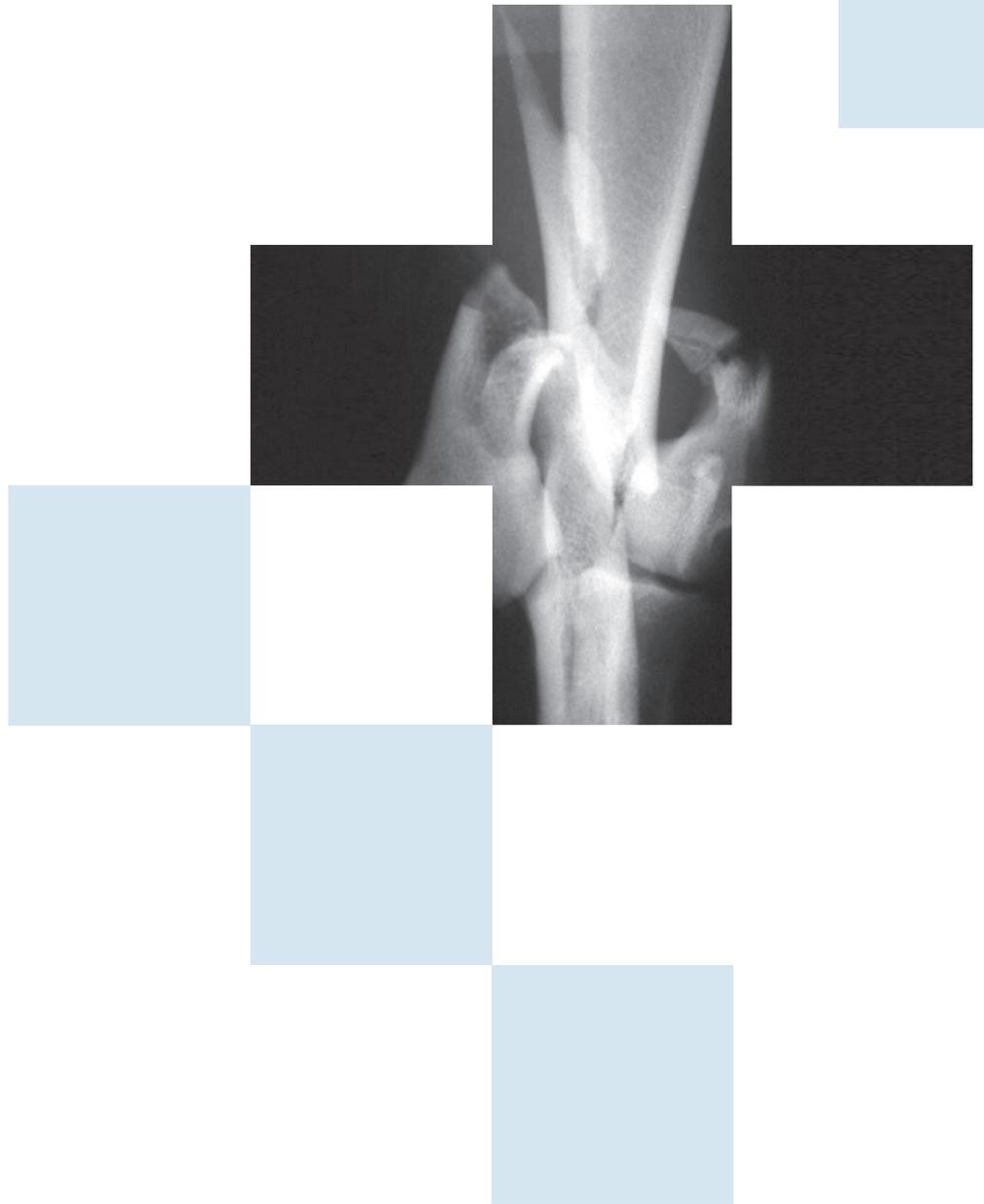
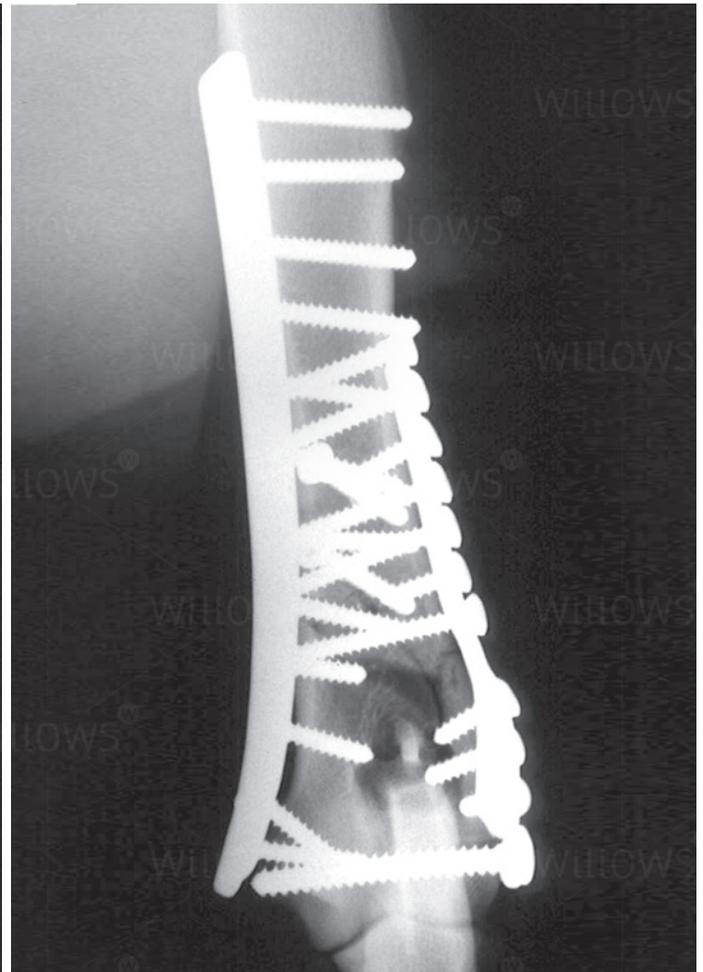


Specialist Referral Service
Willows Information Sheets

Humeral Condylar Fractures





Humeral Condylar Fractures

What are humeral condylar fractures?

The humeral condyle is the name given to the end of the bone (called the humerus) at the top of the front leg (the forelimb). Together with the radius and ulna (the two bones of the antebrachium or forearm) the humeral condyle makes up the elbow joint. Fractures of the humeral condyle are amongst the most common type of broken bone seen in dogs. They also occur in cats but are much less common in this species.

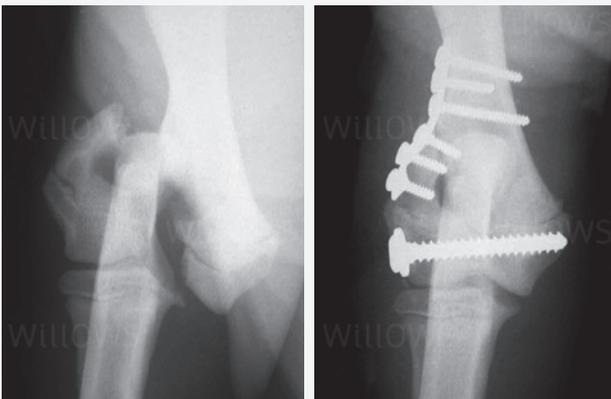
Two types of fractures are seen. In young dogs that jump down from a height it is not uncommon for the force travelling up the limb when the animal lands to cause a fracture of the condyle. In some other dogs, there is an inherent weakness of the condyle, known as a [humeral condylar fissure](#), and this weakness can cause a fracture during normal exercise. This type of fracture is more common in spaniel breeds, such as the Springer Spaniel. Fractures often involve one side of the condyle with the outside (lateral) aspect being more frequently involved than the inside (medial) aspect; however, in some dogs both sides of the condyle can fracture in a 'Y' or 'T' shaped configuration.

How are humeral condylar fractures diagnosed?

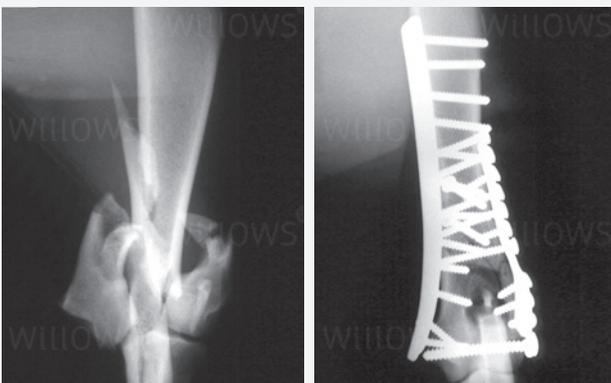
Radiographs (X-rays) of the elbow enable the diagnosis of humeral condylar fractures. In some cases it is important to obtain a number of views of the joint since the fracture may be minimally displaced. Occasionally more advanced imaging of both elbow joints, such as a [CT scan](#), can provide additional useful information such as a fissure in the [humeral condyle](#) of the other limb.

How are humeral condylar fractures treated?

Surgery is the best treatment for almost all humeral condylar fractures. The operation involves repositioning the bone fragments back into the correct place and stabilising them using screws, pins and bone plates. Fracture repair can be challenging due to the involvement of the joint (with the need to accurately reconstruct this component of the fracture to minimise the subsequent development of osteoarthritis), the small size of the fragments and the possibility of an underlying weakness in the bone (see our [Humeral Condylar Fissure Information Sheet](#)) that can affect fracture healing. However, with appropriate surgical technique, most dogs are very comfortable after their operation and can start to walk and bear weight on the limb within a day or so.



Fracture of the outside (lateral) aspect of the humeral condyle repaired with a plate and screws



Severe fracture of the humeral condyle repaired with two plates and multiple screws

What aftercare is needed?

Most dogs can go home the day after surgery with only a light dressing on the limb. Walks on the lead can be started immediately, but unrestricted exercise off the lead, such as running or jumping must be avoided. As with most fractures, painkillers are usually given for a week or so.

Physiotherapy and hydrotherapy are often recommended. Dogs that have undergone the surgery need to be taken to their local vets for a check-up after one week and then after two weeks for removal of skin stitches. We would normally plan to see dogs back for reassessment after about six weeks, when follow up X-rays may be taken.

What are the risks and possible complications?

Although surgery is very successful in the majority of dogs, there are potential risks and complications. These can include infection, poor bone healing and implant breakage. In the long term, some degree of osteoarthritis is almost inevitable, although in many dogs this does not cause any major problems.

In dogs with an underlying [humeral condylar fissure](#), or weakness in the condyle, the weak point may never fully heal and screw breakage can be seen in the long term. Treatment of screw breakage may necessitate another operation.

All aspects of your pet's care, including the risk of complications, will be discussed in detail during your initial consultation with the orthopaedic surgeon, before any treatment is started.

What is the outlook for my dog?

Surgery for fractures of the outside (lateral aspect) of the humeral condyle is relatively routine and the outlook is generally good, although some degree of osteoarthritis of the joint is often seen. It should be borne in mind that, although the surgery is relatively straightforward, there is no margin for error and problems can be seen, especially in the hands of inexperienced surgeons.

Fractures of both sides of the condyle (a 'Y' or 'T' fracture) are much more demanding. However, we have developed new techniques for operating on these fractures, and our results are generally very good.

Why should I bring my dog to Willows for humeral condylar fracture surgery?

Our orthopaedic service is led by a team of [recognised, accredited RCVS Specialists](#) and we aim to provide the best possible treatment for your pet in our state-of-the-art hospital. The orthopaedic surgeons are supported by imaging and anaesthesia Specialists, and dedicated [out-of-hours vets and nurses](#). Our [orthopaedic Specialists](#) have extensive experience of successfully treating hundreds of condylar fractures, and have published some of our results in the veterinary literature.

We are always happy to discuss any aspects of a case with you or your vet prior to referral. If you have any questions or concerns please [contact us](#).

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