

Warm-Up: write questions and answers

1. The first stage in any physical activity routine, which prepares the muscles for work, is known as the _____.
2. Your _____ is the number of times your heart beats in one minute when you are not physically active.
3. Your _____ is the range your heart rate should be in while physically active in order to get the best benefits.
4. A resting heart rate below _____ is an indication of a good fitness level.



TO: How can a person prevent injury while participating in sports?



Using safety gear and taking simple precautions can help a person prevent injury while participating in sports.



Weather-Related Risks

Taking your physical activity routine outdoors can be a great change of pace, but some weather-related health problems need to be taken into consideration.

- **Factors such as wind, humidity, and air pollution can increase your risk of injury or illness.**
- You also should pay attention to weather warnings.



Hot-Weather Health Risks

Two concerns during hot weather:

- Dehydration or excessive loss of water from the body
- Poor air quality



Hot-Weather Health Risks

1. Overexertion**Heat Cramps****Heatstroke**

- Many hot-weather health problems are related to **overexertion**.
- Heat exhaustion is caused by overexertion in a hot, humid atmosphere.



Hot-Weather Health Risks

Overexertion**Heat Cramps****Heatstroke**

Overexertion is overworking the body.

- Many hot-weather health problems are related to overexertion.

Heat exhaustion is caused by overexertion in a hot, humid atmosphere.



Hot-Weather Health Risks

Overexertion

2. Heat Cramps

Heatstroke



- Heat exhaustion may be preceded or accompanied by heat cramps.
- If symptoms are **severe, or if vomiting occurs**, get medical help immediately.



Hot-Weather Health Risks

Overexertion**Heat Cramps****Heatstroke**

- Heat exhaustion may be preceded or accompanied by **heat cramps**.



Heat cramps are muscle spasms that result from a loss of large amounts of salt and water through perspiration. If cramps are severe, vomiting occurs, get help immediately.



Hot-Weather Health Risks

Overexertion

Heat Cramps

3. Heatstroke



- Continuing to exercise with the symptoms of heat exhaustion and dehydration can lead to heatstroke.
- This causes hyperthermia, a sudden increase in body temperature, which **can be life-threatening**.



Hot-Weather Health Risks

Overexertion**Heat Cramps****Heatstroke**

Heatstroke is a condition in which the body loses the ability to rid itself of excessive heat through perspiration.

- Continuing to exercise with the symptoms of heat exhaustion and dehydration can lead to heatstroke.

This causes hyperthermia, a sudden increase in body temperature, which can be life-threatening.



Cold-Weather Health Risks

When participating in cold weather activities:

- Dress in three layers to keep warm.
- Start slowly and be sure to warm up your muscles.
- Stay hydrated.



Types of Cold-Weather Health Risks



1. Frostbite

Hypothermia

- **Frostbite** requires professional medical treatment.
- You can **avoid frostbite by dressing warmly and covering all exposed skin.**
- An early warning sign of frostbite is called frostnip.



Types of Cold-Weather Health Risks



Frostbite

→


Hypothermia

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Types of Cold-Weather Health Risks



Frostbite

2. Hypothermia

- When hypothermia occurs, the body loses the ability to warm itself.
- Because hypothermia **can lead to death, it requires immediate medical attention.**



Types of Cold-Weather Health Risks



Frostbite



Hypothermia



Hypothermia is a condition in which body temperature becomes dangerously low.

- When **hypothermia** occurs, the body loses the ability to warm itself.

Hypothermia can be fatal. If you suspect hypothermia, it requires immediate medical attention.



Protecting Yourself from Sun and Wind

- **Windburn** occurs when skin is exposed to freezing wind, causing it to become red, tight, and sore to the touch.
- The **sun's UV rays cause sunburn, a burning of the outer layers of the skin.** A cataract is caused in part by sun exposure.
- **Repeated or prolonged exposure to the sun speeds the skin's aging process and increases your risk of developing skin cancer.**



Tips to Protect Yourself from Sun and Wind



Use **sunscreen with a sun protection factor** (SPF) of at least 15.



Reduce the risk of windburn by wearing protective clothing and using lip balm.



Cover as much of the body with clothing as possible when outdoors.



Types of Minor Injuries

Muscles are often sore 24 to 48 hours after a strenuous workout.

Other minor injuries that affect the skeletal or muscular systems include:

- Muscle cramps.
- Strains.
- Sprains.



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A muscle cramp is a spasm or sudden tightening of a muscle.



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A strain is a condition resulting from damaging a muscle or tendon.



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A sprain is an injury to the ligament surrounding a joint.



Treatment for Minor Injuries

- **Warming up** is an effective **strategy for preventing these accidental injuries.**
- **Muscle cramps** can be **relieved through light massage.**
- An **effective response strategy** for these minor accidental injuries **is the R.I.C.E. procedure.**



The R.I.C.E. Procedure

THE R.I.C.E. PROCEDURE

Rest Avoid using the affected muscle or joint. This may mean not using the affected area for several days.

Ice Ice helps reduce pain and swelling. Place ice cubes in a plastic bag, and wrap the bag in a towel. Hold the towel-wrapped bag on the affected area for 20 minutes. Remove the bag for 20 minutes, and then reapply the bag for another 20 minutes. Repeat this process every three waking hours over the course of 72 hours.

Compression Light pressure through the use of an elastic bandage can help reduce swelling. The bandage should not be so tight that it cuts off the blood supply to the area, and it should be loosened at night.

Elevation Raising the affected limb above the level of the heart helps reduce pain and swelling, especially at night.



Symptoms of Major Injuries

- Extreme pain may signal that you have a major injury.
- If you experience **extreme pain, numbness, or disorientation or hear a “cracking” sound during a fall, get appropriate medical treatment** immediately.



Types of Major Injuries

- A **fracture causes swelling and often extreme pain**, and it usually requires immobilization to heal properly.
- **Dislocations** result when a **bone is forced from its normal position** at a joint.
- **Tendonitis** is a condition in which the **tendons are stretched or torn from overuse**.
- **Concussions** result from **blows to the head and can cause swelling of the brain**, resulting in unconsciousness or even death.



Choose the appropriate option.

Q. Whitening of the skin of the toes or fingers is an early warning sign of _____.

1. frostbite
2. tendonitis
3. hyperthermia
4. overexertion



- A.** Whitening of the skin of the toes or fingers is an early warning sign of **frostbite**.

Click **Next** to attempt another question.



Provide a short answer to the question given below.

Q. What is hypothermia? With which types of weather is this condition often associated?

Click **Next** to view the answer.



- A.** Hypothermia is a condition in which body temperature becomes dangerously low. It is associated with cold, wet, and windy weather and submersion in cold water.

Click **Next** to attempt another question.



Provide a short answer to the question given below.

- Q.** Identify which injuries described in this lesson require the attention of professional health services.

Click **Next** to view the answer.



- A.** Injuries that require the attention of professional health services include heat exhaustion, heatstroke, frostbite, hypothermia, severe sprain, bone fractures and dislocations, tendonitis, and concussions.

Click **Next** to attempt another question.



Analyze the following situation.

On a hot day, a runner begins to have trouble breathing and also becomes pale, dizzy, and nauseated. From what condition is this runner likely to be suffering? Analyze and describe strategies for responding to this condition.



A. Correct! Whitening of the skin of the toes or fingers is an early warning sign of **frostbite**.

Click **Next** to attempt another question.



You have answered the question incorrectly. Go back to try again, or click **Next** to view the correct answer.

