

CANINE HIP DYSPLASIA

FEMORAL HEAD AND NECK OSTECTOMY (FHNO)

Introduction

FHNO is a treatment option for canine hip dysplasia (CHD). Please refer to CHD pamphlet, also available on this site, for more detail before considering specific treatment options.

FHNO involves removing the ball (femur head and neck) from the ball and socket (acetabulum) joint (Fig.1 & 2) and the animal will then form a scar tissue joint (pseudoarthrosis) at the site. The clinical results for FHNO vary widely and depend upon a number of factors the most important of which are adult body weight, appropriate postoperative rehabilitation therapy and anticipated end use for the dog. FHNO is recommended for use in animals with an adult body size of less than 17-22kg. Animals with an adult weight greater than this may repetitively tear this scar tissue joint with use of the limb and come up lame, especially if the dog is very active or periodically performs a traumatic exercise type (see CHD pamphlet, Nonsurgical treatment). FHNO can be used on animals with an adult body weight of greater than this with approximately half of the animals being assessed as having good to excellent limb function.

FHNO should be considered as a salvage procedure only, as at best the dog will regain approximately 70% of the weight bearing function of a normal limb.

This procedure should be used with **extreme caution in juvenile animals**. It may alter the growth and development of the limb and potentially increase the risk of developing other issues such as patella (knee cap) luxation. Also it should be remembered that approximately 70% of juvenile animals will grow out of the pain associated with the first phase of CHD by 18-24 months (see CHD pamphlet). However a high percentage of these animals will then show signs of pain associated with the development of osteoarthritis in the joint at a later stage of life when a FHNO may again be considered.

Results after femoral head ostectomy can vary quite widely. The **prognosis is highly dependent upon patient size and postoperative physical therapy**. In large patients, 50% of animals have good or excellent function. The rest of the dogs have varying degrees of lameness, but function is usually improved when compared with preoperative functionality. Medium and small patients usually have good or excellent limb function after FHNO.

Generally there are surgical options available for the treatment of CHD other than FHNO in most individuals. Being aware of the differing treatment option and their relative pro's and con's is critical to allow selection of the most appropriate treatment option for each animal and owner.

FHNO Surgery

The ball (femur head and neck) is removed from the ball and socket (acetabulum) joint (Fig.1) and the animal then forms a scar tissue joint (pseudoarthrosis) at the site.

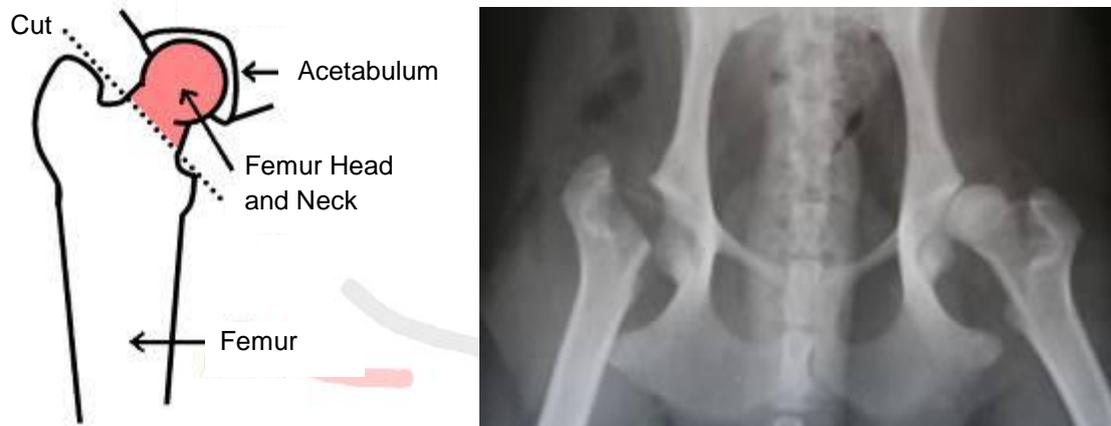


Figure 1. Femoral head and neck osteotomy

Postoperative Care

Post operative management is a critical factor in any animal undergoing a FHNO.

Your dog will have some pain relief dispensed to aid their recovery and may need any external sutures removing 10-14 days after surgery.

Seven to ten days of strict rest are required after surgery with range of motion (ROM) exercises which will be demonstrated at discharge. Most animals will have moderate weight bearing in the limb by 7-10 days after surgery.

A further 6-8 weeks of exercise restriction with gradual increasing walking distance in the last 2-3 weeks is required. In the earlier period ongoing ROM exercises and physiotherapy are important to achieve the optimum end result. Swimming and hydrotherapy are a great aid to joint mobility from around 2 weeks after surgery.

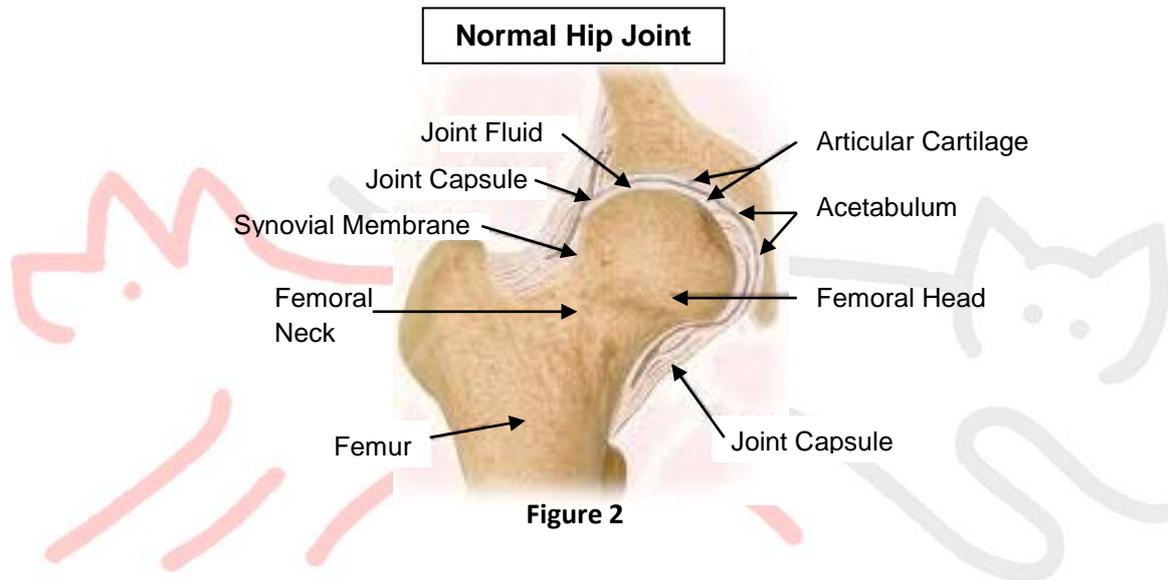
Traumatic exercise types should be avoided for up to 6 months after surgery, and possibly long term for certain individuals.

Larger breed dogs or those which periodically undergo traumatic exercise types may periodically strain or tear some of the muscles around the joint, or the fibrous tissue within the joint, which can result in lameness. This lameness will usually last for 2-3 days and may require anti-inflammatory drug treatment. Initial patient selection and long term weight and exercise management are important to avoid these periodic problems.

Most patients make an uneventful recovery if post operative management is maintained appropriately, and they have a functional pain free limb.

Summary for FHNO

- It is a salvage procedure and all other options should be considered on a case by case basis.
- It should be used in juvenile dogs with extreme caution.
- Post operative care and physiotherapy are critical to ensure the best end result.
- Ongoing exercise management until around 6 months after surgery will maximize the chance of a successful surgery.
- Some animals may periodically become lame after any traumatic exercise types.



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