

UTAH OSHA SAFETY LINE

NEWSLETTER



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Cold Weather Work

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result. Hypothermia and Frost Bite are the two main concerns for workers.

Hypothermia can occur when land temperatures are above freezing or water temperatures are below 98.6°F/37°C. Cold-related illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.

The signs of Hypothermia consist of: the normal body temperature drops to or below 95°F/35°C, fatigue or drowsiness; uncontrolled shivering; cool bluish skin; slurred speech; clumsy movements; irritable; irrational or confused behavior.

What should be done? (Land Temperatures)

- Call for emergency help (911).
- Move the person to a warm, dry area. Don't leave the person alone.
- Remove any wet clothing and replace with warm dry clothing, or wrap the person in blankets.
- Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert.

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- Avoid drinks with caffeine or alcohol.
- Have the person move their arms and legs to create muscle heat. If they are unable to do this, place warm bottles or hot packs in the arm pits, groin, neck, and head areas. **DO NOT** rub the person's body or place them in warm water bath. This may stop their heart.

What should be done? (Water Temperatures)

- Call for emergency help (911). Body heat is lost up to 25 times faster in water.
- **DO NOT** remove any clothing. Button, buckle, zip, and tighten any collars, cuffs, shoes, and hoods because the layer of trapped water closest to the body provides a layer of insulation that slows the loss of heat. Keep the head out of the water and put on a hat or hood.

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- Get out of the water as quickly as possible or climb on anything floating. DO NOT attempt to swim (unless a floating object or another person can be reached) because swimming or other physical activity uses the body's heat and reduces survival time by about 50%.
- If getting out of the water is not possible, wait quietly and conserve body heat by folding arms across the chest, keeping thighs together, bending knees, and crossing ankles. If another person is in the water, huddle together with chests held closely.

Frost Bite is the freezing of deep layers of skin and tissue. The signs of frostbite are: Pale, waxy-white skin color, skin is hard and numb. Frost Bite usually affects the fingers, toes, hands, feet, ears, and nose.

What should be done?

- Move the person to a warm dry area. Do not leave the person alone.
- Remove any wet or tight clothing that may cut off blood flow to the affected area.
- Do Not rub the affected area because rubbing causes damage to the skin and tissue.
- Gently place the affected area in a warm (105°F) water bath and monitor the water temperature to slowly warm the tissue. Don't pour warm water directly on the affected area because it will warm the tissue too fast causing tissue damage. Warming takes about 25-40 minutes.
- After the affected area has been warmed, it may become puffy and blister. The affected area may have a burning sensation or a feeling of numbness. When normal feeling, movement, and skin color have returned, the affected area should be dried and wrapped to keep it warm. Note: If there is a chance the affected area may get cold again, do not warm the skin. If the skin is warmed and then becomes cold again, it will cause severe tissue damage, seek medical attention.

(U.S. Department of Labor OSHA publication 3156– 1998)

Safety Notice

Safety Notice: 120011
Description: Machine Instability
Models Affected: GS-3390, GS-4390 and GS-5390
with the Oscillating Axle System
Release Date: Nov 5, 2012



If you have any questions regarding the release of this safety notice, please contact Terex AWP Service Department @ 1-800-536-1800.

CO SAFETY

As we approach the winter months, be mindful of the hazard of Carbon Monoxide (CO) exposure.

Each year thousands of workers are killed by CO poisoning. This poisonous gas is one of the most dangerous hazards that you may be exposed to while on the job. This gas causes more deaths than any other toxic agent except alcohol. OSHA has compiled a "Quick Card" (OSHA 3267-09N-05) which contains the following information to help you identify the effects of carbon monoxide poisoning and prevention:

Carbon monoxide (CO) is a colorless, odorless, toxic gas which interferes with the oxygen-carrying capacity of blood. CO is non-irritating and can overcome persons without warning. Many people die from CO poisoning, usually while using gasoline powered tools and generators in buildings or semi-enclosed spaces without adequate ventilation.

Effects of Carbon Monoxide Poisoning

- Severe carbon monoxide poisoning causes neurological damage, illness, coma and death.

Symptoms of CO exposure

- Headaches, dizziness and drowsiness.
- Nausea, vomiting, tightness across

the chest.

Some Sources of Exposure

- Portable generators/generators in buildings.
- Concrete cutting saws, compressors.
- Power trowels, floor buffers, space heaters.

Preventing CO Exposure

- Never use a generator indoors or in enclosed or partially enclosed spaces such as garages, crawl spaces, and basements. Opening windows and doors in an enclosed space may prevent CO buildup.
- Make sure the generator has 3-4 feet of clear space on all sides and above it to ensure adequate ventilation.
- Do not use a generator outdoors if placed near doors, windows or vents which could allow CO to enter and build up in occupied spaces.
- When using space heaters and stoves ensure that they are in good working order to reduce CO buildup, and never use in enclosed spaces or indoors.
- Consider using tools powered by electricity or compressed air, if available.
- If you experience symptoms of CO poisoning get to fresh air right away and seek immediate medical attention.



Compliance Corner

Is a needle stick considered a recordable injury for recordkeeping purposes?

29 CFR 1904.8(a) states: Basic requirement. You must record all work-related needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (as defined by 29 CFR 1910.1030). You must enter the case on the OSHA 300 Log as an injury. To protect the employee's privacy, you may not enter the employee's name on the OSHA 300 Log (see the requirements for privacy cases in paragraphs 1904.29(b)(6) through 1904.29(b)(9)).

Additional information on this and other OSHA standards are available at: www.osha.gov

Preventing Work-Related Musculoskeletal Disorders in Sonography



Description of Exposure

Work-related musculoskeletal disorders currently account for one-third of all occupational injuries and illnesses reported to the Bureau of Labor Statistics (BLS) by employers every year.

The following are factors that, in combination and over time, lead to musculoskeletal injuries:

- Static and awkward postures and movement resulting from the use of the transducer and positioning of both patients and equipment
- Persistent and continual pressure for sustained periods of time during exams
- Poor workplace ergonomics in the design of equipment, chairs, tables, and lighting
- Increased exam scheduling
- Sonographer height, age, and gender
- The main risk factors noted during trans-abdominal ultrasound procedures were awkward postures (mainly right shoulder flexion and abduction), sustained static forces, and various types of pinch grips while maneuvering the transducer. Extreme wrist postures varied because of the way sonographers had to move the transducer to accommodate different patient sizes. Small patient abdomens mainly led to the use of shoulder movements while large abdomens led to greater wrist flexion and extension.

Case Study

NIOSH [1999] conducted an investigation at a hospital antenatal unit in which most of the sonographers had reported neck, shoulder, and arm pain while performing ultrasound. NIOSH investigators interviewed several workers and assessed the jobs using video analysis. The following findings were noted:

- Standard positioning of the equipment resulted in twisting of the neck to view the monitor, flexion and abduction of the shoulder, and extension of the elbow while operating the controls.
- The shape of the abdominal transducer resulted in several distinct types of grips, ranging from a pinch grip to a

power grip to an intermediate type of grip (the most commonly seen is with the 3rd and 4th fingers on one side and the thumb on another). The power grip—the most comfortable over the long term was used when the hand could be spread along the wide (3-inch) edge of the transducer.

Controls

NIOSH recommends the following controls to reduce the risk of musculoskeletal injury for sonographers:

Equipment

- Provide adequate work space for personnel, sonography equipment, the patient table, and other equipment.
- Ensure that sonography equipment is fitted with a high-resolution screen that has a high refresh rate (85 Hertz or higher), a noninterlaced monitor and an easily adjustable “brightness control” to reduce eye strain. Position the equipment monitor directly in front of the sonographer.
- Position the keyboard to allow the arm to be in a relaxed position with the upper arm close to the body (minimal flexion and abduction) and the elbow at a 90-degree angle. A laptop computer may enable the sonographer to achieve a favorable position with respect to the patient. However, be aware that laptops can present other problems because the keyboard and monitor cannot be positioned separately, which make them difficult to handle at the bedside.
- Use a posture-enhancing adjustable chair to accommodate the sonographer through adjustable footrests, seat heights, and lock and release casters. Casters should allow for rolling between patients and the ultrasound machine when necessary, yet prevent rolling backwards when performing necessary procedures.
- Use motorized adjustable tables (including those equipped with drop-down side rails) to optimize the positions of the patient and the sonographer.

The table should be as narrow as possible (preferably 24 to 27 inches wide) to allow for proximity to the patient and to reduce the amount of shoulder abduction needed to reach the patient’s far side.

Work Practices

- Decrease the duration of static posturing:
 - Vary postures throughout the day.
 - Sit or stand, depending on the exam.
- Decrease hand-grip pressure:
 - Alternate the scanning hand and vary the grip used.
 - Take short breaks.
 - Loosen grip on the transducer.
- Minimize awkward and extreme postures.
- Increase tissue tolerances through exercise and adequate rest.

Scheduling

- Schedule different types of exams for each sonographer in a workday to decrease strain on musculoskeletal tissues specific to one type of exam.
 - Limit the number of portable exams to help minimize those tasks with higher number of pinch grips and increased static or awkward postures.
 - Consider a maximum number of scheduled exams for sonographers. Take into account existing ergonomic conditions and equipment, the type of exams performed, experience of the sonographer, and the duration of the individual exams. Because of the complexity of each diagnostic situation, it is difficult to specify an allowable limit to the number of exams per day. Until better information is obtained, take into account the total examination time per day (more exams of shorter duration or fewer exams of longer duration).
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Training

Periodic training and reassessment regarding the above ergonomic interventions should include the following:

- Setting up the equipment, bed, and chair
- Modifying the equipment positioning during scanning
- Positioning patients
- Using adaptive equipment or devices, such as cushions and wedges and the patient's limbs for resting the elbows during scans
- Taking rest breaks during the procedures
- Maintaining good physical fitness and conditioning
- Optimal handling of specialized tests such as trans-vaginal examinations
- Having symptoms promptly evaluated by a licensed health care provider.

Acknowledgments

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References

NIOSH [1999]. Hazard evaluation and technical assistance report: University of Medicine and Dentistry of New Jersey, St. Peter's University Hospital, Piscataway, New Jersey. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH HETA 99-0093-2749, Health Hazard Evaluation Report No. 99-0093. Available at: www.cdc.gov/niosh/hhe/.

For More Information

For more information about work-related musculoskeletal disorders in sonographers, see

NIOSH, Society of Diagnostic Medical Sonography [2003]. *Industry Standards for the Prevention of Work-Related Musculoskeletal Disorders in Sonography*. Plano, TX.

To receive documents or other information about occupational safety and health, contact NIOSH at

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