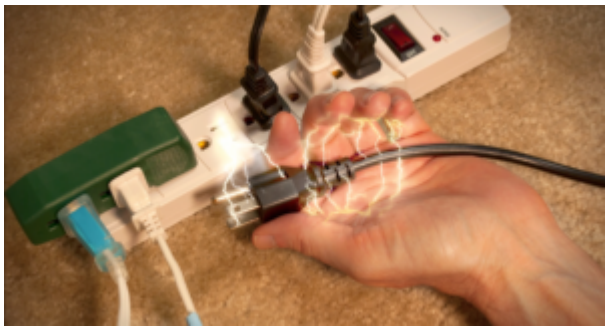
# Working Safely Around Electricity Infographic



# ELECTRICAL SAFETY

What is the cost of compromised electrical safety?

## Lockout/Tagout (LO/TO)

LO/TO was the eighth most cited OSHA violation in 2013, accounting for 12% of US fatalities. One amputation in the workplace caused by failure to LO/TO will cost* directly over $60,000 and indirectly over $2 million.

**Four steps to isolating equipment during Lockout/Tagout.**

1. Identify the energy source
2. Isolate the energy source
3. Lockout and/or tagout the energy source
4. Test that the isolation is effective

**According to OSHA each year proper LO/TO:**

Safeguards **3 MILLION** People

Prevents **120** Deaths

Eliminates **50,000** Injuries

## Arc Flash

The most common clothing item that workers fail to use as last protection against an Arc Flash burn are gloves.

| | |
|---|---|
| **Skin temperature for curable burn** | **176°F** |
| **Skin temperature causing cell death** | **205°F** |
| **Ignition of clothing** | **752°-1,472°F** |
| **Metal droplets from arcing** | **1,832°F** |
| **Surface of sun** | **9,000°F** |
| **Arc terminals** | **35,000°F** |

One curable burn injury from Arc Flash at a workplace **DIRECTLY COSTS' $40,000 & OVER $150,000 INDIRECTLY**

**Flash suit protects skin and face**

**Respirator protects from inhalation of toxic substances**

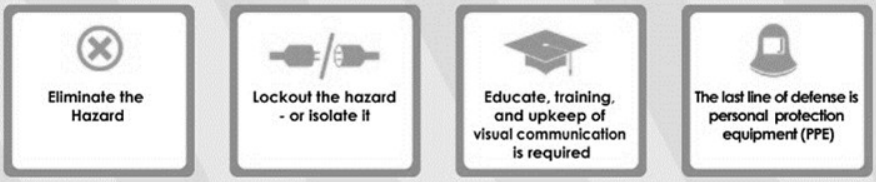
**Flame retardant hat for head protection**

**Hearing protection from Arc Flash explosion**

**Gloves can prevent electrocution**

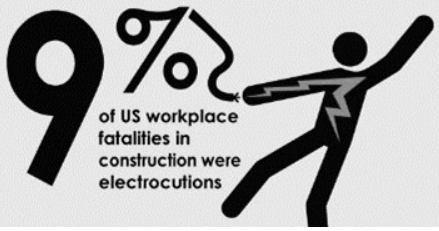
## NFPA 70E

The intent of NFPA 70E, regarding Arc Flash is to provide guidelines — starting with most preferred, to the last line of defense — that will limit injury of second degree burns.




## Cable and Wire Marking

Prevention of serious injuries or fatalities starts with identifying electrical energy sources. Cable markers and tags are identifiers critical to safety.




One electric shock injury **DIRECTLY COSTS* OVER $100,000 & INDIRECTLY OVER $215,000**

Source: https://www.graphicproducts.com