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First aid

# Hypothermia: First aid

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#### **Overview**

Hypothermia happens when the body loses heat faster than it can produce heat and the body temperature falls below 95 degrees Fahrenheit (35 degrees Celsius). Left untreated, it can be lifethreatening.

Hypothermia is often caused by exposure to cold weather or immersion in cold water. Ongoing exposure to cool indoor temperatures also can cause hypothermia, especially in older adults and babies. Being exhausted or dehydrated increases the risk of hypothermia.

## When to seek emergency help

If you suspect someone has hypothermia, call 911 or your local emergency number.

#### **Symptoms**

Symptoms of hypothermia usually develop slowly and may include:

- Shivering, though this may stop as body temperature drops.
- · Slurred speech or mumbling.
- · Slow, shallow breathing.
- · Weak pulse.
- Clumsiness or lack of coordination.
- Drowsiness or very low energy.
- · Confusion or memory loss.
- · Loss of consciousness.
- In infants, bright red, cold skin.

#### **Treatment**

To help someone with hypothermia, take these steps immediately:



- Gently move the person out of the cold. If going indoors isn't
  possible, protect the person from the wind, especially around
  the neck and head. Insulate the individual from the cold
  ground, such as by laying a blanket underneath the person.
- 2. Gently remove wet clothing. Replace wet things with warm, dry coats or blankets.
- 3. If further warming is needed, do so gradually and focus on the center of the body. For example, apply warm, dry compresses to the neck, chest and groin. The CDC says that another option is using an electric blanket, if available. If a hot water bottle or chemical hot pack is used, first wrap it in a towel before applying.
- 4. Offer the person warm, sweet, nonalcoholic drinks.
- 5. Begin CPR if the person shows no signs of life, such as breathing, coughing or movement.

#### What to avoid

- Do not rewarm the person too quickly, such as with a heating lamp or hot bath.
- Don't attempt to warm the arms and legs. Heating or massaging the limbs can stress the heart and lungs.
- Don't give the person alcohol or cigarettes. Alcohol hinders the rewarming process, and tobacco products interfere with circulation that is needed for rewarming.

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Diseases & Conditions

# Hypothermia

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## **Overview**

Hypothermia is a condition that occurs when core body temperature drops below 95 degrees Fahrenheit (35 degrees Celsius). It is a medical emergency. In hypothermia (hi-poe-THUR-me-uh), the body loses heat faster than it can produce heat, causing a dangerously low body temperature. Regular body temperature is around 98.6 degrees Fahrenheit (37 degrees Celsius).

When body temperature drops, the heart, nervous system and other organs can't work as well as they usually do. Left untreated, hypothermia can cause the heart and respiratory system to fail and eventually can lead to death.

Common causes of hypothermia include exposure to cold weather or immersion in cold water. Treatment for hypothermia includes methods to warm the body back to a regular temperature.

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# **Symptoms**

When the temperature starts to drop, the body can start to shiver. Shivering is the body's attempt to warm itself. It is an automatic defense against cold temperature.

Symptoms of hypothermia include:

- Shivering.
- Slurred speech or mumbling.
- Slow, shallow breathing.
- Weak pulse.
- Clumsiness or lack of coordination.
- Drowsiness or very low energy.
- Confusion or memory loss.
- Loss of consciousness.
- In infants, bright red, cold skin.

People with hypothermia usually aren't aware of their condition. The symptoms often begin gradually. Also, the confused thinking associated with hypothermia prevents self-awareness. The confused thinking also can lead to risk-taking behavior.

## When to see a doctor

**Call 911 or your local emergency number** if you suspect someone has hypothermia.



While waiting for emergency help to arrive, gently move the person inside if possible. Jarring movements can trigger dangerous irregular heartbeats. Carefully remove any wet clothing and replace it with warm, dry coats or blankets.

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## Causes

Hypothermia occurs when the body loses heat faster than it produces it. The most common causes of hypothermia are exposure to cold-weather conditions or cold water. But prolonged exposure to any environment colder than the body can lead to hypothermia if a person isn't dressed properly or can't control the conditions.

Specific conditions leading to hypothermia include:

- Wearing clothes that aren't warm enough for weather conditions.
- Staying out in the cold too long.
- Being unable to get out of wet clothes or move to a warm, dry location.
- Falling into the water, such as in a boating accident.
- Living in a house that's too cold, either from poor heating or too much air conditioning.

## How your body loses heat

The mechanisms of heat loss from the body include:

- Radiated heat. Most heat loss is due to heat radiated from unprotected surfaces of the body.
- **Direct contact.** Direct contact with something very cold takes heat away from the body. Examples include contact with cold water or the cold ground. Because water is very good at transferring heat from the body, body heat is lost much faster in cold water than in cold air. Similarly, heat loss from the body is much faster if clothes are wet, as from being caught out in the rain.
- **Wind.** Wind removes body heat by carrying away the thin layer of warm air at the surface of the skin. A wind chill factor is important in causing heat loss.

## Risk factors

Risk factors for hypothermia include:

- Exhaustion. Fatigue reduces a person's ability to tolerate cold.
- Older age. The body's ability to regulate temperature and to sense cold may lessen with age. And some older adults may not be able to tell someone

when they are cold or to move to a warm location if they do feel cold.

- **Very young age.** Children lose heat faster than adults do. Children also may ignore the cold because they're having too much fun to think about it. They may not have the judgment to dress properly in cold weather or to get out of the cold when they should.
- Mental conditions. People with a mental illness, dementia or other conditions that interfere with judgment may not dress properly for the weather or understand the risk of cold weather. People with dementia may wander from home or get lost easily, making them more likely to be stranded outside in cold or wet weather.
- Alcohol and drug use. Alcohol may make the body feel warm inside, but it
  causes blood vessels to expand. As a result, the surface of the skin loses
  heat more rapidly. Alcohol also reduces the body's natural shivering
  response.
  - In addition, the use of alcohol or recreational drugs can affect judgment about the need to get inside or wear warm clothes in cold-weather conditions. A person who is intoxicated and passes out in cold weather is likely to develop hypothermia.
- **Certain medical conditions.** Some health disorders affect the body's ability to regulate body temperature. Examples include an underactive thyroid, also called hypothyroidism; poor nutrition or anorexia nervosa; diabetes; stroke; severe arthritis; Parkinson's disease; trauma; and spinal cord injuries.
- **Medicines.** Some drugs can change the body's ability to regulate its temperature. Examples include certain antidepressants, antipsychotics, narcotic pain medicines and sedatives.

Mayo Clinic Minute: Why the risk of frostbite is greater than you think





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# Complications

People who develop hypothermia because of exposure to cold weather or cold water are also vulnerable to other cold-related injuries, including:

- Frostbite, which is when skin and underlying tissues become frozen.
- Gangrene, which is when body tissue decays and dies because blood flow is blocked.

## Prevention

## Stay warm in cold weather

To stay warm in cold weather, remember the acronym COLD — cover, overexertion, layers, dry:

 Cover. Wear a hat or other protective covering to prevent body heat from escaping from your head, face and neck. Cover your hands with mittens instead of gloves.

- Overexertion. Avoid activities that cause a lot of sweat. The combination of wet clothing and cold weather can cause the body to lose heat more quickly.
- Layers. Wear loosefitting, layered, lightweight clothing. Outer clothing made of tightly woven, water-repellent material is best for wind protection. Wool, silk or polypropylene inner layers hold body heat better than cotton does.
- **Dry.** Stay as dry as possible. Get out of wet clothing as soon as possible. Be especially careful to keep your hands and feet dry, as it's easy for snow to get into mittens and boots.

## Keep children safe from the cold

To help prevent hypothermia when children are outside in the winter:

- Dress infants and young children in one more layer than an adult would wear in the same conditions.
- Bring children indoors if they start shivering that's the first sign that hypothermia is starting.
- Have children come inside often to warm themselves when they're playing outside.
- Don't let babies sleep in a cold room.

## Winter car safety

When traveling during bad weather, be sure someone knows where you're headed and at what time you're expected to arrive. That way, if you get into trouble on your way, emergency responders will know where to look for your car.

It's also a good idea to keep emergency supplies in the car in case you get stranded. Supplies may include several blankets, matches, candles, a clean can where you can melt snow into drinking water, a first-aid kit, dry or canned for a can opener, tow rope, booster cables, a compass, and a bag of sand or kitty litter to spread for traction if the car gets stuck in the snow. If possible, travel with a cellphone.

If you're stranded, put everything you need in the car with you, huddle together and stay covered. Run the car for 10 minutes each hour to warm it up. Make sure a window is slightly open and the exhaust pipe isn't covered with snow while the engine is running.

## **Alcohol**

To avoid alcohol-related risks of hypothermia, don't drink alcohol:

- If you're going to be outside in cold weather.
- If you're boating.
- Before going to bed on cold nights.

## **Cold-water safety**

Water doesn't have to be extremely cold to cause hypothermia. Any water that's colder than usual body temperature causes heat loss. The following tips may increase your survival time in cold water if you accidentally fall in:

- Wear a life jacket. If you plan to ride in a watercraft, wear a life jacket. A life jacket can help you stay alive longer in cold water by enabling you to float without using energy and by providing some insulation. Keep a whistle attached to your life jacket to signal for help.
- **Get out of the water if possible.** Get out of the water as much as possible, such as climbing onto a capsized boat or grabbing onto a floating object.
- Don't attempt to swim unless you're close to safety. Unless a boat, another
  person or a life jacket is close by, stay put. Swimming uses up energy and
  may shorten survival time.

- Position the body to minimize heat loss. Use a body position known as the heat escape lessening posture (HELP) to reduce heat loss while you wait for help. Hold your knees to your chest to protect the trunk of the body. If your life jacket forces your face down into the water when in this position, straighten your legs and bring them tightly together, hold your arms to your sides, and tilt your head back.
- **Huddle with others.** If you've fallen into cold water with other people, keep warm by facing the others in a tight circle.
- **Don't remove clothing.** While you're in the water, don't remove clothing because it helps to insulate you from the water. Buckle, button and zip up your clothes. Cover your head if possible. Remove clothing only after you're safely out of the water and can take measures to get dry and warm.

## Help for people most at risk

Community outreach programs and social support services can be of great help for people most at risk of hypothermia. This includes infants, older adults, people who have mental or physical health conditions, and people who are homeless. If you are at risk or know someone at risk, contact your local public health office for available services, such as the following:

- Help with paying heating bills.
- Check-in services to see if you and your home are warm enough during cold weather.
- Homeless shelters.
- Community warming centers, safe and warm daytime locations where you can go during cold weather.

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# Diagnosis

The diagnosis of hypothermia usually is clear based on a person's symptoms. The conditions in which the person with hypothermia became ill or was found also often make the diagnosis clear. Blood tests can help confirm hypothermia and its severity.

A diagnosis may not be clear, however, if the symptoms are mild. For example, hypothermia may not be considered when an older person who is indoors has symptoms of confusion, lack of coordination and speech problems.

## **Treatment**

Seek immediate medical attention for anyone who appears to have hypothermia. Until medical help is available, follow these first-aid guidelines for hypothermia.

## First-aid tips

- **Be gentle.** When helping someone with hypothermia, handle them gently. Only move the person as much as is necessary. Don't massage or rub the person. Vigorous or jarring movements may trigger cardiac arrest.
- Move the person out of the cold. Move the person to a warm, dry location if possible. If moving is not possible, shield the person from the cold and wind as much as possible. The person should be kept in a flat position if possible.
- **Remove wet clothing.** If the person is wearing wet clothing, remove it. Cut away clothing if necessary to avoid too much movement.
- Cover the person with blankets. Use layers of dry blankets or coats to warm the person. Cover the person's head, leaving only the face exposed.
- Insulate the person's body from the cold ground. If you're outside, lay the person flat on a blanket or other warm surface.
- Monitor breathing. A person with severe hypothermia may appear unconscious, with no clear signs of a pulse or breathing. If the person's breathing has stopped or appears dangerously low or shallow, begin CPR right away if you're trained.
- **Supply warm beverages.** If the affected person is alert and able to swallow, give the person a warm, sweet, nonalcoholic, noncaffeinated drink. Warm drinks can help warm the body.
- Use warm, dry compresses. Use first-aid warm compresses, which are
  plastic fluid-filled bags that warm up when squeezed. Other options include
  a makeshift compress of warm water in a plastic bottle or a dryer-warmed
  towel.

Apply the compresses only to the neck, chest wall or groin. Don't apply them to the arms or legs. Heat applied to the arms and legs forces cold blood back toward the heart, lungs and brain, causing the core body temperature to drop. This can be fatal.

• **Don't apply direct heat.** Don't use hot water, a heating pad or a heating lamp to warm the person. The extreme heat can damage the skin. It also can trigger irregular heartbeats that cause the heart to stop.

## Medical treatment

Depending on the severity of hypothermia, emergency medical care for hypothermia may include one of the following interventions to raise the body temperature:

- Passive rewarming. For mild hypothermia, covering the person with heated blankets and offering them warm fluids to drink may be enough.
- **Blood rewarming.** Blood may be drawn, warmed and recirculated in the body. A common method of warming blood is the use of a hemodialysis machine, which is usually used to filter blood in people with poor kidney function. Heart bypass machines also may need to be used.
- Warm intravenous fluids. A warmed solution of salt water may be put into a vein to help warm the blood.
- Airway rewarming. The use of humidified oxygen, given through a mask or nasal tube, can warm the airways and help raise the temperature of the body.
- Irrigation. A warm saltwater solution may be used to warm certain areas of the body, such as the area around the lungs or the abdominal cavity. The warm liquid is delivered to the affected area through small tubes called catheters.

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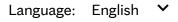
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## Frostbite: First aid

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Be ready to help if someone has frostbite.



By Mayo Clinic Staff

#### Overview

Frostbite is when skin and underlying tissues freeze after being exposed to very cold temperatures. It causes a cold feeling followed by numbness. As the frostbite gets worse, the affected skin may change color and become hard or waxy-looking.

The areas most likely to be affected are the fingers, toes, ears, cheeks, chin and tip of the nose.

#### When to seek emergency help

Seek emergency care for:

- Intense pain even after taking a pain reliever and rewarming.
- · Intense shivering.
- · Slurred speech.
- · Drowsiness.
- · Trouble walking.
- Suspected hypothermia. Symptoms of hypothermia are intense shivering, drowsiness, confusion, fumbling hands and slurred speech.

#### **Treatment**

You can treat mild frostbite (frostnip) yourself. All other frostbite requires medical attention. First-aid steps for frostbite are as follows:

Protect your skin from further damage. If there's any chance
the affected areas will freeze again, don't thaw them. If they're
already thawed, wrap them up so that they don't refreeze.

If you're outside, warm frostbitten hands by tucking them into your armpits. Protect your face, nose or ears by covering the



- area with dry, gloved hands.
- Get out of the cold, remove wet clothes and wrap up in a warm blanket.
- Gently rewarm frostbitten areas. If possible, soak the skin with frostbite in a tub or sink of warm water for about 30 minutes.
   For frostbite on the nose or ears, cover the area with warm, wet cloths for about 30 minutes.
- Drink a warm, nonalcoholic beverage.
- Take a nonprescription pain reliever if needed.
- Remove rings or other tight items. Do this before the injured area swells with rewarming.

#### What to avoid

- Don't rub the affected skin with snow or anything else.
- Don't walk on frostbitten feet or toes if possible.
- Don't rewarm frostbitten skin with direct heat, such as a stove, heat lamp, fireplace or heating pad. This can cause burns.
- · Don't drink alcohol.
- Don't apply direct heat. For example, don't warm the skin with a heating pad, a heat lamp, a blow-dryer or a car heater.

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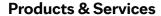


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Frostbite is an injury caused by freezing of the skin and underlying tissues. The early stage of frostbite is called frostnip. It causes a cold feeling followed by numbness. As frostbite gets worse, the affected skin may change color and become hard or waxy-looking.

Exposed skin is at risk of frostbite in conditions that are freezing cold and windy or wet. Frostbite also can occur on skin covered by gloves or other clothing.

Mild frostbite gets better with rewarming. Seek medical attention for anything more serious than mild frostbite because the condition can cause permanent damage to skin, muscle, bone and other tissue.





# **Symptoms**

Symptoms of frostbite include:

- Numbness.
- Tingling.
- Patches of skin in shades of red, white, blue, gray, purple or brown. The color of affected skin depends on how serious the frostbite is and the usual skin color.
- Cold, hard, waxy-looking skin.
- Clumsiness due to joint stiffness.
- Pain.
- Blistering after rewarming.

Frostbite is most common on the fingers, toes, ears, cheeks, penis, chin and tip of the nose. Because of numbness, you may not notice you have frostbite until someone points it out. Changes in the color of the affected area might be difficult to see on brown and Black skin.

Frostbite occurs in several stages:

- **Frostnip.** Frostnip is the early stage of frostbite. Symptoms are pain, tingling and numbness. Frostnip doesn't cause permanent damage to the skin.
- Mild to moderate frostbite. Frostbite causes slight changes in skin color.
  The skin may begin to feel warm. This is a sign of serious skin involvement. If
  you treat frostbite with rewarming at this stage, the surface of the skin may
  look patchy. The affected area may sting, burn and swell. A fluid-filled blister

may form 12 to 36 hours after rewarming. This stage also is called superficial frostbite.

• **Deep frostbite.** As frostbite progresses, it affects all layers of the skin and the tissues below. The affected skin turns white or blue-gray. Large blood blisters may appear 24 to 48 hours after rewarming. Weeks after the injury, tissue may turn black and hard as it dies.

## When to see a doctor

Other than frostnip, frostbite injuries need to be checked by a healthcare professional to find out how serious they are.

Seek emergency care for:

- Intense pain even after taking a pain reliever and rewarming.
- Intense shivering.
- Slurred speech.
- Drowsiness.
- Trouble walking.

People with frostbite also might have hypothermia. Shivering, slurred speech, and being sleepy or clumsy are symptoms of hypothermia. In babies, symptoms are cold skin, a change in skin color and very low energy. Hypothermia is a serious condition in which the body loses heat faster than it can be produced.

## What you can do in the meantime

While you wait for emergency medical help or an appointment with a healthcare professional, take these steps as needed:

- Get out of the cold and remove wet clothing.
- If you suspect hypothermia, wrap up in a warm blanket until help arrives

- Protect the injured area from further damage.
- Don't walk on frostbitten feet or toes if possible.
- Take a pain reliever if needed.
- Drink a warm, nonalcoholic beverage if possible.

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## Causes

The most common cause of frostbite is exposure to freezing cold. The risk rises if the weather also is wet and windy. Frostbite also can be caused by direct contact with ice, freezing metals or very cold liquids.

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## Risk factors

Risk factors for frostbite include:

- Being in freezing conditions without protective clothing.
- Having certain medical conditions, such as diabetes, exhaustion, poor blood flow or congestive heart failure.
- Regularly smoking tobacco.
- Having impaired judgment while in very cold conditions.
- Having had frostbite or another cold injury in the past.

- Being an infant or older adult in cold conditions. People in these age groups have a harder time producing and retaining body heat.
- Being in cold conditions at high altitude.

# Complications

Complications of frostbite include:

- Hypothermia.
- Increased sensitivity to cold and a higher risk of frostbite in the future.
- Long-term numbness in the affected area.
- Excessive sweating, also called hyperhidrosis.
- Changes in or loss of nails.
- Growth problems in children if frostbite damages a bone's growth plate.
- Infection.
- Tetanus.
- Gangrene, which can result in having the affected area removed. This procedure is called amputation.

## Prevention

Frostbite can be prevented. Here are tips to help you stay safe and warm.

• Limit time outdoors when it's freezing cold and wet or windy. Pay attention to weather forecasts and wind chill readings. The risk of frostbite increases the longer you're in freezing conditions. And frostbite can happen in an instant if bare skin touches something cold, such as freezing metal.

- **Dress in loose layers.** Air trapped between the layers helps insulate you from the cold. Choose undergarments that wick moisture away from the skin. Next put on something made of fleece or wool. For the outer layer, wear something windproof and waterproof. Change out of wet gloves, hats and socks as soon as possible.
- Wear a hat or headband made for cold weather. Make sure it covers your ears.
- **Wear mittens.** Mittens provide better protection than do gloves. Under a pair of heavy mittens, also wear glove liners, which wick moisture away from the skin.
- Wear socks and sock liners. Make sure they fit well, wick moisture and provide insulation.
- Watch for symptoms of frostbite. Early signs of frostbite are slight changes in skin color, prickling and numbness. Seek warm shelter if you notice symptoms of frostbite.
- Plan to protect yourself. When traveling in cold weather, carry emergency supplies and warm clothing in case you become stranded. If you'll be in remote territory, tell others your route and expected return date.
- Don't drink alcohol if you plan to be outdoors in cold weather. Alcoholic beverages cause the body to lose heat faster and can impair judgment.
- Eat well-balanced meals and stay hydrated. Doing this even before you go out in the cold helps you stay warm.
- **Keep moving.** Exercise can get your blood flowing and help you stay warm, but don't do it to the point of exhaustion.



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# **Frostbite**

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# Diagnosis

Diagnosing frostbite is based on your symptoms and a review of recent activities during which you were exposed to cold.

Your healthcare team may have you undergo X-rays or an <u>MRI</u> to look for bone or muscle damage. It may take 2 to 4 days after rewarming to tell the extent of tissue damage.

Mayo Clinic Minute: Why the risk of frostbite is greater than you think



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Bone scan

MRI

X-ray

## **Treatment**

## First aid for frostbite is as follows:

- If you suspect hypothermia, call for emergency help.
- Protect the injured area from further damage. Do not try to rewarm the frostbitten skin if it might freeze again.
- Get out of the cold, remove wet clothes and wrap up in a warm blanket.
- If possible, soak the skin with frostbite in a tub or sink of warm water for about 30 minutes. For frostbite on the nose or ears, cover the area with warm, wet cloths for about 30 minutes.
  - Another option is to warm the affected skin with body heat. For example, tuck frostbitten fingers under an armpit.
- Don't walk on frostbitten feet or toes if possible.
- Take a nonprescription pain reliever if needed.
- Drink a warm, nonalcoholic beverage.

- Remove rings or other tight items. Do this before the injured area swells with rewarming.
- Don't apply direct heat. For example, don't warm the skin with a heating pad, a heat lamp, a blow-dryer or a car heater.
- Don't rub the frostbitten skin.

After providing first aid, seek treatment from a healthcare professional if you have frostbite. Treatment may involve rewarming, medicine, wound care, surgery or other steps depending on how serious the injury is.

- **Rewarm the skin.** If the skin hasn't been rewarmed already, your healthcare team rewarms the area using a warm-water bath for 15 to 30 minutes. The skin may turn soft. You may be asked to gently move the affected area as it rewarms.
- **Take pain medicine.** Because the rewarming process can be painful, you may be given a pain reliever.
- Protect the injury. Once the skin thaws, your healthcare team may loosely
  wrap the area with sterile sheets, towels or dressings to protect the skin.
  You may need to raise the affected area to reduce swelling.
- **Soak in a whirlpool.** Soaking in a whirlpool bath can aid healing, as it keeps the skin clean and naturally removes dead tissue.
- Take infection-fighting drugs. If the skin or blisters look infected, your healthcare team may prescribe antibiotic medicine taken by mouth.
- **Take medicine.** You may receive an injection of medicine in a vein that helps restore blood flow. This type of medicine is called a thrombolytic. One example is tissue plasminogen activator, also called TPA. Studies of people with severe frostbite show that TPA may lower the risk of amputation. But this medicine can cause serious bleeding. It's sometimes used in serious situations and within 24 hours of cold exposure.

Another medicine that improves blood flow is iloprost (Aurlumyn). It was recently approved by the FDA for severe frostbite in adults. It can reduce

the risk of finger or toe amputation. Side effects of this medicine include headache, flushing and heart palpitations.

- **Remove damaged tissue.** To heal properly, frostbitten skin needs to be free of damaged, dead or infected tissue. This procedure to remove this tissue is called debridement.
- Tend to blisters and wounds. Blisters can act as a natural dressing.
   Depending on the type of blisters, your healthcare team may leave them to heal on their own or drain them. A variety of wound care techniques may be used depending on the extent of injury.
- **Undergo surgery.** People who have experienced severe frostbite may in time need surgery or amputation to remove dead or decaying tissue.

#### More Information

Hyperbaric oxygen therapy

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# Lifestyle and home remedies

After rewarming, your skin may stop tingling and return to its usual color within a few hours. Deep tissue injury may heal slowly and be very sensitive to the touch for weeks. Take all medicines as prescribed by your healthcare team. For mild frostbite, a nonprescription pain reliever can help ease symptoms.

# Preparing for your appointment

Seek medical care if you suspect you have frostbite. For serious frostbite, you may be told to go to an emergency room.

If you have time before your appointment, use the information below to get ready.

## What you can do

- List any symptoms you have and how long you've had them. It helps your healthcare team to have as many details as possible about your cold exposure and to know if your symptoms have changed.
- List your key medical information, including any other conditions with which you've been diagnosed. Also list all medicines you're taking, including nonprescription medicines and supplements.
- Make a note of the date of your last tetanus shot. Frostbite increases the risk of tetanus. If you haven't had a tetanus shot or haven't had one within five years, your healthcare team may recommend that you get a shot.
- List questions to ask your healthcare team. Being prepared helps you make the most of the time you have with your healthcare team.

For frostbite, some basic questions to ask your healthcare team include:

- Are tests needed to confirm the diagnosis?
- What are my treatment options and the pros and cons for each?
- What results can I expect?
- What skin care routines do you recommend while the frostbite heals?
- What kind of follow-up, if any, should I expect?
- What changes in my skin should I look for?

Don't hesitate to ask any other questions that occur to you.



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