



Cold Weather Healthcare Guidelines

Introduction:

Cold exposure can be uncomfortable, impair performance and even become life threatening. Conditions created by cold exposure include frostbite and hypothermia. Wind-chill can make activity uncomfortable and can impair performance when muscle temperature declines. *Frostbite* is the freezing of superficial tissues, usually of the face, ears, fingers, and toes. *Hypothermia*, a significant drop in body temperature, occurs with rapid cooling, exhaustion and energy depletion. The resulting failure to the temperature- regulating mechanisms constitutes a medical emergency.

Hypothermia frequently occurs at temperatures above freezing. A wet and windy 30 –50 degree exposure may be as serious as a subzero exposure. Wind speed interacts with ambient temperature to significantly increase body cooling. When the body and clothing are wet (whether from sweat, rain, snow or immersion), the cooling is even more pronounced due to evaporation of the water held close to the skin by the wet clothing.

Clothing is one of the most important parts of keeping the athlete's body warm. Athletes should dress in layers and attempt to stay dry. Layers can be added or removed depending on temperature, activity and wind chill. Athletes should layer themselves with an undergarment, such as cold weather Under Armour or a like product, next to the body followed by lightweight pile or wool layers for warmth. Athletes should use a wind block garment to avoid wind chill during workouts. Heat loss from the head and neck may be as much as 50% of total heat loss, therefore the head and neck should be covered during cold conditions. Other extremities should be covered at all times to protect from the wind chill.

Cold Exposure:

- ✓ Breathing of cold air can trigger asthma attack (bronchospasm).
- ✓ Coughing, chest tightness, burning sensation in throat and nasal passage.
- ✓ Reduction of strength, power, endurance, and aerobic capacity.
- ✓ Core body temperature reduction, causing reduction of motor output.
- ✓ Sickle cell, cold weather exacerbates this condition.

Cold Recognition:

- ✓ Shivering, a means for the body to generate heat.
- ✓ Excessive shivering contributes to fatigue, loss of motor skills.
- ✓ Numbness and pain in fingers, toes, ears, and exposed facial tissue.
- ✓ Drop in core temperature; athlete exhibits sluggishness, slowed speech, or disoriented.

Environmental Assessment

- ✓ Evaluate immediate and projected weather information, including wind chill temperature, wind, chance of precipitation or water immersion, and altitude.
- ✓ Identify activity intensity requirements and clothing requirements for each individual.
- ✓ Have alternate plans in place for deteriorating conditions and activities that must be adjusted or cancelled.

Environmental Exposure: Duration of exposure should be modified for practice when reaching numbers specified.

***Consult your Athletic Trainer on campus for recommendations.**

The following are guidelines established by the Sports Medicine Department & Athletics. The static temperature or wind chill temperatures will be utilized in determining if outdoor activities are safe for High School and Middle School practices, scrimmages or games. Conditions should be constantly reevaluated for change in risk, including the presence of precipitation.

***Kestrel units will be utilized to attain these wind chill temperatures.**

Practice Cold Weather Guidelines for HS/MS

HIGH SCHOOL

DRY (NO PRECIPITATION)	WET (WITH PRECIPITATION)
<u>Temp at 32 or Wind Chill at 27 or below without precipitation:</u> Modify outdoor activities – consult your athletic trainer	<u>Temp at 36 or Wind Chill at 32 or below with precipitation:</u> Modify outdoor activities - consult your athletic trainer

MIDDLE SCHOOL

DRY (NO PRECIPITATION)	WET (WITH PRECIPITATION)
<u>Temp at 36 or Wind Chill at 32 or below without precipitation:</u> Modify outdoor activities - consult your stadium athletic trainer	<u>Temp at 39 or Wind Chill at 35 or below with precipitation:</u> Modify outdoor activities - consult your stadium athletic trainer

The Athletic Department and the Sports Medicine Department will cancel / reschedule games if actual or forecasted static temperature or wind chills reach thresholds listed below.

All outdoor activities - Cancellation / Rescheduling guidelines

HIGH SCHOOL

DRY (NO PRECIPITATION)	WET (WITH PRECIPITATION)
<u>Temp at 28 or Wind Chill at 22 or below without precipitation:</u> Cancel all outdoor activities No outside exposure	<u>Temp at 30 or Wind Chill at 25 or below with precipitation:</u> Cancel all outdoor activities No outside exposure

MIDDLE SCHOOL

DRY (NO PRECIPITATION)	WET (WITH PRECIPITATION)
<u>Temp at 30 or Wind Chill at 25 or below without precipitation:</u> Cancel all outdoor activities No outside exposure	<u>Temp at 33 or Wind Chill at 28 or below with precipitation:</u> Cancel all outdoor activities No outside exposure

- ✓ Transportation is unsafe for travel.
- ✓ Field conditions are unsafe for competition.
- ✓ The Athletic Department considers environmental conditions, wind chill factor, and safety of play.

<http://www.nws.noaa.gov/om/cold/windchill-images/windchillchart3.pdf>

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