



Chapter 3: Health Promotion and Protection

3.1 Health Promotion in Child Care

3.1.3 Physical Activity and Limiting Screen Time

Standard 3.1.3.2: Playing Outdoors

Children should play outdoors when the conditions do not pose a safety risk, individual child health risk, or significant health risk of frostbite or of heat related illness. Caregivers/teachers must protect children from harm caused by adverse weather, ensuring that children wear appropriate clothing and/or appropriate shelter is provided for the weather conditions. Outdoor play for infants may include riding in a carriage or stroller; however, infants should be offered opportunities for gross motor play outdoors, as well.

Weather that poses a significant health risk should include wind chill factor at or below minus 15°F and heat index at or above 90°F, as identified by the National Weather Service (NWS).

Sunny weather:

- a. Children should be protected from the sun by using shade, sun-protective clothing, and sunscreen with UVB-ray and UVA-ray protection of SPF 15 or higher, with permission from parents/guardians;
- b. Children should wear sun-protective clothing, such as hats, when playing outdoors between the hours of 10 AM and 4 PM.

Warm weather:

- a. Children should be well hydrated before engaging in prolonged periods of physical activity and encouraged to drink water during periods of prolonged physical activity;
- b. Caregivers/teachers should encourage parents/guardians to have children dress in clothing that is light-colored, lightweight, and limited to one layer of absorbent material that will maximize the evaporation of sweat;
- c. On hot days, infants receiving human milk in a bottle can be given additional human milk in a bottle but should not be given water, especially in the first six months of life. Infants receiving formula and water can be given additional formula in a bottle.

Cold weather:

- a.
 1. Children should wear layers of loose-fitting, lightweight clothing. Outer garments such as coats should be tightly woven, and be at least water repellent when precipitation is present, such as rain or snow;
 2. Children should wear a hat, coat, and gloves/mittens kept snug at the wrist;
 3. Caregivers/teachers should check children's extremities for maintenance of normal color and warmth at least every fifteen minutes.

Caregivers/teachers should also be aware of environmental hazards such as contaminated water, loud noises, and lead in soil when selecting an area to play outdoors. Children should be observed closely when playing in dirt/soil, so that no soil is ingested. Play areas should be secure and away from heavy traffic areas.

RATIONALE:

Outdoor play is not only an opportunity for learning in a different environment; it also provides many health



3.1.3.2 - Playing Outdoors

benefits. Outdoor play allows for physical activity that supports maintenance of a healthy weight (2). Short exposure of the skin to sunlight promotes the production of vitamin D that growing children require.

Open spaces in outdoor areas, even those confined to screened rooftops in urban play spaces, encourage children to develop gross motor skills and fine motor play in ways that are difficult to duplicate indoors. Nevertheless, some weather conditions make outdoor play hazardous.

Children need protection from adverse weather and its effects. Wind chill conditions that pose a risk of frostbite as well as heat and humidity that pose a significant risk of heat-related illness are defined by the NWS and are announced routinely.

Heat-induced illness and cold injury are preventable. Children have greater surface area-to-body mass ratio than adults. Therefore, children do not adapt to extremes of temperature as effectively as adults when exposed to a high climatic heat stress or to cold. Children produce more metabolic heat per mass unit than adults when walking or running. They also have a lower sweating capacity and cannot dissipate body heat by evaporation as effectively (1).

Generally, infectious disease organisms are less concentrated in outdoor air than indoor air.

COMMENTS:

Wind chill temperature is the temperature it “feels like” outside and is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the wind increases, the body is cooled at a faster rate causing the skin temperature to drop. Many layers of clothing traps air between the layers and provides better insulation than one thick layer of clothing.

The NWS provides up to date weather information and warnings. The NWS Website will inform the public when wind chill conditions reach critical thresholds. A Wind Chill Warning is issued when wind chill temperatures are life threatening. A Wind Chill Advisory is issued when wind chill temperatures are potentially hazardous.

The NWS provides convenient color-coded guides for caregivers/teachers to use to determine which weather conditions are comfortable for outdoor play, which require caution, and which are dangerous. These guides are available on the NWS Website at <http://www.nws.noaa.gov/om/windchill/index.shtml> for wind chill and <http://www.nws.noaa.gov/om/heat/index.shtml> for heat index.

The National Oceanic and Atmospheric Administration (NOAA) Weather Radio All Hazards (NWR) broadcasts continuous weather information twenty-four hours a day, seven days a week, directly from the nearest NWR office. NWR is an “All Hazards” radio network, making it a single source for comprehensive weather and emergency information. In conjunction with Federal, State, and Local Emergency Managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 9-1-1 telephone outages). NWR requires a special radio receiver or scanner capable of picking up the signal. NWR radios/receivers can usually be found in most electronic store chains across the country or you can also purchase NOAA weather radios online at <http://www.noaaweatherradios.com>.

Email and Text Message Weather Alerts: These weather alert services send out weather warnings, watches, and hurricane information. Alerts are sent to subscribers in the warned areas via text messages and email.



3.1.3.2 - Playing Outdoors

Select a service that sends warnings based on county, state, or national advisories. Some alerts may be delayed or missed because of problems on the Internet or the cell-phone network. Thus, do not rely solely on this system. Weather radio or local news affiliates should also be monitored for weather warnings.

Some flexibility is needed depending on the location of the program. For example, in some climates where children do not have warm winter clothing even 20°F could be too cold. In some southern climates it is always above 90°F, but older children are acclimated and can play in shaded areas.

To access the latest local weather information and warnings, contact the National Weather Service at <http://www.weather.gov>.

Frostbite is an injury to the body caused by freezing body tissue. The most susceptible parts of the body are the extremities such as fingers, toes, ear lobes, or the tip of the nose. Symptoms include a loss of feeling in the extremity and a white or pale appearance. Medical attention is needed immediately for frostbite. The affected area should be SLOWLY re-warmed by immersing frozen areas in warm water (around 100° Fahrenheit) or apply warm compresses for thirty minutes. If warm water is not available, wrap gently in warm blankets (4).

Hypothermia is a medical emergency that occurs when the body loses heat faster than it can produce heat, causing a dangerously low body temperature. An infant with hypothermia may have bright red, cold skin and very low energy. A child's symptoms may include shivering, clumsiness, slurred speech, stumbling, confusion, poor decision making, drowsiness or low energy, apathy, weak pulse, or shallow breathing (3). Call 9-1-1 if a child has these symptoms.

Winter can be problematic for children with asthma for two reasons. Indoor allergens such as dust and dust mites are common triggers for asthma symptoms and levels of these allergens can become elevated during the winter, when doors and windows are kept shut to keep out cold air. Cold temperatures also may, in some cases, serve as a trigger to asthma symptoms for children with asthma. Children for whom cold weather is an asthma trigger may be helped by wearing a scarf during periods of cold weather. All children with asthma can safely play outdoors as long as their asthma is well controlled, and the parents/guardians of children with asthma should be encouraged to work with their child's primary care provider to develop a plan the child can self-manage that incorporates opportunities for outdoor play.

The thought is often expressed that children are more likely to become sick if exposed to cold air, however upper respiratory infections and flu are caused by viruses, not exposure to cold air. These viruses spread easily during the winter when children are kept indoors in close proximity. The best protection against the spread of illness is regular and proper hand hygiene for children and caregivers/teachers, as well as proper sanitation procedures during mealtimes, and when there is any contact with bodily fluids.

TYPE OF FACILITY:

Small Family Child Care Home, Center, Large Family Child Care Home

RELATED STANDARDS:

[3.1.3.1](#) Active Opportunities for Physical Activity

[3.1.3.4](#) Caregivers'/Teachers' Encouragement of Physical Activity

[3.4.5.1](#) Sun Safety Including Sunscreen

[8.2.0.1](#) Inclusion in All Activities

[Appendix S](#): Physical Activity: How Much Is Needed?

REFERENCES:



3.1.3.2 - Playing Outdoors

1. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. 2007. Policy statement: Climatic heat stress and the exercising child and adolescent. *Pediatrics* 120:683-84.
2. Hagan, J. F., J. S. Shaw, P. M. Duncan, eds. 2008. Promoting physical activity. In *Bright futures: Guidelines for health supervision of infants, children, and adolescents*, 147-54. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics.
3. Mayo Clinic. 2009. Hypothermia: Symptoms. <http://www.mayoclinic.com/health/hypothermia/DS00333/>.
4. Kids Health. 2008. Frostbite. Nemours. http://kidshealth.org/parent/firstaid_safe/emergencies/frostbite.html.

NOTES:

Content in the STANDARD was modified on 8/8/2013.