

**New Trier High School
Sports Medicine**

**Guidelines and Recommendations for Hydration and Practicing
During Periods of Heat Stress**

1. Proper hydration
 - a. A minimum of 20oz of water or an electrolyte drink is recommended 2-3 hours before activity. A minimum of 12oz is again recommended 10-20 minutes prior to activity.
 - b. A minimum of 12oz is recommended every 10-15 minutes during exercise.
 - c. At least 20oz of electrolyte drink and/or water should be ingested per pound of weight loss following activity.

2. Athletes should weigh themselves prior to and immediately following practices. Athletes losing 3% of their body weight or greater during practice may not return to practice until they are properly rehydrated (defined in #4 below)(Currently this provision will apply to Football, Soccer, and Volleyball since they are participating in double practice sessions. Scales will be in the Athletic Training Rooms with team weight sheets.)

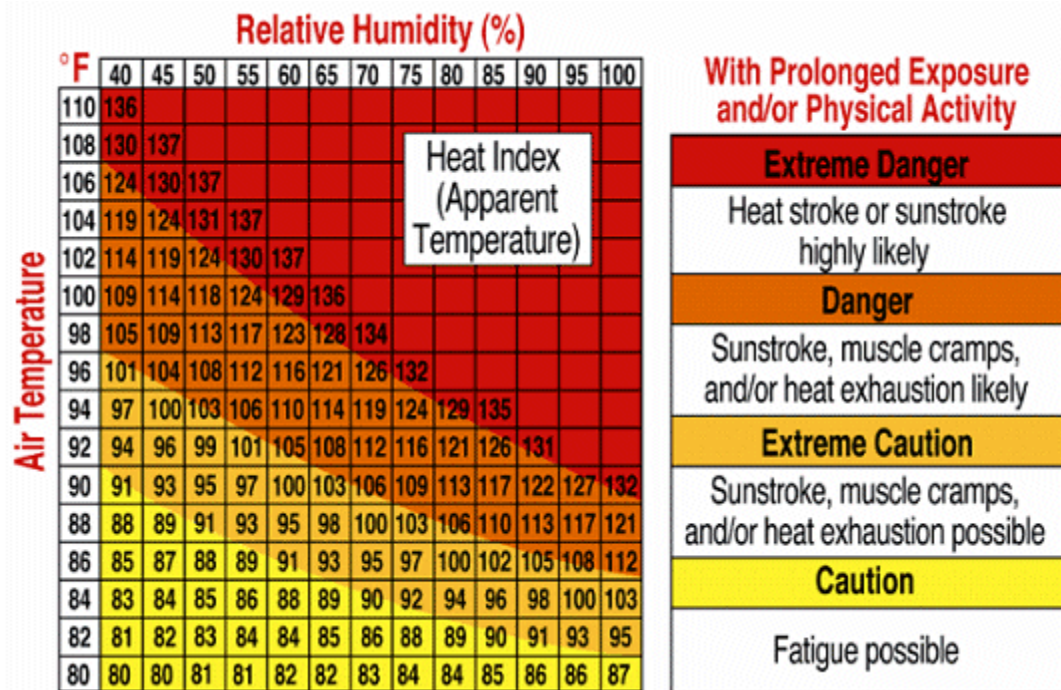
3. During periods of heat stress. A member of the sports medicine personnel must record a Wet Bulb Globe Thermometer (WBGT) reading before practice and at 30-45 minute intervals during practice to note changes. The following protocol is recommended for making decisions concerning activity during periods of heat stress using the Wet Bulb Globe Thermometer. Individuals identified as being prone to heat stress will be treated on an individual basis to reduce heat stress. In general:

a.WBGT <80	Allow fluids as needed. No break in activity*
b.WBGT 80-84	Frequent hydration of athletes and scheduled 5min. break every 25-30 minutes of activity*
c.WBGT 85-88	Frequent hydration. 5min. break every 15-20 minutes of activity.*
d.WBGT 88-90	Continued hydration. 5 min. breaks every 10-15 minutes.* Modify practice as necessary (time, equipment, drills). Consider changing practice time.
e. WBGT 90+**	Change practice time or move to indoor facility.

* Individuals prone to heat stress may be given more frequent or extended breaks to replace fluids and cool down body temperature.

**If anticipated WBGT 90+ temperatures are anticipated the day of or anticipating days to come the Athletic Department will attempt to notify you of the apparent danger ahead of time.

Heat Index Chart



The Heat Index Chart is calculated with a shade temperature and light wind of 5.8 mph. Direct sun light can add 15 degrees to the Heat Index.

The Wet Bulb Globe Temperature is measured using three different thermometers: (1) A standard dry bulb thermometer (Dry Bulb Temperature; DB); (2) a standard dry bulb thermometer whose bulb is wrapped in a cotton sleeve, the bottom of the sleeve lying in a pool of water, so that the cotton sleeve will always be wet, allowing continuous evaporative cooling of the thermometer's bulb, simulating the evaporation of sweat (Wet Bulb Temperature; WB); and (3) a standard dry bulb thermometer whose bulb is black to allow measurement of the effects of sunshine and other radiant heat (Black Globe Temperature; GT). These three temperatures are integrated as follows:

$$WBGT = 0.7 WB + 0.2 GT + 0.1 DBT$$

WBGT temperature is very similar to the Heat Index (see chart above) but can vary due to intensity of the sun. WBGT temperatures feel similar to the color ranges in the Heat Index Chart. WBGT temperature of 80 to 84 yellow, 85 to 88 tan, 88-90 orange, and 90+ red.

4. Student-athletes who experience heat illness/cramping during/following a practice session, or student-athletes who lose more than 3% of their body weight must meet the following rehydration criteria before returning to the next practice:

- Body weight within 2% of pre-practice weight from the previous practice.
- Urine test specific gravity measured 1.010 or lower at the start of practice.

At the discretion of the Head Athletic Trainer, selected student-athletes may be expected to meet the rehydration criteria (achieve hydrated status as described in #4 above) at any time before a contest or practice in order to be cleared to participate

This guideline has been modified from the Northwestern University Varsity Sports Medicine, Guidelines and Recommendations for Hydration and Practicing during periods of Heat Stress.