward, etc. Only one foot leaves the floor at a time.

**High Impact Aerobics** - Constant activity where the child doing large amounts of conditioning. Both feet leave the floor. Some activities that can be done include pendulum leg swings, side and front jumps, and jumping jacks.

PRACTICE NOTE: These activities recommended by Lauren Lieberman, a prominent professor in the area of adapted physical activities

Bowling

**Equipment:**
- Bowling ball
- Pins (should be high contrast with the floor)
- Bumpers

**Rules:**

There are very few adaptations to bowling, with the exception of bumpers. If the ball is too heavy small ball bowling can be done. If playing in a gymnasium, wooden boards can be used to mark off lanes and rubber balls can replace bowling balls. If playing at a bowling alley, choose the lane with the best lighting. Also, mark the foul line with a tactile cue.

To improve visualization have the child walk the lane to sense the distance of the alley. To improve bowling skills among younger students, relay which pin numbers remain standing after the student bowls a ball. Have the student describe back the positions of the remaining pins.

Also for young children, bowling pins can be made by filling milk jugs or similar items with differently sized grains of material such as dry rice, sand, etc. Have the child try to identify which pins were knocked down by sound.

PRACTICE NOTE: Suggestions from various American and Australian schools for the Visually Impaired. More information can be found at http://www.tsbvi.edu/Education/sports-mod.htm
Dancing

Orientation

- Two blind individuals dancing together may become disoriented. Try to pair sighted and visually impaired children.
- Clearly describe the space and instruct the children to count their steps.
- Put an assistant with maracas at points on the stage to help with spatial orientation.
- Use tactile cues (rope, scarves, costumes) to help the student identify their location.

Movement

- Make dance moves that use tension, strength, lightness, and relaxation.
- Take time to go through each movement slowly and frequently until everyone feels confident when learning a new dance.
- When creating sequences precisely describe what is being done. Describe the physical sensation of the movement as well.
- Touching another dancer’s body while in a shape may help (be sure that they touch the dancer’s support base so that they can understand how to balance) When they have figured out the shape have them make it with their body.
- It may help the child to put their hands on another dancer’s waist or shoulder to feel the kinesthetic concepts of time, space, and size
- Balancing may be challenging, so help the student to feel grounded and balanced.

PRACTICE NOTE: Dancing is promoted in various literature sources as a beneficial activity for the visually impaired. Sources for adaptations listed here come from various authors.
**Gymnastics**

- Have students examine the equipment prior to using it
- Put a bell under the middle of a trampoline for better orientation
- Use mats that have high contrast with the equipment
- Use spotters and a safety belt
- Have vaulters start with their hands on the horse and use a two-bounce takeoff
- Coaches should warn children when they are close to the end of the balance beam
- No jumps should be used on the balance beam
- Children doing floor exercises should count their steps around the mat and music can help aid in orientation

**Common Activities:**

- Somersaults
- Hanging from a horizontal bar
- Walking on a low balance beam
- Doing a seat drop on a trampoline
- Tumbling

**PRACTICE NOTE:** Suggestions from Texas School for the Blind and Visually Impaired and professors in field of adapted activity. More information can be found at [http://www.usaba.org/Pages/sportsinformation/adaptations/gymnasticsadapt.html](http://www.usaba.org/Pages/sportsinformation/adaptations/gymnasticsadapt.html)

**Judo**

Like wrestling, the only required change is that opponents must always remain in contact with one another.

**PRACTICE NOTE:** Visually impaired have participated in both integrated and segregated Judo competitions for years. More information can be found at [http://www.ijf.org/index.php](http://www.ijf.org/index.php)
**Roller Skating**

- The visually impaired child can hold a sighted person’s waist or hold their hands.
- The child can use a rink with a railing for a guide.
- A walker can also be used for independent skating.
- It may take some time to get used to the sensation of rolling.
- A good activity is attempting to balance on one skate.

PRACTICE NOTE: Used at the Texas School for the Blind and Visually Impaired. More information can be found at http://www.nfb.org/Images/nfb/Publications/bm/bm04/bm0402/bm040207.htm

**Showdown**

This activity, based on table tennis, was designed specifically for the blind. All participants wear blindfolds or opaque glasses to negate any vision or partial vision.

**Equipment:**
- Specially designed showdown table
- Two table tennis paddles or showdown bats
- A ball filled with small metal ball bearings

**Play:**
The showdown table is similar to a table tennis table, however, there are no markings to divide the playing field. Instead, there is a side wall running along the edges of the table and a center panel raised above the playing table. There are semi-circular goals located at each end of the table.

Play proceeds as in table tennis, with players alternating serves every 5 times. Each player must bounce the ball off the side walls once and under the centerboard. Two points are awarded to a player who puts the ball into his or her opponent’s net. One point is awarded to the opponent of a player who hits the ball into or over the centerboard, hits the ball out of bounds, or hits the ball with any part of his or her body other than the bat. The first player to score 11 points with a lead of at least 2 points over his or her opponent wins.

PRACTICE NOTE: For more information, visit: http://www.ibsa.es/eng/deportes/showdown/reglamento.htm
**Shuffleboard**

**Equipment:**
- Broomstick
- Tuna fish cans, pie plates, metal rings etc (a different one for each team)

**Play**

Two children, one from each team, step to a line 10 ft from the wall of the gymnasium. Using broomsticks, they push their discs toward the opposing wall. The player whose disc comes closest to the wall without touching it receives one point. No point can be received if the disc touches the wall.

**PRACTICE NOTE:** Suggestions from forerunner in the field of adapted activities, Charles Buell

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**Swimming**

- Exercise movements in water are very effective because they encounter greater resistance than activities outside of the water.
- In pools keep a sound source at one end (the shallow or deep end) so that the person can remain oriented (this may not work if indoors because of echoing)
- Counting strokes allows children to realize when they’re near the end of the pool
- Flags or strings can be hung near the water at the end of the pool to signal the edge
- A spotter can help to protect a child from hitting their head using a paddle board
- Prior to swim racing, have the student practice swimming in a straight line
- Use a variety of flotation devices when necessary
- Use lane lines as guides for swimming
- For those that aren’t comfortable swimming, they can tread water

**Water Games and Competitions**

- Walking races across the pool.
- Kicking across the pool while holding a kickboard.
- Hand ball soccer where a ball with a bell inside is bounced across the water’s surface and the players try to toss it into the opposing net.
- Have students join hands in a line and the end of the line tries to catch the head of the line. When the head of the line is caught the person who was at the end goes to the front and the person who they had linked hands with previously is now chasing.
- Marco Polo: This is played in the shallow end of the pool. One person is “it” and they have their eyes closed and say “Marco,” to which the other children say “Polo.” The person who is “it” attempts to find the other children by listening for their movements in the water. A good adaptation is to have everyone wear a blindfold for this game

**PRACTICE NOTE:** Universally used in schools for the visually impaired. More information can be found at http://www.recreationtherapy.com/tx/txblind.htm.

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**Wrestling**

Very little adaptation is required however, opponents should maintain physical contact throughout the match (such as hand-to-hand contact).

**PRACTICE NOTE:** Many visually impaired people have become accomplished wrestlers over the past several years, often performing better than their sighted competitors. More information can be found at http://www.recreationtherapy.com/tx/txblind.htm
Adaptations of Activities

Outdoor Activities
Team Sports

**Baseball**

- Play with a large ball with a highly visible color
- Use a t-ball stand for batting
- Use a large bat
- Run bases using a sighted guide
- For totally blind children, have them field with a partner and throw the ball to a specific place each time (the pitchers mound, home, or first base)
- Highlight the bases with orange cones, sound beacons, a caller, etc...
- Have the pitcher tell the batter when they are pitching
- The child can receive more than 3 strikes (i.e. 5 or 6)
- Fielders count to 5 before throwing the ball
- If the playing field permits, have the pitcher bounce the ball towards the batter so that the batter can identify the location of the pitch.

PRACTICE NOTE: Used by American physical education teachers for years

**Beep Baseball (Beep ball)**

- Beep baseball has a similar set of rules to baseball. There are a few key modifications:
- Play continues for only 6 innings
- A Beep Ball is used, about 0.5 m in diameter with a sound emitter in the center.
- There is no second base
- First base and third base are commercially available products created specifically for this activity
- Both bases are tall (about 1.5 m) padded cylinders with speakers embedded in them.
- When a player hits the ball, a base operator activates the speaker in one of the bases. The hitter must identify the activated base and run to it. If the runner makes it to the correct base without being tagged out, a run is scored.

Note that the pitcher and catcher in beep baseball must be sighted. In addition, under regulation rules, two sighted defensive spotters may be used to aid fielders in finding and throwing the ball.

PRACTICE NOTE: A well established activity in the United States and other countries
http://www.nbba.org/
Kickball

**Equipment:**
A large, brightly colored kick ball or bell ball

**Setup:**
The setup is similar to baseball with a diamond of four bases and a pitcher's mound in the middle. Baselines can be marked with brightly colored tape or guide wires.

**Rules:**
Players are divided into two teams, a kicking and fielding team. Players on the kicking team take turns at "bat." A pitcher, possibly a neutral pitcher such as the instructor, rolls the ball towards the kicker who kicks the ball and runs the bases as quickly as he or she can. Players on the fielding team who receive the ball must perform some activity, such as bouncing the ball 20 times, before the runner must stop moving. In this variation, there is no "out." Once the ball has been bounced the appropriate number of times the runner must stop where he or she is.

PRACTICE NOTE: Idea suggested by several American schools for the visually impaired

Volleyball

- Use a larger and softer ball, such as a beach ball
- The ball should have a bell inside and be brightly colored
- Place brightly colored tape on top of the net
- Lower the net
- One variation is where the volleyball is thrown from one side of the court to the other and the other team tries to catch it. It is thrown back and forth until the ball is dropped. When the ball is dropped a point is scored by the opposing team.
- This game can be played cooperatively
- Have everyone on a side hit the ball before sending it over the net
- Don’t allow any one player to hit the ball twice in a row
- See how long the ball can be kept in the air and volleyed back and forth

PRACTICE NOTE: Suggestions from Texas School for the Blind and Visually Impaired and other American experts on adapted sports and games. More information can be found at http://www.tsbvi.edu/Education/sports-mod.htm
Individual Activities

Archery

- Make sure the target is high contrast with the background
- Make the target larger
- Place hay bales behind the target
- Place a sound source behind the target
- Place balloons on the target so student knows when he or she has succeeded
- Emphasize safety and make sure that the student knows when to shoot and when not to shoot
- Use a spotter
- Run a cord from the target to the student for retrieval of arrows
- Position the child with the sun to their back

PRACTICE NOTE: Suggestions used by various physical educators of the visually impaired. More information can be found at http://www.ibsa.es/eng/deportes/archery/presentacion.htm

Bicycling

Individual Bicycling

- This is best for individuals with residual vision.
- Individual bicycling can be done if a sighted person walks or jogs beside the bike to warn of upcoming hazards.
- Some children with low vision can ride a bike slowly alongside or behind a sighted rider.
- This activity is best done in protected areas, with smooth surfaces, low grade and few turns.
- Make sure the child rides within their visual limits.
- If a sighted person is riding in front place something on the spokes of the bike that will flap for an indication of direction.
Tandem Bicycling

- A sighted individual should sit in front with the visually impaired child in the back. The sighted individual should have experience with biking.
- The sighted person is responsible for braking, peddling, and steering. The visually impaired child is responsible for peddling.
- Quiet roads without large amounts of traffic are the most pleasant to ride on.
- The back rider should constantly be informed of what is going on and any need for changes in pace. For upcoming turns and stops be sure to tell the child (i.e. gentle turn left, sharp turn right, slow to a stop in ten feet).

Duo or Surrey Bicycling

- The sighted person and visually impaired child sit side by side and pedal.
- The sighted individual guides the bike.
- These bikes are advantageous because they allow easy communication.

Tricycling

- Large tricycles are available and can be helpful for children with balance problems.

Exercise Bike

- Set a goal for each session; whether it be distance, time, or difficulty level.
- Vary the ride. For example, do hills one day and a series of sprints the next day.
- Start with an easy routine and gradually make the work-out plan more difficult.
- Combine biking with other physical activities for variety.
- As an activity for younger children, children can track how many miles they travel. Beginning at their local city or town, students can track to what city they have managed to pedal.

PRACTICE NOTE: All bicycling activities have been used by a variety of educators including, experts, consultants and physical education teachers and schools for the visually impaired. More information can be found at http://www.ibsa.es/eng/deportes/tandemcycling/presentacion.htm
Boating

- Always have a sighted guide nearby.
- Visually impaired individuals should examine the boat before it is placed in the water.
- Children may need help getting in or out of the boat.
- The child should practice safety procedures in case the boat tips over.
- A groove can be put into the oars to help in locating hand position.
- Boating helps to improve balance and upper body strength

- Different types of boating include, but are not limited to:
  ◦ Sailing
  ◦ Canoeing
  ◦ Rowing
  ◦ Kayaking


Croquet

Equipment:
- Standard mallet and balls
- Hoops and pegs made of 1 ¼ inch diameter timber that are bright or white colored
- An aiming aid can be used or a radio can be placed near the target to help direct shots

Rules:
Standard croquet rules can be used, however it is easier to simplify the rules depending on the particular group. For example, children can attempt to hit the ball around the course in as few shots as possible.

PRACTICE NOTE: Suggested by consultant for the Vision Australia Foundation
Golf

- Use plastic clubs for younger children
- Use brightly colored balls
- Have a guide for course navigation. The guide should give feedback as to correct positioning and directionality for each shot and can help give assistance with club use when necessary.

PRACTICE NOTE: Used by the Texas School for the Blind and Visually Impaired. More information can be found at www.internationalblindgolf.org

Hiking

- One sighted person should assist each visually impaired person (only when necessary)
- Sighted and blind people can walk side by side if the path is wide enough or the visually impaired child can hold onto a rigid stick and be lead by the sighted person.
- Warn people of obstacles and how far they are.
- The path should be well defined and easy to follow, with a reasonably even surface.
- Non-slip shoes should be worn and firm paths are important for wet weather.

PRACTICE NOTE: Suggested by consultant for the Vision Australia Foundation
Horseback Riding

- Students should be able to learn how to mount, guide, and dismount a horse.
- All areas of horsemanship should be learned to help teach students responsibility.
- The horse used should be specially trained for students with disabilities and should not spook or kick.
- The horse may be led by another person.
- This activity is very good for balance.

PRACTICE NOTE: Suggested by educator at Texas School for the Blind and Visually Impaired. More information can be found at http://www.ipec-athletes.de/

Ice Skating

- Make sure that the child is oriented to the facility
- Provide standing support on the ice for novice skaters
- Work close to the boards or use a chair for balance during initial learning phase
- For navigation, use similar techniques to running, which can be found on page 30

PRACTICE NOTE: Used by consultants for the Canadian Council for the Blind

Jump Ropes

- This activity can be done individually or with friends.
- If two people hold the ends of the rope, they should make sure that it hits the ground and makes a noise so that the student knows when to jump.
- It can be modified so that there is a rope 1 to 2 feet off of the ground that the child steps over or jumps from side to side.
- Music often helps to keep rhythm.

PRACTICE NOTE: Used by various American physical educators
**Mini-Trampoline**

- These can be used for running in place, jumping or bouncing.
- Mats should be placed around the edges.
- To help balance, a handrail or wall should be near the trampoline.
- If a trampoline is not available a mattress can be used.

**Orienteering**

- Ensure that the visually impaired child is given adequate time to orient him or herself in the area.
- Pair visually impaired students with sighted guides who can describe what is around them.
- Tactile equipment is available such as tactile compasses and tactile topographic maps.
- If there is no traffic, the child can walk alone along well-defined trails or roads; if necessary, a cane can be used.
- Provide identification of objects by touch and smell.
- Don’t leave a student alone in an unknown area.

**PRACTICE NOTE.** Suggested by American experts in the filed of adapted physical activity

**PRACTICE NOTE.** Suggestions used by consultants for the Canadian Council for the Blind
**Rock Climbing and Rappelling**

- As rock climbing is inherently very tactile and several safety considerations are already taken into account, little adaptation is needed.
- Use a sighted caller at the bottom of rock climbing walls to tell the climber where the next hand and footholds are.
- Require visually impaired students to have a sighted guide at the ledge.
- Have a qualified instructor describe the locations of protruding rocks and other obstacles as the child rappels towards them.

PRACTICE NOTE: A successful rappelling trip to Bornholm was completed by a group of Danish children and their consultant in 2004

**Shooting**

A special rifle is used. The rifle has a sight that is designed to collect and measure the level of light reflected from the target using a photo-electric cell which is then converted into sound.

A special target is used. The center of the target is brilliant white and then moving outwards from the center increasingly darker levels of grey are encountered until off the target is matt black. The target requires extremely bright illumination (50w 12v halogen lamp with a very narrow beam angle of 10°).

The closer to the center of the target you are aiming the greater the level of light reflected and hence the higher the frequency of sound which is heard by the shooter via a pair of headphones. The sights are adjustable in the normal way to alter the mean point of impact.

An assistant should be used to ensure safety and to help them “find the target”.

PRACTICE NOTE. Suggestions from a British rifle organization

http://www.britishblindsport.org.uk/shooting.htm
**Skiing**

- Use a sighted guide to describe obstacles and locations of other skiers
- Provide continuous audible signal (i.e. radio, constant talking) to follow

PRACTICE NOTE. Suggestions used by consultants for the Canadian Council for the Blind. More information can be found at http://www.recreationtherapy.com/tx/txblind.htm

**Snowshoeing**

- Vision may be decreased in the bright glare of the sun and snow.
- A guide is required for a student who is totally blind.
- For partially sighted children a rope or stick may be helpful for guiding.

PRACTICE NOTES: Suggestions made by consultants for the Canadian Council for the Blind. Similar ideas have been used in the states of Washington and Colorado in the United States.

**Tag**

- In tag one child is “it” and they chase around the other children and attempt to tag them.
- Once another child has been tagged they assume the role of being “it” and must chase the other children.
- Good adaptations include:
  - Have the person who is “it” wear a brightly colored pinny.
  - Have the person who is “it” carry bells.
  - To minimize arguments about whether or not someone was tagged have the children wear flag football flags and pull them off to become “it”.

PRACTICE NOTE: Used by various American educators of the visually impaired
**Track and Field**

**Running**

- Guide wire - A taught guide wire can be set up on tracks, in gyms or in backyards. A knot can indicate where the child should stop.
- Sighted guide - The child holds the guide’s elbow or the child can follow the guide if they wear bright clothing. If the student runs with a guide runner it is important that they run with more than one person so that they do not become dependent on only one person.
- Tether - A guide can hold a rope and the student can follow.
- Caller - The child can run towards a target that can be a bell, sound beacon, or person giving verbal instructions.
- Running without assistance - If the lines are enhanced with high contrast tape and there are few other runners on the track this method is effective.
- Running on a treadmill - These are easily accessible and can be used alone, however may require some initial training so that the student can get used to the treadmill’s motion.
- Cross country running - Orient the child to the course prior to running it and observe the route for ground hazards, such as, holes, sudden drops or rises. Make sure the child is aware of overhanging branches and hazards that aren’t found on the ground.

**Discus Throw, Javelin and Shot-Put**

- These activities require little modification.
- Use colored throwing instruments for easier retrieval.
- Help orient the child to the throwing circle:
  - Shot-put has a raised toe board that will help in orientation.
  - For discus place a towel that is a high contrast color on the outside of the front edge.

**Long Jump**

- For those with very little vision they should extensively practice the approach and take off, by limiting and counting the steps to take off.
- A caller or a noise beacon can help students stay straight for the approach.
- A sighted person can notify the student when they are near the jump.

**High Jump**

- Blind children may touch the high bar and then back off and use a one or two step approach.
- Mark the crossbar with tape that is highly visible.
- Practice the distance between the starting point and the bar.

PRACTICE NOTE. Suggestions for track events have been used by a variety of American organizations and experts and consultants from the United States, Canada, and Australia. More information can be found at http://www.usaba.org/Pages/sportsinformation/adaptations/athleticsadapt.html
Challenging Activities

The following activities are valuable for students to be familiar with and to try, however, they are less easily adapted and very fast paced. We include here adaptations that will make the sport more available to children with visual impairments. These adaptations make the sport cooperative rather than competitive and slow down the speed of the game. However, these are challenging activities that require modification and may not be as inclusive as previously described activities.
Badminton

- Use a brightly colored shuttlecock and brightly colored tape on the top of the net.
- When practicing forearm and backhand strokes, suspend the shuttlecock in midair.

PRACTICE NOTE: Suggested by the Canadian Council for the Blind. Publications can be found at http://www.ccbnational.net/

Handball

- Use a larger ball, such as a beach ball with bells in it, to slow down play.
- Allow children to take up to five steps before passing
- For integrated activities, have the ball be passed to each student on a team before a shot can be made to ensure everyone is participating.
- The goalkeeper should be a sighted or partially sighted player.

PRACTICE NOTE: Untried suggestions

Hockey

- Rather than a ball or puck, use a brightly colored Frisbee with a string of small bells tied underneath it. To attach the bells either use glue or poke a hole through the Frisbee. This "puck" will be much easier to track for visually impaired students and encourage students by increasing their success at handling the puck.
- Regular hockey sticks can be used or it can be played with brooms.
- There is no body checking allowed.

PRACTICE NOTE: Practiced in American schools for the blind. More information can be found at http://www.abilities.ca/include/article.php?pid=&cid=&subid=&aid=1052
Soccer

- Use a ball with a bell inside.
- Place sound sources on the two goal posts.
- Put sound sources on the boundaries.
- Call to the child when passing.
- Prior to playing, teach the skills of dribbling, kicking to an audible target, and trapping the brightly colored or audible ball.


Table Tennis

Equipment:
- Table tennis table with 3 inch tall boards nailed on the side.
- Net made of solid opaque material (preferably a color that will stand out from the table color and the ball color; approximately 1 ½ ft high and 4 inches above the table).
- Ball should be a small waffle ball
- The paddle can be made larger.

Rules:
- Each player has one serve.
- When about to serve a verbal cue should be given to the opposing team and the ball must be served to the person standing diagonally opposite.
- If the ball is not hit diagonally opposite a fault is called. Two faults in a row loses the point. If the ball hits the bottom of the net the point is replayed.
- The serve rotates between teams and players so that everyone gets a chance to serve.
- Players are not restricted to hitting the ball alternately
- The game is played to a score of 11 and a point is won when:
  ◊ The shot is not returned.
  ◊ The ball is not hit.
  ◊ The ball stops before it is hit.
  ◊ A double fault is served.
  ◊ The ball does not pass under the net.

PRACTICE NOTE: Used by consultants in Australian and American organizations for the visually impaired
Tennis

- Use a ball with a bell.
- Use a brightly colored ball.
- Use larger balls.
- Allow extra bounces.
- Wrap bright tape on the top of the net.

PRACTICE NOTE: Suggestions used by the Texas school for the Blind and Visually Impaired. More information can be found at http://www.tsbvi.edu/Education/sports-mod.htm
Games for People with Sensory Impairments
by Lauren Lieberman and Jim Cowart, USA, 1996

Written in English, this book is a very useful guide for anyone who is willing to take the time to read through it. With contributors from several American schools for the visually impaired, including the Michigan School for the Blind and the Perkins School in Massachusetts, this book contains several dozen ideas for games and activities in a simple, concise format. These activities are designed specifically to improve mobility skills, physical endurance, and coordination among visually impaired children. Note that, most games are geared towards younger children. Although there are some examples of more common modified sport activities that are appropriate for older children, many activities are simple games or lead-up exercises.

Examples from Games for People with Sensory Impairments

Diamond Ball
An adaptation of tee ball for the visually impaired, this activity helps communicate the basics of baseball.

Brightly colored rope is to be placed in the shape of a baseball or softball diamond. The rope should run at about waist height of the students and should be marked with tape a few feet from the bases so that students can judge when a base is coming up. Bases can be taped to the floor or marked on the floor with brightly colored tape.

Children are divided into two teams. The batting team takes turns hitting a beep ball off of a tee and running the bases. The fielding team attempts to locate the ball and throw it to one of the bases to tag the hitting student out. Points are scored 1 for a base hit, 2 for a double, 3 for a triple, and 4 for a home run.

Sockley
Equipment:
Long rope, eye hooks or volleyball net stands, bell ball attached to a string, small pulley or paper clip, two "flags"

Setup:
Run the rope between two eye hooks placed in opposite walls or between two volleyball net stands.
Hang the ball and string by the pulley of paper clip to the rope.
Suspend the flags an equal distance from the center of the rope.

Rules:
Divide children into two teams or one, two, or three students each. Players use some prescribed motion type (kicking, underhanded strike, etc.) to try and push the hanging ball past the opposing teams flag.
Physical Education for Blind Children
by Charles Buell, USA, 1966
An older work, published in 1966, this book contains many timeless games for children. In particular, Chapter 8: Active Games has a long list of new games and variations on common traditional games that are safe and effective for children with visual impairments. As most of these activities require large teams of children, this work is perhaps more suitable for physical education teachers rather than parents or leaders of club organizations. This work is also written in English.

Examples from Physical Education for Blind Children

Battleball
Children are divided into two teams of mixed sighted and visually impaired students. Throwing lines about 6 meters apart can be defined by mats or high contrast tape. Each team is given a medicine ball and blind children roll the ball from the throwing lines and attempt to roll the ball across to the opposite wall. Sighted children on the defending team attempt to stop the ball. If they succeed, they hand the ball off to a visually impaired child to throw.

Call Ball
A child stands in the center of the playing area and calls out the name of playmate at whom the thrower will roll or bounce the ball. The called player shouts to indicate his or her location and the ball is sent towards them. If they catch it, they become the new "it". Otherwise, the thrower remains the same and calls another child.

Synshandicappede og idræt – en fagbeskrivelse
by Karen Ellerman, Denmark, 1991
This resource is similar to the ones above, but written in Danish. It contains some of the adapted sports found in this catalog as well as new exercises and warm up activities. Again, this resource is aimed mostly at physical education teachers and contains activities for large groups of children. Most of the activities described in this book are play-like, and are mostly suited for younger children or as possible warm up or cool down activities for older children.

Kroppsevning for synshemmede. Hvordan tilrettelegge gymtime med en synshemmet elev i vanlig klasse
by Ingalil Bartlett and Grethe Halvorsen Erling Sundbø, Norway, 1986
This book focuses on suggestions for activities specifically for physical education classes. It demonstrates uses for common equipment such as benches, mats, and hula hoops which would be helpful for any physical education class but can be performed without modification by a student with a visual impairment. Activities include stretches and warm-ups and concentrate on activities with a partner. Although it is written in Norwegian, the activities are presented in simple language and easy to follow instructions.
Färdighetsträning. Lek och Idrott för synskadade
by Conny Nygren, Sweden, 1995
This book focuses on the education of physical education teachers. It describes aspects that are good to know before the student arrives, and ideas and hints range from elementary and individual training to group activities as well as practical advice about lesson planning. There is also a list of unique activities for all age groups.

Games for All of Us: Activities for Blind and Sighted Children in Integrated Settings
by Ulrich Pfisterer, Australia, 1983
Again a resource for physical education teachers, this pamphlet contains several ideas for activities which incorporate visually impaired children into normative classroom settings. These activities are geared towards younger children in groups large and small groups.

Examples from Games for All of Us

Leap Frog
One partner squats on the floor. The top partner places both hands on the base’s shoulders and pushes forward to jump both feet over the base’s back. This can be repeated across a gym or in other settings.

Partner Stand-Up
Partners stand back to back with elbows locked. Sink to the floor and rise by taking small steps and pressing against the backs.

Walking Chair
A group of students (more than two) line up behind each other. Each student holds the hips of the person in front and all sit back so the legs touch the thighs of the person behind them. Each child supports their own weight. On signal all students move forward in step.

Across the Desert
There are multiple teams of ten or more players and each team requires two mats that are large enough for all team members to stand on. The mats are positioned 10-15 meters apart. On a signal, two team members pick up another team member and carry the team member to the other mat. When everyone has been moved all players race back to the first mat. The first team to have everyone standing on the first mat is the winner.

Equator
For this game one mat per team of more than two children is needed. A line in the center of the playing area is designated the equator and the ships (mats) are arranged to be equal distance from it. Each team sits on its ship and is given a number. The instructor calls out two numbers. The called teams stand up and carry their ship over to the equator and the first team to be seated wins a point. The teams then return to their starting positions. This game can be varied by having the children turn over the mat before sitting on it or having the children lie, kneel, etc instead of sitting.

For more information on the adaptations and games collected in this catalog reference the bibliography of the project report “A Catalog of Physical Activities for Visually Impaired Youth” by Michael Ardito and Justine Roberts.
Here are many of the sports associations for the blind that can be found in Denmark. They can be found at: [http://www.dkblind.dk/tilbud/idraet/idraetsfor](http://www.dkblind.dk/tilbud/idraet/idraetsfor)

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