

## Fracture Treatment

EA fracture is a break or crack in a bone. Although we commonly think of fractures as involving a leg, it is also possible to fracture the skull, jaw, spine, ribs, pelvis and digits (fingers) as well as the long bones and small bones of the front and back limbs.

Practically every bone in your dog's body is susceptible to fracture, and some, like spinal fractures, have a higher priority to treat. The symptoms that arise with fractures are based on the body part injured and any organ damage. Fractures are usually caused by a traumatic event; however, pathologic fractures can occur from relatively low energy events when pre-existing disease such as a tumour or a metabolic bone disease like rickets weakens the bone. Some breeds are also susceptible to particular fractures based on their anatomy, conformation and use (such as hunting or racing).

If your dog's fracture is very stable and well aligned, a cast combined with rest and limited activity may allow the bone to heal acceptably. However, in certain fractures, confinement and rest are not enough to heal the fragmented bone.

Indeed, dogs and cats with fractures are treated surgically more often than are humans. There are two primary reasons for this:

1. Compared to humans, animals more commonly fracture the major bones closest to the body, the femur in the hind limb and the humerus in the front limb. (Fractures in these bones are often due to major traumas in our pets, such as automobile accidents.) Fractures of the femur and humerus do not lend themselves to stabilization with splints or casts.
2. Placing and maintaining casts or splints presents major challenges in dogs and cats. Keeping casts clean and dry, and avoiding pressure sores under the bandage material, can be nearly impossible in active pets. In addition, in very small animals, the weight of a cast or splint may make it difficult to impossible for the animal to move around.

For most fractures in the leg of a dog, surgery will be required to produce the best and most long-lasting results. If surgery is recommended, it will involve the application of various metal surgical implants such as pins, wires, plates, or screws. The primary



goal of fracture fixation surgeries is to restore broken bones to their original anatomic position and rigidly fix them in place while healing occurs.

In some cases, the fracture may be too severe to permit perfect anatomic restoration of all pieces, but there will still usually be a way of providing stability to the fractured bone and to allow use of the limb during the healing period. Without surgical realignment, many breaks and fractures will not heal correctly. Therefore, ongoing pain, stiffness, and orthopaedic problems can result. Another surgical procedure may be necessary to remove the bone plates once the bone has healed.