

Heat-related illness in infants and young children

Heat and humidity can go up in the summer months, making it feel hotter outside than normal. Extreme heat happens when the heat and humidity are much higher than we would expect during a normal summer day.

Extreme heat can be harmful to anyone's health, but infants (0-1 year) and young children (1-5 years) may be at a higher risk of heat-related illness, especially if they do not have access to a cool indoor environment.

Heat can build up indoors when the outdoor temperatures are high. Exposure to indoor heat over 31°C for long periods can be dangerous. If it gets very hot in your home, plan to go somewhere cooler if possible.

Why are infants and children at greater risk?

Infants and children can become dehydrated quickly due to a high [metabolism](#) and less effective kidneys, putting them at a higher risk of heat-related illness.

Infants and children also have more sensitive skin, making them more likely to get a sunburn. [Sunburns](#) can make heat-related illnesses more likely and more severe.

Sweat is the body's way of cooling down. Infants can't sweat, which means that they can develop a heat-related illness much faster than an older child or adult.

What signs should I look for?

Your infant or young child may not be able to tell you what they are feeling or what they need. This makes it especially important to monitor them during extreme heat events. If your infant or child is sick, watch them closely, as heat can make the symptoms of their illnesses worse (e.g., dehydration due to nausea and vomiting).

Symptoms of severe heat-related illness (like heat stroke) include:

- Looking sleepy and is difficult to wake up, feeling very tired, **lethargic**, or weak
- Movement and coordination problems
- Leg or stomach cramps, complains of tummy ache
- Vomiting and diarrhea
- Dizziness, confusion, or difficulty speaking
- Seizures, fainting, or loss of consciousness
- Hot, flushed skin or very pale skin
- Not urinating or very little urinating
- Body temperature above 39°C (102°F)

Symptoms of mild to moderate heat-related illness:

- Headache
- Nausea
- Weakness
- Irritability
- Light-headed or dizziness
- Disorientation
- Thirst or dry mouth
- Difficulty swallowing
- Fatigue, malaise
- Heat rash, heat edema (swelling)
- Decreased urine output
- Increased heart rate
- Skin feels very warm
- Body temperature above 38°C (100°F)

Signs of dehydration in infants and young children include:

- Peeing less
 - Fewer than 4 wet diapers in 24 hours in infants (0-1 year)
 - Fewer than 3 wet diapers in 24 hours in children (1-5 years)
 - Peeing little, and fewer than 4 times a day for children not in diapers
- Being extra thirsty

- Heavy sweating followed by no sweating at all, the skin is hot, dry and flushed
- Seeming more fussy than normal
- No tears when crying
- Dry mouth and tongue
- Faster heartbeat
- Shallow breathing (especially with infants)
- Sunken eyes
- Sunken soft spot on the head (if 18 months or younger)

Keep in mind that infants and young children may not show the early signs and symptoms of heat-related illness. They may just look unwell or be more fussy than usual.

What should I do if my child is showing signs of heat-related illness?

Contact a health care provider if your infant or young child shows signs of a heat-related illness. You can also call HealthLinkBC BC at **8-1-1** anytime to talk with a registered nurse.

It's important that you begin cooling down your child right away. Get them out of the heat and remove their clothes. Use a fan or spritz them with cool water. Offer them frequent sips of water.

If your child is showing serious signs of a heat-related illness, call 9-1-1 or your local emergency number.

What should I do if my child is dehydrated?

Contact a health care provider right away if your infant or young child shows signs of being dehydrated. You can also call HealthLink BC at **8-1-1** anytime to talk with a registered nurse.

Here are some steps you can take if your child is showing signs of dehydration:

Under 1 year

- Give your child lots of breastmilk or formula if they are under 1-year-old
- Speak to a health care provider before offering your child fluid replacement products like Pedialyte

1 year and older

- Give your child fluid replacement products, such as Gastrolyte or Pedialyte if they show signs of dehydration
- Use diluted apple juice (½ water, ½ apple juice) as an alternative fluid replacement drink if your child is **2 years and older**. These drinks are better than water for rehydration because they combine fluid, sugar, and electrolytes

See your health care provider immediately if symptoms do not improve or worsen. Get emergency medical care if your infant or child is very sleepy or isn't responding to you.

BC's heat alert warning system

The B.C. Heat Alert and Response System, or BC HARS, defines two categories of heat events – heat warning and the more dangerous extreme heat emergency – triggered by specific temperature ranges to initiate recommended response actions. Environment and Climate Change Canada issue the alerts and you can sign up to get heat push notifications to your smartphones through the [WeatherCAN app](#) for any/all of the pre-selected locations.

For more information

For more information on extreme heat, visit: www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/preparedbc/preparedbc-guides/preparedbc_extreme_heat_guide.pdf

For more information on heat-related illness, visit the following HealthLink BC files:

- [HealthLinkBC File #35 Heat-related illness](#)
- [HealthLinkBC File #35a Safety for the perinatal population during extreme heat](#)
- [HealthLinkBC File #35b Safety for infants and young children during extreme heat](#)

For more information on keeping children cool visit: www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/keep-children-cool-extreme-heat/extreme-heat-brochure-keep-children-cool-en.pdf.

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/more/resources/healthlink-bc-files or your local public health unit. For non-emergency health information and advice in B.C. visit www.HealthLinkBC.ca or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.