

Metacarpal Fractures (including Boxer's Fracture)

What you're feeling

A metacarpal fracture is a break in one of the long bones in the body of your hand – the bones that connect your wrist to your fingers, the ones you can feel as your knuckles. The most common one happens after a punch and involves the bone behind the little-finger knuckle. This is so common it has a nickname: a **boxer's fracture**.

Usually there has been an obvious moment – a punch into something solid, a fall onto the hand, or a crush or twisting injury. Straight afterwards the back of the hand becomes painful, swollen and bruised, and the knuckle may look flattened or “sunken” compared with the other side. Making a fist hurts, and your grip feels weak. Some people notice that one finger seems to **cross over or point towards its neighbour** when they try to curl the hand into a fist – that twist matters, and it's one of the main things we check for.

What's actually happening

You have five metacarpal bones, one running into each finger and thumb. A fracture can sit at the **neck** (just behind the knuckle – the classic boxer's fracture spot), along the **shaft** (the middle of the bone), or at the **base** (near the wrist). After a break, the broken ends can tip into an angle, shorten, or twist.

A bit of angle is often fine – the hand is forgiving, and the ring and little finger bones in particular tolerate quite a lot of bend without causing any real problem, because those knuckles are naturally more mobile. What the hand does **not** tolerate well is twist (we call this rotation). Even a small amount of rotation at the break makes a finger swing across its neighbours when you close your fist, so the fingers no longer pack neatly together. That is why the look of your hand when you make a fist tells us more than an X-ray angle alone.

What we can do about it

The good news is that **most metacarpal fractures heal well without surgery**.

For the majority – including most boxer's fractures – the answer is simple support and early movement. Depending on the fracture we might use a lightweight splint, a cast, or just buddy-strapping the injured finger to the one next to it, and then encourage you to start gently moving the hand quite early. Moving early is

deliberate: it keeps the hand from stiffening up, and studies show simple strapping with early movement does just as well as heavier casting for typical boxer's fractures.

Surgery is reserved for fractures that won't do well left alone. The main reasons to operate are a **rotated (twisted) finger**, a badly angled or shortened bone, several broken metacarpals at once, a fracture that breaks into a joint, or an open wound over the break. When we do fix it, the options are small wires placed through the skin (K-wires), or a small plate and screws through a cut. Many of these operations can be done **wide awake** – with the hand numbed by local anaesthetic while you stay awake and comfortable, which lets us ask you to move the finger on the table and confirm the rotation is corrected before we finish.

What to expect

Most metacarpal fractures unite in around **four to six weeks**, and the hand is back to most normal activities not long after. Even when the bone heals with a little extra bend, the knuckle may look slightly less prominent than before but the hand usually works completely normally.

Whether or not you have surgery, the work that protects your result is the hand movement afterwards – gentle, early, and guided where needed by a hand therapist. The complications we watch for are **stiffness** (the most common), a residual twist or bend (malunion), and occasionally a slight lag in fully straightening the finger. Stiffness is far easier to prevent with early movement than to treat later, which is why we nudge you to get moving sooner rather than later.

When to see someone

- **Any deformity, or a finger that crosses over its neighbours when you make a fist** – this twist needs assessing promptly, as it's a key reason to straighten or fix the bone.
- **A wound or break in the skin over the knuckle**, especially after a punch to someone's mouth – a tooth can introduce serious infection, and this needs urgent medical attention.
- **Severe pain, marked swelling, numbness, or fingers that look pale or dusky** – get reviewed without delay.
- **A hand that is getting stiffer rather than looser** in the weeks after the injury – early hand therapy makes a real difference.