Fire Safety & Evacuation Planning
Topics

- Fire in the United States
- Where Fires Occur
- Causes of Fires and Fire Death
- Who is Most at Risk?
- Fire Safety - Off-the-Job
- Fire Safety - On-the-Job
- Evacuation Planning - Off-the-Job
- Evacuation Planning - On-the-Job
Fire in the United States

- The U.S. has one of the highest fire death rates in the industrialized world. For 1997, the U.S. fire death rate was 15.2 deaths per million population.
- Between 1993 and 1997, an average of 4,500 Americans lost their lives and another 26,500 were injured annually as the result of fire.
- Fire is the third leading cause of accidental death in the home; at least 80 percent of all fire deaths occur in residences.
- Direct property loss due to fires is estimated at $8.5 billion annually.
Where Fires Occur

• 1,795,000 fires in the United States in 1997. Of these:
  40% were Outside Fires
  31% were Structure Fires
  22% were Vehicle Fires
  7% were fires of other types

• Fires in the home most often start in the:
  Kitchen 29%
  Bedroom 13%
  Living Room 7%
  Chimney 5%
  Laundry Area 4%
Causes of Fires and Fire Death

- **Cooking** is the leading cause of home fires & injuries in the U.S. Cooking fires often result from unattended cooking and human error, rather than mechanical failure of stoves or ovens.

- **Careless smoking** is the leading cause of fire deaths. Smoke alarms and smolder-resistant bedding and upholstered furniture are significant fire deterrents.

- **Heating** is the second leading cause of residential fires and ties with arson as the second leading cause of fire deaths. However, heating fires are a larger problem in single family homes than in apartments. Unlike apartments, the heating systems in single family homes are often not professionally maintained.

- **Arson** is the third leading cause of residential fires and the second leading cause of residential fire deaths. In commercial properties, arson is the major cause of deaths, injuries, and dollar loss.
Who is Most at Risk?

- Senior citizens and children under the age of five have the greatest risk of fire death.
- The fire death risk among seniors is more than double the average population.
- The fire death risk for children under age five is nearly double the risk of the average population.
- Children under the age of ten accounted for an estimated 18 percent of all fire deaths in 1995.
- Over 30 percent of the fires that kill young children are started by children playing with fire.
- Men die or are injured in fires twice as often as women.
Fire Safety - Off-the-Job

• Do not trap electrical cords next to the wall where heat can build up.

• Take extra care when using portable heaters. Keep combustible items at least 3 feet away.

• Only use lab-approved (UL) electric blankets & warmers.

• Replace mattresses made before the 1973 Mattress Flammability Standard. Newer mattresses are safer!

• Check your smoke detectors routinely and change batteries, at a minimum annually. Replace if > 10 years old.

• Never Smoke in Bed!
Fire Safety - On-the-Job

- Keep flammables away from ignition sources
- Utilize flammable storage cabinets
- Know your chemical properties (check the MSDS for flammable/combustible information)
- Do not block fire extinguishers with equipment
- Utilize those with electrical expertise/installations/assistance
- Do not overload outlets - use a track plug
- Practice good housekeeping techniques in the lab/office/work area
- Inspect wires for possible damage and replace as needed
Evacuation Planning - Off-the-Job

- Make sure everyone in your family knows and practices escape routes from every room in your home.
- Remember to escape first, know how to notify the fire department, and when to call for help.
- Never open doors that are hot to the touch.
- Teach your family to stop, drop to the ground and roll if their clothes catch fire.
- Designate a meeting place outside. Try to make it a location away from your home, but not necessarily across the street.
- Teach your family to never re-enter a burning building.


**Evacuation Planning - On-the-Job**

- Know the way out from your work area.
- Know the location of the closest manual fire alarm station.
- Know the location of the closest fire extinguisher.
- In the event of a fire in a lab or work area dial the emergency number, evacuate the location or pull the manual fire alarm station.
- Review the location of the meeting place for the group in the event of a building evacuation.
- Utilize a check sheet to ensure everyone is accounted for. This re-emphasizes the importance of communication between team members.