

Minimally invasive fracture repair / MIPO – surgery overview

What is minimally invasive fracture repair?

Minimally invasive fracture repair aims to stabilise fractures of the long bones with limited opening of the soft tissue envelope and without disruption of the fracture hematoma. This has been shown to optimise bone healing, with rapid formation of callus and fracture healing. Typically these patients have rapid return to function.

There are several ways to achieve minimally invasive fracture repair, with many techniques overlapping in their benefits. At ACE we utilise minimally invasive plate osteosynthesis or MIPO. This is where a locking plate is passed through small incisions proximally and distally on the fractured bone. Screws are then placed proximally and distally to stabilise the bone. Locking screws, as they 'lock' into the plate create a fixed angle construct, like an external fixator. This in addition to the plate construction, which does not require all screw holes to be filled, allows stabilisation with limited dissection. To augment construct strength an intra-medullary pin may be added. The performance of MIPO is aided by the use of intra operative radiology. Modern digital radiology can often be used for this.

MIPO is suited to:

- Diaphyseal fractures of the long bones: Humerus, tibia, femur, radius and ulna
- Some fractures of the hock

What are the benefits?

- Small incisions – minimal soft tissue disruption
- Rapid return to function
- Minimal additional treatment – bandages etc

What are the risks of surgery?

All surgery carries a risk of complications. It is important that you understand these risks. In certain cases these complications may require further surgical procedures to manage.

Surgical risks include:

- Risks associated with general anaesthesia
- Infection
- Implant damage
- Non union

What aftercare is required?

- Compression bandage for 24–48 hours to manage swelling
- Strict confinement for 6 weeks
- Start short walks 2–3 weeks after surgery
- Implant removal if required for issues such as infection or migration

[A more detailed aftercare plan will be supplied on patient discharge.](#)

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