



Coping with injury

An injury occurs when something damages, bruises, cuts, crushes or breaks part of the body.

Accidents do happen. You may drop a hammer on your foot, cut yourself on a piece of broken glass or you may be involved in a sports or car accident. Doctors call a sudden injury a trauma.

How the body copes with injury

When you are injured, some body cells are destroyed and others are damaged. It will take time for new cells to be produced. Some types of wound, such as open wounds, are also open to attack from germs in the air (Picture 1). The

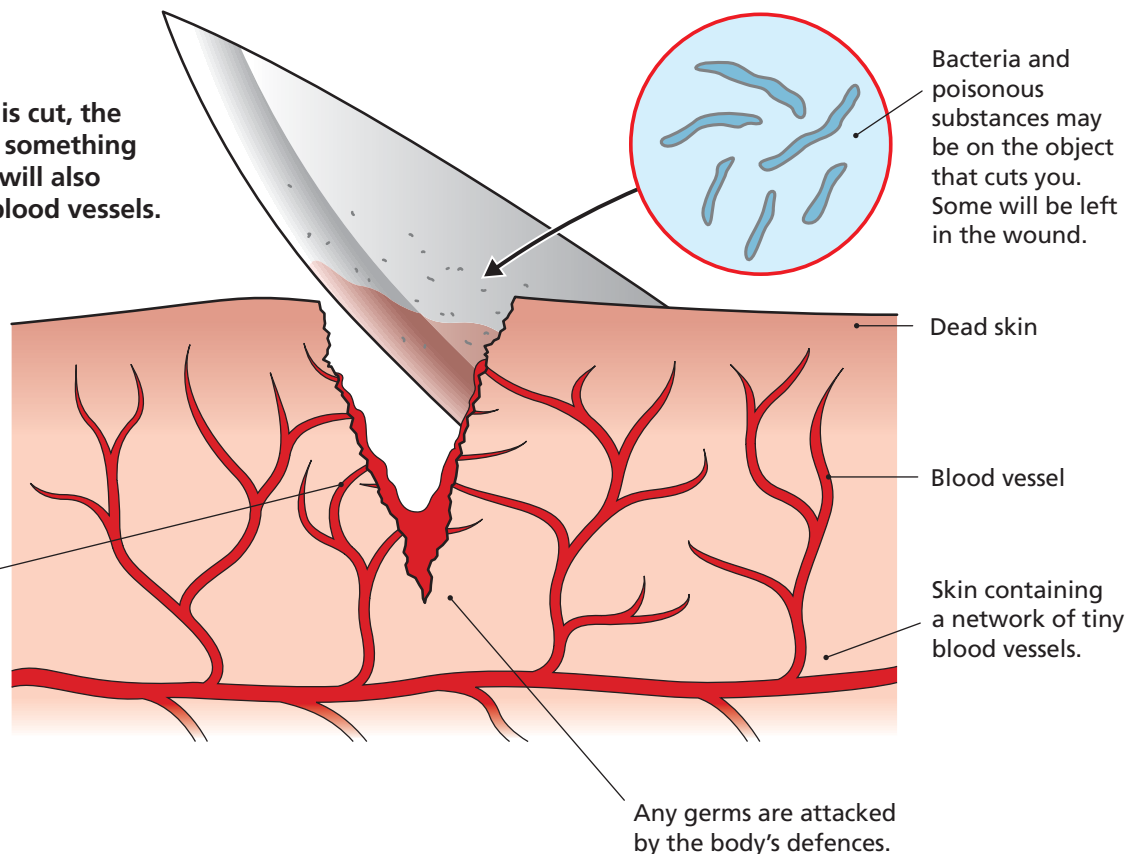
body therefore has to have a way of making sure the injury does not get worse (it must be stabilised), so it has to begin to repair and it has to ward off disease that can enter an open wound.

Stages of recovery

The main features of an injury are redness, heat, swelling and pain.

If you are injured, blood vessels immediately enlarge near to the injury and more blood than normal flows into the injured area. Chemicals are also

► (Picture 1) If the skin is cut, the chances are it will be by something carrying germs. The cut will also probably pass through blood vessels.



released that encourage blood flow. All of this is to wash any infection out of the injured area. White cells in the blood quickly set about killing bacteria. The extra blood flowing in the blood vessels makes the area near the injury look red, while the enlarged blood vessels and extra white cells cause swelling.

Once the blood has started to flow out, new substances in the blood – called platelets – are made. These reach the injury and begin to build up in the wound, sealing it off. That is why blood stops flowing from injuries after a while. The platelets form blood clots which stick in the blood vessels and act like a plug.

Heat in the area of the injury is also caused by the increased blood flow. At the same time, nerves near the wound

send signals to your brain, which you feel as pain, reminding you that you have an injury to deal with quickly.

In time, new cells grow and repair the damaged area.

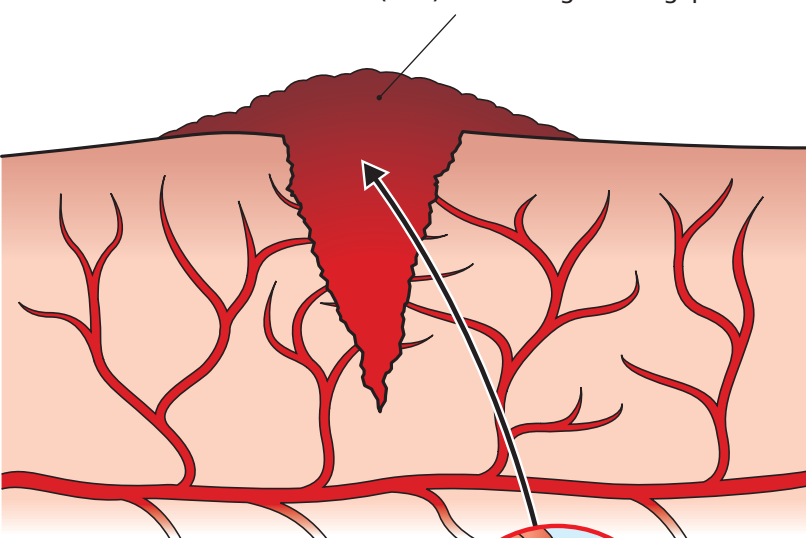
Medical help

Small injuries can be dealt with by the body without any more help than sticking plaster, but large injuries may need the help of doctors. Often, doctors will stitch the wound closed to give the body the chance to seal the wound more easily and with less chance of infection.

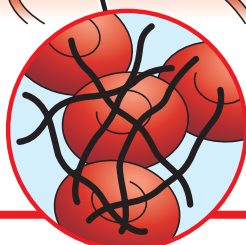
Summary

- An injury will cause redness, heat, swelling and pain.
- The body copes with an injury by washing it out with blood and attacking any germs.
- Large injuries often need the help of a doctor.

After a while platelets arrive at the wound and build up, forming a clot (scab) and sealing off the gap.



Later, blood cells are caught in a net of fibres.



Cells grow to replace the damaged tissue. A scar may be left and seen as shiny skin on the surface.

