

There are no Minor Electrical Shocks

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Just about all of us have experienced an electrical shock at some time in our lives – and lived through it. Unfortunately, the fact that many shocks are mild and cause no permanent harm can mislead us into thinking electricity isn't all that dangerous.

This attitude is wrong – dead wrong! Electrical shock is responsible for one out of every ten workplace deaths, and many serious injuries. We're not talking about just high voltage electricity either. A shock from even a very small amount of electricity can kill you.

So if you receive a minor electric shock, don't just laugh it off. If the circumstances had been just slightly different – if your gloves or boots had been wet, for example – you could have been killed.

Electricity always follows the path of least resistance, traveling through the best conductor it can find on its way to the ground. The human body is a good conductor of electricity, and so is moisture. When electricity travels through the body, it causes serious damage including disruption of the heart beat and burning of internal organs.

Many electrical shocks are caused by defective electrical equipment. If insulation is damaged, it won't protect you from contact with the electricity. Incorrectly repaired electrical equipment can cause the electricity to take unexpected routes.

Regular inspection of your work area for electrical hazards is essential for preventing shock accidents. These are some of the things to look for:

- Make sure nothing interferes with the electrical grounding on electrical machinery and wiring.

- All electrical components must be correctly guarded to avoid accidental contact.
- Get rid of overloaded “octopus” plugs.
- Check for damage such as frayed insulation on cords.
- Look for loose electrical connections. Switches, outlets and plugs wear out and need replacement periodically.
- Make sure all plugs match the outlets they are plugged into. Never use a three-pronged plug in a two-prong outlet and never remove the third prong from a plug. When using polarized plugs, you must insert the correct prong into each slot. If the plug does not fit properly, do not force it.
- Check for equipment being used at a rate higher than its capacity, because this can cause overheating which can damage the insulation. Wiring and equipment must be labeled as to the electrical current capacity to prevent overloading.
- Check for signs of overloaded electrical circuits. Circuit breakers which trip frequently and equipment which heats up or runs too slowly are warning signals of electrical overloading.
- Other signs of electrical malfunction includes smoke coming from equipment, a burning odor or sparks.
- Do not allow cords or cables to cross traffic areas where they can be damaged. Do not allow cords near water or heat.
- If an electrical tool must be used outdoors or in a damp area, use a waterproof cord and a Ground Fault Circuit Interrupter (GFCI) which will detect a leak of electrical current and shut off the power.
- Never allow electrical equipment to get wet. If it has gotten wet, remove it from service so it can be inspected and repaired or replaced. Even after the equipment dries out, it is unusable because the insulation can be damaged.
- Watch for signs of makeshift repairs on electrical equipment. Wiring and electrical repairs must only be carried out by persons who are authorized and qualified to do the work.
- Lockout procedures must be followed before electrically-powered equipment is inspected or repaired, to prevent

someone from turning on the power and injuring the person doing the maintenance or repairs.

The most obvious sign of electrical problems is an electric shock. Many workers have been killed after someone received a slight shock and failed to report it.

If you receive a shock, no matter how minor it may seem, do something about it immediately. The equipment must be inspected and repaired or replaced before it can be used again.