- Take plenty of water breaks during practice.
- Use the information provided by the IHSAA.
  - Heat and Humidity Gauge
  - Heat Index Chart
  - Urine Color Chart

Heat and hydration are a major point of emphasis this year in all sports. Coaches must be sure they take breaks during practice to allow student-athletes to rehydrate.

The Athletic Association also provides gauges and charts to help coaches and studentathletes monitor heat and hydration.

- Heat-related deaths are preventable if specific steps are taken by coaches and administrators.
  - Develop an Emergency Action Plan
  - Allow student-athletes to acclimatize to heat and humidity
  - Access to water should never be restricted
  - Student-athletes should be encouraged to take in fluids frequently before and after practices and games
  - Practices should be scheduled at times during the day that minimize exposure to heat and humidity

Medical experts believe heat-related deaths are preventable if specific steps are taken by coaches and administrators.

Those steps include:
Having an emergency action plan
Allowing student-athletes to get used to the heat and humidity
Never restricting access to water
Encouraging student-athletes to drink fluids
Scheduling practices at times that minimize exposure to heat and humidity



Heat and humidity gauges are available from the Athletic Association to help coaches and administrators monitor conditions at the site practices and contests take place.

### **HEAT INDEX TABLE**

#### How to use the Heat Index Chart:

1. Across the top of the chart the ant temperature is listed.

2. Down the left side of the chart, the relative humbility is listed.

TAKE TEMPERATURE & HUMBINITY READINGS IN THE SUN, IF PRACTICE WILL TAKE PLACE IN THE SUN.

3. Where the temperature and humidity meet on the chart is the Heat Index.
The Heat Index is the body's sensation of heat, or "What the temperature and humidity feel like to the body."



			(II	n degrees F	ahrenheit)							
	70°	75°	80°	85°	90°	95°	100°	105°	110°	115°	120°	
RELATIVE HUMIDITY		HEAT INDEX	or ("What	the tempe	rature & hu	midity fee	l like to the	body.")				
0%	64	69	73	78	83	87	91	95	99	103	107	HEAT INDEX & POSSIBLE RISK
10%	65	70	75	80	85	90	95	100	105	<u>111</u>	<u>116</u>	90-104 degrees: Heat exhaustion, heat
20%	66	72	77	82	87	93	99	105	112	120	130	cramps & sunstroke possible with prolonged exposure and/or physical activity. Provide
30%	67	73	78	84	90	96	104	113	123	135	148	unlimited fluids and monitor athletes for signs & symptoms of heat illness.
40%	68	74	79	86	93	101	110	123	137	<u>151</u>		
50%	69	75	81	88	96	107	120	135	150			s: Heat exhaustion, heat cramps & sunstroke
60%	70	76	82	90	100	114	132	149		more	breaks, co	troke possible. Provide unlimited fluids & take nsider altering practice so it is less strenuous
70%	70	77	85	93	106	124	144					sider practicing without pads), practicing when or or cancelling practice.
80%	71	78	86	97	113	136						

122

130 degrees & higher: Sunstroke & heatstroke highly likely.
CANCEL PRACTICE FOR THE SAFETY OF ALL PLAYERS.

100% 72 80 <u>91</u>

90%

of heat illnesses.

#### DIRECTIONS FOR USING THE MANNIX THERMO-HYGROMETER

108

79 88 <u>102</u>

The heat index table provides coaches and administrators with guidelines to minimize student-athletes' risk

The urine color charf shown here will help assess color of your urine 50 a color on the funds. The griefloct on performance & health. If the color of y WELL hydrated, if you urine color matches 44 urine color matches 64, x7 or 48 you are DENY LEVELS OF DENYMATION HAVE SORRE MIGKEN.	athletes' hyd eater the leve our urine mat or #5 you an DRATED and	ration status. To use this chart, match the i of delinylation the greater the negative those st f, 80 or \$0 on the chart, you are close to being dehydrated; and if your need to consume a lot more flads. ALL
1, 2, 3 = WELL HYDRATED Continue drinking enough fluids to keep your urine this color. It's good for your performance & your health.  4, 5 = Hydrated, but not well hydrated. Drink additional fluids on a regular basis so the color	H Y D R A T E	1 2 3 4
of your urine is equivalent to numbers 1, 2 or 3.	D D	5
6, 7, 8 = DEHYDRATED You are dehydrated! Drink a lot more fluids on a regular basis to enhance your performance and avoid getting muscle cramps, or heat illness. It may also improve	E H Y D R	6
your health.	A T E D	8
Urine color chart used with permission from <u>Padaming in</u> , Copyright Lewrence E. Armstrong, 2000. Published by Hu Scientific validation for this color chart may be found in The 279 & volume 4, 1956, pp. 365-505.	man Kinetics, C	Pampalgn, K, vorare/humankinetics.com.

Urine color charts similar to the one shown have been sent to all schools to help student athletes monitor their ow hydration levels.

- Use the "BUDDY SYSTEM"
  - Assign student-athletes a "Buddy" and have them monitor each other for signs and symptoms of heat related problems
- Signs of Possible Heat Stroke
  - Altered consciousness
    - Semi-consciousness, confused, irrational behavior
  - Combative
  - Headache, dizziness, weakness
  - Hot skin with or without sweating
  - Increased heart and breathing rates
  - Nausea, vomiting or diarrhea

Coaches and administrators should implement a system where student-athletes monitor each other for possible signs of advanced heat illness.

Signs of possible heat stroke include:
Altered consciousness
Being combative
Headache, dizziness, or weakness
Hot skin
Faster than normal heart rates and breathing rates
Nausea, vomiting or diarrhea

- The actions taken in the first 5-10 minutes after recognizing heat stroke are critical to the student-athlete's survival!
- Cold water submersion cools the body the fastest!
  - For student-athletes wearing pads, remove the pads and place the student in a plastic tub of ice and cold water
  - Can also use a piece of plastic with ice and cold water that is held at the corners

The actions taken in the first 5-10 minutes after recognizing heat stroke are critical to the student-athlete's survival!

Cold water submersion cools the body the fastest and should used anytime a studentathlete is suspected of having heat stroke.

Anything that will hold water and ice, and is large enough to submerse the student-athlete from shoulders to thighs



These are two examples of what can be used to help quickly cool student-athletes.