

Bones

Some common English names for bones:

English Name	Anatomical Name
skull	cranium
jaw bone	mandible
spine	vertebral column
breastbone	sternum
rib	costa
collarbone	clavicle
shoulder blade	scapula
thigh bone	femur
kneecap	patella
shinbone	tibia

Fractures

A fracture is a break in a bone. Some of the different types of fracture:

- greenstick
- displaced
- comminuted
- impacted
- open (compound)

A **pathological fracture** is fracture in a diseased bone. A **fatigue** or **stress fracture** is due to repeated minor trauma, for example long-distance marching or running.

Treatment of Fractures

When the fragments of a broken bone heal and join together, they **unite**. **Union** may be **promoted**, or helped, by **reducing** the fracture – replacing the fragments in their anatomical position if they are displaced. After **reduction**, excessive movement of the broken bone is prevented by **fixation** – either external, for example a **splint** or **plaster of Paris cast**, or internal, for example a **pin** or a **plate and screws**. A displaced fracture which is not reduced may result in **malunion** – incomplete or incorrect union.

Note: The verb **reduce** has several meanings in medicine:

- to make smaller – *I think we'd better reduce the dose of your tablets.*
- (in surgery) to return to anatomical position – *A hernia can normally be reduced by manipulation.*
- (in chemistry) to remove oxygen or add hydrogen – *Nitric acid is a reducing agent.*

Where are these bones located in a person's body. (You may point out the exact location.)

- breastbone
- collarbone
- jaw bone
- kneecap
- rib
- shinbone
- shoulder blade
- skull
- spine
- thigh bone

Match the types of fracture.

1. open
 2. comminuted
 3. displaced
 4. greenstick
 5. impacted
- a There is a break in the skin.
 - b The bone is bent. It occurs mainly in children.
 - c The bone is broken into several pieces.
 - d The broken pieces are separated.
 - e The broken pieces are pushed together.

Complete the textbook extract.

(1)_____ a fracture involves trying to return the bones to as near to their original position as possible. If a fracture is allowed to heal in a displaced position the fracture will (2)_____ but it may go on to (3)_____.

Express your idea.

You have diagnosed a stress fracture of the tibia in a young female dancer. How would you explain to her the cause and management of this condition?

