

TST #134-B

## Frostbite

Serious health problems can result from prolonged exposure to below-freezing temperatures and extreme cold. One of the most common cold-related problems is frostbite. Frostbite involves a loss of feeling and color in affected areas, usually the nose, ears, cheeks, chin, fingers and toes. To help prevent permanent damage caused by extreme cases of frostbite, it is important to recognize the signs. Frostbite has three different stages: frostnip, superficial frostbite and deep frostbite.

**Frostnip** – feelings of “pins and needles” occur in the affected area, and usually results in the skin becoming soft and turning white in color. Medical treatment is not usually necessary; merely warm the area by blowing warm air or applying warm water.

**Superficial Frostbite** – the surface of the skin, or top layer, feels frozen and numb. It will form clear, fluid-filled blisters, which are actually ice crystals forming inside the skin cells. Medical treatment is necessary with signs of superficial frostbite.

**Deep Frostbite** – the affected area will have damaged tissue, causing it to swell, blood vessels to clot and sometimes it can lead to gangrene. Gangrene occurs due to the decay of the affected body tissue and its lack of oxygen. Medical treatment is necessary with signs of deep frostbite.

If you detect signs of frostbite, seek immediate medical attention. If there are signs of frostbite and medical care is not immediately available, it is important to remember the following:

- Move into a warm room as soon as possible.
- Remove wet or tight clothing that may cut off blood flow to the affected area.
- Immerse the affected area in warm – not hot – water or by using body heat.
- Do not rub the affected area at all since this can cause more damage.
- Do not break open any blisters since this may result in infection.
- Do not use a heating pad, heat lamp, or the heat of a stove, fireplace or radiator for warming. Areas affected by frostbite are usually numb and can be easily burned.
- Unless absolutely necessary, do not walk on frostbitten feet or toes since this increases the damage.

These procedures should not be a substitute for medical attention. Frostbite should be evaluated by a doctor. It is a good idea to take a first aid kit and a CPR course to prepare for cold weather-related health problems. When you know what to do, you can help protect your health and the health of others.

# Frostbite Quiz

The following statements should be answered with "True" or "False." Answers below.

1. Medical treatment is not needed when signs of superficial frostbite are evident.
2. Walking on frostbitten feet or toes will not increase damage to the affected areas.
3. In cases of deep frostbite, damaged tissue can swell; blood vessels may clot and lead to gangrene.
4. Use of a heating pad, heat lamp or the heat of a stove is an acceptable way to warm up the affected areas.
5. The first sign of frostbite, frostnip, usually results in the skin becoming soft and turning white in color.

**Employee Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Answers:**

1. False
2. False
3. True
4. False
5. True