

Broken Bones



Study*ladder*

What happens if we break our bones?

Our bones are strong and they can bend slightly under pressure. But when a great deal of pressure is applied to them, or it happens suddenly, they can break. When a bone breaks it is called a fracture.



Have you ever broken a bone?

How do you know you have a broken bone?

- When you have a broken bone, you may feel pain in the bone or the area surrounding it.
- It may be swollen.
- If the broken bone is in your arm or leg, it may bend at an unusual angle.
- The skin may be bruised or bleeding.
- You may not be able to use the limb.



To treat a broken bone, the doctor needs to know what kind of fracture it is, so the doctor takes an x-ray.

X-rays are pictures of your bones. The doctor can see what bone is broken and set the bones back in their normal position.



Some breaks require the doctor to put in metal pins or screws to hold the bones in place.



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Doctors sometimes apply a cast to a broken limb to keep the broken bones set in their correct places. Casts are made of lots of layers of bandages that have been soaked in wet plaster. When the bandages dry the cast becomes stiff and solid.



Casts stop the bone from moving while it is mending. It can take a few months for a broken bone to mend. The cast helps the bones mend more quickly.

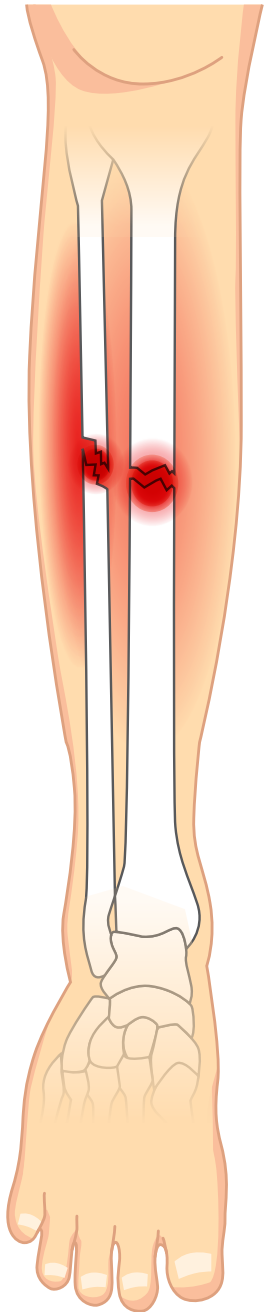
Once the bone has healed the cast can be removed.

Newly mended bones are not as strong as your other bones.

They will eventually become stronger because bones will continue to mend after the cast is removed.



How do broken bones heal?



- Soon after a bone breaks, blood clots start to form around the site of the break. Special cells in the blood called *phagocytes* clean the bone fragments and remove bacteria.
- Cells in the blood called *chondroblasts* then regenerate to form a layer of soft collagen around the broken bone site.
- Cells in the blood called *osteoblasts* then begin the slow process of building new bone cells around the site to knit the bone fragments together.

