

# UOSH SAFETY LINE

NEWSLETTER

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## OSHA Offers Tips To Protect Workers In Cold Environments

With the onset of cold weather, OSHA is reminding employers and workers to take necessary precautions to prevent and treat cold-related health problems. Workers in construction, commercial fishing, maritime and agriculture are among those who need to take precautions.

Prolonged exposure to freezing or cold temperatures may cause serious health problems such as trench foot, frostbite and hypothermia. In extreme cases, including cold water immersion, exposure can lead to death. Danger signs include uncontrolled shivering, slurred speech, clumsy movements, fatigue and confused behavior. If these signs are observed, call for emergency help.

### How to Protect Workers

- Recognize the environmental and workplace conditions that may be dangerous.
- Learn the signs and symptoms of cold-induced illnesses and injuries and what to do to help workers.
- Train workers about cold-induced illnesses and injuries.
- Encourage workers to wear proper clothing for cold, wet and windy conditions, including layers that can be adjusted to changing conditions.
- Be sure workers in extreme conditions take a frequent short break in warm dry shelters to allow their bodies to warm up.
  - Try to schedule work for the warmest part of the day.
  - Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
  - Use the buddy system - work in pairs so that one worker can recognize danger signs.
  - Drink warm, sweet beverages (sugar water, sports-type drinks) and avoid drinks with caffeine (coffee, tea, sodas or hot chocolate) or alcohol.
  - Eat warm, high-calorie foods such as hot pasta dishes.
  - Remember, workers face increased risks when they take certain medications, are in poor physical condition or suffer from illnesses such as diabetes, hypertension or cardiovascular disease.

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For free copies of OSHA's Cold Stress Card in English or Spanish, go to OSHA's website, [www.osha.gov](http://www.osha.gov).



# Health and Wellness

## NIOSH RECOMONDATIONS FOR COLD STRESS

Workers who are exposed to extreme cold or work in cold environments may be at risk of cold stress. Extreme cold weather is a dangerous situation that can bring on health emergencies in susceptible people, such as those without shelter, outdoor workers, and those who work in an area that is poorly insulated or without heat. What constitutes cold stress and its effects can vary across different areas of the country. In regions relatively unaccustomed to winter weather, near freezing temperatures are considered factors for "cold stress." Whenever temperatures drop decidedly below normal and as wind speed increases, heat can more rapidly leave your body. These weather-related conditions may lead to serious health problems. The types of cold stresses include hypothermia, frostbite, trench foot, and chilblains.

### Hypothermia

When exposed to cold temperatures, your body begins to lose heat faster than it can be produced. Prolonged exposure to cold will eventually use up your body's stored energy. The result is hypothermia, or abnormally low body temperature. A body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia particularly dangerous because a person may not know it is happening and will not be able to do anything about it.

### Symptoms

Symptoms of hypothermia can vary depending on how long you have been exposed to the cold temperatures.

#### Early Symptoms include:

- Shivering
- Fatigue
- Loss of coordination
- Confusion and disorientation

#### Late Symptoms include:

- No shivering
- Blue skin
- Dilated pupils
- Slowed pulse and breathing
- Loss of consciousness

### First Aid

Take the following steps to treat a worker with hypothermia:

- Alert the supervisor and request medical assistance.
- Move the victim into a warm room or shelter.
- Remove their wet clothing.
- Warm the center of their body first—chest, neck, head, and groin—using an electric blanket, if available; or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels, or sheets.
- Warm beverages may help increase the body temperature, but do not give alcoholic beverages. Do not try to give beverages to an unconscious person.
- After their body temperature has increased, keep the victim dry and wrapped in a warm blanket, including the head and neck.
- **If victim has no pulse, begin cardiopulmonary resuscitation (CPR).** Continued next page.





## NIOSH RECOMONDATIONS FOR COLD STRESS CONTINUED

### Frostbite

Frostbite is an injury to the body that is caused by freezing. Frostbite causes a loss of feeling and color in the affected areas. It most often affects the nose, ears, cheeks, chin, fingers, or toes. Frostbite can permanently damage body tissues, and severe cases can lead to amputation. In extremely cold temperatures, the risk of frostbite is increased in workers with reduced blood circulation and among workers who are not dressed properly.

### Symptoms

Symptoms of frostbite include:

- Reduced blood flow to hands and feet (fingers or toes can freeze)
- Numbness
- Tingling or stinging
- Aching
- Bluish or pail, waxy skin

### First Aid

Workers suffering from frostbite should:

- Get into a warm room as soon as possible.
- Unless absolutely necessary, do not walk on frostbitten feet or toes-this increases the damage.
- Immerse the affected area in warm-not hot-water (the temperature should be comfortable to the touch for unaffected parts of the body).
- Warm the affected area using body heat; for example, the heat of an armpit can be used to warm frostbitten fingers.
- Do not rub or massage the frostbitten area; doing so may cause more damage.

**Do not use a heating pad, heat lamp, or the heat of a stove, fireplace, or radiator for warming. Affected areas are numb and can be easily burned.**

### Trench Foot

Trench foot, also known as immersion foot, is an injury of the feet resulting from prolonged exposure to wet and cold conditions. Trench foot can occur at temperatures as high as 60 degrees F if the feet are constantly wet. Injury occurs because wet feet lose heat 25-times faster than dry feet. Therefore, to prevent heat loss, the body constricts blood vessels to shut down circulation in the feet. Skin tissue begins to die because of lack of oxygen and nutrients and due to the buildup of toxic products.

### Symptoms

Symptoms of trench foot include:

- Reddening of the skin
- Numbness
- Leg cramps
- Swelling
- Tingling pain
- Blisters or ulcers
- Bleeding under the skin
- Gangrene (the foot may turn dark purple, blue, or gray)

**Continued next page.**





## NIOSH RECOMONDATIONS FOR COLD STRESS CONTINUED

### First Aid

Workers suffering from trench foot should:

- Remove shoes/boots and wet socks.
- Dry their feet.
- Avoid walking on feet, as this may cause tissue damage.

### Chilblains

Chilblains are caused by the repeated exposure of skin to temperatures just above freezing to as high as 60 degrees F. The cold exposure causes damage to the capillary beds (groups of small blood vessels) in the skin. This damage is permanent and the redness and itching will return with additional exposure. The redness and itching typically occurs on cheeks, ears, fingers, and toes.

### Symptoms

Symptoms of chilblains include:

- Redness
- Itching
- Possible blistering
- Inflammation

### Possible ulceration in severe cases

### First Aid

Workers suffering from chilblains should:

- Avoid scratching
- Slowly warm the skin
- Use corticosteroid creams to relieve itching and swelling
- Keep blisters and ulcers clean and covered



## Recommendations for Employers

Employers should take the following steps to protect workers from cold stress:

- Schedule maintenance and repair jobs in cold areas for warmer months.
- Schedule cold jobs for the warmer part of the day.
- Reduce the physical demands of workers.
- Use relief workers or assign extra workers for long, demanding jobs.
- Provide warm liquids to workers.
- Provide warm areas for use during break periods.
- Monitor workers who are at risk of cold stress.
- Provide cold stress training that includes information about:
  - ◇ Worker risk
  - ◇ Prevention
  - ◇ Symptoms
  - ◇ The importance of monitoring yourself and coworkers for symptoms
  - ◇ Treatment
  - ◇ Personal protective equipment

**Continued next page.**



## NIOSH RECOMONDATIONS FOR COLD STRESS CONTINUED

### Recommendations for Workers

Workers should avoid exposure to extremely cold temperatures when possible. When cold environments or temperatures can not be avoided, workers should follow these recommendations to protect themselves from cold stress:

- Wear appropriate clothing.
- Wear several layers of loose clothing. Layering provides better insulation.
- Tight clothing reduces blood circulation. Warm blood needs to be circulated to the extremities.
- When choosing clothing, be aware that some clothing may restrict movement resulting in a hazardous situation.
- Make sure to protect the ears, face, hands and feet in extremely cold weather.
- Boots should be waterproof and insulated.
- Wear a hat; it will keep your whole body warmer. (Hats reduce the amount of body heat that escapes from your head.)
- Move into warm locations during work breaks; limit the amount of time outside on extremely cold days.
- Carry cold weather gear, such as extra socks, gloves, hats, jacket, blankets, a change of clothes and a thermos of hot liquid.
- Include a thermometer and chemical hot packs in your first aid kit.
- Avoid touching cold metal surfaces with bare skin.
- Monitor your physical condition and that of your coworkers.

### Carbon Monoxide – How it Harms You

#### Where does it come from?

Carbon monoxide is produced when a carbon-based substance doesn't burn completely. Gasoline, natural gas, oil, propane, coal, and wood all produce carbon monoxide. Small gas-powered engines and tools are typical sources of carbon monoxide in the construction industry.

#### What does it do to you?

Carbon monoxide robs your blood of oxygen when it enters your lungs. That means less oxygen for your heart, brain, and other vital organs. Headache, fatigue, dizziness, and drowsiness are warning signs. Large amounts of carbon monoxide can overcome you without warning, causing you to lose consciousness and suffocate.

#### When does it become dangerous?

The answer depends on a number of factors, including the concentration of carbon monoxide in the air, how long you're exposed, and your exertion level. OSHA doesn't allow a worker to be exposed to more than 50 parts per million averaged over an eight-hour time period (carbon monoxide is measured in parts per million or "ppm").

Other safety and health organizations, however, have established guidelines at lower exposure levels. For example, the American Conference of Governmental Industrial Hygienists (ACGIH) has assigned carbon monoxide a threshold limit value or "TLV" of 25 ppm for a normal eight-hour workday. At higher exposures, the National Institute for Occupational Safety and Health (NIOSH) warns that carbon monoxide levels above 1,200 ppm could cause death or irreversible health effects within 30 minutes – known as "immediately dangerous to life and health."

#### What are common hazards for construction workers?

- **Small gas engines and tools.** Too many workers are poisoned because they use small gasoline-powered engines and tools in poorly ventilated areas – even places that many would consider well ventilated, such as parking garages.
- **Confined spaces.** Any worker who enters a confined space needs to be aware of the potential for atmospheric hazards – existing hazards and hazards produced during work. All manholes should be considered confined spaces and appropriate air monitoring should be done before and during entry.

#### Recommendations for prevention

- **Training.** Educate workers about the sources of carbon monoxide poisoning, its symptoms, and how to control exposure.
- **Maintenance.** Keep internal combustion equipment in good operating condition.
- **Ventilation.** Use natural or mechanical ventilation when possible to keep carbon monoxide levels below the permissible exposure limit.
- **Working procedures.** Have a procedure to ensure the safety of those who work alone indoors with internal combustion equipment.
- **Monitoring.** Test air regularly in confined spaces and other areas where carbon monoxide may be present.



## OSHA animated educational videos show how to protect workers from construction hazards

The U.S. Department of Labor's Occupational Safety and Health Administration has released 12 educational videos about potential hazards in the construction industry. The educational videos are easy to understand, short segments and geared to employers and workers. Each year, nearly 800 construction workers die on the job; one in every five workplace fatalities occurs within the construction industry. The videos are based on real-life incidents and include detailed depictions of hazards and the safety measures that would have prevented these injuries and fatalities.

"I urge anyone who works in the construction industry or operates a construction business to watch the videos. Share them with your co-workers and friends in the construction industry; organize screenings for your workers; and post them to your web pages," said Assistant Secretary of Labor for Occupational Health and Safety Dr. David Michaels. "Every step we take to educate workers about their rights and the safety measures employers must take to protect workers in construction helps us avoid preventable injuries and the tragic loss of life."

These videos cover falls in construction, workers who are struck by vehicles and heavy equipment, sprain and strain injuries, trenching and excavation hazards, and carbon monoxide poisoning. These videos are written for workers and employers, including workers with limited English proficiency.

Most of the videos are two to four minutes in length, and all but one are animated. Each video is available in English and Spanish for Web viewing or downloading. All video scripts are also available online in English and Spanish. The videos are located at <http://www.osha.gov/dts/vtools/construction.html> (Spanish-language videos are available at [http://www.osha.gov/dts/vtools/construction\\_sp.html](http://www.osha.gov/dts/vtools/construction_sp.html)). After selecting a video from this page, users may choose to watch the video online, download the videos for future screenings, or view the videos on the U.S. Department of Labor's [YouTube channel](#).

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit <http://www.osha.gov>.





# Safety Notice Number 110008



## Safety Alert

Date: November 17, 2011

Models: GS-2669 GS-3369 GS-4069

Serial Numbers Affected: GS6911-101 to GS6912-412

Subject: Machine Instability

Allowable Hours: 1 Hour

Genie has determined that some of the machines in the serial range listed above may have been manufactured incorrectly in the following ways:

- The hydraulic circuit in the oscillation system may have been assembled incorrectly causing the oscillating axles to function improperly. **Improperly functioning oscillating axels can result in loss of machine stability.**
- Axle pivot pins that are out of specifications may have been installed, allowing the axles to be partially supported. **Axels that are partially supported can result in loss of machine stability**

Action Required:

**This notice requires the removal of all affected machines from service until the following actions are completed**

Rewiring and re-plumbing of the oscillate system

Inspection of the axle pivot pins

1. Locate all machines within the model and serial numbers given above.
2. Inspect the axle pivot pins and oscillate system using the enclosed instructions.
3. Fill out and sign the Completion Form included in the Inspection and Repair instructions and return to Genie. This will verify that this safety notice has been completed on your machine.

If you are using an affected machine please contact Genie at 800-536-1800.



# SAFETY ALERT

UNEXPECTED TELESCOPIC FORKLIFT DROPPED LOAD DUE TO CHAIN FAILURE: Highlights need to verify maintenance & inspections



Photo shows missing chain on boom spine after a chain failure. Boom section is designed with a chain that travels the length of the boom.





## Safety Alert Continued

Photo shows broken chain sections occurring on two separate links



Lack of lubrication increases likelihood of water intrusion leading to corrosion (rust). The additional stress can result in fractures and wear.

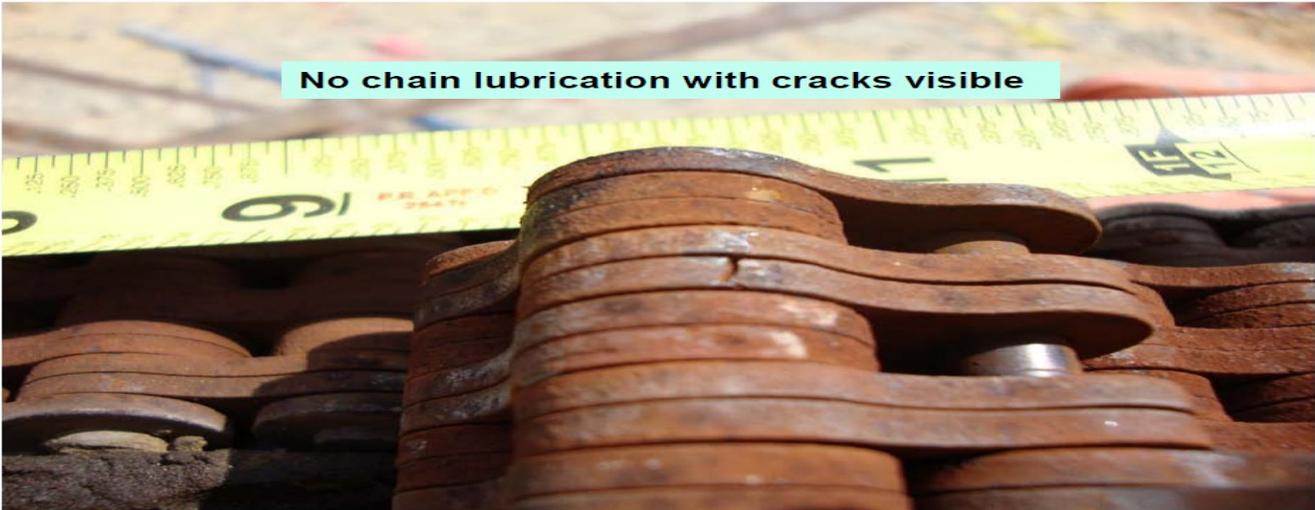


Broken chain links



## Safety Alert Continued

Several other fractures visible along chain beyond break points. Chain observed with rust and no lubricant.



No chain lubrication with cracks visible

Photo of links where a break occurred. Notice that one link has a section with rust and one without and that one link shows previous in service wear at the breaking point





## Safety Alert Continued

**Deficiency:** This photo demonstrates an example where some chain lubrication has been applied mostly on the surface, but not enough to penetrate movement contact points.



Inadequately lubricated chain



Example of a properly lubricated chain

Use manufacturer recommended lubricant

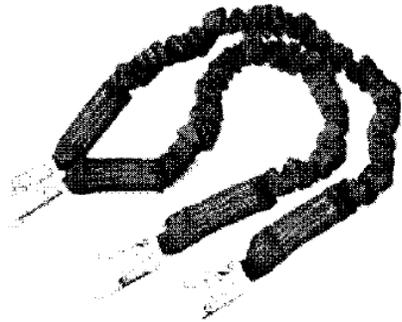


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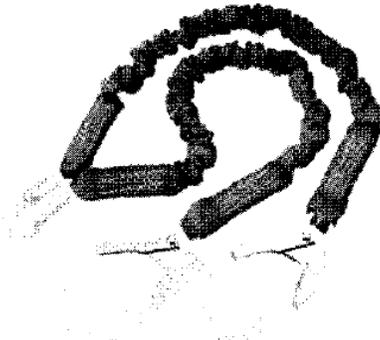
## PROTECTA SHOCK ABSORBING LANYARDS

### RECALL NOTICE

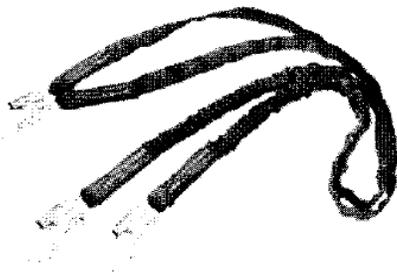
Capital Safety is aware of a reported inadvertent disconnection during use of the locking snaphook used in a series of Y-shaped Protecta lanyards with twin elastic lanyard legs that both attach directly to the eye of the snaphook. The locking snaphook used on these lanyards is part number 9502573. The affected products are:



**1340141 – Pro Stretch 100% Tie-Off Shock Absorbing Lanyard**



**1340161 – Pro Stretch 100% Tie-Off Shock Absorbing Lanyard**



**1340240 – Pro-Stop 100% Tie-Off Shock Absorbing Lanyard**



**1340250 – Pro-Stop 100% Tie-Off Shock Absorbing Lanyard**

The affected lanyards subject to recall are also used in the following Protecta Kits:

- 1199977 – Protecta Promo Kit (Latin America only)
- 1199978 – Protecta Promo Kit (Latin America only)
- 1199979 – Protecta Promo Kit (Latin America only)
- 2199817 – Compliance In A Can Light
- 2199818 – Compliance In A Can Light

The recall includes all affected lanyards manufactured between July 2010 and October 31, 2011. Manufacture date is marked on the product label of each lanyard as: **MFRD (YR/MO)**.

Please direct any questions you may have to your Capital Safety distributor or to Capital Safety at 800-387-7484, Donna Sahlberg, Quality Manager ext. 5264, or Frank Courtemanche, VP Quality ext. 5224.