

Joint Arthrodesis

The Procedure

Arthrodesis means fusion of a joint. This is normally a salvage procedure chosen to allow an animal to have a pain free joint.

The way in which an animal walks with a fused joint is altered to varying degrees, depending on the joint that is fused. The procedure is chosen due to a number of conditions including:

- Severe arthritis in a single joint that has become non responsive to alternative management.
- Fractures that are either not possible to fixate or where fixation has not worked.
- On conditions where there has been damage to the ligamentous support of a joint, and fixation is not possible.



The surgery involves the removal of all articular cartilage, placement of a bone graft, followed by placement of bone plates and screws to hold the joint immobile. This should allow bony healing and fusion to occur between what used to be the joint(s).

Immediately Post operatively:

Surgical Site – Most arthrodesis cases will require a dressing to be placed on the affected limb for approximately 48 hours after surgery. This reduces immediate post operative swelling. Once this is removed, the surgical site will need to be protected from interference from your pet to minimise complications. This means that a buster collar will need to be worn for the duration of time that the skin needs to heal (10-14 days). It can be removed for your pet to eat or drink if they struggle with it on, but it must be replaced at all other times.

We recommend cold and warm compress from a pain relieving and healing perspective:

- 3 days cold compress – a cold pack wrapped in a thin towel to protect the skin, to be applied over the surgical site for 10 minutes three times a day, for 3 days.
- 3 days warm compress – a warm pack wrapped in a thin towel to protect the skin, to be applied over the surgical site for 10 minutes three times a day, for 3 days.

Medication - This will be detailed on a separate post operative discharge sheet but will involve:

- 5 day course of antibiotics.
- Non Steroidal Anti-inflammatories (NSAID) for 2-4 weeks.
- Paracetamol for approximately 5 days.
- Gabapentin may also be dispensed.

Post operative checks – 48 hours post operatively to check the surgical site and 10 days post operatively to check the surgical site, and remove skin sutures if present.

Exercise - STRICT rest – which means crate rest for cats, but also for dogs if possible. For larger dogs, it is essential that strict rest entails nothing more than being in a restricted space (that allows for a soft flat bed plus food bowls), with toileting on the lead only in the garden. It is important that there is:

- No interaction/play with other pets.
- No off the lead exercise in the garden as this can allow for sudden acceleration to chase something.
- No access to skiddy floors that can throw the patient off balance.
- No going on/off furniture.
- No going up/down stairs.

A few steps up/down into the garden is fine as long as this is controlled or supported (using a sling or towel).

2-6 weeks post operatively:

Surgical site - This should be healed if there have been no complications.

Medication - This should have all stopped aside from possibly some NSAID.

Post operative checks – only necessary if there are any problems or issues – always contact your primary vet if you are concerned about anything, especially if your pet is suddenly lame when previously there has been good progress.

Exercise - Continuation of STRICT rest as detailed above. It should no longer be necessary to help your dog with a few steps into or out of the garden.

Physiotherapy and hydrotherapy can be considered at this point to help to maintain muscle mass and allow for controlled weight bearing and encourage healing. Please contact your practice to find your nearest centre.

6-8 weeks post operatively:

Radiographs (x-rays) will need to be taken at this point unless otherwise stated, to check for healing prior to exercise re-introduction. It is possible that further radiographs are required after this if fusion is not quite complete.

Post operative expectations and potential complications

The aim of the surgery is to provide your pet with a pain free joint that they are able to use.

As with all surgical procedures, complications can occur. These include loosening or breakage of implants before the joint has fused, wound breakdown and infection, fracture of the bones adjacent to the fused joint and impairment of blood supply to local tissues (specifically if a blood vessel to the tissue on the back of the foot occurs, during hock (ankle) arthrodesis).