

## Fracture Treatment – What to Know & Expect

Treatment and outlook depends on the fracture type - some are straightforward and others complex, necessitating considerable orthopedic instrumentation, implants, and expertise. With correct planning and experienced surgeons, the outlook for healing of most fractures is very good. The majority of patients can enjoy a normal quality of life.

The basic principles of fracture surgery include:

- accurate re-alignment of the bone fragments,
- rigid fixation to prevent movement at the fracture site,
- avoidance of soft tissue injury to maintain the blood supply to the bone, and
- early return to normal use of the affected limb, to minimize joint stiffness and muscle wastage.

**Preparation:** To prepare for your pet's appointment, read our [Client Preparation Guide](#) and [Sedation and Anesthetic Fact Sheet](#). We also recommend our clients become familiar with our [Terms and Conditions](#).

**Treatment:** Normally, x-rays and/or a CT scan are performed to assess the fracture and plan the treatment. Some fractures, especially in very young animals, can be treated using fibreglass casts. However, animals cannot be relied upon to rest the limb properly and bandaging may cause serious complications (i.e., joint stiffness, muscle wastage). Therefore, most fractures are best treated surgically to re-align and stabilize the bone with metal implants such as plates and screws.

**Minimally invasive fracture surgery** is a recently developed, advanced technique developed to re-align and stabilize broken bone while minimizing damage to soft tissues, including blood vessels. The broken bone is re-aligned by manipulation without surgically exposing the fracture fragments using intra-operative radiology. This is often aided by placement of a temporary frame on the bone. Our operating room imaging equipment enables the surgeon to check the alignment during surgery.

Once re-aligned, the bone is rigidly stabilized. An external frame with pins going through the skin and into the bone may be used. An internal plate attached to the bone using screws may be used, reducing the need for a large surgical wound or extensive aftercare. This technique is known as **minimally invasive plate osteosynthesis (MIPO)**.

**Aftercare:** Discharge instructions will depend on the type of fracture, surgery performed, and nature of the patient. It is very important to follow the provided post-op aftercare instructions. Medications are prescribed and exercise is very restricted while the fracture heals. Dogs must be on a lead or harness for toilet purposes to prevent strenuous activity. Confinement to a kennel or small room may be necessary to deter jumping/climbing. Post-op progress evaluations with the surgeon are imperative. At two weeks, the wound will be assessed. At four weeks, x-rays are obtained to evaluate bone healing. Depending on progress, advice is given regarding increasing exercise. Exercise may be gradually increased in a controlled manner (still on a lead). Further clinical and radiographic examination may be necessary to confirm successful recovery.