

### What is Frostbite?

When skin freezes, it's called frostbite. This condition happens when you are exposed to temperatures below the freezing point of skin. Frostbite can happen in cold wind, rain, or snow. The most common body parts to get frostbite are the cheeks, ears, nose, hands, and feet. Once a part of the body has had frostbite, it's more likely to happen again.

- Skin will first become red and swollen and will feel like it is stinging or burning
- If the skin doesn't become protected or warmed, it will start to feel like it is tingling and will look grey
- If the skin freezes, the area will have no feeling and will be shiny and white

When the temperature and wind-chill factor are at or below 0 °C (32 °F), blood vessels close to the skin start to constrict, and blood is shunted away from the extremities. This constriction helps to preserve the body's core temperature. In extreme cold or when exposed too cold for long periods, this protective strategy can reduce blood flow in some areas of the body to dangerously low levels. This lack of blood leads to the eventual freezing and death of skin tissue in the affected areas. At these temperatures, exposed skin will begin to freeze. There are four different degrees of frostbite:

**First degree** is called frostnip and only affects the surface of the skin that is frozen. There is itching and pain, and then the skin develops white, red, and yellow patches and becomes numb. The area affected usually does not become permanently damaged as only the skin's top layers are affected. Long-term insensitivity to both heat and cold can sometimes happen.

**Second degree** frostbite may cause the skin to freeze and harden; the deep tissues are not affected and they remain soft and normal. Second-degree injury usually blisters 1–2 days after becoming frozen. The blisters may become hard and blackened, but usually appear worse than they are. Most of the injuries heal in one month, but the area may become permanently insensitive to both heat and cold.

**Third and fourth degree** frostbite usually happens when skin freezing continues past 12 days, causing deeper damage. The muscles, tendons, blood vessels, and nerves all freeze; the skin is hard, feels waxy, and use of the area

is lost temporarily, and in severe cases, permanently. The deep frostbite results in areas of purplish blisters which turn black and which are generally blood-filled. Nerve damage in the area can result in a loss of feeling. The extent of the damage done to the area by the deep frostbite may take several months to assess, and this often delays surgery to remove the dead tissue. Extreme frostbite may result in fingers and toes being amputated if the area becomes infected with gangrene.

### How to Treat Frostbite

If you or a co-worker comes in from outside complaining that hands, feet or other body parts are sore, here's what to do:

- Gently remove any clothing covering the area
- Change into dry, warm clothing
- Slowly warm up the area by gently covering it with your hand
- Use warm (not hot) water to slowly warm affected body parts
- If your hand or fingers are frostbitten, place it in opposite armpit to warm
- Do not massage or rub snow on frostbitten skin
- Seek medical advice immediately if your skin is white, waxy or feels numb

Caution should be taken not to rapidly warm up the affected area until further refreezing is prevented. To avoid getting frostbite dress appropriately, try to cover as much skin that is exposed to the inclement weather as possible.

### Legislation

Section 6-7(5) of the Occupational Health and Safety Regulations, 2020 states: When a worker is required to work in thermal conditions that are different from those associated with the worker's normal duties, an employer or contractor shall provide, and require the worker to use, any suitable clothing or other personal protective equipment that is necessary to protect the health and safety of the worker. When working outside in inclement weather conditions make sure to refer to any policies and procedures that your company may have and refer to the relevant legislation in the Occupational Health and Safety Regulations, 2020.

# Tool Box Talk

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When accidents and incidents happen on the jobsite, we are always quick to point the finger at lack of training, not following practices or procedures, or even improper supervision. The idea that the hazards and dangers associated with the job were not properly communicated to all of the workers is often missed.

Tool Box Talks can go by many names, and although formats may vary, these meetings all serve one purpose: to inform employees and contract workers. Tool Box Talks are short, informal, meetings between management and the workers on a jobsite. The goal of these meetings is to reinforce current safe job procedures, inform workers of new and/or relevant procedures, review recent safety violations/incidents, and ensure workers are up-to-date on the information required to complete their work safely.

Always use a Tool Box Talk form to record the meeting topic, date, who was in attendance, and any follow-up actions to be taken. Not only do these forms help with consistency of record keeping, but they also ensure that nothing is missed. At the end of the meeting have management sign off on the form.

One of the most important aspects of a Tool Box Talk is giving workers an opportunity to voice their concerns and ask questions. All employees have a right to participate in health and safety as it relates to their work and it is the supervisor or manager's responsibility to create an environment for them to do so. Once the meeting is over, and the form is filled out, it should be filed with other documented Tool Box Talks.

Remember that Tool Box Talks are short and informal, they are not meant to be intimidating. Use the opportunity to have fun and stay on top of what is necessary to keep safety culture a strong part of the business.

For a full listing of Tool Box Talk topics, visit: [www.scsaonline.ca/resources/tool-box-talks](http://www.scsaonline.ca/resources/tool-box-talks)

For a copy of the Tool Box Talk form, visit: [www.scsaonline.ca/pdf/Tool\\_Box\\_Meeting.pdf](http://www.scsaonline.ca/pdf/Tool_Box_Meeting.pdf)

## About the Saskatchewan Construction Safety Association

The Saskatchewan Construction Safety Association (SCSA) is an industry-funded, membership-based, nonprofit organization that provides cost-effective, accessible safety training and advice to employers and employees in the construction industry throughout the province to reduce the human and financial losses associated with injuries. Registered March 20, 1995, the SCSA is, and has been since inception, committed to injury prevention. Serving almost 10,000 member companies with business offices in both Regina and Saskatoon, the major business units of the association are Advisory Services, Business Development, Corporate Services, Program Services and Training. The mission of the SCSA is constructing safety leadership in Saskatchewan and the vision is to create the safest construction environment in Canada.