ENVIRONMENTAL COLD INJURIES

Hypothermia

SYMPTOMS:
- Mild: Vigorous shivering, increased blood pressure, fine motor skill impairment, lethargy, apathy and mild amnesia
- Moderate or severe: No more shivering, very cold skin, depression, slurred speech, unconsciousness and gross motor skill impairment

SYMPTOMS:
- Occurs when the core body temperature reaches below 95 degrees.

WHAT TO DO:
- Remove wet or damp clothing then insulate the body, including the head, with warm, dry clothing or blankets.
- Move the athlete to a warm shelter, protected from wind and rain.
- Apply heat only to the trunk and heat transfer areas of the body, such as armpits, chest wall and groin.
- Don’t rewarm the extremities – it could send cold blood to the core and lead to a drop in core temperature, which may cause cardiac arrhythmias and death.
- Provide warm fluids and foods.
- Avoid applying friction massage to tissue, which can increase damage if frostbite is present.

Frostbite

SYMPTOMS:
- The freezing of body tissue.
- A localized response to a cold, dry environment that can be worsened by sweat cooling the tissue.

SYMPTOMS:
- Mild: Swelling, redness or mottled gray skin appearance, stiffness and momentary tingling or burning
- Deep: Edema, mottled gray skin appearance, tissue that feels hard and does not rebound, blisters and numbness or loss of sensation

WHAT TO DO:
- Rule out the presence of hypothermia.
- Rewarm the tissue if there isn’t a chance of refreezing.
- Immerse the affected tissue into a warm bath of gently circulating water for 15 to 30 minutes.
- Rewarming should be done slowly, so water temperature shouldn’t exceed 98 degrees.
- Thawing will be complete when the tissue is pliable and color and sensation have returned.
- Note that rewarming can be painful, so a physician may prescribe pain medication.

Chilblain

SYMPTOMS:
- A nonfreezing injury of the extremities.
- Occurs with extended exposure to cold, wet conditions.

SYMPTOMS:
- Small red bumps, swelling, tenderness, itching and pain

WHAT TO DO:
- Remove wet or constrictive clothing.
- Gently wash and dry the area.
- Elevate the area and cover with warm, loose, dry clothing or blankets.
- Don’t disturb the blisters or apply friction massage.
- Avoid lotions, creams or high levels of heat.
- Avoid any weight bearing on the affected area.

Immersion Foot

SYMPTOMS:
- A nonfreezing injury of the extremities also known as “trench foot.”
- Occurs with prolonged exposure to cold, wet environments.

SYMPTOMS:
- Burning, tingling or itching, loss of sensation, bluish or blotchy skin, swelling, pain or sensitivity, blisters, skin fissures and maceration

WHAT TO DO:
- Thoroughly clean and dry the feet.
- Apply warm packs or soak the affected area in warm water for approximately five minutes.
- Put on clean dry socks.
- Allow footwear to dry before reusing.

Staying warm, staying safe

- Wear insulated clothing that also allows moisture to evaporate.
- Dress in layers that can be adjusted with changes in the weather.
- Use external heaters.
- Take regular indoor breaks.
- Maintain a well-balanced diet
- Stay hydrated with water or sports drink.
- Have extra shoes, socks and gloves available to replace wet clothing.
- Athletes who are young, old, diabetic, women or African-American should take extra precaution as they are at greater risk.

Source: National Athletic Trainers’ Association