Fire Safety - Every Week Is Fire Prevention Week

In a fire, mere seconds can mean the difference between a safe escape and a tragedy. Fire safety education isn’t just for school children. Teenagers, adults, and the elderly are also at risk in fires, making it important for every member of the community to take some time every year during Fire Prevention Week to make sure they understand how to stay safe in case of a fire.

Escape planning and practice can help you make the most of the time you have, giving everyone enough time to get out. Plan ahead for your escape. Make your home and office escape plan and practice today. Evacuation route maps for UTA buildings can be found on the EH&S website. Cover all the bases for your colleagues and family with the NFPA’s fire escape checklist.

The EH&S office offers “The Great Escape” and fire extinguisher training quarterly for any department or group on campus that would like to participate and learn these skills. Please call 817-272-2185 to sign up. The Great Escape is a smoke simulation exercise that gives occupants an experience of what it might be like to evacuate a building or home during an actual fire situation.

Fire extinguisher training teaches the P.A.S.S. system: Pull, Aim, Squeeze, Sweep. If you have been formally trained and are not in immediate danger, you may attempt to extinguish a fire by using a fire extinguisher. But do not place yourself or others in unnecessary danger.

Winter Eventually Comes, Even to Texas! Protect Yourself from Cold Stress

Whenever temperatures drop below normal and wind speed increases, heat can leave your body more rapidly. Cold stress occurs by driving down the skin temperature and eventually the internal body temperature (core temperature).

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.

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.

Frostbite is an injury to the body that is caused by freezing of the skin and underlying tissues and most often affects the extremities—nose, ears, cheeks, chin, fingers, or toes.

Dress properly for the cold:
• Wear at least three layers of loose fitting clothing. Layering provides better insulation. Do not wear tight fitting clothing.
  The type of fabric worn makes a difference. Cotton loses its insulation value when it becomes wet. Wool, silk and most synthetics retain their insulation even when wet.
• Wear an inner layer of wool, silk or synthetic to keep moisture away from the body.

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**Keep an Eye on What You Fry - Cooking Safety**

According to the National Fire Protection Association (NFPA), cooking fires are the number one cause of home fires and injuries, and unattended cooking is the leading cause of fires in the kitchen. Most kitchen fires in the home involve the kitchen stove or cooktop. Preventing these fires can be as simple as following a few basic safety tips.

**Cook with Caution**

- Be on the alert! If you are sleepy or have consumed alcohol, don’t use the stove.
- Stay in the kitchen while you are frying, boiling, grilling, or broiling food. If you leave the kitchen for even a short period of time, turn off the stove.
- If you are simmering, baking or roasting food, check it regularly, remain in the home while food is cooking, and use a timer to remind you that you are cooking.
- Keep anything that can catch fire—oven mitts, wooden utensils, food packaging, towels or curtains, away from the stovetop.
- Cook at a lower temperature to avoid burning food and causing smoke.

**Appropriate Use of PPE in Biological Laboratories**

Currently there are 45 Principal Investigators (PIs) or Laboratory Supervisors with oversight of 68 Biosafety Level 2 (BSL-2) laboratory areas at UTA. Forty-one (41) PIs conduct research with samples of human origin (human blood/OPIM/tissue/cells/cell lines). Most of the research with these materials are conducted utilizing 60 biosafety cabinets (BSCs) that have a current certification and are actively in use.

When EH&S safety specialists conduct laboratory safety evaluations, proper use of PPE is one of the items they look for. The appropriate PPE for BSL-2 laboratories is listed on the entrance door. A common deficiency that has been noted is personnel working in a BSC with only gloves and without proper safety glasses and body protection.

Wearing the appropriate PPE is a major component of safety. The most basic goal of using PPE is to reduce the chances of a contamination or injury in any type of laboratory. Laboratory related injuries usually occur in a situation where a person is not wearing the proper PPE, or in some cases, is not using it correctly.

In most situations in biolaboratory work, PPE includes but is not limited to, a laboratory coat/gown, safety glasses, and gloves, so that as much of the laboratory worker is protected as possible. Depending on the hazards or laboratory conditions, the preferred solution is the use of engineering or work practice (administrative) controls to manage or eliminate hazards to the greatest extent possible. When these controls are not feasible or do not provide sufficient protection, laboratory personnel must be provided PPE and its use must be ensured.

Maintaining a safety-minded laboratory is one of the most important—if not the most important—aspects of running a successful laboratory. If workers always wear PPE in the laboratory, then they will be wearing it when it is needed!

**The following minimum attire and PPE requirements pertain to all biolaboratories where use or storage of biohazardous materials occurs or a physical hazard exists.**

### Attire When Occupying a Biolaboratory

Full length pants (or equivalent) that cover the entire leg to the ankle and fully protect exposed skin and closed toe/heel shoes must be worn at all times by all personnel who are occupying or entering a laboratory. Tights or nylons are not considered pants. Closed-toe/heel shoes should be of leather or synthetic leather or another material that resists rapid penetration by spilled liquids or sharps. In biolaboratories where a fire danger is also present, clothing made of synthetic fibers like nylon, polyester, polypropylene or acrylic, which can melt if ignited, should be avoided. Natural fibers, such as wool, cotton, jute, flax and silk are less flammable.

**Standard PPE when working with, or adjacent to, Hazardous Material Use Areas within a Biolaboratory**

PPE is specialized clothing or equipment worn by a laboratory worker to provide protection against a
hazard (e.g., infectious/potentially infectious agents/materials or toxins of biological origin). General work clothes (e.g., uniform, pants, shirts, blouses) are not intended to function as protection against a hazard and are not considered PPE. Laboratory coats (or equivalent protective garments), protective eyewear, and gloves are required to be worn by all personnel working with biohazardous materials.

BSL-1 and BSL-2 lab containment for work with human pathogens exist at UTA. The following PPE requirements pertain to all biolaboratories where use or storage of biohazardous materials occurs.

**Body Protection**

Traditional (cotton or cotton-polyester blends) laboratory coats/gowns or disposable ones are required for all biolaboratories. The laboratory coats and gowns must be long-sleeved and preferably with elastic or ribbed cuffs. Laboratory coats must be buttoned and back-closing gowns tied for greater protection. Lab coats/gowns must be worn when conducting work in a BSC. Disposable sleeve covers that can be worn over a laboratory coat/gown are good solutions when reusable body protection could be considered a contamination source while working in a BSC.

In addition, chemical-resistant apron and sleeves must be used for handling corrosives and chemicals that are toxic when absorbed through the skin.

**Eye and Face Protection**

Eye protection is protective gear for the eyes, and sometimes face, designed to reduce the risk of hazardous exposures/injury. This eyewear must meet the American National Standards Institute (ANSI)/the International Safety Equipment Association (ISEA) Z87.1-2015—Occupational and Educational Personal Eye and Face Protection Devices Standard.

General safety glasses are the minimum level of eye protection that must be worn in the biolaboratories. General safety glasses must have side shields or a one piece lens that wraps around the temple. They are not effective in protecting the eyes from splashes, and are only recommended for use with solutions that are not likely to damage the eye, such as some buffers and salt solutions. Chemical safety goggles must be worn when handling chemicals that can cause eye damage.

Eye protection is also necessary for persons who have to wear glasses. Traditional seeing glasses are not designed in a way that offers side protection. Laboratory personnel with glasses must put additional eye protection on top of their glasses for better protection of their eyes.

Face shields are required when splashes from chemicals that can cause immediate skin damage are handled (e.g. dispensing liquid nitrogen, sonicating tissue samples, working with concentrated acids, etc.). Supplementing chemical safety goggles with a face shield is advisable when risk of injury is great. When a BSC is not available or a procedure cannot be performed within a BSC, a face shield (or safety shield) must be used.

**Hand Protection**

Gloves must be worn when working with biohazards, toxic substances, or any other hazardous agents. Gloves must be selected based on the hazards involved and the activity to be conducted.

Disposable gloves are by far some of the most widely used safety products. There are many things to consider when choosing gloves, such as quality, amount of protection needed, any allergies to certain materials, and the chemicals being used. Disposable gloves are meant to be used only once—they must not be washed or reused. They need to be replaced as soon as possible after they have become contaminated, when their integrity has been compromised (they are torn or punctured) or when their ability to function as a barrier is compromised.

Disposable latex gloves (powdered or unpowdered) can be used when working with biological hazards (human blood, body fluids, tissues, cells, bloodborne pathogens, specimens) in BSL-1 and BSL-2 laboratory settings. Disposable vinyl gloves that are economical, durable, and similar to latex can also be used.

Disposable nitrile gloves (puncture and abrasion resistant, protection from splash hazards) need to be used when working with biological hazards and chemical splash hazards. Nitrile long sleeve (11 ½ - 12 inch) gloves are an excellent choice since they are able to cover the user’s wrist areas properly. Gloves need to be pulled over the wrists of laboratory coats/gowns, not worn inside the sleeves.

Temperature resistant gloves must be worn when handling hot materials or dry ice.

**Respiratory Protective Equipment** is only used as a "last line of defense" and requires individual assessment, fitting, and training by EH&S personnel (contact ehsafety@uta.edu). For more information see Respiratory Protection Program.
New Administrative Assistant Hired

Candace Hampton started on September 16 as Administrative Assistant II for the EH&S Office. She has 24 years of experience providing administrative and writing/editing support, 18 of which were in support of the Department of Defense. Her experience includes executive administrative support, technical writing/editing, Human Resources support and technical librarian experience.

Candace is originally from Illinois and also lived in Ohio before relocating to Texas about three years ago. She worked as an executive assistant for Special Olympics Texas, which is where she came into contact with and learned of UTA. We believe she will be a valuable addition to our department.

Candace is the mother of two adult daughters and currently lives in Fort Worth. In her spare time she enjoys reading and traveling, especially to one of her favorite spots—Las Vegas. Candace will be getting married in April and her last name will change to Hamilton.

Prevent Cold Stress (cont. from page 1)

- Wear a middle layer of wool or synthetic to provide insulation even when wet.
- Wear 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 insulated and waterproof boots (or other footwear).

Immersion Foot or trench foot is an injury of the feet resulting from prolonged exposure to wet and cold conditions that can occur at temperatures as high as 60 °F if the feet are constantly wet.

For more information about the symptoms and treatment of these cold induced illnesses/injuries, please see OSHA’s Cold Stress Guide.