

e



Electrical Injuries Safety Talk

The hazards associated with electricity affect the majority of workplaces. Whether you are in general industry, construction, or even farming electrical hazards are present. It is important to be able to recognize the electrical hazards around you.

Electricity-Related Injuries

According to the Electrical Safety Foundation International, between 1992 and 2010 there were 5,096 fatalities in the United States due to contact with electricity. There were a total of 66,748 injuries that required days away from work in the same time period due to electricity. The construction industry experiences the majority of injuries and fatalities. In these statistics they do not include injuries caused by secondary events. For example, an individual falling from a ladder and sustaining injuries due to getting shocked. If these types of injuries were included the statistics would be higher. Everyday individuals suffer some type of shock, but do not seek or require treatment for their injuries. Because of this, it is difficult to fully track the occurrence of electrical shock in the workplace.

Common Electrical Hazards

- Energized overhead powerlines
- Lightning
- Faulty equipment
- Working on energized equipment
- Improper grounding
- Damaged insulation

Electrical Shock

Electrical shock occurs when a person becomes part of an electrical circuit and the current passes through their body. A person becomes part of a circuit when they are in contact with an electrical current and a ground or an electrical current and another electrical current with a different voltage. Three primary factors affect the severity of the shock a person receives when he or she is a part of an electrical circuit:

1. Amount of current flowing through the body (measured in amperes).
2. Path of the current through the body.
3. Length of time the body is in the circuit.

There are also secondary factors such as presence of moisture, state of the heart of the individual, and state of health of the individual that can affect the severity of the shock.

Summary

There are many ways to be injured or killed by electricity both at home and on the job. This talk only discussed the injury statistics, common electrical hazards, and how electrical shock occurs. It is important to understand how to mitigate electrical hazards. **Discuss the electrical hazards and the mitigation actions** for these hazards in your workplace with your supervisor or health and safety manager.

Discussion points:

- What are some electrical hazards present onsite?
- What are ways we can protect ourselves from electrical-related injuries?