



THE EHS CONNECTION

ENVIRONMENTAL HEALTH & SAFETY NEWSLETTER- JANUARY 2015

COLD STRESS...BRRRRRR!

A cold environment forces the body to work harder to maintain its temperature. Whenever temperatures drop below normal and wind speed increases, heat can leave your body more rapidly. Wind chill is the temperature your body feels when air temperature and wind speed are combined. For example, when the air temperature is 40°F, and the wind speed is 35 mph, the effect on the exposed skin is as if the air temperature was 28°F.

COLD STRESS occurs by driving down the skin temperature and eventually the internal body temperature (core temperature). This may lead to serious health problems, and may cause tissue damage, and possibly death.

WHAT ARE THE RISK FACTORS THAT CONTRIBUTE TO COLD STRESS?

- Wetness/dampness, dressing improperly, and exhaustion
- Predisposing health conditions such as hypertension, hypothyroidism, and diabetes
- Poor physical conditioning

HOW DOES THE BODY REACT TO COLD CONDITIONS?

In a cold environment, most of the body's energy is used to keep the internal core temperature warm. Over time, the body will begin to shift blood flow from the extremities (hands, feet, arms, and legs) and outer skin to the core (chest and abdomen). This shift allows the exposed skin and the extremities to cool rapidly and increases the risk of frostbite and hypothermia. Combine this scenario with exposure to a wet environment, and trench foot may also be a problem.

WHAT ARE THE MOST COMMON COLD INDUCED ILLNESSES/INJURIES?

- Hypothermia
- Frostbite
- Trench Foot

WHAT IS HYPOTHERMIA?

Hypothermia occurs when body heat is lost faster than it can be replaced and the normal body temperature (98.6°F) drops to less than 95°F. Hypothermia is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F), if a person becomes chilled from rain, sweat, or submersion in cold water.

WHAT ARE THE SYMPTOMS OF HYPOTHERMIA?

Mild symptoms:

- An exposed person is alert.
- He or she may begin to shiver and stomp the feet in order to generate heat.

Moderate to Severe symptoms:

- As the body temperature continues to fall, symptoms will worsen and shivering will stop.
- The victim may lose coordination and fumble with items in the hand, become confused and disoriented.
- He or she may be unable to walk or stand, pupils become dilated, pulse and breathing become slowed, and loss of consciousness.

WHAT CAN BE DONE FOR A PERSON SUFFERING FROM HYPOTHERMIA?

- Call 911 immediately in an emergency; otherwise seek medical assistance as soon as possible.
- Move the person to a warm, dry area.
- Remove wet clothes and replace with dry clothes, cover the body (including the head and neck) with layers of blankets; and with a vapor barrier (e.g. tarp, garbage bag). Do **not** cover the face.

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IF MEDICAL HELP IS MORE THAN 30 MINUTES AWAY:

- Give warm sweetened drinks if alert (no alcohol), to help increase the body temperature. Never try to give a drink to an unconscious person.
- Place warm bottles or hot packs in armpits, sides of chest, and groin. Call 911 for additional rewarming instructions.

IF A PERSON IS NOT BREATHING OR HAS NO PULSE:

- Call 911 for emergency medical assistance immediately.
- Treat the person as per instructions for hypothermia, but be very careful and do not try to give an unconscious person fluids.
- Check him/her for signs of breathing and for a pulse. Check for 60 seconds.
- If after 60 seconds the affected worker is not breathing and does not have a pulse, *trained* individuals may start rescue breaths for 3 minutes.
- Recheck for breathing and pulse, check for 60 seconds.
- If the person is still not breathing and has no pulse, continue rescue breathing.
- Only start chest compressions per the direction of the 911 operator or emergency medical services*
- Reassess patient's physical status periodically.

*Chest compression are recommended *only* if the patient will not receive medical care within 3 hours.

WHAT IS FROSTBITE?

Frostbite is an injury to the body that is caused by freezing of the skin and underlying tissues. The lower the temperature, the more quickly frostbite will occur. Frostbite typically affects the extremities, particularly the feet and hands.

WHAT ARE THE SYMPTOMS OF FROSTBITE?

- Reddened skin develops gray/white patches.
- Numbness in the affected part.
- Feels firm or hard.
- Blisters may occur in the affected part, in severe cases.

WHAT CAN BE DONE FOR A PERSON SUFFERING FROM FROSTBITE?

- Follow the recommendations described above for hypothermia.
- Do not rub the affected area to warm it because this action can cause more damage.
- Do not apply snow/water. Do not break blisters.
- Loosely cover and protect the area from contact.
- Do not try to rewarm the frostbitten area before getting medical help; for example, do not place in warm water. If a frostbitten area is rewarmed and gets frozen again, more tissue damage will occur. It is safer for the frostbitten area to be rewarmed by medical professionals.
- Give warm sweetened drinks, if the person is alert. Avoid drinks with alcohol.

WHAT IS IMMERSION/TRENCH FOOT?

Trench Foot or immersion foot is caused by prolonged exposure to wet and cold temperatures. It can occur at temperatures as high as 60°F if the feet are constantly wet. Non-freezing injury occurs because wet feet lose heat 25-times faster than dry feet. To prevent heat loss, the body constricts the blood vessels to shut down circulation in the feet. The skin tissue begins to die because of a lack of oxygen and nutrients and due to the buildup of toxic products.

WHAT ARE THE SYMPTOMS OF TRENCH FOOT?

- Redness of the skin, swelling, numbness, blisters
- What can be done for a person suffering from immersion foot?
- Call 911 immediately in an emergency; otherwise seek medical assistance as soon as possible.
- Remove the shoes, or boots, and wet socks.
- Dry the feet.

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HOW CAN COLD STRESS BE PREVENTED?

DRESSING PROPERLY is extremely important to preventing cold stress. The type of fabric worn also makes a difference. Cotton loses its insulation value when it becomes wet. Wool, silk and most synthetics, on the other hand, retain their insulation even when wet. The following are recommendations for working in cold environments:

Wear at least three layers of loose fitting clothing. Layering provides better insulation. Do not wear tight fitting clothing.

An inner layer of wool, silk or synthetic to keep moisture away from the body.

A middle layer of wool or synthetic to provide insulation even when wet.

An outer wind and rain protection layer that allows some ventilation to prevent overheating.

Wear a hat or hood to help keep your whole body warmer. Hats reduce the amount of body heat that escapes from your head.

Use a knit mask to cover the face and mouth (if needed).

Use insulated gloves to protect the hands (water resistant if necessary). Wear mittens instead of gloves if possible...they're warmer.

Wear insulated and waterproof boots (or other footwear).

SMART SNOW SHOVELING

BUNDLE UP. COLD TEMPERATURES REDUCE CIRCULATION TO THE BODY'S EXTREMITIES. WEAR WEATHER-APPROPRIATE, LAYERED CLOTHING AND GLOVES TO HELP MAINTAIN BODY TEMPERATURE AND CIRCULATION.

START EARLY. THE LONGER SNOW SITS ON THE GROUND, THE MORE IT COMPACTS, MAKING IT DENSER. REMOVING COMPACTED SNOW REQUIRES MORE EXERTION, PLACING STRESS ON THE HEART. SNOW IS EASIER TO SHOVEL WHEN IT FIRST FALLS.

EASE INTO IT. AS WITH ANY PHYSICAL ACTIVITY, YOUR BODY NEEDS TO WARM UP TO PERFORM AT ITS PEAK. EASE INTO SHOVELING AND TRY NOT TO DO THE ENTIRE JOB AT ONCE. TAKE BREAKS AS NEEDED.

REMAIN HYDRATED. THE BODY NEEDS HYDRATION, EVEN IN COLD WEATHER. WHEN SHOVELING SNOW, TAKE FREQUENT BREAKS AND DRINK WATER REGULARLY TO PREVENT DEHYDRATION.

AVOID HEAVY EATING. EATING A SMALL MEAL BEFORE SHOVELING WILL PROVIDE A SOURCE OF ENERGY. HOWEVER, DIGESTION PUTS STRAIN ON THE HEART, SO EATING A LARGE MEAL BEFORE ANY PHYSICAL ACTIVITY SHOULD BE AVOIDED. ADDITIONALLY, DON'T CONSUME ALCOHOL JUST BEFORE SHOVELING.

DON'T LIFT TOO MUCH. LARGE LOADS OF SNOW CAN BE HEAVY AND PLACE STRAIN ON THE HEART, BACK AND NECK. PUSH INSTEAD OF LIFTING, AND USE A SMALL SHOVEL, WHICH ENCOURAGES SMALLER LOADS OF SNOW. IF YOU MUST LIFT, AVOID ROUNDING YOUR BACK, LIFT USING YOUR LEGS AND BUTTOCKS, AND CLEAR FOUR TO SIX INCHES OF DEPTH AT A TIME.

LISTEN TO YOUR BODY. THE BEST INDICATOR OF WHETHER OR NOT SNOW SHOVELING IS CAUSING HARM IS TO PAY CLOSE ATTENTION TO YOUR BODY'S SIGNALS. IF YOU BEGIN TO FEEL WINDED OR OVEREXERTED WHILE SHOVELING, TAKE A BREAK. THESE ARE SIGNS THAT YOU'RE DOING MORE THAN YOUR BODY CAN HANDLE. IF YOU EXPERIENCE SHORTNESS OF BREATH, CHEST, THROAT OR ARM DISCOMFORT OR TIGHTNESS, OR LIGHTHEADEDNESS, YOU SHOULD REST AND SEEK MEDICAL ATTENTION IF THE SYMPTOMS PERSIST.

SAFE SNOW BLOWING

- NEVER WEAR LOOSE PANTS, JACKETS, OR SCARVES, WHICH CAN GET TANGLED IN A SNOW BLOWER'S MOVING PARTS AND PULL YOU IN WITH THEM.
- WEAR EARPLUGS OR OTHER HEARING PROTECTION, ESPECIALLY WITH A GAS-POWERED MODEL, WHICH TYPICALLY RUNS ABOVE THE 85 DECIBELS AT WHICH HEARING DAMAGE CAN OCCUR.
- BEFORE THE SNOW GETS TOO DEEP, REMOVE DOORMATS, SLEDS, BOARDS, WIRES, NEWSPAPERS, AND ANYTHING ELSE FROM THE AREA YOU'LL CLEAR TO AVOID CLOGS AND DAMAGE TO THE MACHINE.
- DON'T LET CHILDREN OPERATE A SNOW BLOWER. AND KEEP PEOPLE AND PETS FAR AWAY FROM THE VICINITY OF WHERE YOU'RE CLEARING.
- PROTECT YOURSELF FROM CARBON-MONOXIDE POISONING BY STARTING AND RUNNING A GAS-POWERED SNOW BLOWER OUTSIDE, NEVER IN A GARAGE, SHED, OR OTHER ENCLOSED AREA—EVEN IF THE DOOR IS OPEN.
- FOR AN ELECTRIC MODEL, USE AN OUTDOOR EXTENSION CORD RATED FOR YOUR MODEL, CONNECTED TO AN OUTLET WITH GROUND-FAULT-CIRCUIT-INTERRUPTING (GFCI) PROTECTION. THEN BE SURE TO KEEP THE CORD SAFELY AWAY FROM THE SPINNING AUGER WHILE WORKING.
- TURN OFF THE ENGINE OF A GAS SNOW BLOWER OR UNPLUG THE CORD OF AN ELECTRIC MODEL BEFORE CLEARING A CLOG AT THE AUGER OR DISCHARGE CHUTE. AND USE A CLEARING TOOL OR A BROOM HANDLE TO CLEAR THE CLOG—NEVER YOUR HANDS OR FEET, EVEN IF YOU'RE WEARING GLOVES: A STATIONARY AUGER AND IMPELLER ARE OFTEN UNDER ENOUGH BELT TENSION TO HARM HANDS AND FEET, EVEN WITH THE ENGINE OR ELECTRIC MOTOR OFF.
- WAIT UNTIL A GAS MODEL'S ENGINE IS COOL BEFORE REFUELING TO AVOID IGNITING THE GASOLINE

THREE RESOLUTIONS FOR A SAFER AND HEALTHIER NEW YEAR

RESOLUTION #1: I WILL WASH MY HANDS OFTEN.

I DO NOT WANT THE FLU OR COLD THIS WINTER. I RESOLVE TO USE SOAP AND WATER OR HAND SANITIZER TO KEEP FROM SPREADING GERMS. ADDITIONALLY, I DO NOT PLAN TO TOUCH MY FACE AND WILL COVER MY MOUTH IF I HAVE A COUGH. ALL OF THESE EASY CHANGES MAKE A HUGE IMPACT DURING FLU.

RESOLUTION #2: I WILL CREATE AND UPDATE MY HOME EMERGENCY PREPAREDNESS KIT.

AT THE VERY LEAST, YOU SHOULD MAKE SURE YOUR KIT CONTAINS ENOUGH FOOD, WATER AND OTHER SUPPLIES TO LAST FOR AT LEAST 72 HOURS. YOUR KIT SHOULD REFLECT YOUR NEEDS FOR EXAMPLE, PET FOOD FOR PETS AND ANY PRESCRIPTION MEDICATIONS.

RESOLUTION #3: I WILL NOT USE MY CELL PHONE OR TEXT WHILE DRIVING.

ACCORDING TO THE NATIONAL SAFETY COUNCIL, 1.6 MILLION AUTO ACCIDENTS OCCURRED IN THE U.S. LAST YEAR RELATED TO USING A CELL PHONE OR TEXTING WHILE DRIVING. I WILL KEEP MY CELL PHONE OUT OF REACH WHILE DRIVING.

NEW YEAR...NEW SMOKING POLICY

SUNY OSWEGO'S TOBACCO- AND SMOKE-FREE POLICY TOOK EFFECT JANUARY 1ST, FOLLOWING A CAMPAIGN OF MORE THAN EIGHT MONTHS TO RAISE AWARENESS OF THE COSTS OF TOBACCO AND NICOTINE USE AND ADDICTION, TO PROMOTE AND ASSIST SMOKING CESSATION, AND TO COMMUNICATE WITH THE COLLEGE'S PUBLIC.

THE NEW YEAR WILL BRING A FRESH START FOR ALL AT THE COLLEGE—VISITORS ALONG WITH FACULTY, STAFF AND STUDENTS. THE POLICY IMPLEMENTED THAT DAY PROHIBITS SMOKING AND ALL TOBACCO AND E-CIGARETTE USE ON COLLEGE PROPERTY, OUTDOORS AS WELL INSIDE, INCLUDING IN ANY VEHICLES ON CAMPUS.

AWARENESS OF AND COMPLIANCE WITH THE TOBACCO-FREE, SMOKE-FREE POLICY RELIES LARGELY ON COMMUNICATION, EDUCATION, CESSATION AND MUTUAL RESPECT AND COOPERATION. THE COLLEGE'S CAMPAIGN WON'T END ON JAN. 1 WITH THE POLICY'S LAUNCH. AMONG THE EFFORTS, CREWS ARE WORKING ON PERMANENT SIGNS, AN ARTIST IS CRAFTING A NEW SERIES OF DIGITAL SIGNS, AND PUBLIC ADDRESS ANNOUNCERS AT SPORTING EVENTS PLAN UPDATED CALLS FOR FANS TO RESPECT THE COLLEGE AND ITS NEW POLICY.

SUNY OSWEGO WILL JOIN NEARLY 1,000 TOBACCO-FREE COLLEGES AND UNIVERSITIES, AND MORE THAN 290 PROHIBITING THE USE OF E-CIGARETTES, ACCORDING TO OCTOBER FIGURES FROM THE AMERICAN NONSMOKERS' RIGHTS FOUNDATION. NEARLY 1,500 CAMPUSES NATIONWIDE ARE SMOKE-FREE.

Check out the beautiful new building at Rice Creek. It is open M-F 9 am-4:30 pm and on Saturdays 9 am-3 pm. There are FREE programs on most Saturdays, and trails are open during daylight house.

Parking is available by the main building and near the gate on Thompson Road.

For more information call 312-6677 or visit



<http://www.oswego.edu/ricecreek>

INK AND TONER CARTRIDGE RECYCLING!

Environmental Health & Safety will take your empty ink and toner cartridges for recycling. You may send them to us through Campus Mail addressed to: EH & S, 110 Lee Hall. You may also drop them off to us or call us at 3157 for pick up. What ever you do...

DO NOT THROW THEM IN THE GARBAGE! Thanks!

JANUARY WORD SEARCH

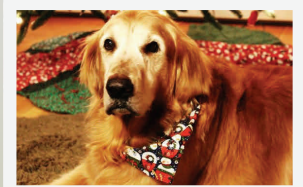
For a chance to win a great prize (more like an OK prize, but-hey, it's a PRIZE!), complete the Word Search and send it via e-mail to lisa.drake@oswego.edu OR through Campus Mail: Lisa Drake, 110 Lee Hall. Make sure to put your name on it! The winner for December was Carol Crego. Look for: Cold Stress, Hypothermia, Frostbite, Trench Foot, Temperature, Shiver, Emergency, Unconscious, Rescue Breathing, Symptoms, Immersion, Waterproof, Circulation, Layers, Shoveling, Snow Blowing, Carbon Monoxide, Tobacco Free, Smoke Free.

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IN MEMORY OF MARTY...

WITH GREAT SADNESS, WE SAID GOODBYE TO OUR SWEET OLD PAL ON DECEMBER 20TH. HE GAVE US 11+ YEARS OF FRIENDSHIP AND JOY AND HE LIVED THE LIFE OF RILEY!

BEST DOG EVER...



QUIT SMOKING!!!

Faculty and staff members may contact the New York Smokers' Quitline, 1-866-NYQUITS (1-866-697-8487) or visit www.nysmokefree.com. Oswego Health also sponsors a free online quit-smoking program with support from certified cessation counselors; call 349-5513 to register.

Ergonomic Assessment Christine

Body has been doing ergonomic assessments since 1996 and is available to do them here on campus. She can be reached at 312-2770 and would be happy to assist you with any questions or issues.