

KNOWLEDGE

An electrical shock from an outlet at home (120V) may be enough to kill a person.

- True
- False

The most important electrical current characteristic that determines the health effects in case of electrocution is:

- Voltage
- Resistance
- Complexity
- Amperage

A ground fault circuit interrupter (GFCI) is required when using an electric tool in a wet area because it will:

- Protect the equipment
- Prevent electrocution
- Prevent fires
- Prevent circuit overheating

A circuit breaker is designed to: (check all that apply)

- Protect people from random electric shocks
- Protect the equipment when a circuit is overloaded
- Reduce the risk of fire by preventing wire overheating
- Repel water when tools are used in a wet location

When working with hybrid vehicles, which of the following is true: (check all that apply)

- Follow battery manufacturer's removal procedures
- Follow car manufacturer's battery removal procedures
- Use gloves label '0' or 'class 0'
- Use leather or cloth/leather combination gloves
- Test for stray current



In case of an emergency involving electrical shock, you should do which of the following? (check all that apply)

- Turn off the source of electrical current
- Touch the victim if still in contact with the “live” circuit
- Pry the victim from the energized circuit using plastic or wood objects
- Move the victim to fresh air as soon as possible
- Use a defibrillator (AED) if the victim is breathing but has rapid irregular heart rhythm
- Perform CPR if the victim is not breathing and you’ve been trained

If electrical work must be performed while standing on a ladder, the ladder must be made of which kind material? (check all that apply)

- Conductive
- Non-conductive
- Plastic
- Aluminum
- Fiberglass

OSHA requires that in a shop, electrical panels: (check all that apply)

- have unprotected circuit breaker openings, with wires visible
- have a label that identifies the equipment serviced by each breaker
- have at least 36 inches of clear space in front of the panel door
- are permanently locked
- are unobstructed at all times

Testing a GFCI with a running tool plugged in is:

- The best way to ensure the outlet is wired correctly
- The worst way to ensure the outlet is wired correctly
- Not needed if the “test” and “retest” buttons work
- Not permitted and not recommended

Which of the following health effects can occur when a person comes in contact with a live electrical wire? (check all that apply)

- Rapid heart beat
- Brain death – from lack of oxygen to the brain
- Muscle contractions
- Blood clots
- Broken bones or torn ligaments
- Burns



SKILLS

I am comfortable with my ability to demonstrate and explain how to disconnect and re-connect a hybrid vehicle battery.

- Strongly Agree
- Agree
- Disagree
- Strongly disagree

I am comfortable with my ability to demonstrate and explain how to test where a GFCI works properly.

- Strongly Agree
- Agree
- Disagree
- Strongly disagree

I am comfortable with my ability to demonstrate and explain the OSHA requirements related to electrical panels present in the shop.

- Strongly Agree
- Agree
- Disagree
- Strongly disagree

I am comfortable with my ability to demonstrate and explain what to do when an accident involving contact with “live” electrical wires occurs in the shop.

- Strongly Agree
- Agree
- Disagree
- Strongly disagree

