



HOT WEATHER GUIDELINES

Practice or competition in hot and humid environmental conditions poses special problems for student-performers. Heat stress and resulting heat illness is a primary concern in these conditions. Although deaths from heat illness are rare, constant surveillance and education are necessary to prevent heat-related problems. The following practices should be observed.

General Considerations for Risk Reductions

1. Encourage proper education regarding heat illnesses (for performers, directors, parents, etc.) Education about risk factors should focus on hydration needs; acclimatization, work/rest ratio, signs and symptoms of exertional heat illnesses, treatment, dietary supplements, nutritional issues, and fitness status.
2. Assure that onsite staff have authority to alter work/rest ratios, practice schedules, amount of equipment, and withdrawal of individuals from participation based on environment and/or performer's medical conditions.

General Guidelines:

1. Gradual acclimatization of the performer to hot/humid conditions is a must. We advise that student-performers should gradually increase exposure to hot and/or humid environmental conditions over a period of 7 to 10 days to achieve acclimatization.
2. Clothing and performance gear can increase heat stress. Dark colors absorb solar radiation, clothing, and performance gear interfere with the evaporation of sweat and other avenues of heat loss. During the acclimatization process and rehearsals, student performers should wear T-shirts, shorts, socks, and shoes.
3. Unlimited access to drinking water will be provided throughout practice and competitions.
4. Identify heat stress conditions on the field of play and determine practice and competition modifications due to hot weather utilizing one of two methods, Wet Bulb Globe Temperature (WBGT) or Heat Index.
5. Rapid cooling zones on site and available at all times to allow for full body, rapid cooling when WBGT reading is 80.0 degrees or higher. Rapid cooling zones may include a combination of the following options:
 - a. Cold-water immersion tubs
 - b. Tarps that can be filled with ice and water and wrapped around individuals to rapidly cool internal body temperatures (TACO method)
 - c. Ice Sponges
 - d. Towels
 - e. Water Mistors
 - f. Shade (which includes tents and building access)

Wet Bulb Globe Temperature:

Wet Bulb Globe Temperature (WBGT)- a measurement of ambient temperature, relative humidity, solar radiation, and wind speed using a combination of temperatures from three thermometers.

1. Utilizing the Kestrel Heat Stress Unit and UIL/ NATA Guidelines: See Chart below. Frisco ISD is located in "Texas UIL Class 3".
 - a. Set up instrument 30 minutes prior to start.
 - b. Read instrument 15 minutes prior to start.
2. Utilizing an Internet based forecasting resource:
 - a. Read instrument 15 minutes prior to start.
 - i. <https://convergence.unc.edu/tools/wbgt/>
 - ii. Type your location/address in the white box or select a location on the map.
 1. This should be specific to the exact location the practice or contest is located.
 - iii. Select "Texas UIL Class 2" or "Texas UIL Class 3", depending on your area, as the flag level guideline.
 - iv. Click the "Submit" button on the button and scroll down the page to see the forecast.

***WBGT readings should be taken every 30 minutes during practice.

When there's a change in WBGT from one level to the next, responsible modifications to practice activities should be made based on the above WBGT Activity Guidelines.

WBGT Activity Guidelines		
Class 3	Class 2	Activity Guidelines
< 82.0	<79.7	Normal Activities - Provide at least three separate rest breaks each hour with a minimum duration of 3 min each during the workout.
82.0 - 86.9	79.7 - 84.6	Use discretion for intense or prolonged exercise; Provide at least three separate rest breaks each hour with a minimum duration of 4 min each.
87.0 - 90.0	84.7 - 87.6	Maximum practice time is 2 hours; For Football: players are restricted to helmet, shoulder pads, and shorts during practice. If the WBGT rises to this level during practice, players may continue to work out wearing football pants without changing to shorts. For All Sports: Provide at least four separate rest breaks each hour with a minimum duration of 4 min each.
90.1 - 92.0	87.7 - 89.7	Maximum practice time is 1 hour; For Football: No protective equipment may be worn during practice, and there may be no conditioning activities. For All Sports: There must be 20 min of rest breaks distributed throughout the hour of practice.
≥92.1	≥89.8	No outdoor workouts. Delay practices until a cooler WBGT is reached.

**Values in the above chart are WBGT measurements (not temperature or heat index measurements).*

Heat Index:

Heat Index- measure of how hot it really feels when relative humidity is factored with the actual air temperature.

1. The website below includes a heat index table. Use this table to assess the heat index.
<https://www.weather.gov/ama/heatindex>
2. See heat index specific guidelines below.

*** Heat index readings should be taken 15 minutes prior to practice and every 30 minutes throughout practice. When there's a change in the heat index from one level to the next, responsible modifications to practice activities should be made based on the below heat index Activity Guidelines.

Specific Guidelines: High School Fine Arts Organizations

Heat index of less than 100:

- Water breaks every 30-45 min.

Heat index of 100-105:

- Full equipment/instruments
 - Water breaks every 30 min.
 - Break duration 1 period (5 min.)
- No equipment/instruments
 - Water breaks every 40 min.

Heat index of 106-110:

- Full equipment/instruments
 - Water breaks every 20 min.
 - Practice will not exceed 1 hr. 45 min.
- No equipment/instruments
 - Water breaks every 30 min.
 - Practice will not exceed 2 hr.

Heat Index of 111-115:

- No equipment/instruments only
 - Water breaks every 20 min.
 - Practice not to exceed 2 hr. total
- Cardiovascular Conditioning duration and intensity decreased.

Heat Index of 116-117:

- No equipment/instruments only
 - Water breaks every 20 min.
 - Practice not to exceed 1 hr. 30 min. total
- NO Cardiovascular Conditioning

Heat Index of 118-120:

- No outside rehearsal will be allowed of any kind

Air Quality Index Policy

Air Quality Index

Good: Code Green

Moderate: Code Yellow

Unhealthy for Sensitive Groups: Code Orange

Unhealthy: Code Red

Very Unhealthy: Code Purple

Guidelines to Follow

No action taken

No limit to exercise, but watch those that may be affected: Asthma

2 ½ hr practice limit, but watch those that may be affected: Asthma

2 hr practice limit, but watch those that may be affected: Asthma

1 ½ hr practice limit, but watch those that may be affected: Asthma



LIGHTNING GUIDELINES

1. The chain of command that will make the call to remove individuals from the field / parking lot will be as follows:

Practices: The head director of the program will make the call. If a head director is not present, an assistant director will make the call to remove the students from the field / rehearsal area.

Games/Contest: The official(s) will make the call, based on weather information accessed by district/contest officials. The official along with the school administrator or administrators will make the call. If a school administrator is not present, the official and the head program director or directors will make the call.

2. The head director of the program will be the designated weather watcher (A person who actively looks for the signs of threatening weather and notifies the chain of command if severe weather becomes dangerous). If a head director is not present, an assistant director must be the designated weather watcher.
3. Local weather forecasts and warnings will be monitored on the local radio stations. T.V. and the internet can also be used. Some websites/apps that can be used to look at the Doppler radar include: www.weather.com, www.weatherbug.com, and wfaa.com.
4. Designate a safe shelter for each venue. Safe Shelter includes:
 - a. A safe location is any substantial, frequently inhabited building. The building should have four solid walls (not dug out), electrical and telephone wiring, as well as plumbing, all of which aid in grounding a structure.
 - b. The secondary choice for a safer location from the lightning hazard is a fully enclosed vehicle with a metal roof and the windows completely closed. It is important to not touch any part of the metal framework of the vehicle while inside it during ongoing thunderstorms.
 - c. It is not safe to shower, bathe, or talk on landline phones while inside a safe shelter during thunderstorms (cell phones are okay).
 - d. When to go to a safe shelter: Use the weather system program. The weather system program (WeatherSentry weather.dtn.com) will be used by FISD Athletic Trainers & Head Band Directors with the parameters set forth by the FISD Athletic and Fine Arts Departments: 20 mile advisory, 10 mile warning (seek shelter) and 30 minute ALL CLEAR.

e. Use the Flash-to-Bang count. To use the flash-to-bang method:

- o Begin counting when sighting a lightning flash.
- o Counting is stopped when the associated bang (thunder) is heard.
- o Divide this count by five to determine the distance to the lightning flash (in miles).
- o For example, a flash-to-bang count of thirty seconds equals a distance of six miles. Lightning has struck from as far away as 10 miles from the storm center.
- o Postpone or suspend an activity if a thunderstorm appears imminent before or during an activity, rehearsal, or contest, (regardless of whether lightning is seen or thunder is heard) until the hazard has passed. Signs of imminent thunderstorm activity are: darkening clouds, high winds and thunder or lightning activity.
- o By the time the flash-to-bang count approaches thirty seconds, all individuals should be already inside a safe structure

5. Once activities have been suspended, wait until:

- a. All clear received from the weather alert system.
- b. 30 minutes after the last sound of thunder or lightning flash prior to resuming an activity or returning outdoors.

6. Avoid being the highest point in an open field, in contact with, or proximity to the highest point. Do not take shelter under or near trees, flagpoles, or light poles.

7. Observe the following basic first aid procedures in managing victims of a lightning strike:

- a. Survey the scene for safety
- b. Activate local EMS by calling 911
- c. Lightning victims do not “carry a charge” and are safe to touch
- d. If necessary, move the victim with care to a safer location.
- e. Evaluate circulation, airway, breathing, and begin CPR if necessary.
- f. Evaluate and treat for shock, fractures and/or burns.

8. All individuals have the right to leave an athletic site in order to seek a safe structure if the person feels in danger of impending lightning activity, without fear of repercussions or penalty from anyone.



COLD WEATHER GUIDELINES

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 F degree exposure can be as serious as a sub zero exposure. For this reason Frisco ISD is developing cold weather guidelines using the wind chill factor instead of the ambient temperature. See website for a wind chill factor chart.

www.mste.uiuc.edu/dildine/wind_chill

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 the evaporation of the water held close to the skin by the wet clothing.

Clothing is one of the most important parts of keeping the student's body warm. Students should dress in layers and try to stay as dry as possible. Layers can be added or removed depending on temperature, activity and wind chill. Students should layer themselves with wicking fabric next to the body, followed by lightweight or wool layers for warmth. Students should use a wind block garment to avoid wind chill during rehearsals. 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 an asthma attack (broncho spasm)
- 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

Cold Recognition:

- Shivering is 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, disoriented

General Guideline:

- Wind Chill Factor will be assessed prior to practices
- Directors will obtain a weather report from weather.com, using the zip code based on campus location.
- The wind chill will determine which protocol will be followed.
- Wind chill readings will be taken before teams leave for traveling for competitions, and an hour by hour report will guide our decisions for the event.

Specific Guidelines: High School Fine Arts Organizations**PRACTICE PROTOCOL****Wind Chill Factor 33-35° F with Precipitation:**

- 35 min. of exposure/20 min. inside (may return outside after 20 min.)
- Dry clothing (socks, gloves)
- Students must be dressed in warm-up with extremities covered

Wind Chill Factor 31-32° F (Dry):

- 45 min. exposure/ 15 min. inside (may return outside after 15 min.)
- Students must be in warm-ups with extremities covered

Wind Chill Factor 32° F or lower with precipitation:

- All rehearsals will be inside
- No outside exposure

Wind Chill Factor 26-30° F (Dry):

- 30 min. of total exposure to chill factor
- 15 min. inside
- Warm-ups must be worn with all extremities covered at all times

Wind Chill Factor of 25° F or lower:

- No outside rehearsals
- All work must be inside

PERFORMANCE PROTOCOL

Performances to be postponed due to cold weather will be determined on a case by case basis by the Frisco ISD Administration. An outside performance event will be considered for rescheduling if the following occurs:

- * **Wind chill reaches 25 degrees or less, with precipitation.**
- * **Wind chill is less than 20 degrees, without precipitation.**