If You Don’t Like the Weather..................

Slips, trips, and falls, and preparing for bad weather

It does not matter if you are new to the area or have lived in New England all of your life, you’re here now, and you have to understand that weather and especially winter weather, can be harsh and very unpredictable. The age old adage, “If you don’t like the weather, wait a few minutes and it will change,” very much applies.

Tufts University reports all injuries that result in lost time from work annually to the United States Department of Labor. This reporting is submitted for all three campuses in January. In reviewing all injuries, there is pattern of slip, trip and fall injuries related to weather conditions. The most common month for those injuries is February.

Tufts Facilities Services does an excellent job trying to keep up with bad weather. If a storm occurs during evening hours, crews will be brought in in the middle of the night to attempt to keep up with conditions. If the weather is really bad Tufts will consider closing which is usually decided by 5:30 or 6:00AM the morning of. Refer to the local TV and radio stations or the “Tufts Weather Emergency Line” at 617-627-INFO. On occasion the storms occur while we are at work or on our way into work, this presents a problem for Facility Services to keep up with both sidewalks, stairs, and roadways. It is on these occasions that employees, faculty, and students are at greatest risk for slip, trip, and fall injuries. Everyone can take the following common sense steps to reduce the risk of injuries.

1. Dress properly for the weather conditions, proper coats, hats, gloves and most important footwear. Shoes with slippery bottoms or high heels are not a good idea in icy or even rainy weather conditions.
2. Footwear such water proof or resistance boots are almost a necessity under deteriorating weather conditions. The boots should have rubber or slip resistant heels.
3. Avoid outside stairs, sloped sidewalks high traffic areas and areas in which visibility is limited due to snowbanks.
4. Watch where you walk, walkways, stairs, and the immediate interior of buildings can be very slippery. Some may have black ice and may not even appear slippery.
5. Just because you made it into your building safely do not let down your guard. The floors and stairs may still be wet. Continue to use caution whenever you approach an area that may still be wet or icy. Similar, be aware of temporary mats and rugs that have been placed to absorb water and may not be securely taped down.
6. Assure your additional clothing and footwear is properly stored at your workplace to avoid creating an additional trip hazard.
7. Finally if you see a location that may need more attention, contact the Facility Service office in your area and let them know.

If you should have an incident from a slip trip and fall, do not hesitate to call Campus Police at x.6-6911 and request assistance. If you should fall, be sure to complete the proper accidents reports located at http://publicsafety.tufts.edu/ehs/accident-and-incident-reporting-at-tufts-university

Part of the responsibility for being safe, during our long harsh winters, rest with each of us.

*PLEASE DISPLAY ON COMMUNITY BOARDS OR SHARE WITH ANYONE WHO WOULD BE INTERESTED
Do Deicers Have Environmental Impacts?

The use of deicers is necessary at Tufts during winter weather to melt snow and ice to make removal easier to ensure safe pedestrian and vehicle travel. Deicers include common road salt or chemicals that are designed for different surfaces, application techniques, temperatures or environmental considerations.

According to the U.S. Environmental Protection Agency, road deicing became increasingly common in the 1930s-1950s with the expanded use of roads, cars and suburban living in the United States. In the 1950s demand grew for bare pavement at all times, and road salt helped meet this public policy goal.

At Tufts, we have come to expect campus roads and sidewalks to be clear of snow and ice during and after winter storms and Tufts Facilities Services works around the clock to meet this need. Facilities Services uses three deicers for different applications: magnesium chloride for sidewalks and stairs, potassium chloride for roads on the Medford/Somerville Campus and common road salt (sodium chloride) on the Grafton Campus. Sand is sometimes added as an abrasive to improve traction but does not melt ice.

The use of deicers is not subject to environmental regulation except for the prohibition against salt storage near drinking water supplies. The EPA regulates some chemical uses via the Toxic Substances Control Act; chemical waste management via the Resource Conservation and Recovery Act; wastewater discharges via the Clean Water Act; and drinking water in the Safe Drinking Water Act.

Excessive salt application can raise the amount of sodium and chloride in fresh water and kill vegetation. That is why roads near drinking water sources are sometimes labeled as low-salt areas. Interestingly, even though it is not a chemical, sand application is generally not recommended by state highway departments because it doesn’t melt snow, clogs storm drains and is expensive to sweep in the spring.

After application, deicers dissolve and run off into stormwater systems. Historically, stormwater systems quickly transported runoff and any pollutants to the nearest water body but recently, Tufts has adopted a new environmental engineering practice to naturally remove some pollutants from stormwater by letting it settle in underground structures before conveyance to water bodies. Salt tolerant plants as well as soils can adsorb salt and reduce the amount in runoff. Regular street sweeping and catch basin cleaning in spring and fall can also help to remove sediment and maintain performance of stormwater systems.

Maintaining safe transportation infrastructure is important to the safety of the Tufts community and the ability to complete the University’s research and teaching mission with limited interruptions.
Extension and Power Strip Safety-No electrical shocks, burns or fires at Tufts!

Extension cord, power strip, power tap, multi tap or surge protector devices provide an important method of bringing temporary power to electrical devices that need to be used in areas not located near a wall outlet. UL approved and correctly sized extension cords are only allowable in the workplace as temporary wiring not to exceed 90 days. The U.S. Consumer Product Safety Commission (CPSC) estimates that each year, about 4,000 injuries associated with electric extension cords are treated in hospital emergency rooms. About half the injuries involve fractures, lacerations, contusions, or sprains from people tripping over extension cords. In addition, CPSC also estimates that about 3,300 residential fires each year, killing 50 people and injuring about 270 others. The most frequent causes of electrical fires are short circuits, overloading, damage, and/or misuse of extension cords, power strips, power taps and surge protectors.

The most common cause of fires from extension cord, power strip, power tap or surge protector is primarily due to improper use and overloading, especially when cords have multiple outlets such as power strip and surge protectors. Recently, two Manhattan fires that occurred within two days, leaving one person dead and another seriously burned as a result of overloaded power strips. Cords and strips get hot enough “glowing red” to ignite cloth, paper, carpet etc. and start fires.

Most light duty extension cords are only rated for a maximum of ten amps or 1200 watts and most multitap (strip cord / power strip and surge protectors) are rated at 15 amps (1875 watts). Overloading can occur when multiple devices are plugged into one cord or when cords are “daisy chained” (plugging multiple extension cords together) or when the connected equipment is drawing more amps than the power strip is rated to handle.

The use of unapproved extension cords is a violation of both OSHA and National Fire Protection Association codes. The OSHA Code of Federal Regulations (29 CFR 1910.303 (a)) states that conductors and equipment are acceptable for use only if they are approved by recognized laboratories (such as Underwriters Laboratory, Factory Mutual, etc.). Approved extension cords are only allowable in the workplace as temporary wiring, and for no more than 90 days. Beware of cheap devices, they often do not meet safety standards and are illegally labelled.

Add it up!
If your device, equipment, instrument or tool that uses eight amps at 125 volts, then its wattage rating will be 1000W (8A x 125V = 1,000W). Additionally, if you are going to use an extension cord or a power strip or surge protector with two or more connected devices, you must add together the total wattage ratings for all used on the cord even if the other device is idle or not in full operation (has the potential of turning on to full load). Do not use a cord that has a lower rating than the equipment to be plugged in – check all manufacture’s labels.

Let’s look at a typical office equipment power strip, power tap or surge protector rating and see how quickly it adds up: NOTE: The total should not exceed the rated capacity of the extension cord, power strip, power tap or surge protector you are using, also assume full load of the equipment; a printer example. There is an idle listing and a printing amperage – assume the printing amperage. The following is a good use of a power strip
Never use extensions or power strips for space heaters, refrigerators, microwave ovens, toaster ovens.

- Don't use extension cords as substitutes for permanent wiring—temporary use only.
- Purchase cords approved by an independent testing laboratory, such as Underwriters Laboratories (UL), MET, ETL or Canadian Standards Association (CSA).
- Never use a cord that feels hot or is damaged in any way. Touching even a single exposed strand can give you an electric shock or burn.
- Replace cords with cracks, cuts and damaged insulation. Typically, repair is not cost effective and can only be done by a qualified electrician.
- Power cords should never be nailed, stapled, or taped to the desk, wall, ceiling, baseboard, or another object.
- When unplugging a cord, pull on the plug, not the cord (yes, bend over)
- Unplug extension cords when not in use.
- Do not run extension cords through walls, doorways, under carpets, ceilings or floors. If cord is covered, heat cannot escape, which may result in a fire hazard.
- Don't coil equipment or extension cords while they're in use. Uncoil extension cords before use so that heat can escape.
- Avoid using extension cords when possible. If you must use an extension cord, select one that is rated for the full load amps of the connected equipment or tool. If more than one device is being connected to an extension cord, add the individual amp ratings of the devices together and confirm that it does not exceed the amp rating of the cord.
- Use a three-wire extension cord only. Do not use “cheaters” or 2-wire adaptors to connect to two prong outlets. This defeats the purpose of a three-prong plug and could lead to an electrical shock. Never force a plug into an outlet if it doesn’t fit.
- Use exterior rated cords outside use (see label). Do not use indoor extension cords outdoors.
- GFCIs or GFCI pig tail is required for outdoor extension cord use.
- Do not extend extension cords by plugging into another. Overloading can occur when multiple devices are plugged into one cord or when cords are “daisy chained”.

References
National Fire Protection Association http://www.nfpa.org
Dangerous Daughters: Hazard Evaluation and Control

Radon is an inert, radioactive gas that is produced from the uranium widely dispersed in soil in the US. When inhaled, most of the gas will be exhaled without being retained in the body, resulting in very low radiation dose. However, radon rapidly decays into short lived radon decay products (also referred to as radon daughters or radon progeny). The inhaled radon decay products are not gases but solids that stick to the surfaces of the respiratory tract, and are retained long enough to irradiate nearby airway cells. Radon is considered to be the second (i.e. only smoking causes more cases of lung cancer) leading cause of lung cancer in the United States. For those that smoke and are exposed to higher levels of radon, the risk of lung cancer increases. The U.S. Surgeon General Health Advisory published (January 2005) that, “Indoor radon is the second-leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country. It’s important to know that this threat is completely preventable. Radon can be detected with a simple test and fixed through well-established venting techniques.”

Airborne radon and its progeny are all around us, at work or recreational areas, schools, households, indoors or outdoors counts for 37% of our annual radiation dose of 6.2 mSv (millisieverts). The concentration levels vary widely across the United States. Higher concentrations of radon are found in the Appalachians, the upper Mid-west and the Rocky mountain states. It is also important to recognize that radon concentration levels vary from house to house within a community, and are dependant on factors such as weather conditions, soil permeability, construction design and building characteristics, water sources and underground uranium rich granite. Many studies of radon levels in U.S. homes have been conducted, and continue to be of interest to home owners, employees or employers. The largest national radon survey was conducted by the EPA, completed in 1991, and measured radon gas concentrations in 5,694 U.S. homes. The EPA recommended action level for remediation is 148 Bq/m³ (4 pCi/L). This concentration level was chosen by the EPA for several reasons. First, the ability to accurately measure concentrations decreases below the 148 Bq/m³ (4 pCi/L) level. Second, remediation efforts to achieve below the 148 Bq/m³ (4 pCi/L) are increasingly difficult (i.e. research identified that remediation was 95% successful for ≤ 148 Bq/m³ (4 pCi/L), and 70% successful for ≤ 74 Bq/m³ (2 pCi/L)). Last, the 148 Bq/m³ (4 pCi/L) level was chosen based on cost and risk analysis results.

I would encourage you to visit the EPA’s Indoor Environments Division website (http://www.epa.gov/iaq) if you are interested in learning more about radon, health risks, and the techniques used by safety professionals to either identify or mitigate radon exposures.

*Please display on community boards or share with anyone who would be interested*
Can you avoid the flu?

Did you know that flu activity can start as early as October and occur through May? Sure it peaks in January or February but that’s a long season. Do you have a plan to stay healthy? Here are some suggestions to stay healthy this flu season.

Receive your annual flu vaccine ideally by October to help provide you with protection. It takes about two weeks after vaccination for you to produce protective antibodies. There are vaccines that are injected into the muscle as well as nasal sprays. The vaccine contains three or four flu viruses and antibodies made in response to one virus can provide some protection against related viruses. The vaccine can reduce the severity of your illness if you become sick. Although vaccination is the best way to prevent influenza, antiviral treatment can be considered for ill persons and it is generally initiated within 48 hours of flu onset.

Wash your hands – a lot – even if you have been vaccinated. Sure you know that handwashing is indicated after using the rest room and before preparing food but have you thought about it after finishing your commute on public transportation or when you arrive home. Think about the communal surfaces that you touch. You may wish to carry your own pen and find time to decontaminate your computer mouse, keyboard, phone and doorknobs. Remember the vaccine’s effectiveness depends upon the characteristics of the person being vaccinated (e.g. age) as well as the circulating flu strains.

Washing your hands after being in public or communal areas will help prevent you from acquiring the flu. The basic steps are to:

- Wet your hands with clean running water.
- Apply soap and work up a lather. Include the back of your hands, between your fingers and under your nails.
- Rinse your hands well under clean, running water.
- Dry

Length of handwashing time matters; 20-30 seconds is needed (that is the amount of time it takes to sing Happy Birthday to a friend – twice).

Alcohol based sanitizers are now found in multiple spots on the Tufts campuses. Visible dirt or grease on your hands will decrease the effectiveness of the sanitizer. Additionally, sanitizers do not eliminate all types of germs (e.g. norovirus aka stomach flu).

Keep your hands away from your faces (especially the eyes, nose and mouth) to prevent inadvertently inoculating yourself with a virus!

Get some sleep! Perhaps you’ve heard that lack of sleep can impair your immune system which is a vital defense against colds, flu and some chronic diseases. Evidence indicates that this is more than an old wives’ tale. The magic number seems to be about 7 hours. Many morning show personalities joke that they need to be in bed by 7 pm for the early morning wake-up times. For most people 7 hours of sleep requires going to bed about 7.5 hours before you need to awake. Thankfully most of the flu season months have shorter days to at least foster some good habits.

Be well!

*Please display on community boards or share with anyone who would be interested*
Carrying Work Home - Painlessly!

Carrying the load on your back, shoulder or hand - which is the best?

Many of us carry mini-offices around with us. The internet has not relieved us of the need to bring tablets, laptops, water bottles, file folders, pens, books, chargers and other objects with us.

Many devices have been invented to allow us to carry pounds/kilos (weight) and volumes- cubic inches/liters (of objects) including Backpacks. Rucksacks. Sidepacks. Frontpacks. Briefcases. Messenger Bags. Shoulder packs. Rollerpacks. Pack baskets.

Carrying the load on your back, shoulder or hand- which is the best?
The Consumer Product Safety Commission reports that 7300 person seek medical attention in emergency rooms for bruises and strains and sprains to back and shoulder.

Many scientific and medical organizations have studied the problem of injuries and diseases associated with human transport of materials and equipment and have recommendations. These include the American Physical Therapy Association, the American Occupational Therapy Association, American Chiropractic Association, and American Academy of Orthopedic Surgeons.

In 2004, the U.S.Army Soldier System Center in Natick MA conducted battlefield research and confirmed that highly fit soldiers were often exceeding the 48 pound backpack limit specified in the Field manual(1990).

This is more than previous research which limited carry load to 40 pounds between 1920 and 1950. This is about 23% of the average body weight. For the average worker, the recommended load is 15% of body weight. Hence a 175 pound person should limit the carry weight to 26 pounds. The average commuter backpack weighs 3 to 5 pounds hence the load should be limited to 21 pounds.

Back carry:
Back packs should have padded, wide shoulder straps. They should also have both chest and waist belts to hold the pack against the back. Heaviest object should be packed against the back. Multiple compartments allow weight to be distributed evenly on both shoulders.

Weight the filled bag. If you change posture, have trouble donning the backpack, have any muscular pain while wearing the pack, have tingling or nerve numbness or it leaves red marks-It is probably too heavy.

NOTE: Back carry is healthier than shoulder or hand carry of loads.

Shoulder carry:
The problem with shoulder carry is the angle of the shoulder. Normal posture in general causes straps to fall off the shoulder and persons adjust posture to prevent this. Limit weight to 15% fit-body weight.

Hand carry:
Briefcases are equipped with a padded or unpadded handle and hand carried and can vary in size with the largest typically called a tote with a weight of 5 lbs. and a volume of 32 liters. Limit weight to 15% fit-body weight.

NOTE: Fit body weight is the weight you would be if you were reasonably fit for your height, body type and age. Overweight people cannot stand heavier bags.
What’s Your Opinion?

What do you think of the new *In Case You Haven’t “HERD” About…*

Do you have ideas for future topics? How to make it better?
We want to know!
Contact Natalie Tumbridge at natalie.tumbridge@tufts.edu

http://publicsafety.tufts.edu/ehs/

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