

## EHS News

Winter 2017-2018

### Flu Season is Here



The flu is a contagious respiratory illness caused by influenza viruses that infect the nose, throat and lungs. It can cause mild to severe illness and can lead to death. The best way to prevent the flu is by getting a flu vaccine each year.

#### Signs and Symptoms of Flu

People who have the flu often feel some or all of these symptoms:

- Fever or feeling feverish, chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or body ached
- Headaches
- Fatigue
- Vomiting and diarrhea (more common in children than adults)

#### How Flu Spreads

Most experts believe flu viruses spread mainly by droplets when people with flu cough, sneeze or talk. These droplets can land in the mouths or noses of people nearby. A person might also get flu by touching a surface or object that has flu virus on it and then touching their own mouth, eyes or nose.

#### Period of Contagiousness

You may be able to pass on the flu to someone else before you know you are sick, as well as while you are sick. Most healthy adults may be able to infect others beginning one day before symptoms develop and up to seven days after becoming sick. Some people, especially young children and people with weakened immune systems, might be able to infect others for an even longer time.

#### Preventing Flu

The first and most important step in preventing flu is to get a flu vaccination each year. CDC also recommends everyday preventive actions, like staying away from people who are sick, covering coughs and sneezes and frequent handwashing, to help slow the spread of germs that cause respiratory (nose, throat and lung) illnesses, like flu.

Source: CDC

# How to Cope and Deal with Stress



## What Is a Traumatic Event?

Most everyone has been through a stressful event in his or her life. When the event, or series of events, causes a lot of stress, it is called a traumatic event. Traumatic events are marked by a sense of horror, helplessness, serious injury, and/or the threat of a serious injury or death.

## What Are Some Common Responses?

Responses are different for everyone and can include feelings of fear, grief and depression. Physical responses include nausea, dizziness and changes in sleep pattern as well as withdrawal from daily activities. Responses to trauma can last for weeks to months.

## What Can You Do for Yourself?

- Understand that your symptoms may be normal, especially right after the traumatic event.
- Keep to your usual routine.
- Resolve everyday conflicts so they do not add to your stress.
- Do not avoid situations, places or people that remind you of the traumatic event.
- Find ways to relax.
- Turn to people you trust for support.
- Participate in fun activities.
- Recognize that you cannot control everything.

## What Can You Do for Your Child?

- Children's reactions to traumatic events depend on their age. Their responses are also affected by how close they are to the event.
- Deal with the situation calmly and confidently.
- Answer questions simply.
- Spend extra time with them.
- Let them know it is okay to feel upset when something bad or scary happens.
- Encourage them to express feelings and thoughts.
- Return them to daily routines.

## When Should You Contact Your Doctor or Mental Health Professional?

You may need to consider seeking professional help if your symptoms are severe enough during the first month to interfere a lot with your family, friends and job.

For more information, visit the [Centers for Disease Control and Prevention](https://www.cdc.gov) and the [American Red Cross](https://www.redcross.org).

From: <https://www.cdph.ca.gov/Programs>

# PREPARING YOUR LAB FOR AN EMERGENCY



Research labs are unique places that often have hazardous materials, equipment and/or processes that should be “made safe” prior to researchers exiting the lab in an emergency. Research lab emergency shutdown planning ensures the ongoing continuity of the research, the safety of lab building occupants and the safety of emergency responders who must enter the building and possibly the lab.

Depending upon the complexity of the lab, its processes, hazards and equipment, “making safe” the research could be as simple as shutting off equipment with a control switch or closing a fume-hood sash before leaving the lab, which takes little-to-no-time. However, hazardous chemicals or biologicals may need to be isolated or safely stored-away prior to evacuation. For complex equipment and associated lab processes, multiple utilities may need to be shut-off using automated emergency control-systems and pre-programmed shutdown sequencing to ensure safe-shut-down while lab users exit the building.

During emergency, time is critical and seconds can mean the difference between life and death. By planning for emergency and the need to evacuate your lab with the utmost of speed, you can minimize the potential for loss of critical research-data and equipment while ensuring researchers’ and emergency responders’ health and well-being. As a planning-target time frame, it should not take a single researcher working in a lab more than 30-seconds to “make safe” all lab equipment, processes and hazardous chemicals / biologicals prior to evacuating the lab. Contact EHS (5-2283) for collaborative safety engineering support should you determine your lab cannot be “made safe” and evacuated in under 30-seconds.

Here is a checklist that will help you prepare for an emergency in your lab:

# Emergency Preparedness Checklist for Labs

- **Inventory physical, biological and chemical hazards** and determine how each should be dealt with during an emergency. Prioritize “making-safe” hazardous chemical storage, hazardous biological containment and hazardous processes safe shutdown. Also, prioritize maintaining egress pathways and adequate lighting along pathway to safety.
- **Assess hazardous chemicals and what must be done to “make them safe” prior to evacuating the lab.** Only use hazardous chemicals in the smallest-quantity needed for research-use during routine lab operations, and keep hazardous chemical reserves in safe-storage such as flammable or gas cabinets.
- **Assess lab equipment, biologicals containment and lab processes** for research-critical operations or high-hazard conditions that require biologicals-isolation or safe shutdown before the lab must be evacuated.
- **Develop Equipment/Process SOPs** for shutting down equipment or “making safe” hazardous chemicals, biologicals or processes prior to evacuation.
- **Train all lab users on the Lab Emergency SOPs** and document this training in lab manuals.
- **Label utility shut-off locations clearly** for the lab’s critical equipment which include compressed gas shut-off valves, process/cooling water valves, electrical knife switches or circuit breakers, steam valves, hydraulic system control valves, pressure bleed valves left opened, etc.
- **Do not rely on manual shutdown of critical systems** for complex research processes or equipment that could take more than 20 seconds, or more than 2-3 individual sequenced steps, to manually shutdown and make-safe. Instead, install Programmable logic Controllers and automated valves and switches to monitor safety-systems and control automatic shutdown sequencing in the event of emergency. Actuate automated shutdown sequences by hitting an emergency stop button located near the lab’s exit door.
- **Participate in emergency practice drills** as though there is a real emergency to determine if your lab’s emergency protocols and shut-down procedures are viable and to ensure lab safety during an emergency. Conduct a debriefing after the practice drill and modify lab SOPs and automated shutdown systems as needed to improve response and safety.
- **Ensure data security** and that all research data and research equipment designs are “backed- up” off-site in multiple copies of data-files stored in multiple locations should local research data-storage equipment be damaged/destroyed during an emergency. Automate this back-up process to ensure ongoing research-data security and safety, but keep critical research data-collection and control-equipment isolated from the internet if possible to limit potential damage from a virus or malware.

In the event of an emergency, rapidly assess the situation. If immediate evacuation is necessary, do so by simply shutting the fume-hood door, throwing a main power-switch, etc. and exiting the lab. If enough time to implement the lab’s 30-second or less emergency shutdown procedures is determined, do so and then evacuate to safety. If at any time should conditions change, or there is any question as to whether it is safe to continue emergency shutdown in the lab, evacuate to safety without hesitation. Remember to make your way to your lab building’s muster point for a head-count, and be available and ready to brief the Police, Fire and EMT responders at the muster point about the activities and processes in your lab.

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