DEPARTMENT OF AVIATION

SAFETY UNIT NEWSLETTER

HEAT STRESS, OVEREXERTION & WALKING WORKING SURFACES

SUMMER 2024

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Heat Stress

If you're going to be working in an indoor industrial setting, or outdoors this summer, you should be mindful of heat stress. Heat stress occurs when your body's core temperature rises above normal. The two most serious kinds of heat stress are heat exhaustion and heat stroke.

Heat Stroke

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature.

Symptoms of Heat Stroke:

- Confusion, altered mental status, slurred speech
- Loss of consciousness (coma)
- Hot, dry skin or profuse sweating
- Seizures
- Very high body temperature
- Fatal if treatment delayed

Take the Following Steps to Treat a Worker with Heat Stroke:

- Call 911 for emergency medical care.
- Stay with worker until emergency medical services arrive.
- Move the worker to a shaded, cool area and remove outer clothing.
- Cool the worker quickly with a cold water or ice bath if possible; wet the skin, place cold wet cloths on skin, or soak clothing with cool water.
- Place cold wet cloths or ice on head, neck, armpits, and groin; or soak the clothing with cool water.

For Questions, Concerns,or Suggestions Contact the Safety Unit at 215-937-6219

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Heat Exhaustion

Heat exhaustion is the body's response to an excessive loss of the water and salt, usually through excessive sweating.

Symptoms of heat exhaustion include:

- Headache
- Nausea
- Dizziness
- Weakness
- Irritability
- Thirst
- Heavy sweating
- Elevated body temperature
- Decreased urine output

Treat a worker suffering from heat exhaustion by:

- Taking worker to a clinic or emergency room for medical evaluation and treatment. If medical care is unavailable, call 911.

Heat Cramps

Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Symptoms of heat cramps:

Muscle cramps, pain, or spasms in the abdomen, arms, or legs.

Workers with heat cramps should:

Drink water and have a snack and/or carbohydrate-electrolyte replacement liquid (e.g., sports drinks) every 15 to 20 minutes. Avoid salt tablets.

Heat Rash

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather.

Symptoms of heat rash:

- Red cluster of pimples or small blisters that usually appears on the neck, upper chest, groin, under the breasts, and in elbow creases.

Workers experiencing heat rash should:

- Go to a less humid work environment when possible
- Keep rash area dry
- Apply powder to increase comfort
- Avoid using ointments and creams

Sunburn

Symptoms of sun burn:

- Changes in skin tone, such as pinkness or redness
- Skin that feels warm or hot to the touch
- Pain and tenderness
- Swelling
- Small fluid-filled blisters, which may break

Overexertion

What is Overexertion?

Overexertion refers to any case in which a person works or exerts themselves beyond their physical capabilities. In addition to causing discomfort, overexertion can result in severe physical injury or musculoskeletal strain. Overexertion is the leading cause of nonfatal injuries that result in lost work time. Severe cases can result in hernias, heart disease, or osteoporosis.

Overexertion injuries are generally classified under two categories:

- Sprains (stretching or tearing of ligaments)
- Strains (stretching or tearing of tendons or muscles)

The exact amount of exertion the body can handle be-fore sustaining one of these injuries depends on a variety of factors, including:

- Age
- Physical condition
- Flexibility
- Weight
- Strength

Certain jobs will also put workers at greater risk of injuries resulting from overexertion. Physically demanding work, for instance, or work that is carried out in awkward positions (such as kneeling or bending for extend-ed periods of time) can put additional strain on the body.

SOURCE:https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.%20html

How Overexertion Happens

There are a few different ways you can overexert your muscles. Overexertion happens at home or at work. Any time you are lifting something or doing an unusual physical activity, you should pay attention to how you are moving your body. Events and activities that may cause overexertion are different for everyone. You must listen to your body, know your limits.

Improper posture

If you are doing a physical task or lifting something with bad posture, you may be more at risk for injury.

Working in an improper space

If you do not have enough room to move properly for the task at hand, you can injure yourself.

Carrying too much weight

Be mindful if you're not used to carrying heavy loads. When you carry something that is over your capacity, you are at risk of overexertion.

Using worn-out tools

When tools become worn out, you may have to hold them improperly or use more force.

Repetitive motion

Doing the same movement over and over without enough break time puts you at a higher risk of overexertion.

Signs of overexertion

- Feel dizzy
- Feel sore
- Feel too hot
- Overly sweaty
- High pulse rate
- Abdominal pain
- Chest pain

Preventing Overexertion

There are many things you can do both at home, at play, and at work to prevent overexertion.

Warm up

Before doing physical activity, stretch and move your body to warm up your muscles.

Take small breaks

When doing repetitive motion or a lot of lifting, take a lot of small breaks. Even a break of 20 seconds to stretch the muscles you are using can be helpful.

Lift properly

When lifting anything, it is important to have proper posture and form. Follow these steps to avoid overexertion:

- Stand close to what you are lifting.
- Place your feet wide apart to give yourself a solid base.
- Bend your knees instead of your hips and back.
- Tighten your core muscles to help you lift the object.
- Use your leg muscles to lift, not your back.
- Don't twist your body while holding something heavy. Turn your whole body, including your feet. Your nose and toes should always be pointing in the same direction while lifting.
- When putting down a heavy object, bend with your knees so you squat to put it down instead of hinging at the hips.

Ask for help

When dealing with a bulky or heavy item, ask someone to help you. Or, if no one is available, try to take multiple trips to carry heavy items instead of trying to carry them all at once.

Use available equipment to move heavy objects.

If available, use tools meant for lifting assistance. This could be anything from a lifting belt that gives you more core support, to machinery that lifts items for you and carry them where they need to go.

Avoid carrying things that are too heavy.

Everyone's limit for how much they can carry is different. If you do not regularly carry heavy objects or work out, what you can safely carry may be less than someone else. Listen to your body, and ask for help when needed.

SOURCE:https://www.webmd.com/fitness-exercise/what-to-know-%20about-overexertion

Walking Working Surfaces/Slips, Trips, and Falls

Walking Working Surfaces

Many workers are injured every year due to slips, trips, or falls generated by improper walking and working surfaces. Most of these accidents can be prevented if proper safety precautions are initiated. Slips, trips, and falls can be caused by conditions such as ice, standing water, grease, polished floors, loose flooring or carpeting, uneven walking surfaces, poorly placed electrical cords, and damaged ladder steps. The controls needed to prevent these hazards are usually relatively simple, such as keeping walkways and stairs clear of debris, coiling up extension cords and hoses when not in use, keeping electrical and other wires out of the way, wearing appropriate footwear, and clearing parking lots, stairs, and walkways in snowy weather. The following provides in-formation on walking/working surfaces hazards and prevention.

How to Prevent Slips, Trips and Falls

Housekeeping

All work areas, hallways, storerooms, and restrooms shall be kept clean, orderly, sanitary, and free of slip, trip and fall hazards. Sufficient illumination must be provided in all areas. All exit doors and egress paths shall be kept free of obstructions at all times.

Aisles and passageways

Where mechanical handling equipment is used, such as forklifts, sufficient clearances shall be maintained for aisles, at loading docks, through doorways and wherever turns or passage must be made. Aisles and passage-ways shall be kept clear and in good repairs, with no obstruction that could create a hazard.

Covers

Covers shall be provided to protect personnel from the hazards such as open tanks, ditches, stairways, ladder-ways, hatchways, skylights, manholes, floor holes.

Stairways

Stairs having four or more risers shall be equipped with standard stair railing or handrails.

Source: www.ehs.cornell.edu

Injuries This Quarter

Injuries by Cause Group		
Loss Cause Group	Frequency	Claims
FALL (SAME LEVEL)	10%	1
MOTOR VEHICLE	10%	1
OTHER	30%	3
OVEREXERTION	30%	3
STRUCK BY	20%	2
TOTAL	**100%**	**10**

Injuries by Most Common		
Injury	Frequency	Claims
FALL (SAME LEVEL)	10%	1
MOTOR VEHICLE	10%	1
OTHER	30%	3
OVEREXERTION	30%	3
STRUCK BY	20%	2
TOTAL	**100%**	**10**

Injuries by Body Part		
Loss Cause Group	Frequency	Claims
HEAD	10%	1
LOWER BACK AREA	20%	2
WRIST	10%	1
HAND	10%	1
FINGERS	10%	1
KNEE	20%	2
NON PHYSICAL INJURY	20%	2
TOTAL	**100%**	**10**