Humeral intracondylar fissure

HIF (often called IOHC) | Dogs

A hidden weakness in the bone at the elbow can cause pain or lead to a sudden fracture. Treatment is chosen according to symptoms, imaging findings and the individual dog.

About the procedure

What is a fissure in the elbow?

The lower end of the upper forelimb bone (humerus) forms part of the elbow. A fissure is a split within this bone, sometimes extending all the way across it. In older documents you may see the name incomplete ossification of the humeral condyle (IOHC). Some young dogs may have a problem with bone development; in others a crack develops under repeated loading. Spaniel breeds are particularly affected, but any breed can develop HIF.

Why does it matter?

Some dogs have ongoing or intermittent front-leg lameness and elbow pain. Others have a fissure without showing discomfort. The affected bone is weaker and may break during ordinary activity, causing sudden severe lameness. A complete elbow fracture is a different injury and may require a more extensive repair.

How is HIF diagnosed?

Your vet examines the elbow and may arrange X-rays, although a small fissure can be hidden on ordinary X-rays, so CT is often needed to identify its extent and plan treatment. It is usually worth assessing both elbows because the opposite side may also be affected (in approximately 80% of cases). Other causes of elbow pain, including elbow dysplasia, can coexist.

Does every dog need surgery?

Painful fissures are often treated surgically. When a fissure is found by chance in a dog without pain, the choice is more individual: monitoring, activity advice and repeat imaging may be reasonable, or preventive fixation may be considered. In one small study, some untreated incidental fissures progressed to fracture; not all did. Your surgeon will discuss the uncertainty, the risks of waiting and the risks of surgery.

How is a fissure stabilised?

Under general anaesthesia, the surgeon positions a screw through the lower humerus so that it bridges the fissure. The aim is to limit movement at the fissure, relieve pain and reduce the chance of a major fracture. The screw can be placed through a limited surgical approach when appropriate. Imaging is used to plan and check implant position.

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Recovery, risks and home care

Recovery and home care

Expected outcome

Screw fixation will improve comfort and significantly reduce the chance of fissure progression and fracture. The fissure can remain unhealed and the screw may have to bear load indefinitely. Surgery cannot guarantee that a fracture will never occur.

Recovery at home

Keep your dog in a secure area with non-slip flooring, using short controlled lead walks as directed. Cage rest is strongly recommended and will help avoid many unnecessary complications. Avoid running, jumping, stairs and play with other dogs during the early recovery period. Your dog may feel better before the elbow can safely tolerate greater forces. Do not increase activity simply because lameness has improved.

Follow-up and long-term care

A wound check is commonly scheduled around 10–14 days. A clinical review and X-rays may be arranged around 6–8 weeks, with further imaging if recovery is not as expected. CT may be advised in selected cases. The surgeon will decide when controlled exercise can increase and whether longer-term activity changes or monitoring of the other elbow are needed.

When should I call?

Contact your practice urgently for sudden severe lameness, inability to bear weight or a painful swollen elbow, even months or years after treatment. These signs can indicate an implant problem or fracture. Report wound drainage, increasing pain or swelling promptly.

Questions to ask your vet

Is the other elbow affected? Would monitoring be reasonable? What signs could suggest a screw problem later on?

Discussing risks and complications

As with any surgical procedure, complications can occur. Your surgeon will discuss the possible complications, individual risks and expected outcome for your pet during the pre-operative consultation.

General anaesthesia can cause serious complications, including death. Your veterinary team will explain individual risks and alternatives.

Your veterinary team will discuss the recommended treatment, alternatives and the risks of general anaesthesia for your individual pet.

Important information

Check the wound daily; prevent licking and keep it dry. Give prescribed medicines only. Report vomiting, diarrhoea, poor appetite or increasing illness. For breathing difficulty, collapse, uncontrolled bleeding or severe distress, seek emergency care immediately.

Follow the personalised discharge plan; this sheet is not a consent form. Contact your own practice or its out-of-hours service for urgent care.