

## **How to prevent electrical shock?**

1. The working site should be well organized, dust free, hindrance free, well ventilated and neat. The floor should be level and non-slippery. The lighting shall not be too dim or too bright.
2. Equipment shall be erected with sufficient working space around.
3. Tools and materials shall be placed and stored at easily accessible locations. Materials should not be stored in passages.
4. All the electrical equipment should be regularly overhauled and maintained. Defective tools like loose hammers, weak spanners, screwdrivers should be discarded.
5. Electrical insulation of the machines should be checked periodically. Deterioration of insulation is dangerous to humans also. If you accidentally come into contact with a badly insulated appliance or cable, the leakage of current will flow through your body.
6. The electrical connections should be made as per National Codes/ standards with priority for proper grounding. All the electrical appliances must be grounded, so that the electricity can flow into earth in the case of insulation failure in the equipment and thus you do not get an electric shock.
7. The grounding system should be properly designed and maintained. Always suitable 3 pin plugs should be used to take power from sockets, avoiding insertion of loose wires and supporting with plugging of match sticks(?).
8. The electrician should be aware of the details of the power controlling circuits.
9. Whenever any electrical machine is under repair or maintenance, the machine may be isolated from electricity by removing fuses. Suitable notice should be displayed near the fuses about the progress of maintenance works undergoing.
10. All moving parts and shafts are to be properly guarded by wire meshes to avoid accidental contact.
11. Suitable aprons (loose clothing is prohibited), footwear with good electrical insulation, goggles should be worn at the work place.
12. Operating procedures and precautions should be clearly exhibited near each electrical machine.
13. Fuses and ELCBs interrupt the leakage current in case of danger. ELCBs can be set for 2 mA for individual appliances. In case of insulation failure or short circuits or overloads in the electrical system, the current must be shut off at once so that you will be safe, further damages to your equipment can be avoided and the fault may not harm other equipment or the environment. Fuses operate for short circuits and overloads; ELCBs operate even when there is a minor insulation failure.