

The danger to humans depends on a combination of **voltage** and **amperage**, but **current (amperage)** is what primarily causes harm to the body. Here's a breakdown:

Key Facts

1. Current (Amperage):

- The human body is most harmed by the amount of current flowing through it.
- As little as **0.01 amps (10 milliamps)** can cause muscle spasms.
- **0.05-0.1 amps (50-100 milliamps)** can cause ventricular fibrillation (irregular heart rhythm), which can be fatal.

2. Voltage:

- Voltage is the "push" that drives current through the body.
- Higher voltage can overcome the body's natural resistance, allowing more current to flow.
- **Voltage alone is less dangerous unless it causes enough current to flow.**

3. Resistance:

- The human body has resistance, primarily due to the skin.
- Dry skin has higher resistance (up to 100,000 ohms), but wet or damaged skin can reduce resistance to as low as 1,000 ohms, making it easier for current to flow.

High Voltage, Low Amperage:

- **Low danger** if the amperage is insufficient to cause significant current flow through the body.
- High voltage can cause burns or tissue damage at points of contact, but it might not cause fatal currents unless the skin's resistance is bypassed (e.g., wet skin or broken skin).

Low Voltage, High Amperage:

- **High danger** because even low voltage can push dangerous amounts of current if the body's resistance is low.
- For example, a car battery at 12 volts can deliver a very high current if resistance is low, but its danger is limited due to the body's natural resistance.

Conclusion:

- **Higher Amperage** is more dangerous than higher voltage because it's the current that disrupts the heart and nervous system.
- **Higher Voltage** can be dangerous if it overcomes the body's resistance and allows significant current to flow.
- A combination of **high voltage** and **high current** is the most lethal.

Safety Note:

Always treat both high voltage and high current as dangerous, and use proper safety precautions when working with electrical systems.

[What Is a Watt?](#)

[Current Vs Voltage: How Much Current Can Kill You?](#)

[Which is the Killer. Current or Voltage?](#)

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