



## Heat Index Procedures for Outdoor Activities

When determining outside activities (athletic practice, physical education, recess, etc.), Walla Walla Public Schools relies on the WIAA Heat Index recommendations to inform their safety and mitigation measures.

### Background:

- A heat index is an index that combines air temperature and relative humidity in an attempt to determine the human-perceived equivalent temperature; "how hot it feels." The result is also known as the "felt air temperature" or "apparent temperature." For example, when the temperature is 90°F with very high humidity, the heat index can be about 106°F.
- The human body normally cools itself by perspiration, or sweating. Heat is removed from the body by evaporation of that sweat. However, relative humidity reduces the evaporation rate because the higher vapor content of the surrounding air does not allow the maximum amount of evaporation from the body to occur.
- Higher humidity results in a lower rate of heat removal from the body, hence the sensation of being overheated.
- The table below is a listing of the calculated heat index values which match the U.S. National Oceanic and Atmospheric Administration's table. The colors correspond to WIAA's and WWPS' categorization (**notice**, **caution**, **warning**, and **danger**).
- Looking at the table, it is important to note that any temperature above 86°F will "feel" at least 86°F. Virtually every heat index will be at least the current temperature, if not hotter.

		Temperature (°F)																									
		80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Relative Humidity (%)	40	80	81	81	82	83	84	85	87	88	89	91	92	94	95	97	99	101	103	105	107	109	112	114	116	119	
	45	80	81	82	83	84	85	87	88	89	91	92	94	96	98	100	102	104	106	109	111	114	116	119			
	50	81	82	83	84	85	86	88	89	91	93	95	97	99	101	103	105	108	110	113	115	118					
	55	81	82	84	85	86	88	89	91	93	95	97	99	101	104	106	109	112	114	117							
	60	82	83	84	86	88	89	91	93	95	97	100	102	105	107	110	113	116	119								
	65	82	84	85	87	89	91	93	95	98	100	103	105	108	111	114	118										
	70	83	85	86	88	90	93	95	98	100	103	106	109	112	116	119											
	75	84	85	88	90	92	95	97	100	103	106	109	113	116													
	80	84	86	89	91	94	97	100	103	106	110	113	117														
	85	85	87	90	93	96	99	102	106	110	113	117															
	90	86	88	91	95	98	102	105	109	113	117																
95	86	90	93	97	100	104	108	113	117																		
100	87	91	95	99	103	107	112	116																			

### Procedures:

- The WIAA & WWPS use a custom script to calculate a given heat index and forecasted heat index for a given location (i.e. city name or ZIP code). This is accomplished via a weather API service through AccuWeather.
  - Use the following link to determine current and forecasted heat indexes: <https://wiaa.com/heatindex.aspx>
  - Based on the forecasted values, use the following table to adjust activities.



**HEAT INDEX  $\geq$  105°F: DANGER**

- Stop all outside activity in practice and/or play.
- Indoor activity may need to be altered if air conditioning is not available.

**105 HEAT INDEX  $\geq$  100°F AND  $<$  105°F: WARNING**

School Activities:

- If practical, move outside activities indoor.
- Limit intensity and/or duration of outside activities (e.g. walking instead of running, low impact activities, breaks between exertions).
- Provide access to water.
- Watch/monitor students for necessary action.

WIAA Athletic Activities:

- Maximum of 4 hours of practice per day.
- Practice length a maximum of 2 hours, one practice shall be during a time of day with a lower heat index.
- Mandatory 3-hour recovery period between practices.
- Water shall always be available and athletes should be able to take in as much water as they desire.
- Watch/monitor athletes for necessary action.
- See WIAA website for more details: <https://waa.com/ardisplay.aspx?ID=1907>

**100 HEAT INDEX  $\geq$  95°F AND  $<$  100°F: CAUTION**

School Activities:

- Consider limiting intensity and/or duration of outside activities (e.g. walking instead of running, low impact activities, breaks between exertions).
- Provide access to water.
- Watch/monitor students for necessary action.

WIAA Athletic Activities:

- Maximum of 4 hours of practice per day.
- Practice length a maximum of 2 hours.
- Mandatory 3-hour recovery period between practices.
- Water shall always be available and athletes should be able to take in as much water as they desire.
- Watch/monitor athletes for necessary action.
- See WIAA website for more details: <https://waa.com/ardisplay.aspx?ID=1907>

**95 HEAT INDEX  $\geq$  80°F AND  $<$  95°F: NOTICE**

School Activities:

- Watch/monitor students for necessary action.

WIAA Athletic Activities:

- Maximum of 5 hours of practice per day in divided sessions.
- Water should always be available and athletes should be able to take in as much water as they desire.
- Watch/monitor athletes for necessary action.

**80 HEAT INDEX  $<$  80°F: SAFE FOR MOST PARTICIPANTS**

School Activities:

- Watch/monitor students for necessary action.

WIAA Athletic Activities:

- Maximum of 5 hours of practice per day in divided sessions.
- Water shall always be available and athletes should be able to take in as much water as they desire.
- Watch/monitor athletes for necessary action.