



## **Cranial Cruciate Repair – Tibial Wedge Osteotomy**

**The Injury:** The cranial cruciate ligament is one of the ligaments within the knee whose function it is to stabilize the knee and prevent overextension of the knee joint. The injury to the cranial cruciate ligament may involve either a complete or partial rupture of this ligament leading to pain, instability and degenerative joint disease (arthritis). The rupture of the cranial cruciate ligament can be the result of a traumatic event such as a sudden change in direction while chasing a Frisbee or ball or overextending the knee when stepping into a hole or depression at a fast gait. It can also be caused by a progressive degenerative process over time that leads to a partial tear. Approximately 40% to 50% of dogs sustaining a cruciate ligament rupture will rupture the opposite cruciate within 2 years.

**The Repair:** The rupture of the cruciate ligament has been treated by removing a wedge-shaped piece of bone from the tibia. Doing this reduces the angle of the forward slope of the knee joint. This reduces or eliminates the forward thrust experienced by the knee joint during normal weight bearing which the cranial cruciate ligament was designed to resist. In this way by changing the angles within the knee we negate the effect of the cranial cruciate ligament which has been damaged. The two pieces of the tibia are now held together with a bone plate, screws and wire.

Please note that no surgical technique can completely eliminate joint instability and hence the development of degenerative joint disease. However, surgery, lifestyle modifications and medical management as recommended by your veterinarian can help to manage this.

### **Tonight**

- After surgery, your pet will be drowsy because of the anaesthetic and the pain relief. Please give half the normal amount of food that you would normally do.
- Confine them in a crate or restrict movement to the absolute minimum and continue crate rest until six weeks.
- Please apply a wrapped ice pack or cool pack over the surgical site for 5 minutes at a time. This can be repeated 3-4 times daily until the first revisit to help reduce the development of bruising and swelling.

### **Day 1**

- Start the medications as directed and continue with crate confinement. Take out on the lead to the toilet and then return to the crate.

### **Day 3**

- Please return to the clinic for the removal of the pain relief patch applied to the skin and an initial checkup. Continue confinement.

### **Day 14**

- Return for a checkup and start of the Pentosan course. Return weekly for the Pentosan injections for another 3 weeks. There is no additional charge for these.

### **Week 1 to Week 4:**

- Please confine your pet to a crate and only allow on lead walks to go to the toilet. Perform passive physiotherapy as shown 2-3 times per day

### **Week 5**

- Take your pet for a 5 min on the lead walk in the morning and evening

### **Week 6**

- Take your pet for 10 min on the lead walk in the morning and evening.

### **Week 7**

- Increase walks to 15 mins in the morning and evening

### **Week 8**

- Increase walks to 20 mins in the morning and evening

### **Week 9**

- You can now allow running in a restricted space

### **Week 10**

- Allow gradual return to normal activity over the next few weeks

### **Week 11 and 12**

- Continue to increase on lead activity gradually over the next couple of weeks.

### **Week 13 onwards**

- Generally most animals can return to a fairly normal level of activity 13 weeks post-surgery. However, remember a degree of lifestyle modification ongoing is required such as avoiding excessive jumping and twisting.
- Controlled swimming can be a great exercise ongoing. Maintaining your pet at their optimal weight will also help manage the development of arthritis.

- The Pentosan course should be repeated at least once every 6 months or more regular boosters (single injections) every three months may be required depending on your pet's situation.

### **Medications**

- Fentanyl Patch: This is a slow release pain relief patch that has been stuck to the skin of the Foreleg. This will be removed on day 3-post surgery-refer to fentanyl patch handout for further information.
- NSAID: This is an anti-inflammatory pain relief medication. Start this on the following morning /evening and continue as directed
- Antibiotic: This is the antibiotic medication. Start this on the following morning/evening and continue as directed.
- Pentosan: These injections are used to prevent/retard the progression of arthritis within the joint. They are a series of four injections, one week apart with the first one due 2 weeks from the day of surgery.

### **Complications:**

- **Implant failure:** The implant consists of the screws, the plate and the wire used to repair the tibia. These can break, bend or back out. This is most likely to happen in the first 6 weeks post-surgery if excess activity is allowed in the early stages of repair. This is one of the reasons confinement and exercise restriction are very important in this period. If this happens the lameness will return and this will need to be investigated and may involve further surgery to remove the failed implants and put in new ones.
- **Seroma formation:** The wire can at times irritate the overlying skin causing this space to fill up with fluid. This is called a seroma. If this is seen please contact the clinic. Seromas are benign and may spontaneously regress. If this does not happen and is associated with patient discomfort then at times the sutures have to be removed
- **Swelling and edema:** Post surgery the lower half of the leg can swell up due to the accumulation of fluid. This will regress over time and is nothing to worry about. However, if this is seen please contact the clinic.
- **Surgical infections:** This is quite rare but is a known complication. It is helpful to know the signs of an infection. If your pet is not eating and running a temperature, the surgery site looks swollen, red, warm and is oozing pus, then the surgical site may be infected and we need to see them straight away to investigate.
- If any of these are noted or you have any other concerns at all please do not hesitate to contact the clinic to chat to one of our nurses or vets. If you have any concerns outside of clinic hours please contact the Animal Emergency Centre in Hallam on 03 8795 7020.

Please make an appointment for your pet's revisit with our reception staff at discharge or by calling us. We all look forward to seeing you in 7-10 days.

**If you have any concerns please contact the clinic. We are here to help and answer any questions you might have.**