Walnut Grove High School/Youth Middle School Hot Weather Guidelines and Procedures for Athletic Practice

Based on National Athletic Trainers Association Recommendations

The following policy has been adopted by Walnut Grove High School in response to a request from the Georgia High School Association regarding practices and competitions conducted during times of extremely high heat and/or humidity. The head coach for each sport or activity shall see that this policy is distributed to all players prior to the first practice.

Principal, Youth Middle School

Head Coach

Sport/Activity:

GUIDELINES FOR TESTING

The following are guidelines for coaches and staff to follow. In responding to each situation that arises, coaches and staff should use their professional judgment.

Each head coach shall designate a person to monitor and record heat index levels. Approximately thirty (30) minutes prior to the start of activity, temperature and heat index reading should be taken at the practice or competition site from **www.weather.com** or a comparable source.

In addition, a scientifically approved instrument that measures the heat index should be utilized at the practice or competition site and readings should be taken at approximately thirty (30) minute intervals.

The information should be recorded on the attached "Heat Index Measurement" form and these records shall be available for inspection upon request. Each head coach and/or designee will be required to submit this form to their local Athletic Director daily.

If a reading is determined whereby activity is to be decreased (at or above 95 Heat Index) then re-readings would be taken approximately every thirty (30) minutes to determine if further activity should be eliminated or preventative steps taken, or if an increased level of activity can resume.

Activity should be altered and / or eliminated based on the Heat Index as follows:

Under 95 degrees Heat Index (Comfort Zone on Heat Indicator) "Green Flag"	*<u>All Sports</u> ➢ Provide ample amounts of water. This means that water should always be available at regular intervals and athletes should be able to take in as much water as they desire. ➢ Optional water breaks approximately every 30 - 45 minutes for approximately 10 minutes duration. ➢ Ice-down towels for cooling. ➢ Watch / monitor athletes carefully for necessary action.
95 degrees to 99 degrees Heat Index (Caution Zone on Heat Indicator) "Yellow Flag"	*<u>All Sports</u> ➢ Provide ample amounts of water. This means that water should always be available at regular intervals and athletes should be able to take in as much water as they desire. ➢ Mandatory water breaks approximately every 30 - 45 minutes for approximately 10 minutes duration. ➢ Ice-down towels for cooling. ➢ Watch / monitor athletes carefully for necessary action. *<u>Contact Sports</u> ➢ Helmets and other possible equipment removed if not involved in contact or necessary for safety. ➢ Reduce time of outside activity. <u>RECOMMENDATION:</u> Practice should not exceed 2-1/2 hours. Consider moving practice to morning or later in the day. ➢ Re-check temperature and heat index approximately every 30 minutes to monitor for increased risks.
100 degrees to 105 degrees Heat Index (Danger Zone on Heat Indicator) "Red Flag"	*<u>All Sports</u> ➢ Provide ample amounts of water. This means that water should always be available at regular intervals and athletes should be able to take in as much water as they desire. ➢ Mandatory water breaks approximately every 30 - 45 minutes for approximately 10 minutes duration. ➢ Ice-down towels for cooling. ➢ Watch / monitor athletes carefully for necessary action. ➢ Alter uniforms by removing items where feasible. ➢ Allow for changes to dry T-shirts and shorts. ➢ Reduce time of outside activity as well as indoor activity if air conditioning is not available. <u>RECOMMENDATION:</u> Practice length should be 2 hours or less. Consider moving practice to morning or later in the day. Limited conditioning. *<u>Contact sports and activities with additional equipment</u> ➢ Helmets and other possible equipment removed if not involved in contact or necessary for safety. <u>RECOMMENDATION:</u> Football wears helmets, t-shirts and shorts. ➢ Re-check temperature and heat index approximately every 30 minutes for increased risks.
Above 105 degrees Heat Index (Extrene Danger on Heat Indicator) "Black Flag"	*<u>All Sports</u> Stop all outside activity in practice and / or play and stop all inside activity if air conditioning is unavailable.

RECOMMENDATIONS FOR COACHES

- Have water available and accessible
- Have emergency ice available on site
- Wear light color practice cloth/gear
- Know the signs and symptoms of heat illness
- Notify parents of any heat related problem

MANDATORY PRE AND POST WEIGHT-INS (FOOTBALL ONLY)

- Daily pre and post practice weigh-ins are required to be taken by all football players and anyone who is not at or above 97% of the previous day's pre-practice weight shall be withheld from practice. Athletes who lose more than 3% of their weight during practice should also be counseled on the importance of pre-hydrating, drinking more fluids during the practice session and post practice re-hydration.
- A list of athletes most susceptible to heat illness must by maintained by the Head Coach, Athletic Trainer and or his/her designee. This list should include athletes with a medical history of heat illness, athletes losing more than 3% of their weight during a practice and athletes that have reported symptoms of heat illness during the season.
- If an athlete's doctor informs the coaching staff or athletic trainer **in writing** that the athlete has suffered a heat-related illness during the season, the athlete **MAY NOT** participate until cleared **in writing** by the doctor.

RECOMMENDATIONS FOR FLUID REPLACEMENT

- Athletes should be educated in the process of hydrating themselves as a 24 hour a day process.
- Before exercise:
  - Drink 17 – 20 ounces of water 2 -3 hours before exercise
  - Drink an additional 7 – 10 ounces of water 10 – 20 minutes before exercise
- During exercise:
  - Refer to the above guidelines
- After exercise:
  - Drink enough fluids to replace any weight loss within two hours of completion of activity
  - Fluid replacement should be at a rate of 24 ounces for every pound of body weight lost after exercise
- Urine color is an easy method to determine hydration status. Light yellow to clear urine indicates a well-hydrated athlete.

HEAT ILLNESS PREVENTION: THE THREE PERCENT LIMIT CHART (attached)

HEAT INDEX MEASURMENT AND RECORD

WALNUT GROVE HIGH SCHOOL/Youth Middle School

Sport: _____

DATE	TIME	TEMP	HEAT INDEX	ACTIVITY REVISION	SIGNATURE

Using the following scale, activity should be altered and / or eliminated based on this Heat Index as determined

Under 95 degrees Heat Index **(Green Flag)**	Provide ample amounts of water. Optional water breaks every approximately 30 minutes for approximately 10 minutes in duration; Ice-down towels for cooling; Watch athletes carefully.
95 degrees to 99 degrees Heat Index **(Yellow Flag)**	Provide ample amounts of water. Mandatory water breaks approximately every 30 minutes for approximately 10 minutes in duration; Ice-down towels for cooling; Watch athletes carefully. Helmets removed if not in contact; reduce time of outside activity. Re-check temperature and heat index approximately every 30 minutes to monitor for increased risks. Practice should not exceed 2-1/2 hours. Practice in the morning or late afternoon, is feasible.
100 degrees to 105 degrees Heat Index **(Red Flag)**	Provide ample amounts of water. Mandatory water breaks approximately every 30 minutes for approximately 10 minutes in duration; Ice-down towels for cooling; Watch athletes carefully. Alter uniform by removing items except dry t-shirts and shorts. Reduce time of outside activity (2 hours or less). Practice in the morning or late afternoon. Re-check temperature and heat index approximately every 30 minutes to monitor for increased risks.
Above 105 degrees Heat Index **(Black Flag)**	Stop all outside activity in practice and/or play.

Heat Illness Prevention: The Three Percent Limit

Weight	Less 3%	Weight	Less 3%	Weight	Less 3%	Weight	Less 3%	Weight	Less 3%
100	97	**151**	146.47	**202**	195.94	**253**	245.41	**304**	294.88
101	97.97	**152**	147.44	**203**	196.91	**254**	246.38	**305**	295.85
102	98.94	**153**	148.41	**204**	197.88	**255**	247.35	**306**	296.82
103	99.91	**154**	149.38	**205**	198.85	**256**	248.32	**307**	297.79
104	100.88	**155**	150.35	**206**	199.82	**257**	249.29	**308**	298.76
105	101.85	**156**	151.32	**207**	200.79	**258**	250.26	**309**	299.73
106	102.82	**157**	152.29	**208**	201.76	**259**	251.23	**310**	300.7
107	103.79	**158**	153.26	**209**	202.73	**260**	252.2	**311**	301.67
108	104.76	**159**	154.23	**210**	203.7	**261**	253.17	**312**	302.64
109	105.73	**160**	155.2	**211**	204.67	**262**	254.14	**313**	303.61
110	106.7	**161**	156.17	**212**	205.64	**263**	255.11	**314**	304.58
111	107.67	**162**	157.14	**213**	206.61	**264**	256.08	**315**	305.55
112	108.64	**163**	158.11	**214**	207.58	**265**	257.05	**316**	306.52
113	109.61	**164**	159.08	**215**	208.55	**266**	258.02	**317**	307.49
114	110.58	**165**	160.05	**216**	209.52	**267**	258.99	**318**	308.46
115	111.55	**166**	161.02	**217**	210.49	**268**	259.96	**319**	309.43
116	112.52	**167**	161.99	**218**	211.46	**269**	260.93	**320**	310.4
117	113.49	**168**	162.96	**219**	212.43	**270**	261.9	**321**	311.37
118	114.46	**169**	163.93	**220**	213.4	**271**	262.87	**322**	312.34
119	115.43	**170**	164.9	**221**	214.37	**272**	263.84	**323**	313.31
120	116.4	**171**	165.87	**222**	215.34	**273**	264.81	**324**	314.28
121	117.37	**172**	166.84	**223**	216.31	**274**	265.78	**325**	315.25
122	118.34	**173**	167.81	**224**	217.28	**275**	266.75	**326**	316.22
123	119.31	**174**	168.78	**225**	218.25	**276**	267.72	**327**	317.19
124	120.28	**175**	169.75	**226**	219.22	**277**	268.69	**328**	318.16
125	121.25	**176**	170.72	**227**	220.19	**278**	269.66	**329**	319.13
126	122.22	**177**	171.69	**228**	221.16	**279**	270.63	**330**	320.1
127	123.19	**178**	172.66	**229**	222.13	**280**	271.6	**331**	321.07
128	124.16	**179**	173.63	**230**	223.1	**281**	272.57	**332**	322.04
129	125.13	**180**	174.6	**231**	224.07	**282**	273.54	**333**	323.01
130	126.1	**181**	175.57	**232**	225.04	**283**	274.51	**334**	323.98
131	127.07	**182**	176.54	**233**	226.01	**284**	275.48	**335**	324.95
132	128.04	**183**	177.51	**234**	226.98	**285**	276.45	**336**	325.92
133	129.01	**184**	178.48	**235**	227.95	**286**	277.42	**337**	326.89
134	129.98	**185**	179.45	**236**	228.92	**287**	278.39	**338**	327.86
135	130.95	**186**	180.42	**237**	229.89	**288**	279.36	**339**	328.83

136	131.92	**187**	181.39	**238**	230.86	**289**	280.33	**340**	329.8
137	132.89	**188**	182.36	**239**	231.83	**290**	281.3	**341**	330.77
138	133.86	**189**	183.33	**240**	232.8	**291**	282.27	**342**	331.74
139	134.83	**190**	184.3	**241**	233.77	**292**	283.24	**343**	332.71
140	135.8	**191**	185.27	**242**	234.74	**293**	284.21	**344**	333.68
141	136.77	**192**	186.24	**243**	235.71	**294**	285.18	**345**	334.65
142	137.74	**193**	187.21	**244**	236.68	**295**	286.15	**346**	335.62
143	138.71	**194**	188.18	**245**	237.65	**296**	287.12	**347**	336.59
144	139.68	**195**	189.15	**246**	238.62	**297**	288.09	**348**	337.56
145	140.65	**196**	190.12	**247**	239.59	**298**	289.06	**349**	338.53
146	141.62	**197**	191.09	**248**	240.56	**299**	290.03	**350**	339.5
147	142.59	**198**	192.06	**249**	241.53	**300**	291	**351**	340.47
148	143.56	**199**	193.03	**250**	242.5	**301**	291.97	**352**	341.44
149	144.53	**200**	194	**251**	243.47	**302**	292.94	**353**	342.41
150	145.5	**201**	194.97	**252**	244.44	**303**	293.01	**354**	343.38

Children's® Healthcare of Atlanta

Sports Medicine Program

Heat-related Illness in Young Athletes

Heat-related illness is responsible for thousands of Emergency Department visits annually by young athletes. The severity of heat injury ranges from mild heat cramps to heat stroke and death. In fact, heat stroke is the third most common cause of exercise-related death in U.S. high school athletes.

Because most of the contributing risk factors to heat-related illness are modifiable, heat-related illness is preventable. Some basic knowledge about thermoregulation, the human response to heat stress and how to recognize early signs of heat-related illness can significantly reduce the risk of an exercising youth suffering a heat-related illness.

HEAT AFFECTS CHILDREN DIFFERENTLY

Are children and adolescents at an increased risk of heat-related illness?

In a recent policy statement about heat-related illness in exercising children and adolescents, the American Academy of Pediatrics (AAP) challenged the previous notion that young athletes are at an increased risk of suffering a heat-related illness due to differences in thermoregulation when compared to adults. According to the AAP, children and adolescents are not physiologically at a higher risk than similarly fit and acclimated adults with similar hydration status. In other words, children and adolescents are not at any higher risk of suffering a heat-related illness just because they are young.

However, the setting or circumstances in which children and adolescents exercise in hot environments may put them at an increased risk of suffering a heat-related illness compared to adults. Situations in which children and adolescents are at an increased risk include:

- School-age children and adolescents are often working out or exercising under the supervision of an adult, coach or official who determines when to take water breaks.
- Children and adolescents may be less willing to notify a coach when they are in the early stages of a heat-related illness for fear of appearing weak or out of shape.
- Adults or coaches may not recognize the early signs of a heat-related illness due to the large number of children or adolescents on the field at once (e.g., football, track, band).
- Children and adolescents tend to rely on thirst to determine when they should drink. The thirst mechanism kicks in when the body is 1 percent to 2 percent dehydrated.
- Children and adolescents may participate in all-day activities, such as tournaments involving repeated bouts of exercise, often with inadequate recovery time between bouts to rest and rehydrate.
- Because children are closer to the ground than adults, they more readily absorb radiant heat from the ground and pavement, thus raising their body temperature faster.
- Children and adolescents new to the South or out of shape should exercise for shortened, less-intense sessions three to four times a week for two weeks to allow their bodies to acclimate.

Hydration tips for young athletes

Thirst is a poor indicator of hydration status. When children and adolescents begin to feel thirsty, they may already be 1 percent to 2 percent dehydrated.

- Prehydrate 30 minutes before activity. Children and adolescents should drink until they are no longer thirsty plus another 8 ounces.
- Hydrate during activity:
  - Drink 5 ounces every 20 minutes of activity for children and adolescents weighing less than 90 pounds.
  - Drink 8 ounces every 20 minutes of activity for children and adolescents weighing more than 90 pounds.
  - Encourage children and adolescents to drink water during activity instead of pouring it on their heads or faces.

Water is best if the activity lasts less than one hour. For activities lasting more than an hour, a fluid with carbohydrates (sugar) and electrolytes is best. Gatorade and Powerade were designed specifically for rehydration during exercise and contain the right amount of carbohydrates (about 6 percent to 8 percent).

Children younger than age 10 may dilute a sports drink—one part sports drink to one part water—for a better taste. Drinks, such as fruit juice and soda, contain too much sugar and can cause cramping. Avoid carbonated and caffeinated beverages because the carbonation can cause bloating and the caffeine can speed up metabolism, generating more heat.

Tips for exercising in the heat

- Schedule workouts during the cooler times of the day.
- Allow children and adolescents who are overweight, out of shape or unacclimated time to adjust to the heat.
- Schedule water and rest breaks every 30 minutes during activities. During these breaks, do not just encourage, but require children and adolescents to drink. This also gives the coach or trainer a chance to monitor the athletes.
- Have shade, ice and a kiddie pool available for emergency treatment and rapid cooling.
- Have a cell phone (with a charged battery) available at all workouts for emergency contact.
- Wear sunscreen with a sun protection factor (SPF) of at least 15. Apply it 30 minutes before going out in the sun and every 20 to 30 minutes if sweating or swimming.
- Wear hats with brims and light-colored, breathable clothing.
- Youth sports rules can be modified to increase the safety of athletes. For example, soccer games can be divided into quarters rather than halves to allow for more rest breaks, hydration and monitoring. Referees can call an official time out for hydration periodically during the game.

Be aware of the heat index

Humidity plays a major role in athletes' heat response. Know the heat index, which is a measure of the environmental temperature and humidity. This can be measured at the field or obtained from your local weather service or the Internet. When the temperature is 90°F and the humidity is 80 percent, the heat index is 115°F, which places athletes at risk of suffering a heat-related injury.

ACTIVITY GUIDELINES (see chart to the right)

Add 5°F to the temperature between 10 a.m. and 4 p.m. from mid-May to mid-September during sunny days.

(A.) Children and adolescents should receive a five- to 10-minute rest and fluid break every 25 to 30 minutes of activity.

(B.) Children and adolescents should receive a five- to 10-minute rest and fluid break every 20 to 25 minutes of activity. Children should be in shorts and T-shirts (with helmet and shoulder pads only, not full equipment, if worn for activity).

(C.) Children and adolescents should receive a five- to 10-minute rest and fluid break every 15 to 20 minutes of activity. Children should be in shorts and T-shirts only (with all protective equipment removed, if worn for activity).

(D.) Cancel or postpone all outdoor practices and games. Practice may be held in an air-conditioned space.

EARLY SIGNS OF HEAT-RELATED ILLNESS

Dehydration and heat cramp

Thirst, fatigue, dizziness, light-headedness, muscle cramps and loss of energy may be signs of dehydration. Athletes should stop and drink water or a sports drink. Muscle cramps can be stretched and lightly massaged. Resume activity with caution only when all symptoms have cleared.

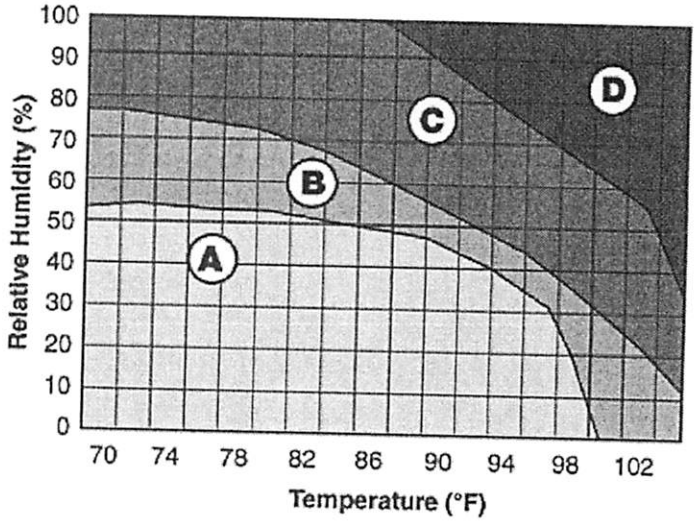
Heat exhaustion

Dizziness, rapid pulse, headaches, nausea, vomiting, chills and loss of coordination may be signs of heat exhaustion. The athlete may be sweating profusely or the skin may be dry. Activity should be discontinued and the athlete should be rehydrated. If his level of consciousness does not allow oral hydration, transport him to a medical facility for intravenous hydration. Core body temperature should be measured. If this is not available, transport him to a medical facility for hydration and monitoring.

Heat stroke

Call 911 immediately. Confusion, irrational behavior, drowsiness, nausea, vomiting and a dangerously high temperature (104°F and above) may be signs of heat stroke. This is a life-threatening medical emergency that requires rapid cooling by immersion in an ice bath. Ice bags on the neck and groin may help if a bath is unavailable.

Physicians and parents with knowledge about heat-related illness should take on a role of educating administrators, coaches and officials and encouraging proper training in the recognition and treatment of heat-related illness.



Certain children and adolescents are at an increased risk of suffering a heat-related illness and must be identified so extra precautions can be taken, if needed. At-risk children and adolescents include those who:

- Are overweight and/or unacclimated to exercising in a hot environment.
- Have or are recovering from a recent illness, especially involving vomiting, diarrhea and/or fever.
- Are taking certain medications (diuretics, attention-deficit/hyperactivity disorder (ADHD) medications, anticholinergics and caffeine).
- Have chronic medical conditions (asthma, sickle cell trait, hyperthyroidism or cystic fibrosis).
- Have a history of suffering a heat-related illness.

Visit www.choa.org/sportsmed or call 404-785-6880 for more information.

Heat-related Illness: Tips for Young Athletes

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Hydration tips for young athletes

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Tips for exercising in the heat

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- Allow children and adolescents who are overweight, out of shape or unacclimated time to adjust to the heat.
- Schedule water and rest breaks every 30 minutes during activities. During these breaks, do not just encourage, but require children and adolescents to drink. This also gives the coach or trainer a chance to monitor the athletes.
- Have shade, ice and a kiddie pool available for emergency treatment and rapid cooling.
- Have a cell phone (with a charged battery) available at all workouts for emergency contact.
- Wear sunscreen with a sun protection factor (SPF) of at least 15. Apply it 30 minutes before going out in the sun and every 20 to 30 minutes if sweating or swimming.
- Wear hats with brims and light-colored, breathable clothing.
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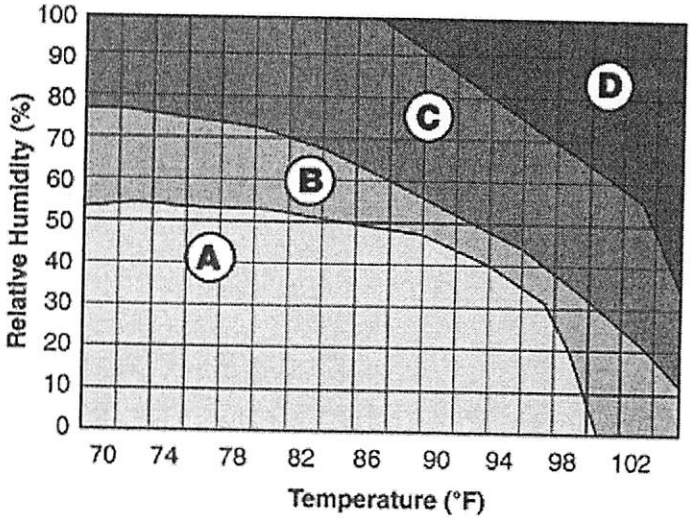
(C.) Children and adolescents should receive a five- to 10-minute rest and fluid break every 15 to 20 minutes of activity. Children should be in shorts and T-shirts only (with all protective equipment removed, if worn for activity).

(D.) Cancel or postpone all outdoor practices and games. Practice may be held in an air-conditioned space.



Visit www.choa.org/sportsmed or call 404-785-6880 for more information.

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Urine Color Chart for Young Athletes

HYDRATED

1 OPTIMAL

2

3

If your urine matches the colors numbered 1 through 3, you are hydrated.

This urine color chart is a simple tool you can use to assess if you are drinking enough fluids throughout the day to stay hydrated.

DEHYDRATED

4

5

6

7

8

Seek medical help:
May indicate blood in urine or kidney disease

If your urine matches the colors numbered **4 through 8, you are dehydrated** and need to drink more fluid.

Be aware! If you are taking vitamin supplements, some of the vitamins can change the color of your urine for a few hours, making it bright yellow or discolored.

If you are taking a vitamin supplement, you may need to check your hydration status using another tool.

Adapted from LE Armstrong, *Int J Sports Nutrition*, 1998

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