

Electric shock

The human body conducts electricity. If any part of the body receives an electric shock, the electricity will flow through the tissues with little obstruction.

Depending on the length and severity of the shock, injuries can include:

- Burns to the skin
- Burns to internal tissues
- Electrical interference and/or damage to the heart, which could cause the heart to stop or beat erratically.

It is vital to disconnect the power supply before trying to help a victim of electric shock.

Symptoms of electric shock

The typical symptoms of an electric shock include:

- Unconsciousness
- Difficulties in breathing or no breathing at all
- A weak, erratic pulse or no pulse at all
- Burns, particularly entrance and exit burns (where the electricity entered and left the body)
- Sudden onset of cardiac arrest.

Causes of electric shock

Some of the causes of electric shock include:

- Faulty appliances
- Damaged or frayed cords or extension leads
- Electrical appliances coming in contact with water
- Incorrect or deteriorated household wiring
- Downed power lines
- Lightning strike.

How to help a victim of electric shock

The first thing you must do is disconnect the power supply. Don't even touch the victim until you are sure the power supply is turned off. Be especially careful in wet areas, such as bathrooms, since water conducts electricity.

First aid includes:

- Check for a response and breathing. If necessary, start resuscitating the victim.
- **Call triple zero (000) for an ambulance.** If you are unsure on resuscitation techniques, the ambulance call-taker will give you easy-to-follow instructions over the telephone, so you can increase the patient's chances of survival until the ambulance arrives.
- If the breathing is steady and the person is responsive, attend to injuries. Cool the burns and cover with dressings that won't stick. Never put ointments or oils onto burns. If the victim has fallen from a height, only move them if there is chance of further danger (such as falling objects). Try not to move them unnecessarily in case of spinal injuries.
- Talk calmly and reassuringly to the conscious victim.

Downed power lines

Sometimes, power lines are downed in car accidents. The lines may drape over the vehicles. The tyres act as insulation, so urge the victims to remain inside the car where they will be safe from electric shock. Do not approach the scene until it has been declared safe by the proper authorities. Stand well back and try to encourage any other bystanders to keep a distance of at least six metres.

Safety tips around the home

You can reduce the risk of electric shock at home by taking a few precautions, including:

- Always hire a licensed electrician for all wiring jobs.
- Don't use extension leads or appliances if the cords are damaged or frayed.
- Don't remove a plug from a power point by pulling on the cord; pull the plug instead.
- Keep electrical appliances away from wet areas.
- Have safety switches installed by an electrician.
- Buy portable power boards with built-in safety switches.

How a safety switch works

A safety switch, or residual current device, is designed to save lives by monitoring power flow and making sure it is even. This is different to a circuit breaker, which is designed to protect household wiring from power surges.

A safety switch is intended to trip out an electricity supply in the event of a current flow to earth. It can provide protection from harmful electric shocks in situations where a person comes into contact with a live electrical circuit and provides a path to earth. Typical examples of this occurring are with the use of faulty electrical leads and faulty appliances. These switches operate in one thirty-thousandth of a second.

Where to get help

- In emergencies, call triple zero (000) for an ambulance

Things to remember

- The human body conducts electricity.
- Disconnect the power supply before trying to help a victim of electric shock.
- Always hire a licensed electrician for all wiring jobs around the home.

This page has been produced in consultation with, and approved by:

Ambulance Victoria

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