

CHAPTER 1: HEALTH CONSIDERATIONS

Introduction

As an Instructor, you need to know basic information regarding health considerations in order to ensure the overall well being of your students and yourself. You need a good knowledge of:

1. Proper Warm-ups and Cool Downs
2. How to deal with Hot Weather
3. How to obtain and maintain optimal energy through proper Nutrition
4. How to deal with common Minor Injuries
5. How to deal with Emergencies
6. Additional Resources (CAC Reference Materials)
 - Sport Safety Through Risk Management
 - Strategies for managing risk
 - Heat and Humidity as risk factors
 - Cold as a risk factor
 - Emergency Action Plan
 - Head Injuries and Concussions
 - Coach Liability

1. Performing proper Warm-ups and Cool Downs

Each tennis lesson or practice should be preceded by a warm-up and followed by a cool-down to properly prepare the body for activity and to help prevent injuries.

A) Warm-up

The warm-up is divided into two parts: 1) physical and, 2) tennis specific. The physical warm-up should increase general blood flow and joint mobilization while the tennis specific warm-up should emphasize specific on-court play.

- 1) The physical warm-up should include:
 1. 3 to 5 minutes of running, skipping or any other type of continuous movement that raises the **heart rate** for an extended period. On court, this can also be done with a ball using exercises that involve moving while maintaining control of the ball (e.g., rolling the ball on the ground, controlling the ball on the racquet, or self-rallying).
 2. 2 to 4 minutes of **joint mobilization** movements, including the following muscle groups:
 - neck, shoulders, back, trunk
 - wrist and forearms
 - groin, thighs, knees, calves, and ankles

Note: The physical warm-up may also include exercises to develop specific skills necessary for the development of specific tennis skills.

Act as a role model. During the first lesson, lead your students through the general warm-up to ensure they have a clear understanding of the exercises. In subsequent lessons, continue to do the warm-up with juniors and encourage adults to do the warm-up, on their own, prior to the lesson.

2) The tennis specific warm-up differs depending on whether the students warm-up with the Instructor during the lesson, or warm-up on their own prior to the lesson.

1) With an Instructor

Use the warm-up to help students maintain elements learned in previous lessons, to provide good tennis warm-up habits, or to introduce students to some new basic skills, e.g., the block volley.

2) On their own

Students can do any type of warm-up they wish. The following are a few suggestions:

A) When practicing or playing for fun:

- warm up all strokes including groundstrokes, volleys, overheads and serves
- get the feet going immediately to ensure proper set-up for all shots
- emphasize consistency
- as a rule, begin closer together and gradually move further apart
- concentrate on centering the ball; always use good technique

B) When playing a match: same considerations as above, except:

- the practice is usually shorter (around 5 to 10 minutes)
- start at the baseline right away

B) Cool down

The cool down should be done after every training session and should focus on gradually reducing the intensity of the activity, reducing the heart rate, and increasing flexibility. For our purposes, the final ball pick-up and the wrap-up will act as the cool down. You should also suggest that students do flexibility exercises for the whole body after the practice session.

2. Dealing with Hot Weather

It is imperative that you take proper precautions for both your students and yourself during hot weather. The following are some recommendations:

- Use a waterproof sun block with a SPF minimum of 15, and apply generously every hour.
- Wear as much white clothing as you can comfortably tolerate, including a hat.
- Drink plenty of water prior to, during, and after playing. Drink before you need to drink!

3. Obtaining and Maintaining the Optimal Energy to Play through proper Nutrition

Instructors and their students should ensure their nutrition provides the optimal energy for teaching/playing.

- Ideally, meals should be consumed 2 to 3 hours prior to playing and should be high in carbohydrates and low in fat.
- Recommended foods include:
 - portion packs of juice
 - dried or fresh fruit
 - fruit yogurt
 - cheese and crackers
 - muffins and quickbreads
 - fig newtons, arrowroot cookies
 - soups
 - water
 - bagels
 - pudding
 - cereal
 - light salads
 - chicken or fish sandwiches
- The size and make-up of the meal depends on the amount of time prior to activity: the shorter the time prior to the activity, the smaller the meal and the higher the percentage of carbohydrates; the longer the time prior to the activity, the larger the meal and the lower the percentage of carbohydrates (increase percentage of protein).
- Avoid:
 - fatty foods: eggs, bacon, ham, steak, hamburgers, hot dogs.
 - deep fried foods: fish, chicken, veal, *french fries*.
 - very spicy foods: mexican foods, indian foods.
 - high fat desserts: French pastries, ice cream.
- If on-court for an extended period, have with you a supply of water mixed with fruit juice and/or fruit, to drink or eat in small amounts while on court.

4. Dealing with Common Minor Injuries

You, or your students, may sometimes have to deal with the most common tennis injuries. Consult a sport medicine physician for injuries such as: tennis elbow, shoulder tendonitis, and lower back pain, if the pain lasts for two or three days in a row. For injuries resulting from a direct blow (being hit with the ball or racket) or a twisting/stretching of a body part which result in inflammation to the injured area (ankle sprains), immediately implement the P.I.E.R principle, as follows:

- P: Pressure: Apply pressure to reduce swelling or bleeding around the joint or limbs. If possible, use a contoured pressure pad and one layer of a wet elastic bandage wrap.
- I: Ice: Apply ice, or some other form of cold compress, directly over the wet pressure wrap for 10-20 minutes, remove for 10, and repeat.
- E: Elevate: If possible, elevate the injured area above the level of the heart.
- R: Restrict: Rest or restrict movement. Do not return to activity too soon. If a lower limb is injured, either use crutches or ask to be carried; in the case of upper-limb injuries, use tensors or slings.

The sooner the injury is treated, the faster it will heal. Be prepared. Be safe. And have fun!

5. Dealing with Emergencies

The following is an example of an “Emergency Action Plan”:

1. Assess the situation.
2. Have a plan. Know where to find the nearest phone. Always have a quarter (25¢) for the pay phone.
3. Be prepared. Select one student to phone for help, giving them clear instructions and directions about what to say while you remain with the injured student.
4. Transport the injured student. After the lesson, phone and inquire about the injured student’s condition.
5. Remember: Be prepared. Have a plan. Remain calm and considerate.

Addendum – Additional Resources from Coaching Association of Canada

Sport Safety Through Risk Management

By its very nature, physical activity can present some risk of injury. One of the key responsibilities of the coach is to manage the potential risks that present themselves during practice or competition.

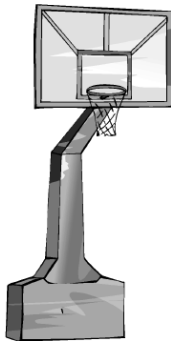
The main risk factors can be categorized as follows:



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 their 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	Actions to take
<ul style="list-style-type: none">• Risks of the activity• Participants' medical information• Participants' contact information in case of emergency• Facility safety checklist• Past injury reports <p><i>Sample forms are provided in appendix</i></p>	<ul style="list-style-type: none">• 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, 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.

Actions to take

Planning

- 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.
- Adjust activities for participants who cannot perform the them as planned for the larger group.

Designing an Emergency Action Plan

- Guidelines for designing an Emergency Action Plan appear in this document.

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 and parents

- 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 practising 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.

Summary

Preventing sport-related injuries: what to do and when to do it

Before the season
<ul style="list-style-type: none">• 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
<p>Before a practice or competition</p> <ul style="list-style-type: none">• Inspect equipment and facilities• Meet with the officials• Prepare an Emergency Action Plan• Plan specific safety measures for the practice/competition <p>During a practice or competition</p> <ul style="list-style-type: none">• 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 <p>After a practice or competition</p> <ul style="list-style-type: none">• Store equipment safely• Fill in an accident report if necessary
After the season
<ul style="list-style-type: none">• Keep an accident/injury report log

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).

RELATIVE HUMIDITY (%)

		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
TEMPERATURE (C)	20						20	20	21	22	22	23	24	24	25	25	26	27	27
	21						21	22	22	23	24	24	25	26	26	27	28	29	29
	22					22	22	23	24	25	25	26	27	27	28	29	30	30	31
	23					23	24	24	25	26	27	28	28	29	30	31	31	32	33
	24					24	25	26	27	28	28	29	30	31	32	33	33	34	35
	25				25	26	26	27	28	29	30	31	32	33	33	34	35	36	37
	26				26	27	28	29	30	31	32	33	33	34	35	36	37	38	39
	27				27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
	28			28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
	29			29	30	31	32	33	35	36	37	38	39	40	41	42	43	45	46
	30			30	31	33	34	35	36	37	39	40	41	42	43	44	46	47	48
	31			32	33	34	35	37	38	39	40	42	43	44	45	47	48	49	50
	32		32	33	34	36	37	38	40	41	42	44	45	46	48	49	50	51	53
	33		33	34	36	37	39	40	41	43	44	46	47	48	50	51	53	54	55
	34		34	36	37	39	40	42	43	45	46	48	49	51	52	53	55	56	58
	35		36	37	39	40	42	43	45	47	48	50	51	53	54	56	57	59	
	36		37	39	40	42	44	45	47	49	50	52	53	55	57	58	60		
37	37	38	40	42	44	45	47	49	51	52	54	56	58	59					
38	38	40	42	43	45	47	49	51	53	54	56	58	60						
39	39	41	43	45	47	49	51	53	55	57	59								
40	41	43	45	47	49	51	53	55	57	59									

Range Of Humidex: Degree Of Discomfort And Risk Of Overheating During Exercise

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

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 even at rest	Extreme - Exercise is not advised for any participant

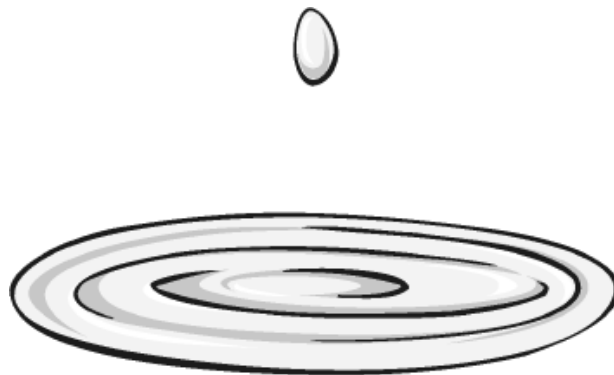
If the humidex is above 30 C, in particular if it exceeds 35 C:

- **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 rehydrate 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.

NB: 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 hot and humid weather.



Cold As A Risk Factor

The challenges of exercising in the cold: key points

- The colder the environment, the faster a participant's body temperature will decrease.
- During exercise in a cold environment, the skin can become wet as a result of sweating, or exposure to rain or snow. A wet skin surface cools the body faster than when it is dry.
- Temperature may drop considerably once the sun has set, which can quickly increase the level of risk associated with exercising in a cold environment.
- The wind magnifies the perception of cold, and increases the rate at which the body loses heat. This effect can be further amplified if the skin is wet.
- In cold weather, high humidity makes the temperature feel colder than air temperature indicates it is.
- Cold, dry air makes it difficult to breathe for some asthmatics, although it is generally easier to tolerate the cold when the air is dry.
- Skin can freeze when exposed to very cold temperatures, and when this happens circulation slows. Tissue can be damaged if frostbite is prolonged and extensive. Extremities (e.g. toes, fingers, nose, ears) are particularly at risk in cold temperatures, because the body shunts blood flow to central organs and tissues to maintain the body's core temperature.
- In severe cold, brain function can slow down, and so risk of further injury in prolonged exposure increases.
- Children get cold much faster than adults, and their skin is more prone to freeze. People with less body fat usually have less tolerance for cold than those with more body fat.
- Muscles and other soft tissues that are cold are more susceptible to injuries such as pulls and tears, in particular if the efforts produced are sudden and intense.
- In very dry cold environments, water vapour lost through breathing and evaporation of sweat from exposed surfaces may lead to dehydration.
- Wearing appropriate clothing can be a challenge when exercising in the cold. Clothes must protect against the cold, but at the same time they must not impair the body's ability to get rid of the heat produced during exercise. Heavy clothing can be cumbersome and interfere with movement; it can also increase air resistance in some sports where speed is critical. On the other hand, the thin clothing used in many sports often offers little protection from the cold and the wind.
- The type of fabric worn can either wick water from the body surface (i.e. synthetics such as polypropylene or Gore-Tex®) which results in less risk of heat loss, or trap it there (i.e. cotton or nylon) which results in greater risk of heat loss.

Safety Measures To Avoid Cold Injuries

When exercising in the cold:

- Ensure participants wear sufficient clothing for the conditions, and layer clothing as follows:

Layer closest to skin:	Polypropylene, close fitting (wicking effect)
Second layer:	Fleece or wool, slight room between first layer and second layer for “trapped air” effect
Third layer:	Wind-breaking, water repellent, breathable layer

- When it is very cold, ensure exposed surfaces are kept to a minimum.
- Once the body has warmed up, and if the temperature is not too cold, consider removal of the second layer of clothes during exercise to avoid excessive sweating. Have participants add a layer or use blankets to keep warm during breaks or pauses.
- Apply anti-perspirant on feet before exercising to lessen sweating of the feet (which is usually followed by cooling of the feet). Doing the same on the palm of the hands may reduce the feeling of cold for people who tend to sweat a lot in their gloves or mitts.
- Ensure participants hydrate when they exercise in the cold.
- Bring children inside when they say they are cold; it is not worth the risk to prolong exercise and have them suffer from frostbite. Once a person suffers serious frostbite, the risk of subsequent frostbites to the same area may be increased.
- Never send participants out into the cold alone or without means of communicating with you and/or an emergency centre; avoid prolonged activities in which participants are in isolated areas and run the risk of becoming exhausted.
- When the weather is very cold and participants must train outdoors, hold your practices between 11 a.m. and 2 p.m. as these tend to be the warmest hours of the day. Be aware that temperature drops quickly when the sun sets.
- Inform participants and their parents to consider the combined effect of cold and wind (i.e. the wind chill factor, see next section) when making decisions about how to dress rather than simply looking at the thermometer. Do the same when you make coaching decisions about the choice and the scheduling of activities.



If possible, choose areas that are protected from the wind; avoid activities in open areas.

- Ensure protective eyewear is worn to prevent snow reflection from damaging eyes, and protect from the cold and the wind.
- Have participants or their parents bring a change of clothing, especially socks and underwear. Try to find a warm and protected spot to change.
- Inform participants and parents that a hat should be worn at all times; over 30% of body heat may be lost through the head. Ensure ears are covered to avoid frostbite.
- Allow additional time for warming up for training and competition; it takes longer to get the body warmed up and ready for sport in cold weather than it does in warm weather.

Wind chill factor

At certain temperatures, wind may greatly increase the perception of cold. The wind chill factor is an index that combines air temperature and wind velocity. It measures the rate at which living creatures lose body heat to the environment. The wind chill is not a temperature in the strict sense, but a temperature-like number that quantifies the sensation of cold. The wind chill factor should be consulted prior to exercising in the cold, as it provides more useful information regarding the best way to dress than temperature alone.

The table below shows the equivalent temperature (C) felt by the human body as a result of the combined effects of ambient temperature and wind velocity. At a temperature of -20°C , a 20 km/h wind will result in a cold sensation equivalent to -30°C .

WIND VELOCITY (km/h)

T E M P E R A T U R E (C)	WIND VELOCITY (km/h)															
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
5	4	3	2	1	1	0	0	-1	-1	-1	-2	-2	-2	-2	-3	-3
0	-2	-3	-4	-5	-6	-6	-7	-7	-8	-8	-8	-9	-9	-9	-10	-10
-5	-7	-9	-11	-12	-12	-13	-14	-14	-15	-15	-15	-16	-16	-16	-17	-17
-10	-13	-15	-17	-18	-19	-20	-20	-21	-21	-22	-22	-23	-23	-23	-24	-24
-15	-19	-21	-23	-24	-25	-26	-27	-27	-28	-29	-29	-30	-30	-30	-31	-31
-20	-24	-27	-29	-30	-32	-33	-33	-34	-35	-35	-36	-36	-37	-37	-38	-38
-25	-30	-33	-35	-37	-38	-39	-40	-41	-42	-42	-43	-43	-44	-44	-45	-45
-30	-36	-39	-41	-43	-44	-46	-47	-48	-48	-49	-50	-50	-51	-51	-52	-52
-35	-41	-45	-48	-49	-51	-52	-53	-54	-55	-56	-57	-57	-58	-58	-59	-60
-40	-47	-51	-54	-56	-57	-59	-60	-61	-62	-63	-63	-64	-65	-65	-66	-67
-45	-53	-57	-60	-62	-64	-65	-66	-68	-69	-69	-70	-71	-72	-72	-73	-74
-50	-58	-63	-66	-68	-70	-72	-73	-74	-75	-76	-77	-78	-79	-80	-80	-81

The table below shows how quickly frostbite can occur in adults when skin is suddenly exposed to a cold environment. Times would be shorter for children, or if skin temperature upon exposure is cooler than it normally is at room temperature.

Wind chill factor	Frostbite can occur in:
-25	45 minutes
-35	10 minutes
-60	2 minutes

Emergency Action Plan (EAP)

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 should cover the following items:

1. Designate 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 contents for a first-aid kit.*

Sample Emergency Action Plan (p.1 of 2)

Contact Information

Attach the medical profile for each participant and for all members of the coaching staff, as well as sufficient change to make several phone calls if necessary. The EAP should be printed two-sided, on a single sheet of paper.

Emergency phone numbers: **9-1-1 for all emergencies**
Cell phone number of coach: (xxx) xxx-xxxx
Cell phone number of assistant coach: (xxx) xxx-xxxx

Phone number of home facility: (xxx) xxx-xxxx

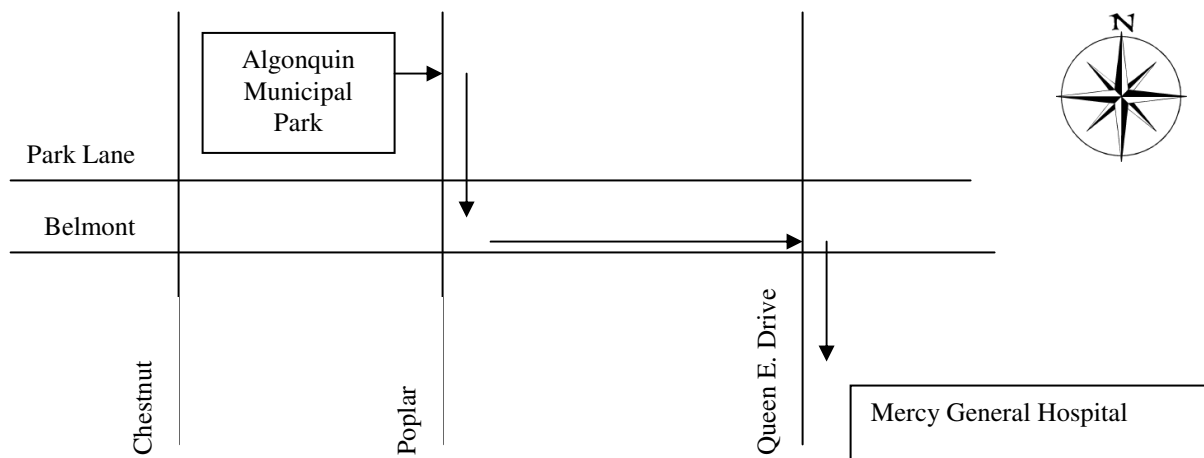
Address of home facility: **Algonquin Municipal Park**
123 Park Lane,
between Chestnut St. and Poplar St.
City, Province/Territory XXX XXX

Address of nearest hospital: **Mercy General Hospital**
1234 Queen Elizabeth Drive
City, Province/ Territory XXX XXX

Charge person (1st option): Suzy Chalmers (coach)
Charge person (2nd option): Joey Lemieux (assistant coach)
Charge person (3rd option): Angela Stevens (parent, nurse, usually on site)

Call person (1st option): Brad MacKenzie (parent, cell xxx-xxxx)
Call person (2nd option): Sheila Stevens (parent, cell xxx-xxxx)
Call person (3rd option): Stefano Martinez (parent, cell xxx-xxxx)

Directions to Mercy General Hospital from Algonquin Municipal Park:



Sample Emergency Action Plan (p.2 of 2)

Roles and responsibilities

Charge person

- ❑ 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 (wears 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

- ❑ 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

Note: it is suggested that emergency situations be simulated during practice in order to familiarize coaches and athletes with the steps below.

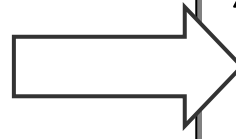
Step 1: Control the environment so that no further harm occurs

- 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



**Activate
EAP!**

If the participant 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
- If possible, have the participant move himself/herself off the playing surface. Do not attempt to move an injured participant.

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 who has first aid training, activate EAP. If the assessor is sure the injury is minor, proceed to step 5.



**Activate
EAP?**

Step 5: Control the return to activity

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

- Swelling
- Deformity
- 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

Head Injuries And Concussions: Guidelines For Coaches

NB: The following information is presented as a series of guidelines only. Head injuries must be treated by a recognized medical professional.

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 from 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.

Below are 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.

NB: 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.

Coach Liability

Introduction

More than ever before, coaches are aware of the risks and responsibilities they assume when they coach. These risks and responsibilities include those that are legal in nature. No matter what their certification, experience, employment or volunteer status, sport discipline, or location of residence, coaches at all times have a legal obligation to provide a safe environment for participants.

To understand this obligation more fully, the coach must understand some key legal principles including negligence and liability. In order to fulfil this obligation, the coach must also understand concepts and techniques related to risk management. With this knowledge, the coach can determine the applicable standard of care, can assess his or her own coaching situation for risks, and can put in place appropriate measures to manage these risks.

These three topics – negligence, liability, and risk management – are discussed below. This section concludes with a ten-point “personal risk management plan.”

Negligence

Negligence is a legal term with precise legal meaning. The term relates to standards of behaviour that the law expects, and understanding the law of negligence is an essential first step in learning how to provide a safe environment for participants.

In general terms, negligence refers to behaviour or action that falls below a “reasonable standard of care.” The law in Canada demands that we behave in a particular way so that others who might be affected by our actions are not exposed to an unreasonable risk of harm. The standard of behaviour the coach is expected to meet is what is termed an “objective” standard. As adults and as coaches, we are all credited with the same general intelligence and sensibility, and thus the law expects each of us to behave in a reasonable fashion when confronted with similar circumstances.

The law does not expect a coach to be *perfect* in his or her behaviour, only that the coach be *reasonable* and act as other reasonable coaches would act in the same circumstances.

It is widely accepted that there is a certain amount of risk in many sport activities and that such risk is knowable, foreseeable, acceptable, and, depending on the sport, even desirable. What is unacceptable in sport is behaviour that places participants in a situation of unreasonable risk or danger.

A coach's conduct is negligent when all four of the following conditions occur:

- a duty of care exists (such as that which exists between a coach and a participant)
- that duty imposes a standard of care that is not met by the coach
- a participant, or other person, experiences harm
- the failure to meet the standard can be shown to have caused or substantially contributed to the harm.

For the coach, the "standard of care" is the most important of the above elements. The standard of care is what the coach *should* do in a given situation. Standard of care is difficult to define precisely because it is influenced by the risk inherent in the surrounding circumstances. Thus, the duty to act responsibly remains constant, but the specific behaviour required to fulfil that duty will change with the circumstances.

To determine what the *standard of care* is in any given circumstance involves looking to four sources:

- **Written standards** – these are government regulations, equipment standards, rules for a particular sport or facility, rules from a sport governing body, coaching standards and codes of conduct, and other internal risk management policies and procedures.
- **Unwritten standards** – these are norms or conventions in a sport, an organization, or a facility that might not be written down, but are nonetheless known, accepted, and followed.
- **Case law** – these are court decisions about similar situations. Where the circumstances are the same or similar, judges must apply legal principles in the same or similar ways. Earlier decisions of the court are a guide, or precedent, for future decisions where the facts are similar.
- **Common sense** – this means simply doing what feels right, or avoiding doing what feels wrong. Common sense is the sum of a person's knowledge and experience. Trusting one's common sense is a good practice.

The responsible and prudent coach is familiar with written policies that govern him/her, is aware of unwritten norms and practices, knows something of the case law as it applies to coaches, and has learned to trust his/her intuitive judgment and common sense.

Liability

Where all four conditions of the legal definition of negligence have been met, negligence of the coach may be established. What follows then is the question of liability. While negligence refers to *conduct*, liability refers to the *responsibility* for consequences of negligent conduct. Responsibility may lie with the coach who was negligent, or with another person or entity entirely.

For example, an insurance policy transfers the financial liability for negligence to an insurance company. A valid waiver of liability agreement might eliminate liability entirely. An injured participant may be partially responsible for his or her injuries and thus may share liability with the negligent coach. And a sport organization may be vicariously liable for the negligent actions of its coach, whether he or she is an employee or a volunteer.

Liability can also refer to responsibility for the consequences of conduct that fails to meet a predetermined legal standard other than the standard of care in a negligence situation. In addition to the liability that can arise from negligence, liability can also arise when a law is broken or when a contract is breached. The prudent coach ensures that these types of liability are avoided by adhering to laws and complying with contractual agreements.

In summary, an understanding of the legal meaning of *negligence* answers the coach's question: How does the law expect me to behave? The follow-up question is: How can I be sure that my behaviour will meet this expectation? The answer to this question lies in *risk management*.

Risk management

Risk management is defined as “reducing the chances of injury or loss by taking steps to identify, measure, and control risks.” This means that the coach spends time thinking about potentially risky situations, decides which situations might pose serious risks, and determines what practical steps he/she can take to minimize those risks. The common ingredient in all these tasks is common sense.

There are four strategies for controlling risks, all of which are important to the coach:

- **Retain the risk** – the risk is minor and it is inherent in the sport activity, and the coach is willing to accept the consequences, so he/she does nothing about the risk. In sport, this is often a legitimate risk-management strategy.
- **Reduce the risk** – the risk is moderately significant and the coach takes measures to reduce the likelihood of the risk occurring, or the consequences if it does occur, through careful planning and supervision and education of participants.
- **Transfer the risk** – the risk is significant and it is transferred to others through contracts, including waivers and insurance.
- **Avoid the risk** – the risk is severe and the coach decides to avoid whatever may cause the risk.

A word of caution for coaches: there is no template, formula, or checklist for managing risk. The law expects coaches to provide a safe environment for participants, but what that means for a coach’s conduct will vary with the circumstances, including the age and skill level of participants and the environment in which the coaching activity occurs.

The coach's personal risk management plan

The informed and prudent coach protects himself/herself by implementing a personal risk management plan. This plan helps the coach on two fronts: first, it will promote a safe program and help to prevent injuries from occurring, and second, when an injury cannot be prevented, it will help to protect the coach from liability claims.

Coaches can, and should, practice their own personal risk management by following this ten-point plan:

1. Be familiar with and adhere to applicable standards, both written and unwritten, as well as internal policies and rules governing the facility, the sport, and your program.
2. Monitor your participants' fitness and skill levels, and teach new skills in a progressive fashion suitable to their age and skills. Never leave young participants unsupervised.
3. If you do not have access to medical personnel or a qualified trainer, keep adequate first aid supplies on hand; ideally, you should be trained in administering first aid.
4. Develop an Emergency Action Plan for the facility or site where you regularly hold practices or competitions. Carry with you, at all times, emergency contact numbers and participants' medical profiles.
5. Inspect facilities and equipment before every practice and competition and take steps to ensure deficiencies are corrected immediately, or adjust your activities accordingly to avoid the risk.
6. Work with your employer or sport organization to use appropriately worded "assumption of risk" agreements in your programs and, where appropriate, in settings involving adult participants, "waiver of liability" agreements.
7. You should be covered by the liability insurance policy of your employer (if you are remunerated for your coaching services) or your organization (if you are a volunteer coach). Confirm that this is the case. If it is not, obtain your own insurance.
8. Do not be afraid to stop or withdraw from any activity that poses unreasonable risks, including stopping a practice or removing your team or your participants from a competition.
9. Trust your common sense and intuition!
10. Actively pursue your own training, professional development, and coaching certification.

NB: Legal Questions And Answers (FAQ) on liability are provided in the appendices.