



# Early Childhood Weather Guide

## Understand the Weather

 **HEAT INDEX** is the effect of relative humidity on the felt temperature of the air in shade, shown in degrees Fahrenheit.

 **WIND CHILL** is the effect of wind on the felt temperature of the air, shown in degrees Fahrenheit.

**STRONG SUN** can make surface temperatures extra hot, and **SHADE** can keep ice from melting.

**STRONG WIND** can stress and break branches, blow debris, or make it harder for children to catch their breath.

**AIR QUALITY INDEX (AQI)** tells you how clean or polluted the air is.


- Below 100 AQI is acceptable for most people.
- Within 101-150 AQI can be harmful to sensitive groups, like young children, and physical activity should be limited.
- Above 150 AQI can be harmful to the general public and people should filter air through masks or air conditioning systems.

•**Weather WATCH:** Hazardous weather is possible, and people should have a plan of action and listen for more information.

•**Weather ADVISORY:** Hazardous weather is occurring, imminent or likely. “Advisories” are for less serious conditions than warnings, but could lead to situations that may threaten life or property.


•**Weather WARNING:** Hazardous weather is occurring, imminent or likely. “Warnings” mean that weather conditions pose a threat to life or property, and people need to take protective action.

## HEAT INDEX CHART

 Relative Humidity (%)

|                      | 40  | 45  | 50  | 55  | 60  | 65  | 70  | 75  | 80  | 85  | 90  | 95  | 100 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Air Temperature (°F) | 80  | 80  | 81  | 81  | 82  | 82  | 83  | 84  | 84  | 85  | 86  | 86  | 87  |
| 85                   | 84  | 85  | 86  | 88  | 89  | 91  | 93  | 95  | 97  | 99  | 102 | 104 | 107 |
| 90                   | 91  | 92  | 95  | 97  | 100 | 103 | 106 | 109 | 113 | 117 | 122 | 127 | 132 |
| 95                   | 99  | 102 | 105 | 109 | 113 | 118 | 123 | 128 | 134 | 140 |     |     |     |
| 100                  | 109 | 114 | 118 | 124 | 129 | 136 | 144 |     |     |     |     |     |     |
| 105                  | 121 | 127 | 134 | 141 |     |     |     |     |     |     |     |     |     |

## WIND CHILL INDEX CHART

 Wind Speed (mph)

|                      | 0   | 5   | 10  | 15  | 20  | 25  | 30  | 35  | 40  |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Air Temperature (°F) | 40  | 36  | 34  | 32  | 30  | 29  | 28  | 28  | 27  |
| 30                   | 30  | 25  | 21  | 19  | 17  | 16  | 15  | 14  | 13  |
| 20                   | 20  | 13  | 9   | 6   | 4   | 3   | 1   | 0   | -1  |
| 10                   | 10  | 1   | -4  | -7  | -9  | -11 | -12 | -14 | -15 |
| 0                    | 0   | -11 | -16 | -19 | -22 | -24 | -26 | -27 | -29 |
| -10                  | -10 | -22 | -28 | -32 | -35 | -37 | -39 | -41 | -43 |

**Blue:** Outdoor play should be available to children of all ages with appropriate clothing.

**Green:** Use specific clothes and carefully choose locations and activities for being outside. Check for signs of temperature-related illness. Serve warm or cold drinks and food, and use age-appropriate fans or heaters to maintain comfort, as needed.

**Yellow:** Follow guidance for Green. Limit time outside, and use shelter to cool down or heat up approximately every 30 minutes or as needed for overall conditions.

**Purple:** Move into more temperate environments and follow any state or local emergency protocols.

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*Outdoor and indoor environments have benefits and risks. When deciding to be outside or inside, use all available information. Consider the weather people are acclimated to, knowledge of the weather, and the ages, health, and developmental differences of children and adults.*

*Differences of ability, culture, or other factors should be supported, and accommodations should maintain or increase children's access to the outdoors and its benefits.*

**Children's healthy development depends on regular and sustained time outside.** All children should have access to outdoor play and learning at least 2-3 times per day. Children over 1 year of age should have outdoor play for at least 60-90 minutes per day, weather permitting.

**Safe outdoor play is possible in a variety of weather conditions**, including rain, snow, wind, or strong sun. Use this guide to support and manage outdoor play in different types of weather. Learning about the weather and how to be safe is important and necessary to support people's access to and enjoyment of nature and outdoor play.

**Check the weather forecast at least once a day.** Check more often when there could be a hazardous weather event, so you are prepared to find shelter. Have emergency plans for weather events such as lightning, severe storms, tornadoes, or wildfires (smoke).

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## Hydration; Appropriate Clothing; Shade; Shelters; Heat Sources; Activity Choice

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**Drink water throughout the day**, and especially in hot weather. High-sugar content beverages can negatively impact hydration and should be avoided. Infants under 6 months should be drinking breastmilk or formula, and infants over 6 months may be offered water.

• **When it is hot and sunny:**

- Wear sunhats, sunscreen, lightweight and light colored clothes.
- Play in the shade, limit vigorous activity, and wet the skin to cool the body.

• **When it is cold and wet:**

- Wear wool/synthetic layers, waterproof coats and pants, boots, mittens, hats, and sunscreen as needed.
- Keep clothes next to the skin dry, and have dry clothes to change into.
- Play where there is less wind, be active, and warm up with shelter and heat.

## INFANTS AND TODDLERS

Infants (under 1 year of age) are not as adaptable to temperature change or extremes. Consistently check the body temperature in their core and extremities for infants, toddlers, and others based on developmental need. Limit time outside in extreme temperatures. Hoodies and scarves pose a choking hazard for infants and should not be used.

## YOUNG CHILDREN

Young children need support monitoring their own body temperature, taking off or putting on layers of clothing, and participating in appropriate activities. Children may not understand the dangers of being too hot or too cold, and adults should monitor and support them in identifying and addressing their needs. Medications may also impact children's body temperature.

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## TEMPERATURE-RELATED FIRST AID †

When above a heat index of 90° F or below a wind chill of 32° F, special care must be taken to avoid heat exhaustion, heat stroke, hypothermia, or frostbite.

### Sunburns

- Signs: Hot, red or blistered skin
- Treatment: Shade; drink water; regularly cool the skin with water; apply moisturizer or aloe vera; leave blisters

### Heat Exhaustion

- Signs: A high body temperature, over 100° F; cool, clammy skin despite the heat; increased sweating; increased thirst; rapid breath and heart rate; fainting, dizziness or weakness; headache; irritability; muscle cramps; nausea and/or vomiting.
- Treatment: Move into a cool, shaded area; drink water and fluids with salt or electrolytes; cool the skin with cold, wet towels; gently massage cramps.

### Heat Stroke (severe, untreated heat exhaustion)

- Signs: Skin is dry, not sweating; a very high body temperature, above 104° F; seizures; loss of consciousness;
- Treatment: Immediately call 911 and seek medical care; immediately cool down with cold baths or wet towels

### Hypothermia

- Signs: Body temperature below 95° F; shivering; numb fingers or toes; exposed skin is blue and puffy; lethargy; lack of coordination; difficulty walking; confusion; slower breath or heart rate; irregular heart beat.
- Treatment: Remove from cold; remove any wet clothes; warm with blankets; warm beverage; share body heat with skin-skin contact; call 911

### Frostbite

- Signs: Often fingers and toes; skin gets white and waxy; area feels numb and hard.
  - Treatment: Remove from cold; carry children with frostbitten feet; put frozen areas in warm (not hot) water; do not use direct heat on numb areas; do not rub frostbitten skin; rewarming will bring a burning sensation and skin may blister, use sterile bandages; wrap rewarmed areas, but not too tight, separating fingers and toes.
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