ELECTRICAL SAFETY IS NOT SHOCKING

In electrical injuries there are four main types of injuries: electrocution (will cause death), electric shock, burns, and falls. These injuries can come from direct contact with the electrical energy, electrical arcs that jumps to a person who is grounded, thermal burns including flash burns from heat generated by an electric arc, flame burns from materials that catch on fire from heating or ignition by electrical currents, and muscle contractions can cause a person to fall. The fall can cause serious injuries also. High voltage contact burns can burn internal tissues while leaving only very small injuries on the outside of the skin.
There are some safeguard procedures that can be followed to ensure electrical safety:
1) Inspect tools, power cords, and electrical fittings for damage or wear prior to each use. Repair or replace damaged equipment immediately.
2) Always tape cords to walls or floors when necessary. Nails and staples can damage cords causing fire and shock hazards.
3) Use cords or equipment that is rated for the level of amperage or wattage that you are using.
4) Always use the correct size fuse. Replacing a fuse with one of a larger size can cause excessive currents in the wiring and possibly start a fire.
5) Be aware that unusually warm or hot outlets may be a sign that unsafe wiring conditions exists. Unplug any cords to these outlets and do not use until a qualified electrician has checked the wiring.
6) Always use ladders made of wood or other non-conductive materials when working with or near electricity or power lines.
7) Place halogen lights away from combustible materials such as cloths or curtains. Halogen lamps can become very hot and may be a fire hazard.
8) Risk of electric shock is greater in areas that are wet or damp. Install Ground Fault Circuit Interrupters, known also as GFCI, as they will interrupt the electrical circuit before a current sufficient to cause death or serious injury occurs.
9) Make sure that exposed receptacle boxes are made of non-conductive materials.
10) Know where the breakers and boxes are located in case of an emergency.
11) Label all circuit breakers and fuse boxes clearly. Each switch should be positively identified as to which outlet or appliance it is for.
12) Do not use outlets or cords that have exposed wiring or use power tools with the guards removed. Do not block access to circuit breakers or fuse boxes and do not touch a person or electrical apparatus in the event of an electrical accident. Always disconnect the current first.
A Ground Fault Circuit Interrupter (GFCI) works by detecting any loss of electrical current in a circuit. When a loss is detected, the GFCI turns the electricity off before severe injuries or electrocution can occur. A painful shock may occur during the time that it takes for the GFCI to cut off the electricity so it is important to use the GFCI as an extra protective measure rather than a replacement for safe work practices.
GFCI wall outlets can be installed in place of standard outlets to protect against electrocution for just that outlet, or a series of outlets in the same branch. A GFCI Circuit Breaker can be installed on some circuit breaker electrical panels to protect an entire branch circuit. Plug-in GFCIs can be plugged into wall outlets where appliances will be used and are commonly found in bathrooms. Another common use for GFCI is for pools and hot tubs.
Test the GFCI monthly. First plug a "night light" or lamp into the GFCI-protected wall outlet (the light should be turned on), then press the "TEST" button on the GFCI. If the GFCI is working properly, the light should go out. If not, have the GFCI repaired or replaced. Reset the GFCI to restore power. If the "RESET" button pops out but the light does not go out, the GFCI has been improperly wired and does not offer shock protection at that wall outlet. Contact a qualified electrician to correct any wiring errors.
Power tools used incorrectly can electrically hazardous. Switch tools OFF before connecting them to a power supply. Disconnect power supply before making adjustments. Ensure tools are properly grounded or double-insulated. The grounded tool must have an approved 3-wire cord with a 3-prong plug. This plug should be plugged in a properly grounded 3-pole outlet. Do not use electrical tools in wet conditions or damp locations unless tool is connected to a GFCI. The operation of power tools might ignite flammable substances and in can cause an explosion near certain vapors and gases.
Never use extension cords as permanent wiring. Use extension cords only to temporarily supply power to an area that does not have a power outlet. Keep power cords away from heat, water and oil. They can damage the insulation and cause a shock. Do not allow vehicles to pass over unprotected power cords. Cords should be put in conduit or protected by placing planks alongside them. Check power cords and plugs daily; discard if worn or damaged. Keep power cords clear of tools during use.
Extension cords themselves can be hazardous. Suspend power cords over aisles or work areas to eliminate stumbling or tripping hazards. Do not tie power cords in tight knots; knots can cause short circuits and shocks. Loop the cords or use a twist lock plug. Many circuits are wired to twelve amp breakers so do not plug several extension cords into one outlet.
Electrical safety is simple. Electricity should be respected and precautions should be taken to prevent injuries. Safety devises are becoming safer each year; its up to you to use them correctly. Be aware and be safe.