Fire Safety
Presentation Objectives

- To educate participants on how to avoid fires and fire related injuries.

- To create awareness of fire deaths and injuries and their common causes.

- To inform participants of their personal responsibility toward fire safety and injury prevention.
IGNITION CAN BE:
- Electrical.
- Chemical.
- Thermal.
- Radioactive.
THE MECHANICS OF FIRE

Continued

☑️ FUEL CAN BE:

☑️ Solid.
☑️ Liquid.
☑️ Gas.

In order to combust the right mixture of oxygen and fuel must be present.
Three Phases of Fire

- Incipient
  - Oxygen content in air not reduced
- Hot smoldering
  - Flame may cease to exist if area is airtight
  - Burning reduced to glowing embers
  - Dense smoke fills the room
- Free-burning
THE MECHANICS OF FIRE
Continued

☑️ OXYGEN:

☑️ The fuel air mixture must be right.
☑️ People need 19 percent to live.
☑️ Fire only needs 16 percent.
Fire Tetrahedron

- Triangle is out.... Tetrahedron is in...
- Consists of 4 Sides
THE MECHANICS OF FIRE

TAKE ANY COMPONENT AWAY AND FIRE CANNOT SURVIVE

THE FIRE TRIANGLE:

IGNITION

FUEL

OXYGEN
Types Of Fires

- **Class A**
  - wood, cloth, paper, cardboard
- **Class B**
  - flammable or combustible liquids, gases
- **Class C**
  - energized electrical equipment
- **Class D**
  - combustible metal
Combustion

- Chemical reaction between
  - Combustible material (fuel)
  - Oxygen
  - Ignition source

- Rapid oxidation of combustible material accompanied by a release of energy in the form of heat and light