

## **Post-operative Information: Triple Pelvic Osteotomy (TPO)**

Your pet has had surgery on the pelvis to correct the conformational abnormalities associated with hip dysplasia (i.e. hip “looseness”). The TPO procedure, when performed in a young dog, will rotate the acetabulum (“socket” of the hip joint) to better cover and contain the femoral head (“ball” of the hip joint), thus providing improved support for the hip. Three separate skin incisions and cuts in the bone of the pelvis are made to allow rotation; these cuts are then stabilized with bone plates and screws. These implants are surgically attached to the bone, bridging the main cut to provide stability until the bone heals to its original strength. Healing time is required before the bone is strong enough to accept normal activities. The majority of patients will have their implants for their entire life, and do not have long term activity restrictions.

### **ACTIVITY RESTRICTION x 8 weeks**

- Your pet may be groggy for a 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 veterinarian for assistance with medication adjustments or return for exam and additional pain medications as needed.
- Please keep your pet in a small area with secure footing (small room or penned off area with carpet) for the next 2 weeks or until he/she is very secure on his/her feet. Thereafter, he/she may be confined to one level of the house with no free access to stairs. Use baby gates, etc. to prevent access to stairs. Do not allow jumping on/off furniture. Confine to a small area/room/crate when unattended. Please do not allow any playing, running or jumping. Use a short leash when going outside to urinate/defecate.
- For the first 1-2 weeks, your pet may need assistance when walking on slippery floors; use a belt/band under his/her belly to prevent slipping. Continue this protective measure until he/she is very strong on all legs.
- Your pet should start touching his/her toe down within the first 2 weeks. Thereafter, leg use should steadily improve each week. By 6 weeks, he/she should be 90% recovered. If he/she suddenly deteriorates or does not appear to be progressing well enough, please return to your veterinarian for exam; x-rays may be needed to diagnose the problem.
- Your pet will feel like fully using the leg before the bone is healed. Please continue the restrictions during this difficult time when he/she is feeling “too” well! Failure to do so may cause serious healing problems; plate and screw problems are directly related to the amount of activity the patient has during this recovery period.

### **INCISION CARE**

- Please look at incisions twice daily. They should be dry, slightly red along the margins, and slightly swollen/thick on the edges. Over several days, they should lose redness and swelling. Problems to call your veterinarian about: discharge, gapping, excessive swelling.
- Do not allow your pet to lick or chew the incision. Dogs tend to want to lick early in the healing period and this can compromise the incision and predispose to infection. During the first 2 weeks, please use an E-collar to prevent incision damage, if you must leave your pet unattended.

### **PROGRESS EXAMS**

- Return to your veterinarian in 10-14 days for a progress exam. Skin healing and leg function will be evaluated, sutures will be removed, and any physical therapy questions will be addressed.
- If your pet is doing well, the next visit will be 6-8 weeks after surgery. Leg function will be evaluated, x-rays will be taken of the surgical site to judge healing, and physical therapy recommendations will be adjusted.
- Your pet may need to be seen again at 12 weeks if healing was incomplete at the second visit.

### **DIET**

- Do not make any adjustments to your pet’s diet until he/she has resumed normal attitude, appetite, energy level and bathroom habits. In the first few days of recovery, encourage eating with supplements like meat babyfood and canned dog food as treats. Be aware that the above activity restrictions may cause weight gain. To prevent this, you may feed 3/4 of the usual amount of food during the next 2 months. Your veterinarian will re-weigh your pet at the progress exams to monitor weight.

## PHYSICAL THERAPY

(We can also recommend professional physical therapy assistance in the Twin Cities. Studies have shown that a formal program can decrease post-operative recovery time. Please let your veterinarian know if you are interested in a referral.)

- 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.
- *Week 1: Range of Motion (ROM) Exercise*-- Have your pet lie on his/her good side. Grip the foot with one hand and slowly and gently push the foot up into flexion of all joints. Slowly pull the foot and push the leg down and back into full extension of all joints. Repeat this motion 5 times once daily. This exercise should not be performed to the point of pain or resentment. After ROM, apply ice packs (wrapped in thin cloth) to the incision area twice daily for 10-15 minutes. Baggies of frozen peas work well for this, or make an ice pack by freezing 2 parts isopropyl alcohol to one part water in a ziplock bag.
- *Week 2: Expanded ROM Exercise*-- Have your pet lie on his/her good side. Apply a warm compress to upper hip incision area. 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*. Repeat this motion 10 times twice daily. This exercise should not be performed to the point of pain or resentment. Apply ice packs after ROM (as above). Continue 4 weeks.
- *Week 3: Sit/stand Exercise (for dogs)*—Have your pet repeatedly sit and stand for 10-15 repetitions twice daily. Use small treats to encourage participation. Do not push down on his/her rump. Continue 4 weeks.
- *Week 6: Stairs Exercises*—Have your pet walk up and down a flight of stairs on a leash, in a slow, controlled manner such that your pet uses every step. Repeat 5 times once daily. Continue 4 weeks.
- *Week 8: 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.
- *Week 8: Hip Stretch Exercise*—Perform this exercise on carpeting with 2 people. If you have a large exercise ball (2-3ft diameter), place the front end of your dog across the ball. *Slowly* roll the ball forward so the hind quarters are stretched to the point when your pet takes a step forward with his/her hind feet. Slowly roll the ball backward so he/she steps backward. Repeat this slow-motion stretch for 15-20 repetitions twice daily. Continue 2 weeks.  
(If you do not have an exercise ball but can safely lift the front end of your dog, use this technique. Kneel in front of your pet and lift his/her legs up to your shoulders; support his/her front end. Slowly rock backwards so your pet's hind quarters are stretched to the point when your pet takes a step forward with his/her hind feet. Slowly lean forward so he/she steps backward with the hind feet. Repeat this slow-motion stretch for 15-20 repetitions twice daily.)
- Swimming is wonderful rehabilitation exercise (for some dogs) when performed correctly. You may allow controlled swimming after week 8. 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.

## LONG TERM LIFESTYLE

- After the bones have 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.
- Once bones are well healed, there is minimal risk to that site in the future. The plate and screws do not create any problems in the vast majority of patients. Occasionally these metal implants can become infected; it is believed these infections originate from bacteria normally found in the blood stream in patients with infections elsewhere in the body or from dental disease. Implants can also loosen or create bone pain caused by cold temperatures. On occasion metal implants will have to be removed months to years after the original surgery if they cause the patient problems. Please have your veterinarian evaluate any lameness or pain you notice associated with the operated leg. This implant removal is rarely indicated, but will require a second surgical procedure that is not accounted for in the original surgery fees.
- If indicated, the opposite hip can be operated as early as 4 weeks after the initial procedure. This decision will be made based on patient age, x-ray findings before first surgery, and progress after the first surgery.