# Fundamental Motor Skills for Adults 2017

Prepared for Special Olympics Canada

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# Introduction

ndividuals with intellectual and developmental disabilities (IDD) often have delays and/or challenges in planning, executing, and learning fundamental motor skills such as throwing, catching, running, and kicking [1-3]. However the scientific evidence indicates that with appropriate programming and intervention, the fundamental motor skills of this population can be improved and there are numerous other developmental benefits to increased skill proficiency [4, 5].

With the recent movement towards Long Term Athlete Development models [2]; Special Olympics Canada has developed resources and programs such as Active Start and FUNdamentals for young children to promote overall physical literacy and develop the foundation of skills needed for participation in sports and lifelong physical activity. While these programs have successfully targeted young children, it is clear that some participants with IDD need more time to fully develop their skills. Furthermore, Special Olympics athletes often enter the system at multiple entry points (i.e. an adult can join Special Olympics at the age of 25 for the first time), and sometimes these individuals would benefit from additional programming on the development of fundamental motor skills; and yet it is not appropriate for them to join an Active Start or FUNdamentals program with young children.

The development and refinement of movement skills can only improve sport performance and provide opportunities for physical activity outside of the sport environment.

In addition, all athletes benefit from continuous practice of movement skills regardless of age or skill level.

## **Purpose**

The purpose of this guide is to create a resource that can be used as a stand-alone program to teach fundamental motor skills to adults with IDD. But this resource can also be used to supplement existing practices for coaches in all Special Olympics sports programs to continuously develop and refine the fundamental motor skills of their athletes within the context of their sport. For example, a soccer coach might use some of the activities related to dodging (changing direction), or a basketball coach might use some of the activities related to eye-hand coordination. These activities are not meant to replace sport specific drill, but to accentuate or supplement a regular practice. Alternatively, this resource could provide the entire curriculum for a group that needs more time to develop movement proficiency.

This resource can be used:

- 1) As a stand-alone program specific for athletes 18 years or older to improve Fundamental Motor Skills
- 2) Be incorporated into existing programs, through warm-up, cool down or practice time to strengthen Fundamental Motor Skills

# How to use this resource

This resource is meant to be a menu of games and activities that can be used in any order or combination to suit the needs and abilities of the participants. The purpose is to practice fundamental motor skills in a fun, novel way using games or activities that are age appropriate in addition to, or instead of, basic skill drills of throwing, catching, kicking, running etc. Coaches could also use these activities as part of their warm-ups, cool-downs or to break up their regular practice schedules, or the whole program can be made up of these activities. All athletes benefit from activities that improve cardiovascular fitness, strength, flexibility and coordination. It is also important to realize that playing soccer at a basketball practice is a great way to "practice basketball skills." These include running, dodging, stopping, starting, and teamwork.

Activities are separated into object control skills and locomotor skills, and built into each activity are suggestions on how to increase or decrease the difficulty. For each activity there is a guide to what skills are targeted and how to incorporate prompts to ensure success and learning. It is estimated that for a 1 hour session coaches should plan to play 8-10 activities depending on skill and fitness level. When appropriate adaptations for indoor vs. outdoor have been indicated.

All games and activities listed can be modified or changed to suit the strengths of participants, the equipment available, and the space while keeping safety in mind at all times.

### **Levels**

The basic instructions in the body of the activity indicate the most basic level, Levels 1-3 increase the complexity or skill demand in incremental levels. Level 1 is the easiest version of the activity and increases with difficulty with each number. Some may always use the basic level and others will need more complex variations. Importantly, coaches can have all participants engaged in the same activity but different groups or individuals could be engaged in different levels all at the same time. This type of differentiated instruction allows for all participants to be adequately challenged while all participating together.

THESE ACTIVITIES ARE <u>NOT</u> MEANT TO REPLACE BASIC SKILL INSTRUCTION.

IT WILL STILL BE NECESSARY TO TEACH EACH SKILL INDIVIDUALLY TO THE PARTICIPANTS IN A SIMPLE STEP-BY-STEP MANNER DEPENDING ON THE SKILL LEVEL OF THE PARTICIPANTS.

THESE ACTIVITIES ARE DESIGNED TO ALLOW PARTICIPANTS TO <u>PRACTICE</u> THEIR SKILLS IN A FUN AND INTERESTING WAY

## General Verbal Prompts for various skills

Run:	Нор:	Skip:					
<ul> <li>Look forward</li> </ul>	- Head up	- Step-hop, step-hop					
<ul> <li>High knees</li> </ul>	<ul> <li>Spring with legs</li> </ul>	<ul> <li>Land on toes first</li> </ul>					
<ul> <li>Bend your elbows</li> </ul>	<ul> <li>Swing with your arms</li> </ul>	- Swing your arms					
<ul> <li>Swing your arms</li> </ul>	<ul> <li>Soft landing</li> </ul>						
Dodge:	Throw:	Jump:					
- Head up	<ul> <li>Bring your arm back</li> </ul>	<ul> <li>Bend your knees</li> </ul>					
- Get low	<ul> <li>Step with other foot</li> </ul>	- Arms back					
- Push off	<ul> <li>Swing forward</li> </ul>	<ul> <li>Push up with your legs</li> </ul>					
<ul> <li>Go left, go right</li> </ul>	<ul> <li>Follow through</li> </ul>	- Swing your arms up					
		<ul> <li>Bend your knees when</li> </ul>					
		you land					
Kick:	Gallop:	Dribble:					
<ul> <li>Step forward with other</li> </ul>	<ul> <li>One foot forward</li> </ul>	- Head up					
foot	<ul> <li>Same foot is always</li> </ul>	- Soft hands					
<ul> <li>Bring kicking foot back</li> </ul>	forward	- Cup the ball					
<ul> <li>Swing through with</li> </ul>	<ul> <li>Step forward</li> </ul>	- Opposite foot forward					
your foot	<ul> <li>Chase toe to heel</li> </ul>	to dribbling hand					

# **Basic Equipment List**

The goal of this resource is to use a minimal amount of equipment; however, some equipment is needed for many of these games and activities. Coaches are encouraged to be creative and substitute equipment if needed (e.g. a bean-bag instead of a cone to mark the end of a line). Most of these items would be available in school gymnasiums or could be purchased at the dollar store. It is understood that not all coaches will have all items on this list at all times; however, this is a very basic list and not all games and activities use all items allowing for choice.

- 8-10 inch Playground balls
- Tennis balls
- Hula hoops
- Bean bags
- Lines on the floor of a gymnasium or outdoor space (e.g. hopscotch or painted lines and circles), or street chalk to draw lines outside, or gym-safe tape to use in the gym
- Balloons
- Frisbees
- Pylons/cones
- Jump ropes
- Beach balls

\*\*option equipment/substitute

- Soccer balls
- Basketballs
- Baseballs
- · Poly spots

# Safety & Risk Management

As developed and provided by Coaching Association of Canada, 2016

## Introduction

One of the main functions that a coach provides relates to how the practice is run. In looking at the components of a practice, there are many things that the coach considers when planning a practice. However, the most important is safety and risk management.

The following information is intended to provide the Special Olympics Coach with information that will help ensure safety in the practice situations.

### Safety Considerations

The main risk factors can be categorized as follows:



#### **Environmental Risks**

Factors related to the weather and/or its effects on the site or location where the sport takes place.

Examples: Lightning, rain, puddles/mud on the playing surface, heat and humidity, cold.



#### **Equipment and Facilities Risks**

Factors related to the quality and operating conditions of the equipment and the facilities.

Examples: a ski binding that does not release, ill-fitting helmet, damaged gymnastics apparatus, debris on the playing surface.



#### Human Risks

Factors related to the participants and to the people who are associated with them, such as parents, coaches, officials, and event organizers. Human risks may also be related to a participant's individual characteristics (e.g. height, weight, level of physical preparation, ability) or behaviour (e.g. carelessness, panic, aggression). Human factors related to coaches include their training and experience, their supervision of the participants, as well as the decisions they make about situations in which they place the participants. Examples: matching participants of uneven strength and ability in a combative sport, forgetting to spot a gymnastics participant.

### Strategies for Managing Risk

#### **Information to Gather**

- Risks of the activity
- Participants' medical information
- Participants' contact information in case of emergency
- Facility injury checklist
- Past injury reports

#### Actions to Take

- Planning
- Designing an Emergency Action Plan
- Inspecting equipment and facilities
- Informing participants and parents
- Supervising activities

### **Information to Gather**

- Phone numbers and addresses of the participants, their parents, their caregivers, the ambulance service, the police force, the fire department and the public safety service.
- Medical conditions of each participant (e.g. illnesses, allergies, disabilities, injuries), whom to contact in an emergency situation, and what the procedures should be in the event of an emergency (e.g. intramuscular injection with an EpiPen® for a severe allergic reaction, giving a specific medication).

Keep this information in a waterproof binder that you can carry with you to the training or competition site.

Find out if 911 services are accessible from your facility or if there is medical support on site.

It is important to know more about other medical conditions or associated disabilities that your athletes have. In knowing about these medical conditions, the coach can make sure that all of the activities are safe and appropriate for the athletes.

### Planning a Practice and Emergency Action Plan

- Ensure that the activities are appropriate for the age, fitness, and ability level of the participants.
- Ensure that the practice starts with a warm-up, and that the activities include a reasonable progression and challenge for the participants.
- Ensure that the activities and environment are appropriate for all athletes identifying that alternative activities are selected given any of the associated disabilities of the athletes.
- Adjust activities for participants who cannot perform them as planned for the larger group.

### Designing an Emergency Action Plan

• Guidelines for designing an Emergency Action Plan are included in this Reference Guide.

### Inspecting Equipment and Facilities

- Ensure that you are fully aware of the specific safety standards related to the equipment used in your sport.
- Take an inventory of collective and individual equipment.
- Take an inventory of available first aid equipment. Carry a first aid kit at all times.
- Assess the safety of the facility itself (e.g. walls, playing area, lighting) by completing a facility safety checklist.
- Identify environmental, equipment and facilities and human risk factors.
- Ensure that the participants wear their protective equipment and that it is properly adjusted and in good condition.

### Informing Participants, Caregivers and Parents/Guardians

- Inform the parents and the participants of the risks inherent to the sport.
- Properly explain the safety procedures and instructions related to all activities, and check that the participants understand them.
- When giving explanations for an activity during a practice or during competition, highlight potential risks.

Examples: If participants are required to cross paths, ask them to keep their heads up and to be alert to where others are as they are moving around; if it has just rained and your team is practicing on wet grass, remind your participants that the field is slippery.

### Supervising Activities

- Ensure that the number of participants involved is not so high as to compromise adequate supervision and safety.
- Keep in mind that participants need to be constantly supervised. Stop all activities when you have to leave the room or site.
- Look for signs of fatigue and aggression in participants and, if necessary, stop the activity.
- Stop the practice if you have to leave the site for any reason, or delegate responsibility for the group to a competent person.

### Sports Related Injuries

Preventing sport-related injuries: What to do and when to do it.

#### Before the Season

- Have a medical profile completed for each participant
- Inform parents of possible risks
- Ensure facilities and equipment meet established safety requirements
- Create and fill in a facility safety checklist
- Review last season's injuries and/or common injuries in your sport

#### **During the Season**

#### Before a practice or competition

- Inspect equipment and facilities
- Meet with the officials
- Prepare an Emergency Action Plan
- Plan specific safety measures for the practice/competition

#### During a practice or competition

- Inform participants of specific safety measures relating to activities, facilities, and equipment
- Ensure there is proper supervision
- Evaluate participants
- Ensure that fair play principles are followed

#### After a practice or competition

- Store equipment safely
- Fill in an accident report if necessary

#### After the Season

Keep an accident/injury report log.

### Emergency Action Plan

An Emergency Action Plan (EAP) is a plan designed by coaches to assist them in responding to emergency situations. The idea behind having such a plan prepared in advance is that it will help you respond in a responsible and clear-headed way if an emergency occurs.

An EAP should be prepared for the facility or site where you normally hold practices and for any facility or site where you regularly host competitions. For away competitions, ask the host team or host facility for a copy of their EAP.

An EAP can be simple or elaborate and should cover the following items:

- 1. Plan in advance who is in charge in the event of an emergency (this may very well be you).
- 2. Have a cell phone with you and make sure the battery is fully charged. If this is not possible, find out exactly where a telephone that you can use is located. Have spare change in the event you need to use a pay phone.
- 3. Have emergency telephone numbers with you (facility manager, fire, police, ambulance) as well as contact numbers (parents/guardians, next of kin, family doctor) for the participants.
- 4. Have on hand a medical profile for each participant, so that this information can be provided to emergency medical personnel. Include in this profile a signed consent from the parent/guardian to authorize medical treatment in an emergency.
- 5. Prepare directions to provide Emergency Medical Services (EMS) to enable them to reach the site as rapidly as possible. You may want to include information such as the closest major intersection, one way streets, or major landmarks.
- 6. Have a first aid kit accessible and properly stocked at all times (all coaches are strongly encouraged to pursue first aid training).
- 7. Designate in advance a "call person" (the person who makes contact with medical authorities and otherwise assists the person in charge). Be sure that your call person can give emergency vehicles precise instructions to reach your facility or site.

When an injury occurs, an EAP should be activated immediately if the injured person:

- is not breathing;
- does not have a pulse;
- is bleeding profusely;
- has impaired consciousness;
- has injured the back, neck or head;
- has a visible major trauma to a limb.

### **EMERGENCY ACTION PLAN CHECKLIST**



Access to telephones	 Cell phone, battery well charged
	 Training venues
	 Home venues
	 Away venues
	 List of emergency phone numbers (home
	competitions)
	 List of emergency numbers (away competitions)
	 Change available to make phone calls from a pay
	phone
Directions to access the site	 Accurate directions to the site (practice)
	 Accurate directions to the site (home
	competitions)
	 Accurate directions to the site (away
	competitions)
Participant information	 Personal profile forms
	 Emergency contacts
	 Medical profiles
Personnel information	 The person in charge is identified
	 The call person is identified
	 Assistants (charge and call persons) are
	identified

The medical profile of each participant should be up to date and located in the first aid kit.

A first aid kit must be accessible at all times, and must be checked regularly. See the appendices for suggestions on content for a first-aid kit.

### Sample Emergency Action Plan

### Charge person (Person in charge)

Clear the risk of further harm to the injured person by securing the area and shelter
the injured person from the elements.
Designate who is in charge of the other participants.
Protect yourself (wear gloves if he/she is in contact with body fluids such as
blood).
Assess ABCs (checks that airway is clear, breathing is present, a pulse is present,
and there is no major bleeding).
Wait by the injured person until EMS arrives and the injured person is transported.
Fill in an accident report form.

### Call person (Person in charge of calling)

- □ Call for emergency help.
- Provide all necessary information to dispatch (e.g. facility location, nature of injury, what, if any, first aid has been done).
- Clear any traffic from the entrance/access road before ambulance arrives.
- □ Wait by the driveway entrance to the facility to direct the ambulance when it arrives.
- Call the emergency contact person listed on the injured person's medical profile.

### Steps to Follow When an Injury Occurs

#### Step 1: Control the environment so that no further harm occurs

- Stop all participants
- Protect yourself if you suspect bleeding (put on gloves)
- If outdoors, shelter the injured participant from the elements and from any traffic

#### Step 2: Do a first assessment of the situation

If the participant:

- is not breathing
- does not have a pulse
- is bleeding profusely
- has impaired consciousness
- has injured the back, neck or head
- has a visible major trauma to a limb
- cannot move his/her arms or legs or has lost feeling in them
- does not show the signs above, proceed to Step 3

#### Step 3: Do a second assessment of the situation

Gather the facts by asking the injured participant as well as anyone who witnessed the incident Stay with the injured participant and try to calm him/her; your tone of voice and body language are critical

#### Step 4: Assess the Injury

Have someone with first aid training complete an assessment of the injury and decide how to proceed.

If the person trained in first aid is not sure of the severity of the injury or there is no one available with first aid training, activate EAP.

If the assessor is sure the injury is minor, proceed to step 5.

#### Step 5: Control the return to activity

Allow a participant to return to activity after a minor injury if there is no:

- swelling
- discomfort
- continued bleeding
- reduced range of motion
- pain when using the injured part

#### Step 6: Record the injury on an accident report form and inform the parents or caregivers.





Activities, Games and Skill Development Drills

# **Object Control Skills**

## Pass Back"

Skills: Throwing, catching, eye-hand coordination
Grouping: Pairs
Equipment: 1 Frisbee per pair
Organization: Athletes are facing their pair along 2 parallel lines ~3m apart (indoor or outdoor)
Description: Athletes throw the Frisbees back and forth to each other.
Prompts: "Watch the Frisbee", "arms out"
Levels:
1. Athletes throw back and forth at 3m distance apart

- 2. With each successful pass and catch, both athletes take a big step back (increasing the distance and difficulty)
- 3. Alter the target height of the throws and catches. For example, how close to the ground can you throw it and catch it?
- 4. How many successful catches can be made in 1 minute?

\*\*If no Frisbees are available, balls of different sizes could be used. E.g. during a Basketball practice, tennis balls could be used for this activity to increase the difficulty of the task.

## "In the Hoop"

Skills: Underhand throwing, eye-hand coordination

Grouping: Pairs

Equipment: 4-5 bean bags, 1 hula hoop per pair

**Organization**: Pairs stand on parallel lines ~3-5m apart (indoor or outdoor)

**Description**: One athlete is the designated thrower and the other athlete holds the hula hoop. The goal is for the thrower to get the bean-bags through the hula hoop. Pairs switch when they have thrown all the bean-bags

**Prompts**: "Step forward with opposite leg" Levels:

- 1. Athletes are standing still throwing the bean bags into a stationary hula hoop
- 2. Have the hula hoop held at different heights (e.g. low to the ground, and higher up)
- 3. Perform the activity while walking along a line (i.e. throwing & walking at the same time)

\*\*alternatives: if there are no hula hoops, athletes could make a circular target with their arms, or a frisbee could be used for a smaller target (goal is to hit the frisbee).

### "Balloon Bump"

Skills: Underhand strike, overhand strike, walking, running

Grouping: Teams of 2 or 3

Equipment: Balloons

**Organization**: Line teams up along one end of an open area (e.g. one end of the field or gym) with one balloon/team. (indoor or outdoor)

**Description**: The objective of the game is for the team to move together to move the balloon to the other end of the playing area without letting the balloon touch the floor. Participants can only touch the balloon once, then someone else must touch it.

**Prompts**: "Watch the balloon", "Call out when it is your turn", "Work together" Levels:

- 1. Have participants hit the balloon with any body part other than their hands
- 2. If the balloon touches the floor have the participants engage in some type of fitness activity (e.g. jumping jacks, touch their toes, etc.

3. Try using a playground ball or a basketball to have the participants bounce pass the ball between each other as they move towards the other end of the play area. The objective is to not let the ball bounce twice between participants.

4. Use a beach ball for increased difficulty

\*\*Ensure there are no latex allergies before starting this game

### "Hacky Sack with a Balloon"

Skills: Kicking, balancing, stretching, eye-foot coordination, teamwork

Grouping: Groups of 3-4

Equipment: Balloon

Organization: Group members stand in a circle (indoor or outdoor)

**Description**: The objective is to keep the balloon in the air using any body part except for the hands. **Prompts**: "Keep your eye on the balloon", "Work together to call out who will touch the balloon next" **Levels**:

- Move onto a volleyball or tennis court and play against another team where one team has a predetermined number of hits (coach's discretion) to get the balloon over the net to the other team. The other team has the same number of hits to get the balloon over to the other team. Much like volleyball.
- 2. Use a beach ball for increased difficulty
- 3. Try using a real hacky sack for increased difficulty

\*\*Ensure there are no latex allergies before starting this game

## "Balloon Body Toss"

Skills: Underhand striking, overhand striking, balancing, kicking, spatial awareness

Grouping: Individual

Equipment: 1 balloon per person

Organization: Spread out in play space (indoor or outdoor)

**Description**: The object of the game is to keep the balloon in the air using various body parts called out by the coach. Coach calls out the body parts one at a time in succession. The participants keep the balloon in the air using the last body part until the next one is called (e.g. could hit the balloon 3 times with the right hand until the next call is made).

- Right hand only
- Left hand only
- Alternating hands
- Right foot only
- Left foot only
- Alternating feet
- Head

Prompts: "Watch out for others" "eyes open" "keep your eyes on the balloon" Levels:

- 1. participants could work in small groups to keep 2 balloons in the air
- 2. allow participants to try moving within the play space keeping the balloon in the air.
- 3. Use a beach ball for increased difficulty

\*\*Ensure there are no latex allergies before starting this game

### \*Around the Clock

Skills: Throwing, catching - accuracy

Grouping: Individual

Equipment: tennis ball, wall

**Organization**: set participants up individually around the room facing the walls (indoor) **Description**: Standing facing the wall, participants are to throw the ball at the wall imagining that they are hitting each hour on a clock (i.e. throws one throw for each number on a clock). Have the participants choose their target before they throw. Participants should try to catch the ball in between each throw.

**Prompts**: "Focus on where you are throwing" "Keep your feet moving to meet the ball" **Levels**:

- 1. The size of the ball could be changed (either bigger or smaller)
- 2. Challenge participants to keep a rhythm

## "Circle Goal"

Skills: Underhand rolling, eye hand coordination, balance

Grouping: Groups of 5-6 participants

Equipment: playground ball

**Organization**: Open activity space - participants stand in a circle with the outside of their feet touching but legs are spread apart. (indoor or outdoor)

**Description**: Using the underhand roll, participants attempt to "score" on the others by rolling the ball across the floor through another participant's legs. Participants are allowed to try to block the ball with their hands. If a participant gets scored once, they put one hand behind their back. If they get scored on twice, they turn around (facing outside the circle) and can use 2 hands, and if they are scored on a third time they stay facing outwards but use only one hand. \*\*Ball must remain on the floor the whole time\*\* **Prompts**: "Roll the ball along the floor" "keep your eyes on the ball" "follow through" Levels:

- 1. Using balls of different sizes can increase or decrease the difficulty of the game (e.g. tennis ball vs. beach ball).
- 2. Incorporate more than one ball into the group
- 3. Try having one large group with multiple balls

\*\*Alternatives: the group can be split into 2-3 groups based on competitiveness (e.g. high, medium and low) to ensure all participants are having fun.

## "Golf Toss"

Skills: Underhand throwing, walking, "reading distances", coordination

Grouping: Individual or pairs or small groups

Equipment: Hula hoops or rope, bean bags, cones

**Organization**: Large activity space, participants can start at different "holes" (Outdoor) **Description**: Create large "golf holes" with either hula hoops or jump ropes made into rings on the

ground spread out over whole activity space. Use landmarks such as lines on the ground or placeholders such as a piece of paper or a cone to be the golf "tee" where the participants throw from. Make sure to vary the distances from the cone "tee" to the hula hoop "holes".

Participants start at one "hole" and throw the beanbags towards the hole. If the beanbag did not go into the hoop the first time, after everyone has had a turn, everyone walks to their bean bag and throws it at the hoop again. This continues until each individual in the group has successfully put their bean bag in the hoop. Then participants proceed to the next "hole" and repeat.

**Prompts**: "Look where you're throwing" "Aim for the hoops" "Step forward with opposite foot" Levels:

- 1. Increasing the distances between the "tee" and the "hole" will increase the difficulty
- 2. Have participants use overhand throwing for increased challenges.

\*\*Frisbees could be used if bean bags are not available – increased the complexity of the game. Depending on length of hole in some cases you may need to include a "shot maximum" to ensure athletes are able to get through all holes

### "Beach Ball Handball"

Skills: Striking, hand-eye coordination, balance

Grouping: Pairs

Equipment: Beach ball, line on wall (e.g. chalk, or tape), line on floor (e.g. chalk or tape) (indoor or outdoor)

**Organization**: participants spread out throughout activity space by their spot on the wall. Indoors or outdoors. Place first line horizontally 1m from the floor on the wall. Place second line horizontally 2-3m from the wall on the floor.

**Description**: To start the game the first participant hits the ball at the wall with an open hand from behind the line on the floor, the ball must bounce off the wall above the line (i.e. aim for above the line). The other participant returns the serve from anywhere (i.e. he/she can step over the line on the floor when returning a serve). Participants try to keep the ball in play by taking turns hitting the ball above the line on the wall. Play continues until one participant misses a return. When a player misses a return, the other player serves just as before. Note, that the ball can bounce on the floor before a participant hits a return.

**Prompts**: "Keep your hand open" "Watch the ball" Levels:

- 1. Don't keep score at first, challenge participants to a continuous rally
- 2. Use a playground ball for a more challenging game

## "Toss Through Blockers"

Skills: throwing, blocking, balance, coordination, hand-eye coordination Grouping: 4 participants in the middle and all other participants spread out Equipment: Cones, hula hoops, beanbags

Organization: Use the cones/pylons to form a medium-size circle (approximately 5-7m across) in the centre of the activity space (or uses an existing circle floor marking). Then create a large box around the centre circle using cones or the existing lines of the floor. Place a hula-hoop over each of the 4 cones at the corners of the square and place several beanbags in the hoops. (indoor or outdoor) **Description**: Participants stand outside the box and try to underhand toss one beanbag at a time into the centre circle. 4 participants stand in the centre circle and use their hand, feet and body to block the bean bags from getting inside the circle. Game ends when all the beanbags have been thrown. **Prompts**: "Throw underhand" "Aim for the circle" Levels:

- 1. Make the centre circle smaller for increased difficulty
- 2. Make the outside box bigger for increased difficulty

### • "Team Keep Away"

Skills: throwing, catching, dodging, running, balance, coordination

Grouping: Two teams

Equipment: Playground ball

Organization: spread out in open activity space (indoor or outdoor)

**Description**: After dividing the participants equally into two teams, instruct them to spread out in their designated playing areas. At the whistle, start the stopwatch and pass the ball to one of the teams. The team in possession of the ball passes it among themselves while trying to prevent the other team from gaining possession. Participants may pass, intercept, and strip the ball as necessary to gain possession of it.

Prompts: "Look at the ball" "Call for the ball" Levels:

- 1. Add a second ball to the game for increased difficulty
- 2. Participants must pass the ball within 3 seconds of receiving it.
- 3. Bigger or smaller spaces can increase the difficulty of the game depending on the ability level of the participants

\*\*Frisbees could be used for this game

# **Locomotor Skills**

## Hopscotch"

### Skills: Hopping, jumping, balance, coordination

Grouping: Pairs or small groups

**Equipment**: Cement chalk to draw hopscotch court, or hopscotch grids already painted on ground **Organization**: Pairs on each hopscotch court (indoor or outdoor)

**Description:** The first player tosses the marker (typically a stone, coin or bean bag) into the first square. The marker must land completely within the designated square. The player then hops through the course, skipping the square with the marker in it.

Single squares must be hopped on one foot. Side by side squares are straddled, with the left foot landing in the left square, and the right foot landing in the right square.

Upon successfully completing the sequence, the player continues the turn by tossing the marker into square number two, and repeating the pattern. Players take turns until the first player to complete one course for every numbered square on the court wins the game. If a player overthrows the toss the marker remains on the previous successful square and it is the other player's turn. **Prompts:** "Hop once in each square" "Make sure you look where you are throwing" **Levels:** 

1. Different hopscotch courts can be used – participants might like to create their own court design once they have mastered a basic court.

2. Have participants hop quickly and smoothly through the court while maintaining balance.

\*\*alternatives: Can be played by only one participant if required or desired.

### Frozen Statue"

Skills: Walking, running, skipping, galloping, exploratory movement, creativity, participation

Grouping: Individual

Equipment: No equipment

Organization: Spread out in the open space (indoor or outdoor)

Description: The coach instructs the participants to move around the room in a variety of different ways

- Everybody skip
- Everybody tiptoe
- Everybody Gallop
- Everybody walk
- Everybody run
- Everybody dance
- Everybody move the way you want
- More....

When the instructor yells Freeze (or blows a whistle) everyone must stop and form a statue of their favourite superhero. They hold their superhero statue for a few seconds and then tell one person who they were. Repeat using different locomotor movements

Prompts: "watch where you're going"

Levels:

- 1. Change superheroes to animals
- 2. Have participants freeze in a balance pose. E.g. standing on one foot, or 3 body parts

touching the ground, plank position

## "Agility Ladder"

Skills: Hopping, jumping, running, lateral movements, coordination, agility, foot speed Grouping: Individual

**Equipment:** Taped "ladder" on gym floor or chalk drawing outside on cement – boxes approximately 45cm apart. Boxes can be smaller or bigger depending on skill level.

Organization: 1 ladder to 2-3 participants - taking turns. (indoor or outdoor)

**Description**: There are several different ways to use the ladder described below (indoor and outdoor):

- Hopping: participants hop once in each square with both dominant and nondominant leg.
- Jumping: participants jump with two feet in each square of the ladder
- Forward Running, High-Knee Drill: Run with high knees forward through the ladder, touching every ladder space. Land on the balls of the feet and drive forward with your arms.
- Lateral Running, Side-to-Side Drill: Keep a low center of gravity and step side-toside through the ladder one foot at a time. Touch in each rung of the ladder with both feet. Land on the balls of the feet and repeat right to left and left to right.

Prompts: "Stay low" "try not to step on the line" Levels:

- 1. Increasing the speed through the ladder increases the difficulty of the task.
- 2. Changing the size of the ladder squares can make the task more challenging

### "Accelerate"

Skills: Walking, running, stopping, balance

Grouping: Individual

**Equipment:** Cones/pylons or lines on the gym floor, open activity space (indoor or outdoor) **Organization:** Set up cones/pylons approximately 10 strides apart in a straight line. For bigger groups have multiple lines running at once. (indoor or outdoor)

**Description**: Have participants line up behind the cones/pylons. Instruct the participants to accelerate from slow (walking) to fast (running), moderate to fast, and slow to moderate at each pylon. **Prompts**: "Swing your arms" "Try to stop at the cone" "Quickly, quickly" **Levels**:

- 1. Try moving the cones further apart to introduce a cardiovascular fitness element to the activity
- 2. Moving the cones closer together makes starting and stopping more difficult but a critical skill in sports
- 3. Try using skills such as hopping, skipping and galloping in addition to running and walking.
- 4. For sport specific skills, include side shuffles, running/walking backwards

## "Playground – Under, Over, Freeze"

Skills: Climbing, crawling, hopping, skipping, coordination, balance Grouping: Individual

Equipment: Outside with access to a playground/jungle gym

Organization: Individual (outdoor)

**Description**: Have participants spread out around a playground/jungle gym and instruct them to follow the following commands:

- OVER! (participants climb over some piece of equipment)
- UNDER! (participants climb under some piece of equipment)
- FREEZE! (participants pause where they are)
- As the participants master these commands coaches can add more challenging commands
  - REVERSE! (participants continue all movements backwards
  - BUDDY UP! (participants link arms with a partner and do all movements together)
  - BUNNY HOP! (participants move around the playground/jungle gym by hopping around
  - BEAR WALK! (participants move around on all 4's)

Prompts: "Watch out for your teammates" "

Levels:

1. Have participants navigate the jungle gym without grabbing hold of the equipment (i.e. it's harder and requires more skill to go over and under without holding on.

\*\*alternatives – creating a social story about why the athletes are climbing over and under equipment might motivate participants.

### Mirror Mirror"

#### Skills: Running, skipping, hopping, jumping, balance, strength

Grouping: Pairs

Equipment: None

Organization: Open activity space (indoor or outdoor)

**Description**: Have participants pair up. In each pair one will be the "mirror master" one will be the "mirror image". Partners face each other and the "mirror master" starts moving however he or she wants and the "mirror image" must try to copy this move as best as they can. Have participants switch after a period of time. Encourage participants to use the following movements, however almost any movement could be used and the participants should be encouraged to be creative:

- Jump (tuck, star, jumping jack, leap)
- Stork stand (alternate feet)
- Skip
- Walk or run on the spot
- Plank
- Push up or sit up
- Silly movements (?)
- More.....

Prompts: "Watch your partner closely"

#### Levels:

- 1. Could incorporate animal movements (e.g. bear walk, bunny hop)
- 2. Could play a similar version of "simon says" where one participant leads the whole group
- 3. Encourage participants to memorize a 30 second routine

## "Builder and Bulldozers"

Skills: Running, walking, skipping, hopping, jumping, galloping, bending down, balance, cardiovascular fitness

Grouping: 2 groups

Equipment: Pylons/cones

**Organization**: Randomly set up cones/pylons throughout the activity space (indoor or outdoor). **Description**:

Group 1 are the Bulldozers and their job is to go around tipping over as many "buildings" (cones/ pylons) as they can. Group 2 are Builders, and their job is to rebuild the fallen cones by setting them back up again.

All participants will have to travel from cone to cone using predetermined locomotor movements such as walk, run, hop, skip, jump etc. \*\*This activity is excellent for building cardiovascular fitness\*\* Start the game with just walking and running and move to more challenging skills with time. **Prompts:** "Quickly" "Move with control" Levels:

- 1. Have participants gallop between cones
- 2. Have participants skip between cones
- 3. Have participants knock over cones with different body parts such as knees, toes, elbows

### "Watch Your Step"

Skills: Balance, walking, hand-eye coordination

### Grouping: Individual

**Equipment:** Long line on floor of gym, or line outside, beanbags and cones/pylons (indoor or outdoor) **Organization:** Place the pylons/cones at regular intervals beside the line ("beam") – pylons/cones and be placed on each side of the line. Place the bean bags on the line every 2-3 steps.

**Description**: Participants line up at one end of the line. Participants are to walk heel-to-toe along the line. When they come to the first bean bag they are to carefully bend down and pick it up while maintaining their balance on the line. Next the participants place the beanbag on the top of the corresponding cone/pylon next to the beam. The participant continues down the line placing the beanbags as they go. The participant should pick up all the beanbags and place them on the line to get ready for the next person's turn.

**Prompts**: "Arms out for balance" "Try to stay on the line" Levels:

- 1. Use large construction cones to make the task easier
- 2. Place the cones just out of reach of the participants to really emphasize balance
- 3. If a low balance beam is available or a wide horizontal beam outside on the playground the difficulty of the task will be significantly increased.

### "Obstacle Course"

Skills: Balance, walking, running, hopping, jumping, throwing

Grouping: Individual

Equipment: Cones/pylons, lines on floor, hula hoops, bean bags, balls

**Organization**: Coaches should organize the obstacle course in any way they choose. (indoor or outdoor)

**Description:** It is suggested that the obstacle course be used at the end of a session to reinforce the skills learned during that session and in previous sessions.

Suggested stations include:

- Walking on a line
- Throwing bean bags into hula hoops on the floor
- Hopping through a ladder on the floor
- Kicking a ball at a target on the wall
- Sit-ups
- Pushups

Prompts: "Quickly"

Levels:

- 1. Increase the speed while going through obstacle courses
- 2. Increase the number of fitness related activities (e.g. pushups, sit-ups)
- 3. Have participants design the obstacle course in small groups and then have everyone try it

## "Red Light, Green Light"

Skills: Walking, running, stopping Grouping: Everyone together

Equipment: None

Organization: All participants lined up in a straight line. (indoor or outdoor)

**Description**: Start with everyone along the starting line, one participant or the coach stands at the other end of the activity space with his/her back to the group When that person says 'Green Light' everyone will move towards the finish line, when you say 'Red Light' everyone must immediately stop. The round ends when everyone crosses the finish line or when most players make it across the finish line. **Prompts**: "Try to stop immediately"

Levels:

- 1. Try incorporating different locomotor skills instead of just walking or running (e.g. skipping, hopping, and galloping).
- 2. Call the commands closer together to allow increased practice of starting and stopping.
- 3. To add level of difficulty you can send athletes back to the start if they are caught moving following a red light

## Circuit"

Skills: Combination skills, dodging

Grouping: 4 groups

**Equipment**: Two 10-metre agility ladders (taped to the floor), 4 low pylons in a 2.5-metre square pattern with beanbags perched on top. One or two beanbags for foot relay.

**Organization**: Gym is sectioned into four regions with the equipment pre-laid out for the activity. Participants separated into four groups. (indoor or outdoor)

Description:

**Station 1**: Agility ladder drills. Side step (move along the ladder sideways with one foot in each box) Side Straddle-hop (jump two feet in each box and then straddle box with feet beside the box outside of the ladder and repeat all along the ladder). In and out (facing the side of the ladder you step inside the box and then outside the box as you move along the ladder).

**Station 2**: Beanbag relay. Have participants split into two lines about 10m apart facing each other. The participants run with the beanbag to their teammate in the other line and this is repeated until all participants are through.

**Station 3**: Agility ladder drills. Side step (move along the ladder sideways with one foot in each box) Side Straddle-hop (jump two feet in each box and then straddle box with feet beside the box outside of the ladder and repeat all along the ladder). In and out (facing the side of the ladder you step inside the box and then outside the box as you move along the ladder).

**Station 4**: Beanbag shuffling drill. Participants pick up the beanbag at one corner of the square (placed on the cone), and shuffle to the next corner and replace the beanbag that is there with the beanbag they were carrying. Continue shuffling to next cone and repeat the exchange.

Prompts: "Quickly" "Watch where you're going" "Get low"

**Levels:** \*\* this is a more advanced activity – ensure there is enough rest for participants of low fitness levels\*\*

- 1. Increase the speed of all the stations
- 2. Increase the distances for the beanbag relay and the beanbag shuffle stations

\*\*Any alternative agility drills could be substituted in for these stations.

## "Flag Tag"

Skills: Dodging, running, walking, fitness

**Grouping**: Whole group together or smaller groups in smaller sections of activity space **Equipment**: "Flag" – use a pinnie, an extra t-shirt, flag-football flags, anything that can be lightly tucked into the waist at the side or back of the shorts/pants of each participant

Organization: Spread out in activity space. (indoor or outdoor)

**Description**: On the signal, participants run around and try to capture as many flags as possible while dodging and protecting their own flag. When a participant captures a flag, they tuck it into the waist of their pants or shorts. When the leader calls "time", athletes get one point for each flag they have captured.

**Prompts:** "Pay attention" "Change directions quickly" Levels:

- 1. Have participants use 2 "flags" to reduce frustration and/or disappointment when flag is captured
- 2. Decrease size of playing area after each round to increase the challenge

## • "Jump Rope"

Skills: Jumping, dynamic balance, coordination, rhythm, fitness

**Grouping**: Groups of 3 (2 to hold rope, 1 to jump) – rope can also be tied to a piece of equipment if only 2 people are present

Equipment: Jump rope

Organization: Spread out in activity space. (indoor or outdoor)

**Description:** Two people hold each end of the rope and swing the rope in a circular motion over the jumper's head. Rope should be turned steadily and consistently. Each time the rope touches the ground the jumper jumps over it.

**Prompts**: "Jump, jump jump" (rope turners can help give an auditory cue when the rope is going to hit the ground)

Levels:

- 1. Increase the speed of the rope slowly for increased difficulty
- 2. Encourage jumpers to explore different types of jumps, high knees, one foot
- 3. Participants can try to turn 180 degrees with every jump

### "Balance Simon Says"

Skills: Balance Grouping: Individual Equipment: None

Organization: spread out in activity space (indoor or outdoor)

**Description:** When the leader says "Simon says...", children watch what the leader does and then follow the command. The leader should hold each balance position with the participants for 10-15 seconds before giving another command. If the leader does not say "Simon says..." before a command, participants remain still. If a participant moves when the leader has not said "Simon says...", the child must quickly sit down and stand up. This saves them from being eliminated. Suggestions for commands:

- Wide star (legs wide, arms wide)
- Narrow star (legs together, arms wide )
- Reach up high (legs together, hands together reaching up)
- Reach up very high (on tippy toes)
- Squat / chair (arms forward, knees bent)
- Landed airplane (arms out to side, lean forward, front leg bent, back leg stretching straight back with toes touching the ground)
- Advanced challenge: Stork stand / tree stand (balance on one foot, other foot placed against support leg below knee, arms stretched out at sides at shoulder height)
  - More....?

Prompts: "Hold your pose" "Steady" Levels:

- 1. Increase length of each hold by a few seconds
- 2. Increase number of poses that are on one leg
- 3. Encourage balancing on non-dominant leg

### "Walk the Line"

Skills: Balance, walking

Grouping: Individual

**Equipment:** lines on the floor/ground, sidewalk curb, any "balance-beam-like" structure (like a parking lot curb), low balance beam

Organization: spread out (indoor or outdoor)

Description: Have participants walk on the "line". Object is to stay on the line and not step off.

- Try taking big steps
- Try talking very fast steps
- Try walking backwards
- Try walking on your tippy toes
- Try jumping on the line
- Try hopping along the line
- Try standing on one leg on the line
- Bend down and touch the line

Prompts: "Try to balance on the line"

Levels:

- 1. Using some sort of beam or parking-lot curb is more challenging but still a low
- 2. Suggest the participants come up with a routine of movements where they stay balanced
- on the line (e.g. hop, then one leg balance, then walk, then pick up a bean-bag)
- 3. Use a real, low balance beam for increased difficulty

References

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# **Appendix 1**

### Head Injuries and Concussions

As developed and provided by Coaching Association of Canada, 2016, www.coach.ca

#### Introduction

Head injuries and concussions can occur in many sports, either in training or during competitions. Because of the potentially grave consequences of injuries to the head, coaches must take certain precautions and should enforce strict safety measures when dealing with them.

The information contained in this section is not designed to train coaches on how to implement a medical treatment or to offer medical advice in the event of a concussion. Rather, its purpose is to provide some recommendations on how to manage situations involving head injuries in a responsible manner. It is important to note that there is presently a lack of consensus in the medical community regarding precise grading scales and return to training or competition criteria following concussions.

#### What is a concussion?

A concussion is an injury to the brain that results from a hit to the head, or to another part of the body that allows the transmission of impact forces to the head. It shows itself through a temporary alteration in the mental status of the individual, and may also be accompanied by some physical symptoms.

#### Some common causes of concussions

The situations that may result in head injuries vary greatly from sport to sport. Producing a comprehensive list of possible causes is therefore difficult. However, some common causes include:

- direct blows to the head, face, jaw, or neck;
- collisions from the blind side, or hits from behind;
- hard fall on the buttocks, or whiplash effect;
- poor quality of protective sport equipment (shock absorption), failure to wear protective equipment designed for the head, or improper adjustment of the same;
- the environment (e.g. obstacles near playing surface);
- significant differences in the skill level, age, or size of participants involved in activities with physical contact or risk of impact;
- poor physical condition, or insufficient strength in the neck and upper body musculature.

#### Symptoms of a Concussion

Symptoms observed in the case of a concussion include headache, dizziness, loss of consciousness, nausea, lethargy, memory loss, confusion or disorientation (lack of awareness of time, place, date), vacant stare, lack of focus, ringing in the ears, seeing stars or flashing lights, speech impairment, balance impairment, and problems with sight.

Other signs may include a major decrease in performance, difficulty following directions given by

the coach, slow responses to simple questions, and displaying inappropriate or unusual reactions (laughing, crying) or behaviours (change in personality, illogical responses to sport situations).

#### A person can suffer a concussion without losing consciousness.

#### Managing a participant with Concussion Symptoms

The following short-term measures should be implemented in the event that a participant suffers a concussion:

- An unconscious participant, or a participant with significant changes in mental status following a head injury, must be transported to the emergency department of the nearest hospital by ambulance. This is a grave situation, and the participant must be seen by a medical doctor immediately. In such a situation, the Emergency Action Plan must be implemented.
- A participant showing any of the concussion symptoms should not be allowed to return to the current practice or competition.
- A participant showing concussion symptoms must not be left alone, and monitoring for the deterioration of his/her condition is essential. He/she should be medically evaluated as soon as possible following the injury. The circumstances of the injury should be recorded and communicated to the medical personnel.
- If any of the concussion symptoms reoccur, the participant's condition should be considered serious, and the individual must go immediately to the hospital.

#### Managing the Participant's Return after a Concussion

Although a participant may have been given the authorization to return to regular training and competition, this must be done gradually. The participant must be re-evaluated periodically during the weeks that follow his/her return, to ensure that there are no reoccurring symptoms. Medical clearance is advisable before returning to training or competition.

Below is a series of steps to assist coaches in managing the return to training or to competition of a participant who has suffered a concussion. Each step should take at least one day, although proceeding through each step may take longer depending on individual circumstances (Step 5 applies predominantly to sports that involve body contact).

- Step 1: No activity, complete rest; if no symptoms are observed for one full day, move to Step 2.
- **Step 2:** Low-intensity continuous exercise, such as walking, jogging, or cycling on a stationary bicycle; if no symptoms are observed, move to Step 3.
- **Step 3:** Low-intensity, sport-specific activity without contact; if no symptoms are observed, move to Step 4.
- **Step 4**: Moderate-intensity sport-specific training activities without body contact; if no symptoms are observed, move to Step 5.
- **Step 5:** Regular practice with body contact if it is required by the sport (no hard impact); if no symptoms are observed, move to Step 6.
- **Step 6:** Return to regular training and to competition.

If symptoms do reoccur, the participant must immediately stop any form of activity and be examined by a medical doctor before resuming training or competition. It is extremely important for the participant, the coach, and the medical personnel to be open and frank when evaluating the participant's condition. If reoccurring symptoms are not disclosed, the participant may suffer permanent damage.

#### **Repeated Concussions**

Some data suggest that after a first concussion, a person might be more at risk of suffering from concussive injuries in the future. If a participant has a history of repeated concussions, he/she should participate in sport activities only when full clearance to do so is obtained from a medical professional.

Note: This information is based on the summary and agreement statement of the first international symposium on concussion in sport held in Vienna in 2001, and on a brochure produced by Judo Canada, entitled "Safety First - What You Need To Know About Concussions." The Coaching Association of Canada is grateful to the Concussion in Sport Group and its chair, Dr. Karen M. Johnston, Division of Neurosurgery, McGill University Health Centre, and to Judo Canada's sport director, Andrzej Sadej, for permission to adapt this material. The Coaching Association of Canada also wishes to express its thanks to Dr. Johnston for reviewing this text.

#### Heat and Humidity as Risk Factors

The challenges of exercising in the heat: key points

- During exercise, the muscles produce heat. This heat must be dissipated; otherwise the body runs the risk of "overheating." Overheating can result in serious, potentially life-threatening injuries.
- Sweating is one of the heat-dissipating mechanisms of the body. When sweat evaporates, it cools off the body.
- Most sport activities lead to heat production and sweating. Evaporation of sweat works best when the air is dry. In moist, damp air, sweat cannot evaporate easily and cooling off is more difficult.
- If the air temperature is high during vigorous activity, participants can lose a significant amount of water through sweating.
- High temperatures and high relative humidity make it hard for the body to dissipate heat; heavy sweating occurs, but the water lost does not help to cool off the body. Under these conditions, participants run the risk of overheating.
- Water lost as a result of heavy sweating can lead to dehydration. Dehydration can reduce performance, decrease the body's ability to dissipate heat, and endanger health.
- During exercise in the heat, adequate hydration is a must. Participants must drink water whenever the risk of dehydration is present.
- Thirst is not a good indicator of a need for water. In fact, dehydration has already started if a participant feels thirsty.
- During most exercise conditions, the rate at which participants lose water exceeds the rate at which they can absorb it by drinking. This is accentuated during exercise in a hot environment. Therefore, participants need to drink fluids before they are thirsty.
- Children run a higher risk of overheating when exercising in the heat, because their sweating mechanism is not fully developed. In addition, children tend to not drink enough during exercise, in particular if the beverage is not flavoured.

#### The Humidex: A Guide to Assess the Risk of Exercising in Hot and Humid Conditions

The humidex describes how hot and humid weather feels to the average person. The humidex combines the temperature and humidity into one number to reflect the perceived temperature.

- Because it takes into account both heat and humidity, the humidex provides useful information about the risks of exercising in the heat.
- The table below shows the humidex value for various air temperatures and levels of relative humidity. For instance, if the air temperature is 25 C and the relative humidity is 70%, the humidex is 32 C. This means that the sensation of heat when it is 25 C and the relative humidity is 70% is about the same as when it is 32 C and the air is dry (20% relative humidity).

		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
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T	21						21	22	22	23	24	24	25	26	26	27	28	29	29
E	22					22	22	23	24	25	25	26	27	27	28	29	30	30	31
M	23					23	24	24	25	26	27	28	28	29	30	31	31	32	33
P	24					24	25	26	27	28	28	29	30	31	32	33	33	34	35
E R	25				25	26	26	27	28	29	30	31	32	33	33	34	35	36	37
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T	27				27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
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	35		36	37	39	40	42	43	45	47	48	50	51	53	54	56	57	59	
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	<b>40</b>	41	43	45	47	49	51	53	55	57	59								

#### **RELATIVE HUMIDITY (%)**

### Range of Humidex: Degree of Discomfort and Risk of Overheating During Exercise

Humidex value	Discomfort at rest	Risk of overheating during exercise						
Below 24 C	None	Low to moderate						
25 to 29 C	None	Moderate						
30 to 39 C	Some	High - Children should be monitored closely						
40 to 45 C	Great	Very high - Exercise is not advised for children, older people, or individuals with a poor fitness level						
Above 45 C	Great Risk of overheating	Extreme - Exercise is not advised for any participant						

The guidelines below are provided for a heat acclimated, well-hydrated person.

If the humidex is above 30c, in particular if it exceeds 35c:

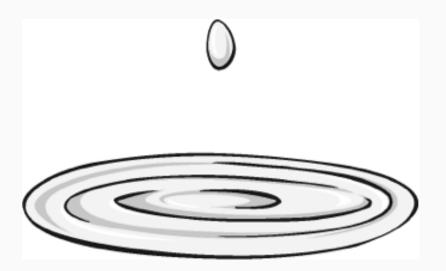
- Tell participants to bring extra water or sport drinks; ensure there will be access to water during the practice or the competition, and bring a big jug of fluids.
- Tell participants to dress in loosely fitting, lightweight, and light-coloured clothes.
- Plan for low-intensity activities.
- Plan for shorter work bouts, with frequent and longer pauses.
- Schedule practices early in the morning or during the evening; avoid the hours between 9 a.m. and 6 p.m.
- Consider changing the location of the practice to a shaded area, or ask participants to bring umbrellas to create shade during breaks.
- Consider exercising indoors, in a facility with air conditioning.
- Consider alternatives to physical exercise.

#### Other Safety Measures To Avoid Heat Injuries:

Plan for participants to have enough time to get used to the environment they will face in competition. Insisting on heat acclimatization may mean not entering competitions if participants cannot train in a similar climate for approximately two weeks beforehand.

- In order to protect participants (in particular young children) against the potentially harmful effects
  of ultra violet (UV) rays, the following is recommended: they should wear a hat or a cap with a
  visor; clothes should cover the upper part of the body, the neck, the arms and the legs; sun screen
  lotion (protection factor of 30 or more) should be applied on the exposed skin, including the face
  and the hands. Participants should not expose their body to the sun without effective protection
  when the UV index is high.
- Before exercise, participants should drink 400 to 600 ml of fluid.
- During exercise, participants should drink 150 to 250 ml of fluid every 15 minutes. Remind participants to drink, lead by example, and never restrict them from drinking during a practice or a competition.
- After exercise, participants should re-hydrate by drinking as much fluid as thirst dictates, and even force themselves to drink.
- Beverages should be cool (8 to 10 C) and not too sweet; children prefer flavoured sport drinks and these promote drinking.
- Tell the participants to bring a personal water bottle with cold fluids to each practice or competition; inform their parents about the importance of hydration; make sure each bottle is clean and well identified.
- Tell the participants to monitor their hydration level by checking their urine. If it is dark, there is not much of it, and it has a strong smell, the participants are most likely dehydrated and should force themselves to drink.

Note: Particular attention should be paid to these measures during the first few hot days of spring or summer, when participants are not yet acclimatized to heat and humidity.



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