Otterbein University
Cold Weather Policy

Cappaert, T. A., Stone, J. A., Castellani, J. W., Krause, B. A., Smith, D. & Stephens, B. A. (2008). National Athletic Trainers' Association Position Statement: Environmental Cold Injuries. *Journal of Athletic Training, 43*(6), 640-658.

National Collegiate Athletic Association (NCAA) (2014). *2014-15 NCAA Sports Medicine Handbook.* Indianapolis, IN: National Collegiate Athletic Association.

Cold Injuries

Cold weather presents a unique set of challenges to athletes; it can effect performance, but it can also be life threatening. Two common injuries associated with cold exposure are hypothermia and frostbite. Hypothermia is commonly defined by a drop in core body temperature due to cold weather conditions and can be exacerbated by exhaustion and energy depletion. Hypothermia can become a serious life threatening condition due to the effects it has on the body's cardiovascular, respiratory and renal systems. The other common injury associated with cold weather is frostbite. Frostbite is the actual freezing of body tissue which typically occurs at the face, ears, fingers and toes. Frostbite is not only a limb threatening injury but can become a life threatening injury depending on the length of the cold exposure.

One factor that can increase the risk of both hypothermia and frostbite is the ***wind-chill temperature index***, which is calculated using a formula that includes the wind speed and actual air temperature. The National Oceanic Atmospheric Administration (NOAA) Wind-Chill Chart found below is helpful in determining the wind-chill temperature.

Our Athletic training staff will utilize the WeatherBug app on our phones to monitor any winter storms and severe temperature drops that may develop. It is recommended that all coaches and administrators also have the WeatherBug app on their cell phone so they can track winter weather conditions as they develop.

Prevention

Prevention of Cold Exposure is in large part related to the education of participants with regards to the risk factors below.

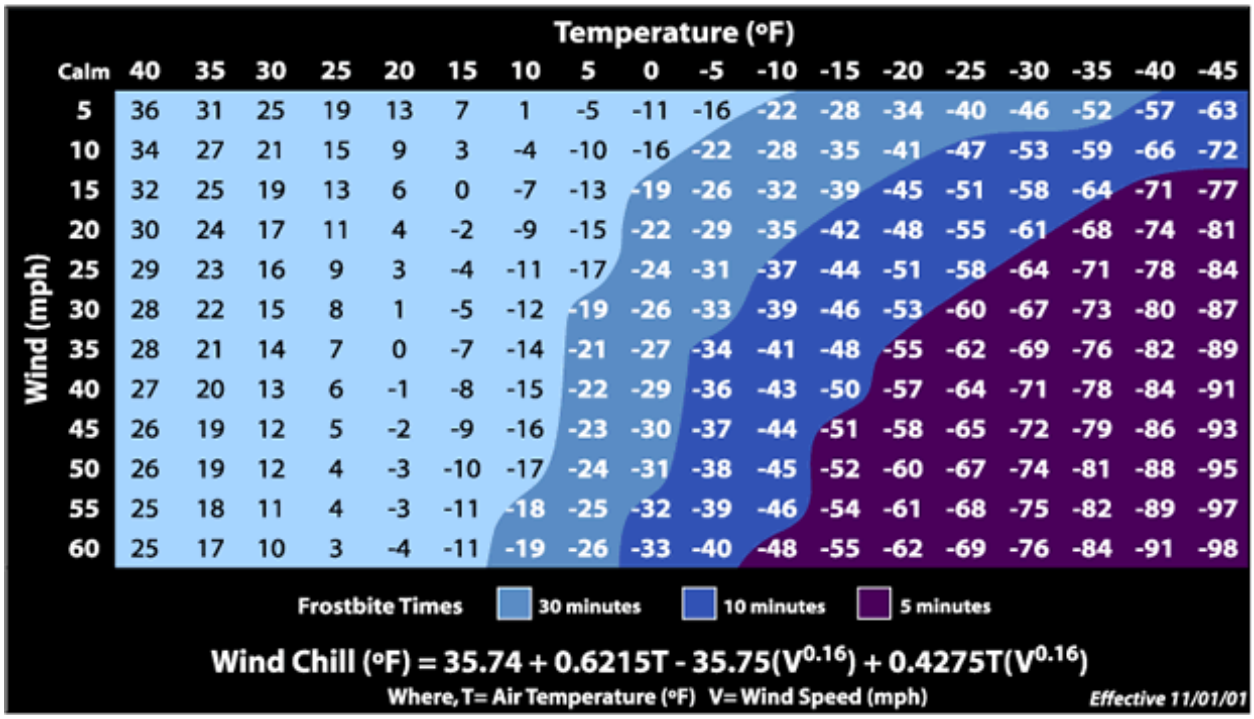
- Clothing – Dress in layers to prevent cold exposure and limit the effects of the wind and/or rain/snow. Up to 50% of heat loss occurs at the head and neck. Due to this concern, the head and neck should always be covered in cold weather. The exposure of the skin should be limited at the extremities through the use of gloves, mittens, socks and proper shoewear.
- Energy/Hydration – The maintenance of hydration and energy levels through the use of meals, energy snacks and carbohydrate/electrolyte drinks help to maintain the body's core temperature in freezing weather.
- Fatigue/Exhaustion – As fatigue and exhaustion increase, the risk of cold related injury also increases. Maintaining proper sleep helps with prevention of injury.
- Warm-up – A proper warm-up should be completed and lead immediately into competition (or practice) to limit the drop in muscle or body temperature.
- Partner Training – Never train alone. This ensures there is no delay in recognizing the signs and symptoms in cold related injuries.

Practice and Competition Sessions

The guidelines provided in the 2008 NATA position statement and used in the 2014-15 NCAA Sports Medicine Handbook are below. When planning activities according to the guidelines below, the wind-chill temperature, as determined using the NOAA Wind-Chill Chart should be used. Injuries related to cold exposure can be largely prevented by limiting the length of exposure and, when necessary, dressing properly for the cold exposure.

It is important to note that in addition to these guidelines, when practices are taking place, at less than 32 degrees Fahrenheit (F), the practices should be designed to limit all participants from standing idle for significant periods of time. If there are any extended teaching moments that are built into the practice design, they should occur within a facility-controlled environment.

Wind Chill Chart



- **32 degrees Fahrenheit and below:** Participants must wear long sleeves and long pants for participation. Be aware of the potential for cold injury and notify appropriate personnel of the potential.
- **25 degrees Fahrenheit and below:** Maximum practice length of 120 minutes. Participants must have additional protective clothing; cover as much exposed skin as practical; practices should be “at pace” with NO idle time. Provide opportunities and facilities for re-warming, as appropriate.
- **15 degrees Fahrenheit and below:** Maximum practice length of 90 minutes to limit cold exposure, and should also occur “at pace”. All instructions should occur indoors.
- **0 degrees Fahrenheit and below**: Terminate or reschedule activity.