SEVERE WEATHER GUIDELINES

Severe weather includes but is not limited to: heavy rain, blizzard conditions, hail, extreme cold (wind chill index below 0 degrees F), extreme heat (heat index above 100 degrees F), tornado and lightning (WeatherSentry® alert of 0-8 miles or flash to bang interval of less than 30 seconds).

Game officials (following NCAA rules) will determine if a contest will be delayed due to weather. In the event of lightning, the officials will be notified if the lightning detector has a reading of 0-8 miles.

In the event of severe weather ALL Binghamton University Athletic Department outdoor practices will be discontinued and the participants instructed to enter the nearest solid structure.

It will be the responsibility of the Head Coach or the Coach in Charge and an assigned Sports Medicine Staff member (if present) at the practice to monitor the weather conditions. The Athletic Trainer will make recommendations to the Head Coach or the Coach in Charge regarding the discontinuation of practice. The decision to discontinue practice will be made by the Athletic Trainer or by the Head Coach or the Coach in Charge in the absence of the Athletic Trainer.

COLD EXPOSURE GUIDELINES

Temperature is a measure of the heat of a substance. When the forecaster tells you how warm or cold it is going to be outside, he or she is generally referring to the temperature of the air close to the surface of the Earth. Temperature alone will not tell you how cold you'll feel when you get outside, especially if the is wind blowing.

Why should we care about wind chill? A lower wind chill can increase the rate at which certain cold-weather dangers, such as frostbite and hypothermia can develop. There are precautions that we can take to avoid them when outside in extreme weather, such as wearing proper clothing and using appropriate equipment. You can also check yourself regularly for wet or cold areas on your body while outside in extreme weather, or use the buddy system to look for signs of danger and rewarm body parts as needed.

Here are some of the conditions that can lead to hypothermia:

- **Cold temperatures**
- **Improper dress/equipment**
- **Wetness**
- **Poor food intake**
- **Prolonged exposure**
- **Exposed skin**

The severity of hypothermia can vary, depending on how low the core body temperature gets. There are specific signs and symptoms to look for. The condition worsens as the core body temperature lowers.

Mild Hypothermia (core body temperature ranges from 99-95 degrees F):

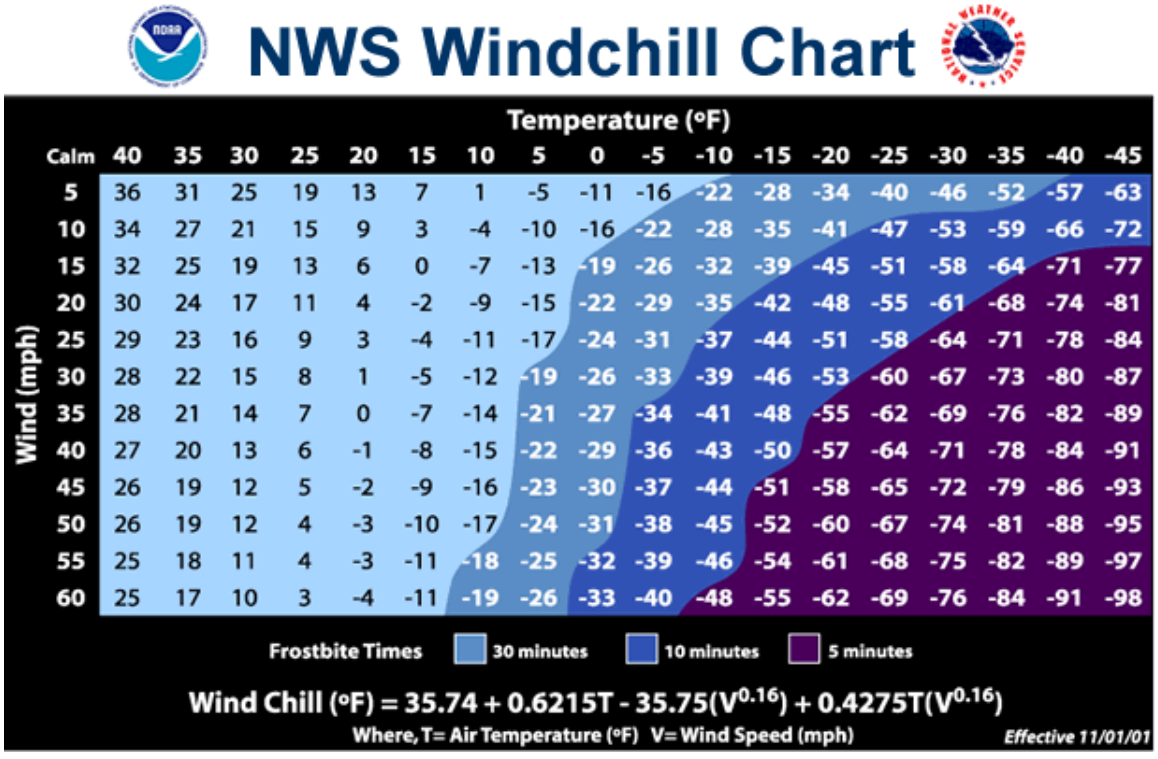
- Involuntary shivering
- Inability to perform complex motor functions (such as skiing)

Moderate Hypothermia (core body temperature ranges from 95-90 degrees F):

- Slurred speech
- Violent shivering
- Dazed consciousness
- Irrational behavior
- Loss of fine motor coordination

Severe Hypothermia (core body temperature ranges from 90-75 degrees F):

- Pupils are dilated
- Skin is pale
- Pulse rate decreases
- Muscle rigidity develops
- Shivering occurs in waves, it is violent and then pauses; the pauses eventually grow longer and longer until shivering ceases
- Person falls to the ground and cannot walk; may curl into a fetal position to conserve heat
- Person loses consciousness, heartbeat and respiration are erratic
- Cardiac and respiratory failure, then death



Web site that will calculate the wind chill for you:
http://forecast.weather.gov/MapClick.php?lat=42.054746794130324&lon=-76.04914288213752#.V4_TnzWANBc

The following guidelines have been established for Binghamton University Athletics practice and event participation:

Outside participation limited to 45 minutes:
When the temperature or wind chill (real feel temperature) is **15°F – 1°F.**

Termination of outside participation:
When the temperature or wind chill (real feel temperature) is **0°F or below**.

In cold weather temperatures proper layered clothing should be worn and encouraged by Binghamton University Athletics department staff and coaches. These include:

- Several layers around the core of the body, especially for those individuals that are not very active.
- Long pants designed to insulate. Cotton sweatpants are excellent. On very cold days a nylon shell or wind pant can be worn on top of them for additional wind break.
- Long sleeve shirt/sweatshirt/coat designed to insulate and break the wind.
- Gloves
- Ear protection/Hat or helmet.
- Face protection.
- Wicking socks that do not hold moisture inside. Wool is excellent. Cotton absorbs and holds in moisture.

Clothing should be ***layered*** to allow adjustments as activity level may increase and decrease within a practice which may elevate or drop body temperature. The first layer of clothing should wick sweat and moisture away from the body. The top layers should act as insulators to trap heat and block wind.

In addition to the above guidelines, it is recommended that additional directives are given to student-athletes:

- Cold exposure/activity requires more energy from a body. Additional calorie intake may be required.
- Cold exposure/activity requires similar hydration to room temperature; however, the thirst reflex is not activated. Conscious efforts before and after practice to hydrate should be initiated.
- **Never train alone.** A simple ankle sprain in cold weather may become life threatening!
- Student-athletes should be instructed on signs of cold stress (wind chill, frostbite and hypothermia). Fatigue, confusion, slurred speech, red or painful extremities, swollen extremities, blurred vision, red watery eyes, dizziness, headache, numbness, tingling of skin and extremities, shivering, uncontrollable shivering etc. are a few warning signs of cold stress.

HEAT EXPOSURE GUIDELINES

Staff and coaches must watch student-athletes carefully for signs of trouble, particularly athletes who lose too much weight, overweight student-athletes, and the eager student-athletes who constantly competes at top capacity. Be aware of trouble signs such as nausea, incoherence, fatigue, weakness, vomiting, cramps, weak/rapid pulse, visual disturbances and unsteadiness.

Staff and coaches must know what to do in case of an emergency. They should be familiar with immediate first aid practices and prearrange procedures for obtaining medical care, including ambulance service.

Staff and coaches must know both the temperature and humidity of the activity location. The greater the humidity the more difficult it is for the body to cool itself.

If any student-athlete is noted to having difficulties in the heat. Activity should be closely monitored or cancelled because others are likely also to have difficulties.

Signs and Symptoms of Heat Illness:

- Headache
- Dizziness
- Rapid pulse
- Nausea/Vomiting/Diarrhea
- Skin is flushed/cool and pale
- Disoriented/confusion
- Shallow breathing
- Muscle cramping
- Red, dry skin
- Seizures
- Loss of consciousness/Collapse
- Unusual behavior/Irritability

It is recommended that any student-athlete who collapses or demonstrates multiple signs and symptoms should have core body temperature checked by a rectal thermometer; if not available, oral, skin, and ear thermometers are acceptable. These student-athletes should be sent to the emergency room for evaluation.

Exertional Heat Exhaustion: Defined as an elevated core body temperature between 102-104 degrees F. This condition is not as severe as heatstroke but if left untreated it can progress to heat stroke. Initiate cooling immediately. No return to activity

Exertional Heat Stroke: Defined as core body temperature >104 degrees F. Delay in recognition/treatment could be fatal. Initiate Emergency Action Plan immediately.

Heat Index Calculations

(RELATIVE HUMIDITY)

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
105	99	105	113	122	134					
104	98	103	111	120	130					
103	97	102	109	117	127					
102	96	100	107	115	124	135				
100	93	98	103	110	118	128				
98	91	95	100	106	113	122	132			
96	89	92	97	102	108	115	124	134		
94	87	90	94	98	103	110	117	126	136	
92	85	88	91	95	99	104	111	118	127	136
90	83	86	88	91	95	99	105	111	118	126
88	81	83	86	88	91	95	99	104	110	117
86	80	82	84	86	88	91	94	99	103	109
84	78	80	82	83	85	88	90	93	97	102
82	76	78	80	81	83	84	86	89	92	96
80	74	76	78	79	81	82	83	87	87	90

Web site that will calculate the heat index for you:
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HEAT INDEX	88-95	96-99	100-104	Above 104
Provide ample amounts of water	*	*	*	
10 min Mandatory water breaks every 30 min	*	*	*	
Ice-Down towels for cooling	*	*	*	
Watch/Monitor athletes carefully for necessary action	*	*	*	
Alter uniform by removing items if possible			*	
Allow for changes to dry t-shirts and shorts			*	
Recommend moving practices before 10:00 am or after 5:00 pm			*	
Reduce time of outside activity as well as indoor activity if air condition is unavailable			*	
NO OUTDOOR ACTIVITIES				*

Special considerations for contact sports and activities with additional equipment.

Heat Index greater than 95:

1. **Helmets and other possible equipment removed while not involved in contact.**
2. **Re-check temperature and humidity every 30 minutes to monitor for increased Heat Index.**

Heat Index greater than 100:

1. **Helmets and other possible equipment removed if not involved in contact or necessary for safety.**
2. **If necessary for safety, suspend activity.**
3. **Re-check temperature and humidity every 30 minutes to monitor for increased Heat Index.**

Heat Index greater than 104:

NO OUTDOOR ACTIVITIES

LIGHTNING POLICY

It is in the understanding that outdoor sports pose a risk of a lightning strike with inclement weather. To monitor lightning, the Sports Medicine Staff will utilize WeatherSentry® and/or The Flash-Bang method.

General Policy

The head coach or assistant coach, if the head coach is not present, of that particular team is responsible to monitor and make the decision to suspend activity in the event of lightning. Exceptions are made during competition when officials are responsible to make the decision to suspend activity. The decision to suspend activity should be based on:

- WeatherSentry® - A Lightning Detector
- Utilizing the Flash-to-Bang method revealing lightning within 8 miles.

Prior to Competition

A member of the Sports Medicine Staff will meet with officials to explain our lightning policy.

Suspension of Event Announcement

Once it is determined that there is a possibility of a lightning strike, the officials will summon all student-athletes from the playing field or court (via horn, whistle, or announcement).

Evacuation of the Playing Field

Immediately following the announcement by officials for suspension of play, all student-athletes, coaches, officials, and support personnel are to evacuate to an enclosed grounded structure.

If no safe structure or location is within a reasonable distance, personnel should seek a flat area and assume the “lightning-safe” position (a crouched position in the ground with the feet together, weight on the balls of the feet, head lowered, and your ears covered). DO NOT LIE FLAT! Stay in this position until the storm passes.

Evacuation of Stands

Once officials have signaled to suspend activity, a member of the Athletic Communications Staff will make a PA announcement that fans are advised to immediately seek shelter

Specific Venue Lightning Structures:

Baseball Field – Evacuate to the Events Center
Softball Field – Evacuate to the Events Center
Tennis Courts – Evacuate to the Gazebo or Events Center
Bearcat Sports Complex – Evacuate to the Events Center
East Gym Fields/ Track – Evacuate to the East Gym

Resumption of Activity

Activity may resume once officials give permission for home events or the athletic trainer in charge gives permission for practice. The decision will be based on:

- At least 30 minutes have passed the last lightning flash or last sound of the thunder.
- Each time lightning is observed and/or thunder is heard, the 30-minute clock is reset.
- Consideration at night must also be considered as lightning can be seen at a farther distance.

Pre-Hospital Care of Victims of a Lightning Strike

- Lightning-strike victims do not remain connected to a power source and do not carry an electric charge; therefore, it is safe to touch the victim to move him/her to a safe location and to render medical attention.
- During an ongoing storm, lightning activity poses a deadly hazard to personnel responding to the victim. Personnel must consider his/her personal safety before putting themselves into a dangerous situation.
- First priority is to move the victim to a safe location.
- It is critical to initiate CPR and AED care as soon as safely possible.
- Treat the most critical victims first.
- Lightning strike victims should be evaluated and treated for hypothermia, shock, fractures, and burns.

Other Lightning Safety Tips

- There should be no contact with metal objects (bleachers, fences, bats, sticks, etc.)
- Standing next to single trees or in a group should be avoided.
- If there is no other shelter, you may seek refuge in a hard top vehicle. It is not the rubber tires that protect from lightning; it is the hard top metal roof that dissipates the lightning around the vehicle (NCAA, 1999).
- DO NOT LIE FLAT ON THE GROUND!
- Avoid using a landline telephone, taking showers and using plumbing facilities (including indoor and outdoor pools, jacuzzis and hot tubs).

Flash-to-Bang Method

- Begin counting (one, one thousand, two one thousand…) as soon as a lightning flash is seen
- Stop counting as soon as you hear the bang of thunder
- Take this number and divide it by 5
- This will give you an approximation of the distance, in miles, that lightning is from the practice/game area
- EXAMPLE: You see a flash of lightning and begin counting to 45 seconds. 45 divided by 5 = 9. This means lightning would approximately be 9 miles away.