# Transcondylar screw



#### The Surgery

Transcondylar screw placement is a treatment technique used for patients who are affected with a Humeral Intercondylar Fissure (HIF), previously known as Incomplete Ossification of the Humeral Condyle (IOHC). This condition affects a number of breeds however, it is more common in Spaniels, particularly, Springer Spaniels.

A dog's elbow consists of three bones that form a joint (articulate); the humerus, radius and ulna. The humeral condyle is the part of the humerus that forms the articular element of the elbow. A HIF can occur all the way or partly the way through the condyle.

The placement of a transcondylar screw involves a custommade 3D printed guide, designed and manufactured from your pet's CT scan, which aids your pet's surgeon in placing an appropriate screw across the HIF from one side of the humeral condyle to the other. The screw stabilises the HIF, preventing any motions that might previously have been occuring while your dog mobilised, in turn causing their lameness.

#### Post operative care

Transcondylar screw placement is a major procedure and it is important to follow these instructions closely for the best chance of a successful outcome

## Surgical Wound:

Your dog will have a wound on the inside of their leg. Please check this area twice daily, and report any swelling, redness or discharge from the wound.

## Exercise restriction:

Strict rest for six weeks is essential for uncomplicated bone healing.

This means confinement to a cage or room with no furniture to jump on and off, especially when your dog is unsupervised. Stairs should be avoided and toileting should always be on a lead.

### Gentle Exercises:

Once your dog becomes more comfortable, start gentle passive flexion and extension exercises of the injured joint. Your clinic will show you how to do this. Start with 5 repetitions twice daily, and increase to 20 repetitions three times daily. Stop immediately if your dog resents this, or seems painful.



Cadi





Lateral and cranio-caudal post - operative x-rays



#### **Medication:**

Your pet may be prescribed antibiotics and pain relief, it is important to follow instructions to avoid complications. Please report any changes in demeanour, vomiting or diarrhoea to your vet immediately.

# Cold & Warm Therapy:

For 3 days post operatively – use an ice pack wrapped in a towel applied to the outside of the joint (not directly over the wound) for 5-10 mins 2-3 times daily. Some swelling of the operated leg is to be expected and cold therapy and gentle massage from the toes up towards the stifle will reduce this.

#### Hydrotherapy:

This can be started once the surgical wound has healed, under the guidance of your vet.

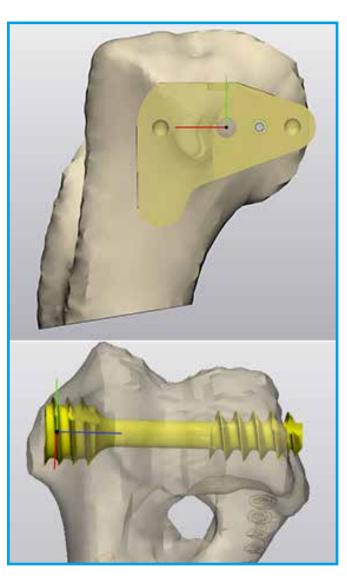
#### **Introducing Exercise:**

At six weeks post-operatively x-rays will be taken and providing healing is progressing well, you can start short lead walks of 5-10 minutes twice daily. This can be increased by 5 minutes weekly, and once your dog is walking comfortably on the lead for 30 minutes, you can let him/her off the lead for the last 5 minutes of the walk. At all times your dog should make steady progress. If he/she stops improving, or becomes more lame, please contact your vet immediately.

# **Complications**

Complications can include:

- Infection
- Seroma (fluid filled pocket) development over the implant-site
- Implant breakage
- Ongoing lameness
- Humeral condylar fracture



CT images planning the position of the 3D printed custom drill guide for placing the transcondylar screws.