



**ACPS Athletic**  
**Cold Management Guidelines**  
**2019 - 2020**

# ALBEMARLE COUNTY PUBLIC SCHOOLS

## Procedure for Athletic Participation in the Cold

### MONITORING COLD WEATHER

- Weather should be monitored by designated athletic department personnel, Athletic Trainer if present.
  - Cold weather is defined as any temperature that can negatively affect the body's thermoregulatory system.
- Temperature, wind speed, and wind chill should be monitored.
  - Wet and windy conditions will reduce body temperature 3-5 times quicker.
- Athletic department personnel will use a Wind Chill Index Chart (chart 1) as a measurement for weather situations and make modifications to activities accordingly (table 1).
  - All temperature and wind speed measurements will be taken using the schools location on the Weather Channel website.
  - All activity modifications will be announced and communicated by athletic department personnel by 3:00 on the day of the event.

**CHART 1: NWS WIND CHILL INDEX CHART**

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## Wind Chill Chart



		Temperature (°F)																	
		Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40
Wind (mph)	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<sup>0.16</sup>) + 0.4275T(V<sup>0.16</sup>)**

Where, T= Air Temperature (°F)    V= Wind Speed (mph)

Effective 11/01/01

**TABLE 1: ACTIVITY MODIFICATION**

<b>TEMPERATURE/WIND CHILL</b>	<b>MODIFICATION</b>
25°F-16°F	Provide additional protective clothing, cover as much exposed skin as practical and provide opportunities and facilities for re-warming.
15°F- 1°F	Outside participation is limited to 30 minutes followed by a 10 minute warming period inside an enclosed structure before returning outside. Athletes must be aware of risk for cold injury and cover all exposed skin as possible.
0°F and below	No practice or conditioning session may take place outside.

\*\* These guidelines may be modified for athletes in continuous motion such as long-distance runners. All athletes participating in outdoor activities in temperatures listed above are required to wear hats, gloves, pants, and long-sleeved tops.

\*\*\*All post-season event decisions are at the discretion of the VHSL and athletic department personnel.

**EVENT MANAGEMENT**

- Provide adequate food and fluids
- Provide warming facilities, if needed
- Provide additional clothing and equipment for varying conditions
- Implement exposure control and re-warming schedules as needed.
- Monitor environmental conditions and athletes regularly.

**GENERAL SIGNS AND SYMPTOMS OF COLD INJURY**

- Uncontrollable shivering
- Swollen extremities
- Confusion
- Fatigue
- Blurred vision
- Slurred speech
- Headache
- Dizziness
- Red or painful extremities
- Numbness/tingling of skin

**SEEK MEDICAL ATTENTION IMMEDIATELY IF ANY OF THE FOLLOWING IS TRUE**

*Non-Emergency:*

- The person's fingers, toes, nose, or ears are numb
- Affected areas appear yellow-white or patchy blue

*Call 911 if the victim is experiencing:*

- Exceptionally cold skin
- Drowsiness, disorientation, or loss of consciousness
- Loss of muscle control

## COMMON COLD INJURIES

### Hypothermia

- Core body temperature below 95°F
  - Symptoms include:
    - Shivering
    - Impaired motor control
    - Decreased heart rate
    - Impaired mental function
    - Lethargy, amnesia
    - Pale, cold face and extremities
    - Slurred speech
- Treatment: Remove wet clothing, warm with dry insulating blankets, cover the head, and get to a warm environment. Provide warm beverages, avoid friction, and initially avoid warming extremities.

### Frostnip/Frostbite

- Most susceptible body areas include fingers, toes, earlobes, and nose
  - Symptoms include:
    - Dry/waxy skin
    - Redness or mottled gray skin
    - Skin feels hard
    - Swelling
    - Limited movement
    - Transient tingling or burning
- Treatment: Re-warm slowly using warm water (avoid temperatures greater than 98°F to 104°F). If re-warming with water cannot be performed the affected area should be protected from further damage and referred to a medical facility.

### Chillblain

- An exaggerated or uncharacteristic inflammatory response to cold exposure. Chillblain can occur with exposure to cold, wet conditions for more than 60 minutes in temperatures less than 50°F.
  - Symptoms include:
    - Red papules
    - Swelling
    - Tenderness
    - Itching
    - Burning
- Treatment: Remove wet or constrictive clothing. Wash, dry, and elevate the affected area. Cover the area with warm, loose, dry blankets or clothing.