



ACTIVEPHYSIO®

If it's not active it's not physio



PatientInformation

Bone Fractures

Fractures of the bone

When a force is great enough there is disruption of bone tissue, which causes a break. This leaves a gap (fracture) between the bones. There is bleeding between the two ends of the broken bone. The bleeding traps new bone cells in its mesh. The new bone forms a delicate bridge between the two ends of the fracture. This process is called **union**. This takes 3 weeks in the upper limb and 6 weeks in the lower limb and spine.

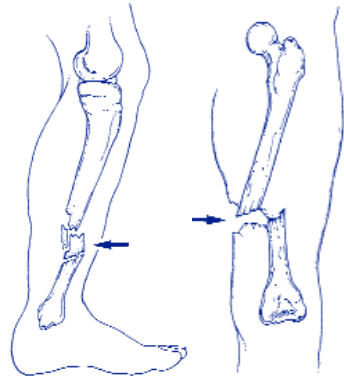
If the fracture ends are so displaced that it is unlikely that a bridge could be formed between the two ends then an orthopaedic surgeon may choose to manipulate the bones under anaesthetic to ensure a good alignment. During the union process it is essential to keep the fracture site as still as possible. When the plaster cast is not sufficient to guarantee a stable fracture site then an orthopaedic surgeon may choose to fix the fracture site with screws or plates either internally or occasionally externally where the screws are applied from the outside of your body through your skin to the fracture site.

The next crucial stage of repairing a fracture is the process of **consolidation**. This is where the new bone cells are reinforced with stronger more mature bone tissue. This tissue needs to be able to withstand the sheering forces produced through movement and weight bearing. The consolidation process takes another 3 weeks in the upper limb and another 6 weeks in the lower limb and spine.

During this time it is important to progress the forces exposed to the fracture site so that the maturing bone tissue understands which way to reinforce itself to prepare for full function. During this stage you may be asked to do specific exercises or walk on crutches with partial to full weight progressed over the weeks of this stage.

Once there is consolidation, which can be seen on X-Ray the next process is **rehabilitation**.

When the plaster or fixation device is removed the joints surrounding the fracture have stiffened and the muscle weakened. These require a lengthy process of rehabilitation to regain full movement and strength.



left: Comminuted fracture of the Tibia

right: Fracture of the Femur

How we can help your rehabilitation

- Use manual therapy to restore movement at the joints around the fracture
- Progress specific exercises to encourage good consolidation and strength in the part affected by the fracture
- Use hydrotherapy in the early stages of rehabilitation and progress to the gym if you wish
- Return you to doing your daily and sporting activities progressively
- Teach our "Fall Prevention Programme" if you wish
- Enter you into our "Osteoporosis Physio Management" programme if you wish
- Liaise with the orthopaedic surgeon and GP to ensure your recovery is managed effectively as possible.
- We are planning to see you about __times over the next__ week(s)

Your local Active Physio:



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