TIBIAL FRACTURE SURGERY: AT HOME CARE

Your pet has had surgery for the treatment of a fractured tibia. The tibia has been put back together with:
- Stainless steel plate and screws
- Stainless steel pins

The objective of the operation is to stabilise the fracture until it heals. This will take between 6 and 12 weeks. Implant removal may be necessary, which could mean a short anaesthetic and minor surgery to remove the implants. Most dogs will be putting some weight on the leg within ten days post-surgery. There should be a progressive increase in weight-bearing over the following weeks. There are a range of potential complications to any surgery, so if you notice something that you’re unsure about, please contact us to discuss it.

Re-examination
Re-examination is advised in 4 days (sooner if you are concerned) to:
- Remove the dressing
- Remove the fentanyl patch
- Examine the wound.

There is often some bruising and swelling around the surgery site; this is normal and should resolve uneventfully. Please make an appointment to drop your pet off for a day stay for follow-up x-rays in about 8 weeks; we will assess the degree of recovery and discuss the rehabilitation exercise program then.

Medications
- Anti-inflammatory: ______________
  Label instructions on the packet should be followed.
- Analgesic patch (fentanyl). This will be removed at the 4 day recheck.
- Tramadol tablets - Label instructions on the packet should be followed.

Post-operative exercise
Strict rest (no free exercise allowed) for the next 8 weeks is necessary to allow healing of the fracture, even if your pet feels capable of more activity – any early overuse of the limb can result in failure of the surgery, which in some cases necessitates revision surgery. This means your pet should be confined to a small room or run for the duration of this period. For small dogs and cats, a crate is ideal. The only exercise allowed is short-duration (10 minutes maximum), slow walks on a leash in the back yard for toileting purposes. This includes no jumping (including into and out of cars) and definitely no stairs! Please try to keep your pet on flat surfaces only, and preferably not on slippery surfaces e.g. tiles and polished floors. If this is unavoidable, then consider putting rugs down or non-slip matting (which can be purchased by hardware stores). An old towel can be used as a hind-quarter sling if it is placed underneath the abdomen. By doing this you can provide support and security in the early post-operative period.

During the rehabilitation period, daily food intake should be reduced by approximately one-third to prevent your pet putting on more weight while not exercising.

Physiotherapy
After the first 2 days postoperatively, physiotherapy in the form of passive range-of-motion exercises can be performed.

Ideally, all joints of the affected limb should receive physiotherapy 2 to 3 times a day but you should concentrate mainly on the stifle joint if time is short. During each session, a minimum of 10 flexions and extensions should be performed on each joint. After flexion and extension of the individual joints, the entire limb should be cycled through its full, pain-free range-of-motion 10 times, as if your pet were riding...
a bicycle. It is very important never to force the joints or cause pain, but gently manoeuvre the limb through a range-of-motion that is well tolerated. Longer-term follow-up and care
Sit-to-stand exercises should also begin around 6 weeks post-operatively. This can be achieved during leash walking when the patient is commanded to “sit” and just before assuming the sitting position, the command to “walk-on” is given. This routine is repeated 10 or more times every walk and has the effect of building the quadriceps muscle mass, which is very important in rehabilitation following fracture surgery. There should be no unsupervised exercise, and running and jumping should be avoided during the 12 week post-operative period. Between 8 and 12 weeks, exercise can be increased slowly to 30 to 40 minutes twice daily. Deep-water swimming for 10 to 15 minutes several times a week, if possible, is excellent therapy at this stage. At around 8 weeks post-operatively, a radiograph of the stifle should be taken to assess the progress of healing. All going well, controlled exercise on a leash may begin at this time. Leash walks should be minimal at first (10-15 minutes twice daily), and then gradually increased after 8 weeks post-operatively. Free exercise off the lead is not advised until after the rehabilitation program has finished.
There should be no unsupervised exercise, and running and jumping should be avoided during the 10 week post-operative period. Between 8 and 12 weeks, exercise can be increased slowly to 30 to 40 minutes twice daily. Deep-water swimming for 10 to 15 minutes a few times a week, if possible, is excellent therapy at this stage. By 12 weeks, your pet should have returned to near normal activity. However, there is a large variation in how quickly individuals return to full function following fracture surgery. If there is not near normal activity by 12 to 16 weeks post-operatively, then please make an appointment for reassessment.

Prognosis
Your pet has a good chance of improvement in lameness. Most patients make an excellent recovery within three to six months of surgery. It is most important not to allow your pet to become overweight and to maintain a reasonable level of fitness. If you have any questions or concerns, please don’t hesitate to contact us.

Please care for your pet as directed and please return to see us any time during your pet’s recovery if you are at all concerned about the wound healing.
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**Rehabilitation program**

While the surgery is important to alleviate pain and restore adequate function to your pet's leg, of more importance is the rehabilitation. Patients with little to no active rehabilitation invariably take much longer to return to function, or fail to return to full function. Here is a guide to what can be done to help return your pet to function as quickly as possible. There are also several excellent rehabilitation consultants and veterinary physiotherapists in South-East Queensland that can help with your pet's recovery. If you would like more information, please ask.

**Week 1**
- For the first 48 hours, if your pet will tolerate it, please try to apply an icepack (gel ones are better as they don't freeze solid, or you can use a bag of frozen peas) to the surgery site for 10 minutes on/10 minutes off for 40 minutes every 4 hours
- Strict rest and confinement
- Short leash walks (10 min max) in backyard only for toileting purposes only
- NO running, jumping or stairs!
- Anti-inflammatory (eg Metacam®, Carprofen/Rimadyl®, Previcox®)
- Analgesic (e.g. Tramadol tablets, Fentanyl patch)
- Should be toe touching the ground intermittently

**Week 2**
- Strict rest and confinement
- Short leash walks (10min max) in backyard only for toileting purposes only
- Should be taking a little more weight on the leg, but mainly toe touching

**Week 3**
- Start physiotherapy

- Let your pet guide you as to duration and intensity
- This should be started gently and slowly, using the resistance in the leg as an indicator of comfort level, i.e. if you start to feel resistance or any vocalising, then that is the limit for that day. Use this a guide for the next day.
- Imagine your pet riding a bicycle; this is the movement you want to replicate.
- Try to put the whole leg through a full cycle between 20-30 repetitions 2-4 times daily
- Alternate backwards and forwards
- Short leash walks (5 min max) in backyard only for toileting purposes only
- Should be taking a little weight on the leg, may be 3 legged lame when walking outside

**Week 4**
- Continue physiotherapy daily
- Should notice increase in range of motion and comfort levels
- Should be taking weight on the leg most of the time, but still noticeably lame

**Week 5**
- Continue physiotherapy daily
- Should notice increase in range of motion and comfort levels
- Should be taking weight on the leg most of the time, with moderate lameness

**Week 6**
- If the radiographs reveal good healing and your pet had made a good recovery, then start sit to stand exercises to increase muscle mass of quadriceps and hamstrings:
  - Command your pet to sit
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- Just as your pet is about to put bottom on the ground, walk them forward a step or two
- Repeat this several times over the course of the day (liver treats help!)
- Provided your pet is comfortable with this exercise and the lameness isn’t worsening, continue this exercise each day, and gradually increase the daily frequency

Week 7
- Continue physiotherapy and sit-stand exercises as often as possible each day.
- Provided your pets’ lameness has continued to improve, and your vet was happy with your pets’ progress at the last visit, you can start some CONTROLLED activity:
  - Hydrotherapy and/or swimming is the best form of controlled exercise, as it is supportive/ buoyant and non-concussive on the legs
  - Alternatively, you can start short CONTROLLED leash walks. It is VERY important that this is performed under very controlled settings, as any uncontrolled activity may result in implant failure or prolonged recovery.
  - Start with some physiotherapy and sit-stand exercises at home to warm up, then go to a grassed area (backyard, oval) and ON A LEASH, start slow paced walking.
  - Use your pets’ comfort levels as a guide to how far or fast to walk. Most dogs by this time should be able to cope with 5 to 10 minutes walking once to twice daily. Do so for a week, then gradually increase the duration by 5 minutes per week. If there is any noticeable increase in lameness, then decrease the duration to the previous level, and maintain that level for an extra week before increasing the duration.

Weeks 8-12
- Continue physiotherapy and sit-stand exercises as often as possible each day.
  - Hydrotherapy/swimming
  - CONTROLLED LEASH walking – increase duration by about 5 minutes once to twice daily.
  - If at any stage the lameness worsens or you are concerned, please contact us.
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Animal Physiotherapists
with Hydrotherapy

Animal Physiotherapy Solutions
Lindsey Connell
14 The Centre at Springwood
Corner of Lexington & Logan Roads
Underwood QLD 4119 Australia
http://vss.net.au/services/physiotherapy/

Brooke Marsh
431 Tanawha Tourist Drive
Tanawha, QLD 4556
Sunshine Coast
Australia
www.ncvs.net.au/3662_Therapists.html

Hydrotherapy
The Canine Fitness Centre
3385 6090
583 Oakey Flat Rd, Morayfield, 4506
www.caninefitnesscentre.com.au

Mobile Rehabilitation Therapist

Alpha Mobility Solutions
Dr Laurence Oner
Based in Petrie QLD 4502
0421 169 107
info@alphamobility.com.au
www.alphamobility.com.au