



Frostbite

Frostbite is damaged skin caused by extreme cold. It happens when the skin, nerves, and blood vessels below the top layer of the skin freeze. Rain, snow, water, and wind can cause the skin to cool faster, which may lead to frostbite. Wet skin and clothes can draw heat from the body even faster.

Frostbite occurs most often on small, uncovered areas of the body, such as the hands, fingers, feet, toes, ears, nose, lips, and cheeks. Children are at greater risk because their small bodies lose heat faster than adults.

Signs of Frostbite

Early signs of frostbite:

- Skin that is paler than normal, cold, and hard
- Pain, tingling, burning, numbness, or aching
- Swelling
- Blisters in the first 24 hours

Later signs of frostbite (if not treated):

- Dark purple or black skin color
- No feeling or pain in that part of the body

What to Do

If you think your child may have frostbite, they should see a doctor or health care provider as soon as possible.

It is important to start rewarming the skin right away. Do this slowly, and with wet heat.

- **Do not** use heat lamps, heating pads, or electric heaters.

- **Do not** rub or massage the injured area. Do not rewarm if there's a chance that the area will refreeze.
- **Do not** break blisters.
- You will rewarm the body differently, depending on what part is injured:

For the face and ears:

1. Put warm, wet washcloths on the area.
2. Replace them as soon as they get cool.
3. Do this for 30 minutes.
4. Gently pat dry. Keep the area warm, dry, and clean.

For other areas:

1. Fill a sink or basin with warm (not hot) water that is 104° to 108° Fahrenheit (F) or 40° to 42° Celsius (C). If you do not have a thermometer, test the water with your elbow (Picture 1). Do not test the water temperature with a hurt hand or foot.
2. Keep the frostbit body part in warm water for 30 minutes, or until the area goes back to its normal color. It should slowly return.
3. Gently pat dry. Keep the area warm, dry, and clean.



Picture 1 You can check the water temperature with your elbow. Do not use hot water to rewarm skin.

- You can stop rewarming if:
 - Your child can move the hurt body part.
 - Feeling comes back. It may tingle at first.
 - The area returns to its normal color.
- Give your child warm drinks. Cover them with a blanket.

Care at Home

- Keep the frostbitten area clean. Apply unscented cream or ointment, like Vaseline®. Your child's doctor or health care provider might order something else.
- Avoid exposing your child to hot or cold temperatures.

When to Call the Doctor

Call your child's doctor, health care provider, or the clinic if you notice any of these signs of infection:

- Thick drainage
- Swelling
- Skin color and feeling do not come back after one hour of rewarming
- Fever:
- Blisters
- Redness or red streaks on the skin

Age	Temperature or Fever
Younger than 3 months old	– Above 100.4° F (38° C)
Older than 3 months old	– 104° F (40° C) or above – Above 102° F (38.9° C) for more than 2 days or keeps coming back – Treated to bring their fever down, but it hasn't worked

Preventing Frostbite

- Dress your child with thin layers of dry clothes under their coats or snow pants to keep them warm. Have them wear leggings, waterproof boots, a hat, mittens or gloves, and a scarf that covers their face (Picture 2).
- Clothes should be changed if they get wet, even from sweat.
- Teach your child not to touch cold metal with their tongue or bare skin.
- Have your child take breaks indoors when it's below 32° F (0° C) outside. They should not play longer than 15 to 20 minutes, especially when it's windy. Cold wind increases the risk of frostbite.
- Don't send your child outside when the temperature or wind child is below -15° F (-26° C).
- If your child has had frostbite in the past, that area may be more painful in the cold and easier to get frostbite again. Cover that area when your child goes out in cold weather.



Picture 2 Dress children warmly in thin layers of clothing and waterproof boots.