

LEISD ATHLETIC DEPARTMENT

COLD WEATHER POLICY

Practice or competition in cold environmental conditions poses special problems for student-athletes. Cold exposure is a primary concern as it can not only be uncomfortable, but also hinder athletic performance and even become life threatening. A drop in muscle temperature or body core temperature reduces physiological factors such as endurance, power, strength and aerobic capacity. Constant surveillance and education are necessary to prevent injuries and illness from exposure to excessive cold. Asthma attacks may be triggered when the excessive cold is combined with exertion. Furthermore, the two primary conditions associated with exposure to the cold are frostbite and hypothermia.

Frostbite - the freezing of superficial tissues.

- The most susceptible parts of the body are the extremities such as fingers, toes, ear lobes, or the tip of the nose.
- Some predisposing factors: wet skin, wind chill, dehydration, women, African-Americans, hypotension (low blood pressure), anemia, diabetes, and those with sickle cell disease.

Hypothermia - a significant drop in core body temperature (below 95°F)

- Occurs with rapid cooling, exhaustion and energy depletion.
- Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.
- Some unique predisposing factors: being exposed to rain, wind, or increased sweatiness; individuals that have an active infection of some sort, and those with diabetes.
- ***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° F exposure may be as serious as a *subzero exposure*. When the body and clothing are wet (whether from sweat, rain, or snow or immersion), the cooling is even more pronounced due to evaporation of the water held close to the skin by wet clothing. Therefore, Little Elm ISD has a cold weather policy based on the wind chill factor not the ambient temperature, as wind speeds can attribute to a significant increase in body cooling.

The following practices should be observed:

General Guidelines:

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.

Clothing Guidelines:

In cold weather conditions appropriate clothing should be worn to prevent cold exposure. Both the Athletic Trainer(s) and the coaches should mandate the student-athletes to implement the following:

** Wear several layers around the core of the body (especially those who are not very active).

- The first layer should wick moisture away from the body (*Dry Tech, Underarmor*)
- The top layers should trap heat and block the wind (fleece)
- The Outer layer should be wind and water-resistant or waterproof
- No cotton as inside layer.

** Long pants designed to insulate

- Sweatpants are a good choice as a base layer
- On windy or wet days wind pants or a nylon shell should be worn on the surface layer

** Long sleeved garment that will break the wind

** Gloves (mittens are recommended)

** Heat loss from the head and neck can be as much as 50% of total heat loss; therefore the head and neck should be covered during cold conditions.

- Hat or helmet to protect the ears (cover/tape ear holes of helmets for wind, cold protection)
- Face protection
- Moisture wicking socks

It is important that athletes *avoid* wearing multiple layers of cotton. When the body sweats the cotton will become dense and permeated with sweat.

Additional Guidelines for coaches and student athletes:

In addition to the above guidelines it is recommended that additional directives be given to student athletes.

- Cold exposure/activity requires more energy from the body.
- Additional calorie intake may be required.
- Cold exposure can be affected by poor hydration. Dehydration affects the body’s ability to regulate temperature and increases the risk of frostbite.
- 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 several warning signs of cold.



Wind Chill Chart



		Temperature (°F)																	
Wind (mph)		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times 30 minutes 10 minutes 5 minutes

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})
 Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

High School Athletic Cold Policy: Practice Modifications

(Utilize Clothing and Additional Guidelines as listed above)

****NOTE:** *Pocket Perry Weather Monitoring Phone App* will alert users when Wind Chill is 32° F at their set location if the user has notifications turned on within the application.

WET or DRY Conditions -Wind Chill Factor and/or Temperature of 36°F or above:

- No modifications of practice

WET -Wind Chill Factor and/or Temperature of 33°F-35°F (*with* rain/precipitation):

- 35 minutes of exposure w/ 20 minutes indoors
- May return (w/ dry clothing) for an additional 35 minutes outdoors for a total of 70 minutes maximum of exposure time
- Dry Clothing (socks, gloves)
- Athletes must be in warm ups with extremities covered

DRY -Wind Chill Factor and/or Temperature of 33°F-35°F (*without* rain/precipitation):

- No modifications of practice

WET -Wind Chill Factor and/or Temperature of 32°F or below (*with* rain/precipitation):

- All practices will be indoors
- **No outside exposure**

DRY -Wind Chill Factor and/or Temperature of 31°F-32°F (*without* rain/precipitation):

- 45 minutes of continuous exposure time w/ 15 minutes in gym/indoors
- May return for an additional 45 minutes outdoors for a total of 90 minutes maximum of exposure time
- Athletes **MUST** be in warm ups with extremities covered

DRY -Wind Chill Factor and/or Temperature of 26°F-30°F (*without* rain/precipitation):

- 30 minutes of continuous exposure time w/ 15 minutes in gym/indoors
- May return for an additional 30 minutes outdoors for a total of 60 minutes maximum of exposure time
- Athletes **MUST** be in warm ups with extremities covered

WET or DRY -Wind Chill Factor and/or Temperature of 25°F or lower

- All practices will be indoors
- **No outside practices**

**Guidelines for Hot Weather and Cold Weather apply to LEISD practices only. Due to commitments with other schools and game officials, it can be extremely difficult to reschedule games. In order to maintain a good working relationship with these other schools and game officials, games shall proceed as scheduled unless mutually agreed upon by both head coaches to reschedule their event to another date.*

Individuals/groups involved with making the decision to modify game participation will be: Little Elm Athletic Trainer, Little Elm Athletic Director, Officials, Host Facilities Staff and Home/Visiting Coaching Staff.

Weather measurements will be taken using the district's Pocket Perry Weather Monitoring system.