

HOME INJURY PREVENTION
INJURY RECOVERY
HEAD & BRAIN CONDITIONS
EMERGENCY ACTION PLANS
CARDIAC CONDITIONS
ENVIRONMENTAL CONDITIONS
NUTRITION & HYDRATION

Environmental conditions can significantly impact player health and safety. Extreme temperatures, severe weather and the integrity of the playing field and its equipment all impact players' ability to practice and compete safely. U.S. Soccer's Recognize to Recover program gives players, parents, coaches and referees information and guidelines to make sure the desire to play does not cloud the decision-making process when it comes to evaluating environmental conditions to ensure the safety of those on the field.

Extreme heat can impact players' health and safe play. Proper hydration and knowing when you need to drink are critical, to help prevent many injuries and illnesses, from muscle cramps to heat stroke. Players should drink water before, during and after a game or practice, which means coaches should make sure there is adequate water available. U.S. Soccer's Recognize to Recover program gives players, parents, coaches and referees information and guidelines to make sure the desire to play does not cloud the decision-making process when it comes to evaluating environmental conditions to ensure the safety of those on the field.

## **RECOGNIZE**

Thirst is a warning that your body is already in an early stage of dehydration. Drink when you are thirsty. Recognizing the signs of dehydration are important because the amount of water required will vary from player to player.

- Dry, sticky mouth
- Sleepiness or tiredness
- Headache
- Dizziness or lightheadedness
- Rapid heartbeat
- Rapid breathing
- Fever
- In the most serious cases, delirium or unconsciousness

## **RECOVER**

- Add hydration breaks
- Shorten practice
- Practice early or late in the day when temperatures are lower
- Use less-strenuous training activities during practice



## U.S. Soccer Heat Guidelines

Heat Guidelines Contributors: Korey Stringer Institute and Dr. George Chiampas



U.S. Soccer Cold Weather

#### Guidelines

Cold Weather Guidelines Contributors: **Athletico**, Korey Stringer Institute and Dr. George Chiampas

# **COLD WEATHER GUIDELINES**

The effects of cold weather can impact health and safety during practices and games. The definition of "cold stress" varies across the United States, depending on how accustomed people are to cold weather. A player from Minnesota will have a much different threshold for cold than a player from Florida.

U.S. Soccer's **RECOGNIZE TO RECOVER** program prepared this guide for coaches, referees and players for training or playing in colder climates. Additionally, it serves as a guide for match play and participant safety during extreme temperature conditions. The information provided is not a substitute for medical or professional care, and you should not use the information in place of a visit, consultation or the advice of your physician or other healthcare provider. For specific questions and concerns, please consult your health care provider or physician.

## **COLD WEATHER SAFETY TIPS**

#### **Dress for the Cold**

When temperatures drop and wind increases, the body loses heat more rapidly. It is important to dress appropriately when training or playing in cold weather. This also means to not overdress.

Layering clothing in a specific way (see box) is recommended and very effective. The layers can be added or removed based on body temperature and changing environmental conditions, such as temperature and wind. Allow players to wear additional clothing, like gloves, sweatshirts, sweat pants and/or hats or headbands. Also, avoid sweating before going outside because your body will cool too quickly.

#### **Stay Dry**

Wet and damp conditions add to the risk of injury or illness during cold weather.

Players, coaches and referees should recognize these factors and use additional caution to watch for potential cold injuries.

If players do get wet during training or play, remove wet or saturated clothing and replace it with dry clothing. This becomes more important if the individual will remain out of play or anticipates standing around for a prolonged period of time. A hat, gloves and extra pair of socks can also keep extremities dry in case of snow or rain.



#### **Wind Chill**

Pay attention to the wind chill temperature (WCT) Index. (see chart below) Even prolonged exposure in relatively mild temperatures can lead to frostbite. The National Weather Service wind chill chart can serve as a guide to safe play in cold weather.

### **Stay Hydrated**

Cold weather often reduces our ability to recognize that we are becoming dehydrated. If you are thirsty you have already become dehydrated. Try putting warm or hot water in a water bottle so that your water doesn't freeze when training for extended amounts of time outside.

#### **Take Action**

If someone is suffering from a coldrelated illness, get him or her into a warm location as soon as possible. Identify a nearby warming location before the start of training or play.

During games provide blankets or other items for players to stay warm while they are on the bench and allow additional substitutions or warming breaks.

## **Step One - Determine Wind Chill Temperature**

The effects of cold weather can impact health and safety during practices and games. The definition of "cold stress" varies across the United States, depending on how accustomed people are to cold weather. A player from Minnesota will have a much different threshold for cold than a player from Florida.

WIND CHILL TEMPERATURE (WCT) INDEX TEMPERATURE IN DEGREES FAHRENHEIT														
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20
	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41

	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45
묘	20	30	24	17	- 11	4	-2	-9	-15	-22	-29	-35	-42	-48
VIND SPEED	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51
M	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57
	45	27	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60

NOTE: This table was adapted from the NOAA and NWS. It is compiled from the following formula Wind Chill ( ${}^{\circ}F$ )= 35.74 + 0.6215T - 35.75( ${V}^{\circ}$ 0.16) + 0.4275T( ${V}^{\circ}$ 0.16) where, T= Air Temperature and V=Wind Speed (mph).

## **Step Two - Find Your Alert Level**

Use this chart to determine the alert level at your location based on the wind chill temperature.

ALERT LEVEL	WCT (F)	EVENT CONDITIONS	RECOMMENDED ACTION
BLACK	< 0	Extreme Conditions*	Cancel or attempt to move activities indoors. Frostbite could occur
RED	1-15	High Risk for Cold Related Illness*	Consider modifying activity to limit exposure and allow for more frequent chances to rewarm
ORANGE	16-24	Moderate Risk for Cold Related Illness*	Provide additional protective clothing, cover as much exposed skin as practical, and provide opportunities and facilities for rewarming
YELLOW	25-30	Less than Ideal Conditions*	Be aware of the potential for cold injury and notify appropriate personnel of the potential
GREEN	>30	Good Conditions	Normal activities

<sup>\*</sup> In wet environments with colder conditions, the following situations are accelerated. Use additional caution to recognize potential cold injuries. (NOTE: These WCT guidelines were adapted from the NATA position statement: Environmental Cold Injuries by Cappaert et al. 2008.)

#### COMMON COLD RELATED ILLNESSES

## **FROSTBITE**

Frostbite is what happens when skin and tissue actually begins freezing. It can cause numbness, tingling or stinging in the affected area. The skin may also lose its natural color, turning pale or bluish. Frostbite can permanently damage body tissue, leading to the loss of an extremity in severe cases.

The most commonly affected areas for frostbite include: nose, ears, cheeks, chin, fingers and toes. Use body heat or warm (but not hot) water to begin warming the affected area.

## Recognize

- Swelling/Edema
- Redness or mottled gray skin appearance
- Tingling or burning
- Blisters
- Numbness or loss of sensation

### Recover

 Gradually rewarm affected area with warm water

## **WARNING:**

## **HYPOTHERMIA**

Hypothermia is the result of your internal body temperature dropping to 95 degrees Fahrenheit (35 degrees Celsius) or less. It can be fatal if not detected promptly and treated properly.

Hypothermia typically begins with feelings of intense cold, shivering and behavior which are more quiet and disengaged than normal. As the condition worsens, the individual seems confused, sleepy and may begin slurring speech. To begin treating hypothermia, start by warming the center of the individual's body first. Make sure they are dry and cover them with layers of blankets, clothing, towels or whatever else is around to contain their body heat. Warm nonalcoholic beverages may also help increase body temperature. If hypothermia is suspected, get the onsite medical provider or call 911.

## Recognize

- Shivering vigorously or suddenly not shivering
- Increased blood pressure
- Lethargy
- Impaired mental function

- Do not rub or massage the frostbitten area. This may actually increase the damage.
- Do not use heating pads, heat lamps or the heat of a stove, fireplace, or radiator for warming since affected areas are numb and can be easily burned

\*If any of the symptoms persist for longer than a few hours, seek medical attention from emergency department or physician. Slurred speech

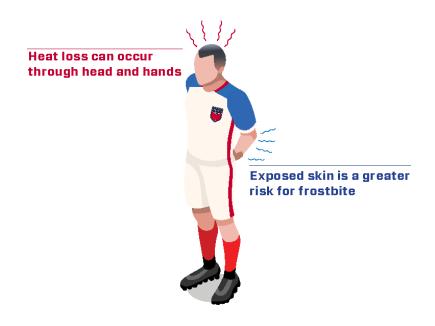
## Recover

- Remove damp/wet clothing
- Apply heat to the trunk of the body, not limbs
- Provide warm fluids and food
- Avoid applying friction massage to tissues

## **WARNING:**

Do not use a hot shower or bath to treat hypothermia because it could cause the individual to go into shock.

\*If symptoms persist seek medical attention from a physician or Emergency department.



Lightning is one of the top ten causes of sudden death in sport. 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.

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.

## **RECOGNIZE**

- 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,

### **RECOVER**

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

- 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.

- 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.

## 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

Field conditions vary from location to location, but safety practices are the same. There may be hazards on the field that need attention before safe play can begin.

## **RECOGNIZE**

- Trash and debris, including rocks, should be removed from the field.
- Make players aware of inconsistent surface conditions, such as uneven edges or bumps.
- Soccer goals should be properly anchored with weights or posts to prevent tipping forward.

## **RECOVER**

- If hazards remain, play should be suspended or moved to a different location.
- Know your goal: There are 500,000
   soccer goals across the United States
   in many shapes and sizes, each with
   specific safe anchoring guidelines.
   Anchor your goal correctly.

Millions of U.S. residents travel internationally each year (more than 68.2 million trips in 2014!). We travel for a variety of reasons – for work, for relaxation, to visit friends and relatives, and to explore new cultures. As a U.S. Soccer player, coach, family member or referee, you may find yourself traveling overseas for a match or tournament. While an illness or injury could ruin anyone's trip abroad, for you it may mean the difference between a win and a loss.

The Centers for Disease Control and Prevention (CDC) provides up-to-date recommendations for safe and healthy international travel. CDC also provides important country-specific health information, including the latest notices on events and outbreaks happening around the world.

## You can use the Travelers' Health page on the CDC website as a go-to resource:

- Access health recommendations for your travel destination(s), including vaccines and medicines you may need
- Find a healthcare provider in the U.S. specializing in travel medicine
- Learn more about travel health topics
- Download free mobile apps to help you plan for a healthy trip

For more information, visit CDC Travelers' Health.

View the CDC's current list of worldwide health notices.

HOME EMERGENCY ACTION PLANS CARDIAC CONDITIONS

HEAD & BRAIN CONDITIONS ENVIRONMENTAL CONDITIONS

INJURY PREVENTION

U.S. Soccer Federation · 1801 S. Prairie Ave. Chicago, IL 60616 · (312) 528-1225

