

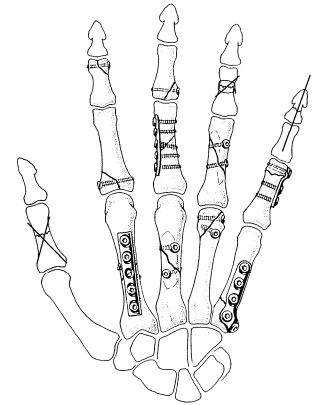
FINGER FRACTURE

Finger fractures are often considered trivial but they can result in considerable inconvenience in the short-term. In the long-term, they can cause dysfunction due stiffness and pain, and deformity.

Many can be managed "conservatively" without an operation. Even this process can be complex. The fracture may be manipulated into a better position (reduction). Rehabilitation often requires splints to protect the fracture and exercises to maintain movement as well as to mould the fracture into the best position. Repeat x-rays may be required to check that the fracture is healing and that the position has not slipped.

Fractures that are unstable, displaced or involve joint surfaces may be best managed by surgery. The fractures can be "fixed" in a wide variety of ways depending on the precise pattern of fracture and associated injuries to skin, nerve and tendons. Some can be stabilised by wires or screws being drilled through the skin without an incision, termed closed reduction and internal fixation (CRIF). Others require an incision to reposition and fix the bone, termed open reduction and fixation (ORIF). The principles of surgery are similar, whatever method is used. We try to achieve enough stability at the site of fracture to allow you to move the injured area immediately. This is crucial to prevent stiffness.

- **Wires** These may either be entirely under the skin or a portion left outside. Internal wires are usually left inside permanently but occasionally they need to be removed later by a small operation if they become a nuisance. External wires are removed by the doctor about 4-6 weeks after the operation when the bones have begun to join. Patients are always anxious about this but removal of a wire is simple and virtually painless.
- **Plates/screws** These are generally left inside permanently
- **External fixation** These techniques are used when fractures are comminuted (multiple fragments) such that stability cannot be achieved by other methods.



Soon after the operation, the dressing will be removed and you will be provided with your splint. The fixed fracture will be kept protected from knocks and stresses by a splint until X-Rays show that the bone-ends are joining together. This usually takes about 6 weeks. The fusion will not be really "solid" and ready for heavy jobs until 12 weeks. In the meantime you will be working on movement to help fracture healing, to prevent swelling, to maintain gliding of tendons and to prevent the joints stiffening.

You will be given an individual rehabilitation program by the hand therapist. It is important to move the rest of your hand joints through their full range (including the others on the same finger) to prevent stiffness. Although your splint will be worn much of time (especially at night and walking about), it will be removed allow finger movement. Movement ("active motion") alone will do no harm to the fixation but until it has healed the operated finger(s) must not be **forcibly bent** ("passive motion") or **strained** by heavy picking up, pushing, pulling, gripping etc.

Once dressings are removed, it is safe to get the hand wet including pin-sites and wounds. Any stitches will be removed about 2 weeks after the operation. The wound and the surrounding skin often become very dry and will be more comfortable if a moisturizer is applied. An easy way of doing this is to briefly immerse your hand in some warm water to which some Johnson's baby oil has been added.

Timing of your return to work is variable according to your precise injury, progress, occupation and you should discuss this.

Wound Possible problems include swelling, bruising, bleeding from the wound, blood collection under the wound (haematoma) and splitting of the wound (dehiscence).

Infection This is indicated by the appearance of redness around the wound or the exposed wires. This must be reported quickly and will be treated with antibiotics. If it does not settle, it may be necessary to remove the fixation.

Regional pain syndrome About 5% (1 in 20) of people are sensitive to injury and/or hand surgery and their hand may become swollen, painful and stiff. This problem cannot be predicted, is variable in severity and is principally treated with physiotherapy.

Stiffness Healing is a sticking process and there is a tendency for tendons to adhere to fractures, plates and scars, and for joints to seize up unless gliding and stretching is maintained by exercise. Fractures that damage the joint surfaces inevitably cause loss of movement and they may cause arthritis in the long-term.

Non-union The bones can fail to join for many reasons such as too much movement or infection. It may be necessary to redo the operation if this occurs.

Mal-union The bones can fail to join at the best angle if the fixation is damaged or becomes infected. It may be necessary to redo the operation if this occurs.