INCLEMENT WEATHER POLICY

AIR QUALITY

Breathing for anyone with seasonal allergies, asthma or other upper respiratory illness or condition is difficult at various times due to environmental factors. Smoke, high pollen and other antigen counts (dust, mold, animal dander, etc.) along with temperature extremes and humidity play a significant role in performance and recovery. Being aware of this and of local conditions for those affected and those working with or directing a player is of significant importance.

Club Staff (Directors, Coaches, Assistant Coaches, Managers, and Trainers) will monitor one or more of the following for up to date Air Quality Index (AQI) readings and statistics.

- www.airnow.gov
- www.wasmoke.blogspot.com
- www.spokanecleanair.org

IEYSA Policy- When the Air Quality Index (AQI) reaches 150 or above, all outdoor practices for all club practices or training will be cancelled.

The Air Quality Index (AQI)- The Air Quality Index (AQI) is an index for reporting daily air quality. It tells you how clean or polluted your outdoor air is, and what associated health effects might be a concern for you. The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air. The Environmental Protection Agency (EPA) calculates the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. For each of these pollutants, EPA has established national air quality standards to protect public health. For Information regarding indoor air quality please visit EPA's Indoor Air Quality Web site (http://www.epa.gov/iaq/).

Club Staff will utilize the following table with regards to the Air Quality Index and recommendations for activity restrictions.

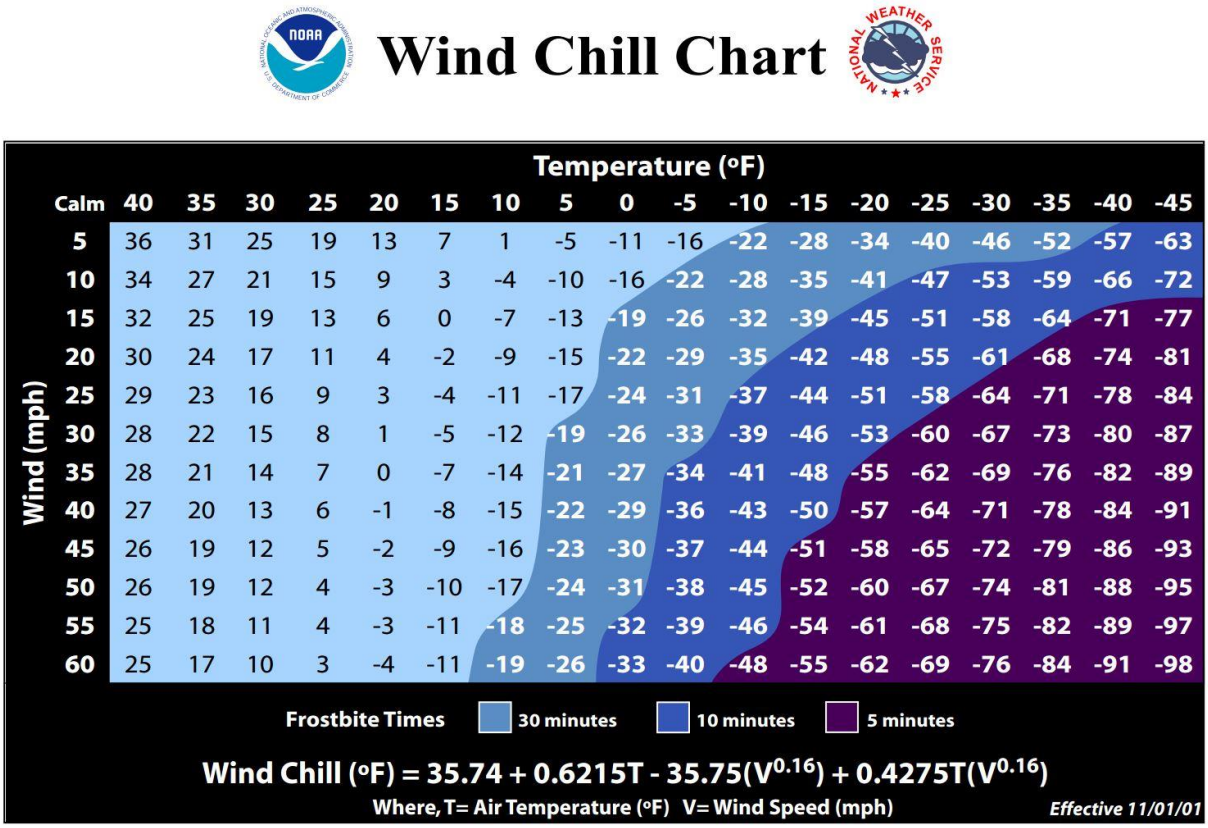
Air Quality Index (AQI)	Color	Description	Practice Restriction Recommendations
0 - 50	Green	Good	Air quality is satisfactory and air pollution poses little or no risk
51 - 100	Yellow	Moderate	Air quality is acceptable however, student- athletes with respiratory illnesses should be closely monitored
101 – 150	Orange	Unhealthy for sensitive groups	Those student-athletes with respiratory illnesses should be removed from outside activity.
150 – 200	Red	Unhealthy	All student-athletes will be removed from outside activity.
201 – 300	Purple	Very Unhealthy	ALL student-athletes will be removed from outside activity
> 300	Maroon	Hazardous	ALL student-athletes will be removed from outside activity

COLD WEATHER

The following guidelines have been established for practices and games shall be determined on a case-by-case basis by the club administration.

Cold Weather Practice Recommendations:

Air Temperature or Wind Chill Temperature 30° or above	Normal Practice
Air Temperature or Wind Chill Temperature above 25 - 30°	No more than 45 minutes outside per session May return outside after 10 minutes indoors
Air Temperature or Wind Chill Temperature 25° or below	No Outside Practice



A safety threat exists when the physically active cannot maintain heat. Cold exposure can be uncomfortable, impair performance and even become life threatening. Cold Weather is defined as any temperature that can negatively affect the body's regulatory system. These do not have to be freezing temperatures.

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 be as serious as a subzero exposure. For this reason, the club is developing cold weather guidelines using the wind chill factor instead of the ambient temperature.

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 athlete's body warm. Athletes 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. Athletes should layer themselves with wicking fabric next to the body, followed by lightweight pile or wool layers for warmth. Athletes should use a wind block garment to avoid wind chill during workouts. Heat loss from the head and neck may be as much as 50% of total heat loss, therefore for the head and neck should be covered during cold conditions. Other extremities should be covered at all times to protect from the wind chill.

The wind chill temperature is how cold people and animals feel when outside. Wind chill is based on the rate of heat loss from exposed skin caused by wind and cold. As the wind increases, it draws heat from the body, driving down skin temperature and eventually the internal body temperature. Therefore, the wind makes it FEEL much colder and poses a more severe threat to our bodies.

Cold Exposure:

- Breathing of cold air can trigger an asthma attack (bronco 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 and serves as an early warning sign
- Excessive shivering contributes to fatigue and makes performance of motor skills more difficult

- Other signs include numbness, pain, swelling and redness in fingers and toes or a burning sensation of the ears, nose or any exposed flesh
- Eyes may be red and watery, and athlete may complain of headache or dizziness
- As cold exposure continues, the core temperature drops. When the cold reaches the brain, a victim may exhibit sluggishness, poor judgment and may appear disoriented. Speech becomes slow and slurred, and movements become clumsy
- If the participant wants to lie down and rest, the situation is a medical emergency

Playing in Cold Weather

Playing in cold weather has a unique set of circumstances. To properly prepare, a player should understand what cold does to the body and how their unique physiology reacts to the game/practice circumstances.

Warm-up

- Keeping warm and keeping muscles stretched can be a challenge
- Always start with a light activity before stretching
- Dynamic stretching (exercises that stretch muscles during other activities) may be more effective than static stretching
- Static stretching should be performed in short increments separated with activities to keep the body moving
- Keep stretching throughout the activity – cold muscles tighten up quickly, so any resting activity should include some stretching

Apparel

- Dress in layers; from the skin out:
  - Compression garments
  - Kit
  - Warm-ups/Sweats
  - Gloves
  - Jacket/Outerwear
- Removing layers
  - Keep the warm-ups on until the body is almost sweating
  - Keep the core/trunk of the body warm, so pants go before tops
  - At least put the warm-up jacket back on at each rest period longer than a few minutes; the body cools quickly
- Good additions
  - Beanies/knit caps are a great way to add heat; the head loses more heat than any other part of the body, especially for short hair or pony tails
  - Gloves can make a big difference; keep the extremities warm and the whole body is more comfortable

- Additional socks – in wet weather, replacing wet socks for dry at half-time or at a break can make a world of difference in a player's comfort

Specific Conditions

- Wet weather
  - Wear the appropriate boots for the conditions, soft ground cleats make a big difference on a wet, muddy field
  - Remember to remove mud from the cleats at stoppages or breaks
  - A jacket and hat that shed water will make a big difference
  - Microfiber moisture wicking materials will dry faster and keep sweat off the body
  - Replace wet gear with dry when possible, but always keep something dry for the ride home
- Frost
  - Wear the appropriate boots for the conditions, cleats make a big difference on a field as hard as concrete
  - Keep the hat and gloves on even when the body starts to warm up, it protects the skin from frostbite
  - Plan for the entire practice/game, not just the first few minutes; better to be uncomfortable for a short time and healthy afterwards
  - Better to be smart (in what you wear) than to look good

Cool-Down

- It is at least as important to cool down slowly in cold conditions as it is in the heat
- Dynamic stretching and light activity will help in recovery
- Put layers back on before you think they are needed

Hydration

- Always drink before you are thirsty
- Drink warm water to add heat, overly hot drinks will cause the body to rollercoaster
- Avoid drinks like Hot Chocolate and Coffee, the sugar and caffeine will only hide problems
- Remember that your clothes are soaking up sweat, so you need more fluid than you think

HOT WEATHER

The following guidelines have been established for practices and games shall be determined on a case-by-case basis by the club administration.

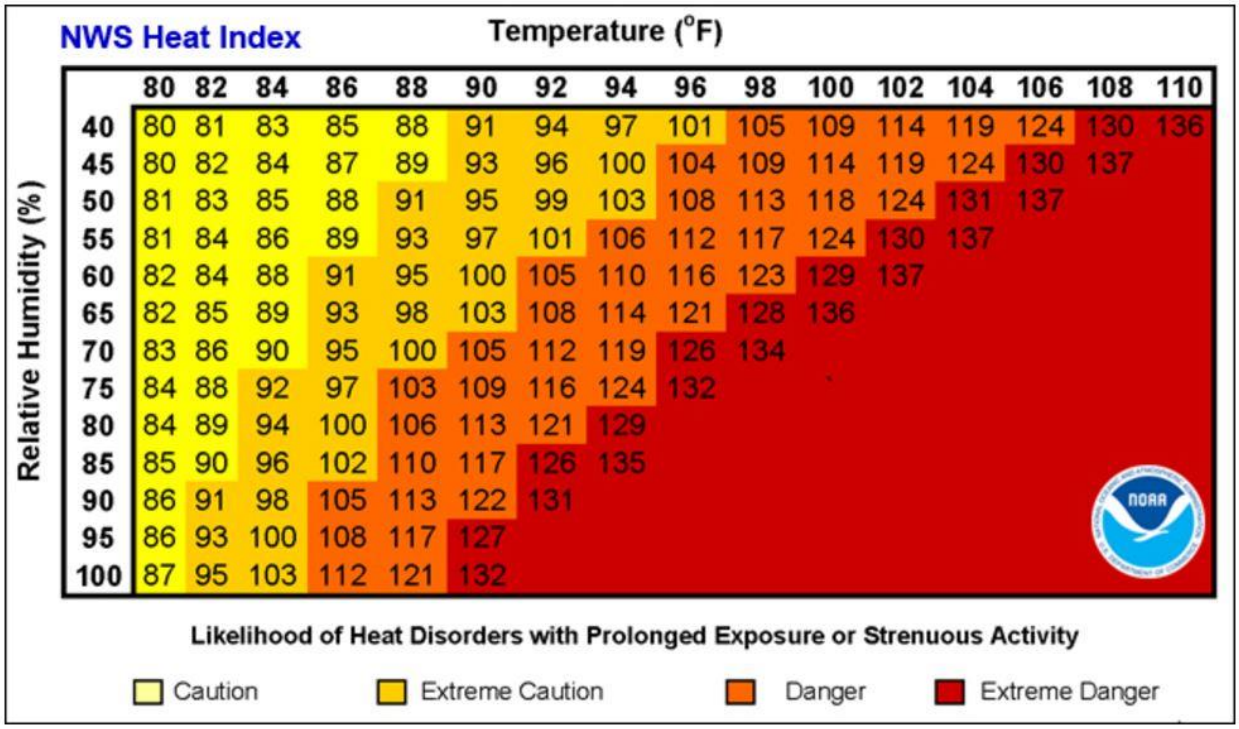
Hot Weather Practice Recommendations:

Heat Index	Recommendations
Up to 89°	Normal Practices; Hydration breaks every 15-20 minutes of training. Provide hydration breaks of 4 minutes for each 30 minutes of continuous play (i.e., minute 30 and 75 of 90-minute match)
90° - 99°	Mandatory hydration breaks every 10-15 minutes with a 5-minute break every 20 minutes of play. Maximum two hours of training.
100° - 105°	Mandatory hydration breaks every 10-15 minutes with a 5-minute break every 15 minutes of play. Maximum one hour of training.
105°+	Suspend Play

When temperatures and humidity rise above normal levels, the potential for risk rises. Be aware of these dangers and be prepared to stop or delay practices and/or games to ensure proper hydration. Allow for frequent water breaks. Incidents of dehydration, heat exhaustion, heatstroke and sunburn are avoidable. The proper and continued hydration of players is essential starting at least 24 hours prior to any scheduled event. Sunscreen of appropriate strength should be applied frequently. Plenty of shade should be provided to participants by trees, tents or buildings. Scheduling of practices outside of the hottest part of the day, whenever possible, is preferred. When playing multiple games in a day or over several days when participating in tournaments, it is recommended that there are at least two hours between games and only two games per day for players is strongly recommended – unless the playing time is reduced.

Heat is a problem when it prevents the body from cooling itself. The hotter the body gets, the more likely it is to increase fatigue levels, develop cramps and increase the possibility of heat exhaustion and heat stroke. The hotter and more humid the weather, the faster these problems can develop.

1. Trainings & games need to be adjusted as the heat index rises
2. A heat index chart should be given to every coach and referee (www.nws.noaa.gov)



WBGT (Heat Stress Monitoring) & Region-Specific Guidelines/Heat Index*

- Recommend using WBGT on-site at time of training and check as often as possible.
- If on-site WBGT measures are not available, on-site measures of temperature and humidity can be used to predict WBGT using the chart below. (NOTE: Heat Index is not ideal because it doesn't factor the heat from the sun).
- If no on-site temperature measures are available, use temperature and humidity from local weather station measures and use the chart below to predict WBGT.

Step 1: Find the Wet Bulb Globe Temperature (WBGT)

- Measure the temperature and humidity at your site.
- Find the estimated WBGT corresponding below.

Wet Bulb Globe Temperature (WBGT) from Temperature and Relative Humidity

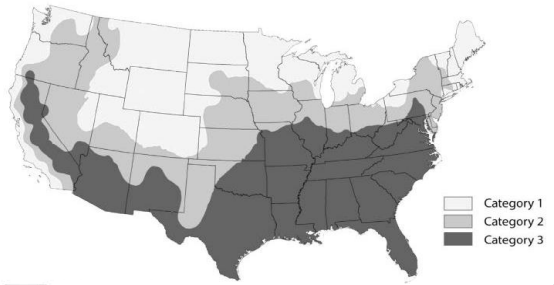
Temperature in Degrees Fahrenheit

Relative Humidity (%)	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0
0	59.0	60.8	60.8	62.6	64.4	64.4	66.2	66.2	68.0	68.0	69.8	71.6	71.6	73.4	73.4	75.2	75.2	77.0	77.0	78.8	80.6	80.6	82.4	82.4	84.2	84.2	86.0	87.8	87.8	89.6	89.6
5	60.8	60.8	62.6	64.4	64.4	66.2	66.2	68.0	69.8	69.8	71.6	71.6	73.4	75.2	75.2	77.0	78.8	78.8	80.6	80.6	82.4	84.2	84.2	86.0	87.8	87.8	89.6	91.4	91.4	93.2	95.0
10	60.8	62.6	62.6	64.4	66.2	66.2	68.0	69.8	69.8	71.6	73.4	73.4	75.2	77.0	77.0	78.8	80.6	80.6	82.4	84.2	86.0	86.0	87.8	89.6	89.6	91.4	93.2	95.0	96.8	96.8	98.6
15	62.6	62.6	64.4	66.2	66.2	68.0	69.8	69.8	71.6	73.4	73.4	75.2	77.0	78.8	78.8	80.6	82.4	84.2	84.2	86.0	87.8	89.6	91.4	91.4	93.2	95.0	96.8	98.6	100.4	102.2	
20	62.6	64.4	64.4	66.2	68.0	69.8	69.8	71.6	73.4	75.2	75.2	77.0	78.8	80.6	80.6	82.4	84.2	86.0	87.8	89.6	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2			
25	64.4	64.4	66.2	68.0	68.0	69.8	71.6	73.4	75.2	75.2	77.0	78.8	80.6	82.4	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2					
30	64.4	66.2	68.0	68.0	69.8	71.6	73.4	73.4	75.2	77.0	78.8	80.6	82.4	84.2	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	102.2							
35	64.4	66.2	68.0	69.8	71.6	73.4	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2								
40	66.2	68.0	69.8	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2									
45	66.2	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	80.6	82.4	84.2	86.0	89.6	91.4	93.2	95.0	96.8	98.6	100.4											
50	68.0	69.8	71.6	73.4	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	91.4	93.2	95.0	96.8	98.6	102.2												
55	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	93.2	95.0	96.8	98.6	100.4							WBGT > 104						
60	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	95.0	96.8	98.6	100.4														
65	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	87.8	89.6	91.4	93.2	96.8	98.6	100.4															
70	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	91.4	93.2	95.0	96.8	100.4	102.2															
75	71.6	73.4	75.2	77.0	78.8	80.6	84.2	86.0	87.8	89.6	91.4	95.0	96.8	98.6	102.2																
80	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	89.6	91.4	93.2	96.8	98.6	100.4																	
85	73.4	75.2	77.0	78.8	82.4	84.2	86.0	87.8	89.6	93.2	95.0	98.6	100.4	102.2																	
90	75.2	77.0	78.8	80.6	82.4	84.2	87.8	89.6	91.4	95.0	96.8	98.6	102.2																		
95	75.2	77.0	78.8	80.6	84.2	86.0	87.8	91.4	93.2	95.0	98.6	100.4																			
100	75.2	78.8	80.6	82.4	84.2	87.8	89.6	91.4	95.0	96.8	100.4	102.2																			

NOTE: This table is compiled from an approximat formula which only depends on temperature and humidity. The formula i s valid for full sunshine and a l ight wind. Table adapted from Bureau of Meteorology

Step 2: Find your Regional Category

- Determine which region category you are in based on the map below, to determine which WBGT guidelines in the table you should follow.



CATEGORY 1
CATEGORY 2
CATEGORY 3

TRAINING & MATCH PLAY LIMITS

CANCELLATION OF TRAINING:

Depending on your region category, recommend cancellation of training or delay until cooler when WBGT for

Cat1>86.2°F **Cat2>89.9°F** **Cat3>92.0°F**

MATCH PLAY HYDRATION BREAKS: WBGT OF 89.6°F

Provide hydration breaks of 4 minutes for each 30 minutes of continuous play (i.e., minute 30 and 75 of 90-minute match)

Step 3: Find Your Alert Level and Work to Rest Recommendations

- Based on your WBGT and Regional Category determine your Alert Level and Work to Rest Recommendations using the table below.

ALERT LEVEL	WBGT BY REGION (° F)			EVENT CONDITIONS	RECOMMENDED WORK TO REST RATIOS (ACTIONS & BREAKS)
	CAT 1	CAT 2	CAT 3		
BLACK	>86.2°	>89.8°	>92.0°	Extreme Conditions	No Outdoor Training, delay training until cooler, or Cancel Training.
RED	84.2-86.1°	87.8-89.7°	90.1-91.9°	High Risk for Heat Related Illness	Maximum of 1 hour of training with 4 by 4 minute breaks within the hour. No additional conditioning allowed.
ORANGE	81.1-84.1°	84.7-87.7°	87.1-90.0°	Moderate Risk for Heat Related Illness	Maximum of 2 hours of training with 4 by 4 minute breaks each hour, OR a 10 minute break every 30 minutes of training.
YELLOW	76.3-81.0°	79.9-84.6°	82.2-87.0°	Less than Ideal Conditions	3 Separate 4 minute breaks each hour, OR a 12 minute break every 40 minutes of training
GREEN	<76.1°	<79.8°	<82.1°	Good Conditions	Normal Activities. 3 Separate 3 minute breaks each hour of training, OR a 10 minute break every 40 minutes

EXCESSIVE HEAT IMPACT ON PLAY

Depending on your Region Category, it is recommended that training or match play be canceled or delayed until cooler when WBGT exceeds these levels:

- Region Category 1 >86.2°F
- Region Category 2>89.9°F
- Region Category 3>92.0°F

Once an alert level is determined, follow these "Work to Rest" ratios to modify training to help ensure safe play:

- Alert Level Black – No outdoor training, delay training until cooler or cancel
- Alert Level Red – Maximum of one hour of training with four separate 4 minute breaks within the hour. No additional conditioning allowed
- Alert Level Orange – Maximum two hours of training time with four separate 4 minute breaks each hour, or a 10 minute break after 30 minutes of continuous training

- Alert Level Yellow – Use discretion, provide three separate 4 minute breaks each hour, or a 12 minute break every 40 minutes of continuous training
- Alert Level Green – Normal Activities, provide three separate 3 minute breaks each hour of training, or a 10 minute break every 40 minutes

It is recommended to include scheduled hydration breaks when the WBGT reaches 89.6°F. Provide hydration breaks of four minutes for each 30 minutes of continuous play. In a regulation 90-minute match, this would schedule the hydration break at minute 30 and 75.

Provide adequate communication of environmental conditions, cooling methods and other resources to players and staff. This includes ensuring unlimited access to water and other fluids, making sure players and coaches are aware of planned breaks for hydration and the duration and time of training.

ACCLIMATIZATION

Acclimatization is the body's natural adaptation to exercising in the heat. This process typically takes 10-14 days. Effective acclimatization should require a gradual graded progression of exercise in the heat. This typically applies at the start of preseason (summer months) where athletes are beginning fitness training and progressive training exposure in heat is recommended

Guide for Acclimatization (10-14 Days)

Avoid the hottest part of the day for training sessions (11am-4pm)

Days 1-5

- One formal practice a day
- Maximum three hours of training time (this includes warm up, stretches and cool down)

Days 6-14

- Double practice days can begin day 6 and not exceed five hours in total practice time between the two practices
- Minimum of three-hour rest period between each training session during double practice days. The three-hour rest period should be in a cool environment to allow the body to fully recover
- Each double practice day should be followed by a single practice day with practice time not to exceed three-hours
- Athletes should receive one-day rest following six days of continuous practice

SPECIFIC HEAT-RELATED ILLNESSES

The first steps to recovery in all these cases are replacing fluids and cooling the body by resting in a cool, shaded place. Fanning or spraying with water will also help bring down the body temperature.

Heat Cramps

Heat cramps usually affect those who sweat a lot during strenuous activity. This sweating depletes the body's salt level, as well as hydration. Low salt levels lead to painful muscle cramps. Heat cramps may also be a symptom of heat exhaustion.

Heat Exhaustion

Heat exhaustion is the body's response to an excessive loss of water and salt, usually through excessive sweating. Someone suffering from heat exhaustion may appear confused or disoriented. It can lead to extreme weakness or fatigue, dizziness and nausea.

Heat Stroke

Heat stroke is the most serious heat-related disorder. It occurs when the body becomes unable to control its temperature. When this happens, the body's temperature rises rapidly, the sweating mechanism fails and the body is unable to cool down. The surge in body temperature can happen very quickly, within 10 to 15 minutes, rising to 106° Fahrenheit or higher. Heat stroke can cause death or permanent disability if emergency treatment is not given.

Someone suffering heat stroke will be dizzy and confused. They may slur their speech, have hallucinations or complain of a throbbing headache. While their skin may be warm to the touch, they may actually complain of chills. If you suspect heat stroke, get the on-site medical provider or call 911.

LIGHTNING

Lightning is one of the top ten causes of sudden death in sport.[1] As the majority of soccer is played outdoors, lightning and severe weather pose a threat to player health and safety. U.S. Soccer's Recognize to Recover program, with the help of the Korey Stringer Institute, provides these guidelines for responding quickly and safely when lightning and severe weather threaten practice or a game. When it comes to making decisions to suspend or cancel play due to weather condition, coaches, officials, athletic trainers and administrators all share responsibility. These same individuals should be aware of close safe shelter locations and know how to evaluate when it is safe to resume play after severe weather leaves an area.

- No place outside is safe when thunderstorms are in the area. All activity should be suspended, even if lightning or thunder has not yet been observed, and everyone should get indoors. Communicate this information completely and quickly to all participants.
- Consult the National Weather Service, the Storm Prediction Center or local media outlets for severe weather watches and warnings. Alerts can even be sent directly to your mobile device while you are on the field.
- Safe locations should be available with enough capacity to hold all who may need safe shelter. A primary location would be a fully enclosed building with wiring and plumbing. A fully enclosed vehicle with a solid metal roof, like a school bus, would be a safe secondary option. Open fields and open-sided shelters are not safe. If there are no adequate safe shelters close to the field, play must be stopped well in advance of the storm to allow everyone to travel to a safe place or their home.
- If it's been half an hour since thunder, it's safe to go outdoors. Outdoor activity may resume 30 minutes after the last sound of thunder or flash of lightning. The 30-minute clock restarts every time lightning flashes or thunder sounds.

Warning signs of a lightning strike:

- Feeling the hair stand on end
- Skin tingling
- Hearing crackling noises

If these occur, assume the lightning safe position:

- Crouch on the ground as low as you can
- Put all your weight on the balls of your feet
- Keep your feet together
- Lower head and cover your ears
- *Do not* lie flat on the ground

If someone is injured by a lightning strike, follow these emergency management steps:

- Call 911 and alert emergency medical responders (EMS).
- Establish that the area is safe before moving to help victim. If there is more than one victim, first assist those who appear in the most severe condition.
- Move individual(s) carefully to a safe location (victims of lightning strikes are safe to touch and do not carry an electric charge).
- Initiate CPR on victims who are unconscious, not breathing or have no pulse. Use an automated external defibrillator (AED) if one is available.
- Evaluate the individual(s) for additional injuries, such as broken bones or dislocations. Notify EMS of the potential injuries when they arrive on the scene.

Under no circumstances should a player injured in a lightning strike return to the game or practice. Injured players should only be allowed to return to play after a thorough examination and release by a qualified physician.

1. Casa DJ, Guskiewicz KM, Anderson SA, et al. National Athletic Trainers' Association Position Statement: Preventing Sudden Death in Sports. J Athl Train. 2012;47(1):96-118.