

## ***Discharge Instructions Following Pancarpal Arthrodesis (Wrist Joint Fusion)***

Fusion of the wrist joint was performed today for the management of wrist joint instability or untreatable joint pain, caused by either a fracture of the bones of the wrist, ligament tearing, irreversible cartilage wearing and progressive osteoarthritis.

Joint fusion is achieved by removing the articular cartilage from all of the joints, large and small, in the wrist joint. Bone graft harvested from the medullary (marrow) bone in the top portion of the humerus (upper arm bone), is placed into the joint spaces to help speed the progress of joint fusion and healing. The bones of the radius (forearm), carpus (wrist) and metacarpals (foot) are held rigidly in position using a metal plate and screws whilst the bones heal and the joints fuse. Bone healing and fusion will take approximately 12-16 weeks. The implants may remain in place for life if they do not cause irritation, but may require removal due to irritation or infection in the future if these occur.

The plating will be supported in the early period using an external splint applied to the wrist for up to 4-6 weeks. The bandage and splint will need to be changed every 1-2 weeks to ensure there are no developing pressure sores or rub marks and wounds. There should be a gradual and progressive improvement in weight bearing on the operated leg in the coming weeks, with toe-touching occurring in the first 1-2 weeks following surgery. Should there be any deterioration in the use of the leg at any stage, please contact your veterinarian for a routine follow-up examination. Review by Advanced Veterinary Surgery will be performed if required. Mild to moderate swelling around the wrist and foot should resolve in the following 1-2 weeks. Massage and ice-heat therapy will aid this.

There is a surgical wound on the front of the wrist, with sutures being used to hold the skin edges together. The sutures will either be through the skin, and require removal in 10 days time, or buried under the skin surface and not require removal. An Elizabeth collar may be required should there be any signs of attempting to lick at the bandage or foot, and each patient will be different. Please request a collar from the clinic staff if you think your pet will attempt to lick at the foot. Licking is a very easy way to introduce infection and cause bandage complications and should be avoided.

### **Re-examination**

Several routine examinations are advised in the early post-operative period to monitor for any signs of infection or complications with the bandage.

- DAY 5-7:** Bandage and splint change, wound examination and fentanyl patch removal.
- WEEK 2-3:** Bandage and splint change every 1-2 weeks as required thereafter for 6-8 weeks.
- WEEK 6-8:** Progress assessment and splint removal at 6-8 weeks.
- WEEK 8-10:** Sedation and Xray of the implants to assess bone healing and joint fusion.
- WEEK 20-24:** Sedation and Xray, and possible removal of the implants if required.

*Please fast your pet prior to these appointments in case sedation is required.*

### **Medication**

A course of antibiotics and anti-inflammatory medication will be dispensed. Please follow the label instructions carefully and contact your veterinarian should you have any queries. Should there be any gastrointestinal signs (vomiting, diarrhoea) please stop the medication and contact your veterinarian for further advice.

A fentanyl patch was placed on the skin for pain relief and will be covered by an adhesive bandage. The patch will provide strong analgesia for 3-5 days. This may be removed after 5 days and disposed of in

the household waste. Occasionally side effects may be observed and vary widely between patients, with the main effect being dysphoria (appearing high, overly quiet or over excitable) and loss of appetite. Should you notice any of these signs at home, please remove the patch and dispose of in the general waste. Patients have been known to eat the patches and currently I have not observed any signs of over-dosage, but please avoid this and monitor your patient carefully at home. Should you have any concerns contact your regular veterinarian or emergency veterinary clinic.

## **Rehabilitation**

*These are only meant to be guidelines and each patient's recovery is different.*

As the owner you are the brains of the recovery and rehabilitation, as our patients will want to run before they can crawl, and risk injury to the healing bone and set-backs to the recovery.

### **WEEK 1**

*Toe touching to the ground, but should be improving small amounts daily.*

Strict Rest and Confinement or Strict Supervision.

Short walks on a lead out to the backyard for toileting purposes only 2-6 times daily.

On-lead at all times / No Stairs No jumping No swimming and No baths whilst splint is in place

Heat packs may be applied to the elbow, shoulder, cervical spine (neck), 2-4 times daily for 20 minutes to help minimise secondary muscular spasm due to abnormal weight bearing. Ensure the heat pack is not too hot as to burn the skin but should be comfortably warm.

### **WEEK 2**

*Improving weight bearing on the leg, with a moderate to mild limp.*

Strict Rest and Confinement or Strict Supervision.

Short walks on a lead out to the backyard for toileting purposes for 5 minutes, 2-6 times daily.

On-lead at all times / No Stairs No jumping No swimming No baths

Continue with Heat pack application.

### **WEEK 3+4**

*Progressively improving weight bearing on the leg.*

*Intermittent non-weight bearing (Limping or Carrying the leg) may be evident due to irritation of the implants.*

Strict Rest and Confinement or Strict Supervision.

Gradually increase the length of lead controlled walks, 5 minutes, up to 2-6 times daily. If your pet limps more towards the end of the walk reduce the length of walk to a point which is well tolerated.

***Slow walks to encourage the use of the leg and placing correctly on the ground.***

On-lead at all times / No Stairs No jumping No Swimming with the splint in place.

Range of motion exercises may be performed 2-4 times daily. With the patient lying with the operated leg upper-most, and supporting the leg, isolate the shoulder, elbow and especially the toe joints, and gently bend and extend each joint in turn for 10-20 repetitions each.

Heat pack application.

**WEEK 5-8**

*Progressively improving weight bearing on the leg with occasional limp.*

*Intermittent non-weight bearing (Carrying the leg) may be evident due to irritation of the implants.*

Confinement or Strict Supervision.

Gradually increase the length of lead controlled walks, 5-10 minutes, up to 2-4 times daily. If your pet limps more towards the end of the walk reduce the length of walk to a point which is well tolerated for a few days then increase again gradually.

On-lead at all times / No Stairs No jumping

Range of motion exercises and Heat pack application.

**WEEK 8-16**

*Good weight bearing on the leg and improving stamina on walks.*

*Intermittent non-weight bearing (Carrying the leg) may be evident due to irritation of the implants.*

Supervision.

Bandage and Splint removed at 6-8 weeks.

Gradually increase the length of lead controlled walks, 10-30 minutes, up to 2 times daily then gradually increase up to 40 minutes, up to 2 times daily. If your pet limps more towards the end of the walk reduce the length of walk to a point which is well tolerated for a few days then increase again gradually.

On-lead walks in chest deep water will encourage muscle building and function, start at 5 minutes and gradually increase. Avoid soft sand and beaches though.

On-lead at all times / No Stairs No jumping / Allowed Baths / Hydrotherapy and Swimming

**WEEK 16+**

*Good weight bearing with intermittent limping. Gradual reintroduction to some gentle off lead walks and increasing on-lead walks.*

Lead controlled walks, 30-40 minutes, up to 2-4 times daily.

Gradual reintroduction to short periods of supervised, gentle, off-lead activity 5-10 minutes.

*Every patient is different and each recovery will and outcome will vary.*

*Take your time and try not to rush back to normal as there is a lot of healing required by the joint.*

**LONGER TERM**

The prognosis is good to excellent in over 90% of patients, with the majority patients returning to normal athletic activity



Long-term outcome will be aided by maintaining a lean body condition.

*Should need any further advice on longer term management or assistance with weight loss, please contact your regular veterinarian.*