

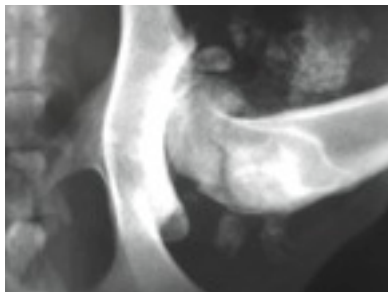
Torrington Orthopaedics



Total Hip Replacement

Welcome

This information booklet is designed to complement the consultation with your surgeon on the subjects of Hip Dysplasia and Total Hip Replacement. If this booklet raises any questions please be sure to discuss these with your surgeon.



Hip Dysplasia is a disabling condition seen in many breeds of dog and has also been recognised in cats. In smaller breeds of dog, the impact is often

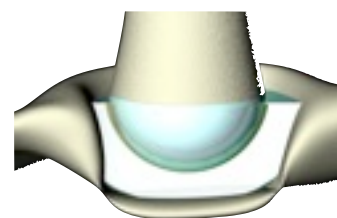
minimal, however in large and medium breeds it can result in problems in puppy-hood and following achievement of skeletal maturity at 9 to 10 months.

The early phase of Hip Dysplasia is characterised by hip instability. Ordinarily the hip is a close fitting joint with the hemispherical head sitting in tight and even contact with the deep socket or acetabulum. This permits efficient joint function with minimal work for the surrounding soft tissues to maintain congruent surface contact. In the Dysplastic hip however, this efficient system does not develop. Instead the head of the thigh bone migrates forward and upward to rest on the rim of the socket. The hip now moves in a more erratic way during walking. This imposes additional strain on the soft tissues of the hip. It also results in uneven loading of the joint surface. This uneven loading can result in damage to the joint surface. This damage further increases friction and causes release of irritating debris that can result in inflammation of the lining of the joint. Ultimately osteoarthritis develops within the affected joints.

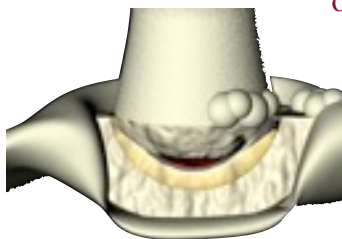
This may resolve instability but may bring with it, its own set of problems.

Pain associated with Hip Dysplasia

Not all patients with Hip Dysplasia will experience clinical problems. Those that do are usually uncomfortable as a result of cartilage overload. This occurs because of the loss of perfect fitting of the head into the socket. Cartilage has no nerve endings, but the underlying bone does. As a result



A Normal Hip



An Osteoarthritic Hip

of cartilage wear, the sensitive bone is exposed and joint movement causes further friction wear and discomfort over time. The effect of increased friction is the production of heat within the joint during exercise. This heat can damage the lining of the joint. The joint lining membrane makes joint fluid or lubricant for the joint. The damaged lining does not produce as much lubrication, leading to more friction, more heat and more damage and the situation worsens.



Managing Hip Pain With Total Hip Replacement

The pain associated with contact between the two apposing joint surfaces can be managed by simply removing the head of the thigh bone. This stops contact and relieves pain, but in doing so we destroy the mechanics of the hip and rely on the production of a fibrous joint for future hip movement. This

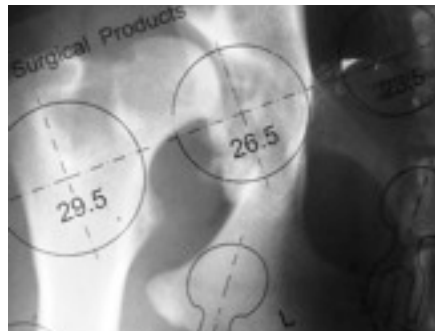
works well in dogs under 15 kg but is not so effective in larger dogs. Total Hip Replacement aims to take away the painful surface contact and restore perfect mechanics to the hip. This is done by replacing both the head and the socket with artificial ones. After recovery, the range of motion in the hip often returns to that of a normal hip. As there is no painful contact after this procedure, the dog can use the leg normally without pain. Even if both hips are affected, generally only one hip needs to be replaced as this gives the dog a good hip to rely on.

Kyon Cementless THR



Hip replacements comprise a stem, a head and a cup. These can either be held in place with cement or by allowing bone to grow into the implant (cementless). Cement can weaken over time and result in loosening of the components. Some cementless systems can be a little too weak in the early phases before bone grows into the implant. For these reasons we use the Kyon™ Hip System as this has the long-term advantage of the cementless systems with the added advantage that the components are locked in position with screws. These screws become redundant as the bone grows into and on to the components of the prostheses. Bone ingrowth is generally complete by week 16 post op.

What is the process?

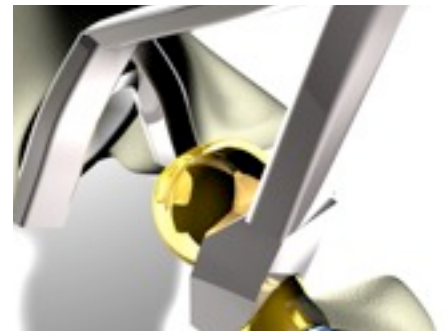


First we need to take X Rays of your dog's hips. From these we measure the size of the cup and stem that we will need for your dog. This is generally possible as a "day patient" procedure with discharge from the hospital later that day.

When we have this information we will arrange an appointment for your dog to be admitted for the surgical procedure. Your dog will be admitted on the day before surgery and will stay in the hospital for up to five days in total.

At discharge we will discuss aftercare and medical support for your dog. we like to review THR patients at weeks 4, 8 and 12. X rays are taken at week 12.

Preparing for THR



Surgery will not be undertaken in dogs that have an infection. If your dog develops diarrhoea or skin problems before the day of admission please telephone to discuss this.

After discharge, cage confinement in the house is mandatory. You will need to purchase or hire a cage of suitable size. It is a good idea to accustom your dog to this before surgery if this is possible.

If you have Laminate or slippery flooring, this will either need to be avoided or covered temporarily (up to 12 weeks post surgery). Decking can pose a similar slip hazard in the garden in wet weather and this may also need to be covered or avoided.

Activity Instructions Post Surgery

Your adherence to these instructions will give your dog the best chance of an uncomplicated recovery from the surgery. As with all surgery, complications should they occur, may adversely affect long term outcome. Further surgery to address problems increases the risk of infection and reduces the chance of success.

Week By Week Instructions

Weeks 1 to 6



This is a key period following surgery as there is no bony ingrowth and little soft tissue strength. As a result cage confinement is very important at all times apart from short toilet breaks and periods of supervised close attention for petting and so forth. If your dog appears to be winding him or herself up either in or out of the cage, you should interrupt this by taking him or her for a short walk on the lead in the garden. The lead should be used whenever your dog is in the garden and in some dogs should be used in the house when out for some contact time. Stairs should be avoided as should multiple steps. A sling should be used throughout this period as a “safety net”.

Weeks 6 to 12

The sling can be dispensed with in this phase. Short five minute lead walks beyond the garden and in addition to the garden toilet breaks can be given up to five times daily in the first two weeks. These can be extended to ten minutes three times daily in the next two weeks and up to twenty minutes three times daily in the last two weeks of this period. X rays will be taken at the week 12 check up. You will need to starve your dog in the morning before this appointment. Most dogs will be discharged on the same day, often a few hours following admission. You may want to stay in the area or return later that day to collect your dog. If these X rays are clear, you will be able to move activity on considerably.



General Advice



If your dog tends to become excited when the post arrives, consider having it redirected to a neighbour’s house. Visitors should be kept to an absolute minimum and they should be instructed not to encourage excitement during their visit. Children in the house should be informed of the temporary restrictions and the importance of following these. Chew treats are an excellent way for your dog to pass time whilst remaining physically inactive. This is the equivalent of a good book for your dog. The twelve weeks will pass, keep this in mind and discuss any problems you are having with our staff.

The most risky phase is probably weeks 3 to 6. By this point your dog may be using the operated leg better than the non-operated limb. Confidence is high and we can sometimes let our guard down during this phase. By the end of this period, the main post operative risk of dislocation is significantly reduced so try to be patient during this period.

Potential Complications



By following the post operative care information you can minimise the risk of complications following surgery. There are four main risks following surgery:

- * Dislocation (Luxation).
- * Implant Loosening or Breakage.
- * Fracture of the Femur.
- * Infection.

Dislocation

The key risk period for this is the first six weeks following surgery. During surgery we cut the joint capsule and then repaired it with stitches. These are replaced by a fibrous scar tissue over the first 6 to 8 weeks after surgery. Until this has healed, there is a risk of dislocation and this will likely require further surgery to correct. This risk is reduced by adhering to the activity instructions and avoiding slippery surfaces.

Fracture of the Femur

The risk period for this is in the first two months after surgery. The risk is at its highest in dogs that are “over eight and over weight” and in particular in female dogs whether neutered or not. Fracture of the femur is a potential disaster as the fractures that can occur are rarely simple to repair due to the small fragment size. If we consider that your dog is at high risk of this complication we may advise applying a plate to the femur at the time of surgery. This can have financial implications, but is more cost effective than treating the fracture!

Implant Loosening or Breakage

This is very rare and it is for this reason that we have chosen the Swiss Kyon™ Hip Replacement System. The implants are covered by a warranty against breakage. If the implants did break, Kyon™ would pay for the replacement implant and for the surgery to replace the broken implant. Loosening is avoided by adhering to the activity instructions.

Infection

This is a lifelong risk. The risk can be reduced by prompt veterinary attention to infections. In particular if your dog requires dentistry, antibiotics would be best given for a week before surgery and two to three weeks after dentistry. If you have any questions about this at any point in the future, we are only a phone call away. Skin infections should be managed with antibiotics and topical dermatologic creams as early as possible.



Torrington Orthopaedics

We are here to help our patients at all times

You can contact us by telephone at any time on 01484 404770. You can contact Andy Torrington by e mail at andy@torvet.co.uk or the practice in general at enquiries@torvet.co.uk.

Committed to care

During your dog's stay with us, we will provide 24 hour nursing presence. all of our nurses are Registered Veterinary Nurses, many of whom have additional qualifications including the Diploma in Advanced Veterinary Nursing. Our theatres are not just physically and spotlessly clean but are regularly screened for bacterial presence. Our theatres are positive pressure theatres to minimise the risk of infection. The preparation of your dog for surgery is rigorous and will take forty five minutes or more to ensure the surgical site is thoroughly clean.