

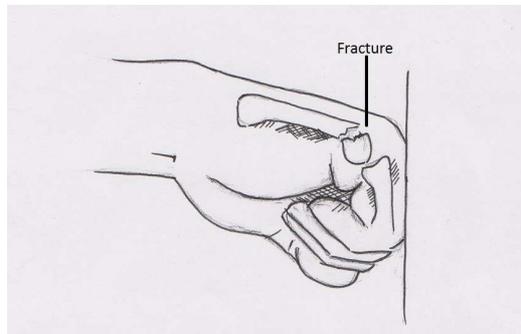
Boxer's fracture (5th metacarpal fracture)

This leaflet offers more information for patients with a 5th metacarpal fracture (boxer's fracture). If you have any further questions or concerns, please speak to the staff member in charge of your care.

What is a boxer's fracture?

Your thumb and all of your fingers are connected to the wrist by bones called metacarpals. Each of the five metacarpals has a head, neck, shaft and base.

The 5th metacarpal is the long bone in the hand under the little finger. The head of the metacarpal forms the large knuckle at the base of the little finger, with the neck sitting just underneath the head. The 5th metacarpal can be fractured (broken) during falls, sports, road traffic accidents or violence. A fracture to the neck of the 5th metacarpal bone is known as a **boxer's fracture**, as it is most commonly seen following a punch injury.



What are the symptoms?

Following a boxer's fracture, the hand may be painful, swollen and bruised. There may also be small abrasions (grazes) over the knuckles. If the injury was sustained by punching another person in the mouth, there may be puncture wounds from the other person's teeth, known as a **fight bite**. This can be serious and lead to infection, so if you think you may have a fight bite you must let your surgeon or nurse practitioner know.

Sometimes after a boxer's fracture, the knuckle can drop (collapse) and there may be a lump across the back of the hand. This usually means that the metacarpal neck is broken and that the metacarpal has been forced into the palm, changing the position of the bone.

The position of the little finger can also be altered after a boxer's fracture, causing it to become twisted (rotated) or to tuck under/over the adjacent finger when making a fist (scissoring). Often the little finger will struggle to fully straighten for the first few weeks after an injury, although this normally resolves in time.

How is a boxer's fracture diagnosed?

Your surgeon or nurse practitioner will take your history and then perform an examination of your hand. An x-ray will be taken to show the fracture and look for any significant movement at the fracture site (angulation). No other tests are normally required.

How is boxer's fracture treated?

Conservative management

Most people recover well following a boxer's fracture and do not have any significant long-term functional problems. The knuckle often remains dropped and there may be a prominent bony area on the back of the hand. However, this does not cause the hand to function abnormally.

For a short period after the injury, your surgeon or nurse practitioner may recommend that the little finger is buddy-strapped to the adjacent finger for support while allowing the fingers to bend and straighten. This helps the hand to recover more quickly and prevents stiffness.

Some more severe fractures may require you to wear a splint (a rigid support to stop the hand from moving) for a short period, followed by hand exercises. Sometimes a referral to the hand therapy team is needed.

If the fracture is significantly angulated, your surgeon or nurse practitioner may recommend manipulation of the fracture to realign the bones. This is performed with local anaesthetic in the emergency department or hand clinic and is normally followed by further x-rays and a cast or splint.

Surgical management

In severe cases where there is significant angulation, rotation or scissoring, or if a manipulation of the fracture is unsuccessful, an operation may be required to realign the bones. The operation is performed as a day case under general anaesthetic (where you are put to sleep) or regional anaesthetic (where your arm is put to sleep). During the surgery, the surgeon will use metal work to keep the bone in position. The most common form of metal work used to hold the bones in position are K-wires. K-wires are temporary and will be removed three to four weeks after surgery in clinic. Your surgeon or nurse practitioner will provide you with further verbal and written information on K-wires if required.

If you have a fight bite you will most likely require an operation to clean the wound. This is to reduce the risk of infection in the skin and bone. You may also need to be admitted to hospital for intravenous antibiotics. Your surgeon or nurse practitioner will discuss this with you further.

Following surgery, you will need a period of splinting and will be referred to the hand therapy team for on-going care.

Who can I contact for further information?

If you have any questions or concerns, please discuss them with your surgeon, nurse practitioner or hand therapist at your clinic appointment. Alternatively, you can contact the hand unit on **020 8725 4770** (Monday to Friday, 8.30am to 5pm).

For urgent advice outside of these hours, please contact the on call plastic surgeon by calling the switchboard on **020 8672 1255** and asking for bleep number **7050**.

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9am and 5pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough Wing (near the lift foyer).

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

