Home Care Instructions

Corrective Ulnar Ostectomy/Osteotomy

Direct Veterinary Surgery
Surgical Solutions Direct to You

One of the most useful and efficient ways to convey information to you about your pet is via the written word. We carefully craft these notes to give you helpful information and accurate expectations around your pet's surgical experience.

Please read this. *Please save it and read it during each stage of the recovery process.* Surprises make for a stressful time for everyone.

Photo and video examples may be found on our website: www.directvetsurg.com in the Pet Owner Portal under "*DVS Resources*".

Your pet has had a growth abnormality of the ulna (bone of forearm) corrected with either a high ulnar osteotomy or a low ulnar ostectomy or both. These procedures are used to correct developmental abnormalities of the elbow and/or the wrist (which often are both present to some degree). The key to success with these procedures is that the remaining bone growth will continue after surgery and slowly bring the elbow and/or the wrist back into alignment. Long term joint stiffness and degenerative joint disease (i.e. "arthritis") may be a complication of these growth abnormalities that may need to be managed.

General Information

Please keep a note of your questions as you and your pet progress thru recovery and address them to your primary care veterinary team. Our surgery group will contact your primary care team on **Day 2** (after their phone follow-up with you) and **Day 14** (after your recheck visit with them) to check in on your pet's progress and see if you have had any concerns or questions. This method will maintain continuity in care and an accurate patient medical record.

First few days postop

Monitoring

Please keep your pet in a comfortable, safe, indoor location without free access to stairs for the next 24 hours as he/she recovers from anesthesia and surgery.

Your pet may be groggy for the next few days. He or she may whine or appear more anxious than usual; this may indicate pain/discomfort or side-effects of the medications. Please call your primary care veterinary team for assistance with medication adjustments or return for exam and additional pain medications as needed.

Monitor appetite and attitude. *If both do not steadily improve over the next 2-3 days*, please call your primary care veterinary team or return for progress evaluation and problem-solving.

You can expect your pet to have a bowel movement within 5 days. Some animals take longer than others depending on when they last ate prior to surgery and when they started eating after surgery. It may be abnormal in color and consistency for 2-3 days. If you have any concerns, please speak with your primary care veterinary team.

Please confirm that your pet has urinated within 24 hours of returning home. If he/she does not, or you notice any problems related to urination, please speak with your primary care veterinary team.

Medications

It is likely that you have been prescribed one or more medications (given by mouth) for your pet over the first 2-3wks of recovery. During the discharge appointment or shortly thereafter, please make sure you understand:

- what each medication is being used to treat,
- what side-effects may develop, and
- whether or not the medication should be refilled and continued.

Bandage Care (if present)

A clear, plastic bandaid may have been applied to the incision (Tegaderm). This will protect the incision from infection from the environment and a wayward pet tongue! It is useful for up to 7-10 days. You may remove it like a "bandaid" at any time. If it is hard to peel off, waiting longer may make for easier removal. There is no urgency in taking it off.

A padded bandage *may have been* applied to the operated site. The goal of the bandage is to provide pressure to the surgical site to minimize swelling and improve patient comfort for 3-5 days. If this bandage starts at the foot, please place a plastic baggy over the foot whenever you take your pet outside to prevent soiling of the bandage; remove when indoors. <u>You may remove the bandage or return to your primary care clinic for removal.</u> If the bandage slips below the incision or becomes soiled or wet *before this time*, please remove it by simply cutting away one layer at a time (use caution, avoid skin); no need to replace unless otherwise directed.

Week 1-2 postop

Monitoring

Please look at the incision twice daily. It should be dry, slightly red along the margins, slightly swollen/thick on the edges with a light crust down the center. Over several days, it should lose redness and swelling.

Problems to call your veterinarian about:

--gapping (the edges should be exactly touching)

--ongoing or new discharge (other than small amount of crusting)

--swelling (other than slightly raised skin near edges).

Some bruising is normal and will resolve in 5-7 days.

The occasional patient will have more extensive bruising and/or swelling on day 2-3. If this develops, please let your primary care veterinarian know; a visit or sending photos will help them characterize the issue and decide on a course of action. The vast majority of the time, this is a transient issue that will follow a typical 5-7 day course resolving.

Do not allow your pet to lick or chew the incision. Pets tend to want to lick early in the healing period and scratch later in the healing period; this can compromise the incision and predispose to infection. If necessary, please prevent access to the incision by using creative clothing options (ex. backward long-sleeved T-shirt worn as "pants"), an E-collar or other devices, if you must leave your pet unattended. See www.directvetsurg.com, Pet Owner portal→Pet Links and DVS Resources

Closely supervise your pet's movements over the first 3-4 days when s/he will be groggy from anesthetics and pain medications. Limit activities to necessary events only (on leash/out to go to the bathroom; access to food/water.)

Progress exams

Please return to your primary care clinic in 10-14 days for a progress exam. Skin healing will be evaluated, sutures (if present) will be removed, use of the limb will be assessed and any questions you have will be addressed.

Your pet should start touching his/her toe down within the first 2 weeks. Thereafter, leg use should steadily improve to 90% normal at 6-8 weeks. If you notice a sudden deterioration in leg use at any time after surgery, please see your veterinarian for exam.

Diet

The **most** beneficial and **least** expensive treatment for arthritis (and general health) over the lifetime of your pet is maintaining your pet on the lean/thin side of normal his/her whole life. Any orthopedic condition can progress with arthritis over time due to excessive, wear & tear; carrying less body weight will relieve some of this stress from the joints. Good parameters to monitor body condition are:
1) you should be able to feel the ribs and pelvic bones, but not see them;
2) your pet should have an "hour glass" figure when viewed from above looking down;
3) your pet should have a tucked-up belly when viewed from the side.

Glucosamine/chondroitin supplements ("chondroprotectants") may have some beneficial effects in these patients, but this has not been clearly established. High-dose (medicinal dose) fish oil may improve comfort in arthritic joints longterm. You and your veterinarian should discuss whether or not these products would be helpful for your pet.

Restrictions

Avoid any rigorous activity for 4 weeks. For dogs, short, leashed walks to urinate/defecate are fine.

Minimal, supervised/assisted access to stairs is advised during restricted period. Use baby gates, etc. to prevent free access to stairs during this restricted period. When navigating stairs (up and down), have a hand/leash on collar/harness and a leash/safety-strap under the belly to prevent slips, stumbles, falls.

A well-fitting, ergonomic sling to assist your pet in the front end may make the recovery period logistically easier and less frustrating for all players. Explore your options at pet stores or online; see www.directvetsurg.com → Pet Owner Portal → Pet Links for some suggestions.

Please use a short (~6ft), hand-held leash when outside to urinate/defecate. Confine your pet to a small area/room/crate when unattended. Please do not allow your pet to run, jump or play during this restriction period.

If your pet's personality-type challenges these restrictions, discuss options for medicinal-assistance for your pet to make restrictions easier to manage (i.e. Trazadone, Gabapentin, Tramadol, other).

Physical Therapy Regimen

Our lives are often very busy, so if you must err, err on the "do less" side of these instructions. Less physical therapy will result in a slower return to function, but more aggressive physical therapy by a non-professional too early may result in failure of the implants and surgical repair. Cats (and some dogs) often resist physical therapy dramatically; avoid any activity that results in major uncooperative behavior.

Week 2: Range of Motion Exercise-- Have your pet lie on his/her good side. Apply a warm compress to the elbow and wrist. Grip the foot with one hand and slowly and gently push the foot up into flexion of all joints; hold for 5 seconds. Slowly pull the foot and push the leg down and back into full extension of all joints; hold for 5 seconds. *Focus on the wrist and elbow.* Repeat this motion 15-20 times twice daily. This exercise should not be performed to the point of pain or resentment. Continue 4 weeks.

Month 1-2 postop

Progress Exams

For dogs younger than 10months at the time of surgery, it is not uncommon for a second (and rarely a third) surgery to be performed to keep the bone that was cut from healing. This is exactly opposite to what we normally want bone to do; in your pet's case, we want the ulna gap (that we surgically created) to stay open to allow the radius to grow unrestricted and self-correct its angle. We are in a race between the radius finishing its growth (and straightening things out) and the surgical ulna gap healing/bridging. Please monitor the degree of wrist angulation; if this continues or worsens, please see your veterinarian.

Return for progress x-rays and exam in 4 weeks.

If exam or xrays show that the ulna gap is bridged and the radius still needs time to grow, we may need to open up the bridging bone again with a short procedure.

Physical Therapy Regimen

Week 3: Massage-- Have your pet lie on his/her good side. Perform both superficial skin massage and deeper muscle massage. Skin massage around the forearm involves using your fingers loosely on the surface of the skin, applying enough pressure to move the skin relative to the underlying tissues. Muscle massage of the forearm and upper limb involves deeper kneading and pushing of the muscles. Perform massage for 10-15 minutes twice daily. Continue 4 weeks.

Week 4: Active exercise (for dogs)-- Place your pet on a short leash and have him/her walk at your side. Walk outside on even/solid footing for 10 minutes twice daily. Continue 4 weeks.

Swimming is wonderful rehabilitation exercise (for some dogs) when performed correctly. You may allow controlled swimming after week 4. Controlled swimming requires that your pet not jump or leap into the water; walking into the water until it is deep enough to swim is required. Throwing balls to fetch often results in sudden jumping and lunging, which can cause serious problems in the healing phase. Do not over extend your pet; start with short excursions (5 minutes) and increase duration and frequency gradually.

Longterm lifestyle

After the supporting bones are done growing and the surgical sites are healed, there are no restrictions on activities for your pet. A gradual return to full function should occur, to allow for a smooth return of muscle function and strength following the restricted period.

Elbow joints can be very unforgiving following growth abnormalities such as this; wrists are much more tolerant. Stiffness and discomfort can be signs of degenerative joint disease (i.e. arthritis) that may progress over time. Maintaining a lean body condition and a moderate degree of low-impact activity will be very helpful in optimizing the long term function of your pet's elbow and wrist.

Growth plates are difficult to evaluate; we can make educated guesses about how healthy they are (based on xrays), but many times we can only see the problem once they are "closed" and have stopped growing (when a short or crooked bone is the result). The main goal with surgical manipulation of young bones with growth plate abnormalities is to return the joints to alignment to prevent future arthritis. Early correction and frequent monitoring until full grown are essential. Once a dog has stopped growing, other procedures can be used to further straighten bones that did not achieve full self-correction.

Checklist:

Home monitoring and progress check-in with veterinary team

- ❑ Pet attitude and appetite—Are these improving daily? What are your observations? What are your specific concerns?
- ❑ Pet mobility—Is this improving daily? What are your observations? What are your specific concerns?
- ❑ Incision health—Is redness and swelling going away? Is there discharge or moisture? (Photos taken close-up and at different angles are helpful for your primary care veterinary team.)
- ❑ Pet pain level—What are your observations? What are your specific concerns?
- ❑ Other

Based on your own experience through this, we welcome and encourage suggestions to this information that may help future patients and their people. Pay it forward! *(directvetsurg@gmail.com)*

--The DVS Crew