

DOGS AND HIP DYSPLASIA

by kym dunbar

Almost all breeds of dog have some risk of hip dysplasia but some are more predisposed to the disease than others. While many breed associations have had programs in place for up to 30 years, around 40% of purebred dogs across the world remain susceptible to this disease and it is still a problem in many countries.

WHAT IS HIP DYSPLASIA?

The hip is a 'ball and socket' joint. The ball (the top part of the thigh bone or femur) fits into a socket formed by the pelvis. If there is a loose fit between these bones, and the ligaments which help to hold them together are loose, the ball may slide part way out of the socket (subluxate).

As this occurs repeatedly throughout the dog's lifetime, other degenerative changes in the joint occur (also called osteoarthritis). Pain, lameness and weakness in the hind end will cause your dog suffering.

This disease is progressive; and worsens with time. Dogs can be born with the disease and be diagnosed early in life, and others get it as they get older. There are a lot of things that can cause hip dysplasia including environmental as well as hereditary factors.

WHO DOES IT AFFECT?

Hip dysplasia is the most commonly inherited orthopaedic disease in many breeds of dogs.

When buying your puppy, ask the breeder for copies of health certificates of the parents. Even if you are not buying a purebred dog still ask the people selling puppies for evidence of health checks. We recommend you stay away from any puppy seller that cannot, or refuses, to produce proof the health of their dogs and puppies is important.



FIGURE 1 EXAMPLE OF THE BALLS SITTING OUT OF THE SOCKET

It is also wise to check the history of the puppies for several generations to give you an indication of what you may expect in the future.

Regardless of how careful you are when buying your puppy, there are still no guarantees against health problems. You can minimize the risks but there will still always be the luck of the draw and the environment the dog lives and plays in that can contribute.

HOW IS HIP DYSPLASIA INHERITED?

Hip dysplasia polygenic, in other words it is genetic but scientists do not which genes or how many affect the inheritance of hip dysplasia.

A dog's environment and feeding can affect the onset of hip dysplasia, such as excess weight, a fast growth rate, and high calorie or supplemented diets, high levels of jumping and twisting movements before a puppy is fully grown (especially larger breeds).

HOW IS IT DIAGNOSED?

Your vet may suspect hip dysplasia if your dog has pain or lameness in the hips.

X-rays may will evaluate the general fit of the femur and pelvis, and identify any osteoarthritic changes in the hip joint. Usually sedation or anaesthesia is required to ensure correct positioning of the dog while being x-rayed.

To determine the looseness in the hip joint, your vet may take stress or distraction radiographs.

There are several established scoring systems to evaluate radiographs for the presence of hip dysplasia. In Australia the Australian Veterinary Association (AVA) scheme is used, though [PennHIP](#) is the system used most commonly in America and now Europe but not widely used yet in Australia.

LIFE WITH HIP DYSPLASIA?

A severe form of hip dysplasia can affect young dogs (under 1-year-old), but normally signs of hip dysplasia begin in older dogs. While a young dog may have a loose fit at the hip joint it can take years for other changes (such as osteoarthritis) to cause pain.

Signs of degeneration are pain after exercise, difficulty with stairs, difficulty getting up, and a reluctance to get up on the bed anymore. You may only notice these signs occasionally, but over time they will worsen.

There is no cure, but the condition can be managed. A fit, healthy dog that is not overweight is a good start and follow your vet's advice. There are all sorts of ways to manage a dog's lifestyle to minimise pain so do your research and get advice from experienced people.

Overfeeding and quick weight gain as puppies can lead to hip dysplasia later in a dog's life.

Careful feeding from the time your dog is a pup can help reduce the likelihood of the disease later in life.

Talk to your vet about healthy feeding and correct weight, and research alternative ways of feeding to achieve maximum health in your best friend.

TREATMENT

The degree to which the hips are affected does not always equate with the amount of pain for the dog.

Some dogs that show very bad hips radiographically are in less pain than others whose x-rays show only minor changes.


Although there is no cure for hip dysplasia, there are ways to manage the pain. Follow your vet's guidance.

There are drug treatments, natural treatments and managing your dog's weight is important for managing pain.

Your veterinarian may suggest surgery (such as a hip replacement) if the pain is severe, and/or cannot be controlled by medical treatment.

SURGICAL TREATMENT

Depending on the age and diagnosis of the dog, recommended surgical options may include:

 Rearranging the angle at which the components of the hip meet (triple pelvic osteotomy) – most commonly used for young dogs without significant cartilage wear (arthritis) or bony reformation

🐾 Replacement of the components of the hip (*total hip replacement*) – most commonly used for older dogs or those with significant arthritis or bony reformation

🐾 Alteration of the hip joint to prevent painful bone contact (femoral head and neck osteotomy) – most commonly used for smaller dogs

SPECIAL POSTOPERATIVE CARE

If a triple pelvic osteotomy or total hip replacement was performed:

🐾 Activity is strictly limited until adequate healing occurs, usually 6 to 12 weeks

🐾 X-rays will be taken at specific intervals to evaluate healing
If a femoral head and neck osteotomy was performed, physical therapy will be initiated within several days of surgery, and continued for 4 to 8 weeks

EXPECTED RESULTS AFTER SURGERY

🐾 If a triple pelvic osteotomy was performed, pain is generally relieved, limb use becomes more normal, and the patient does not develop significant hip arthritis

🐾 If a total hip replacement was performed, pain is relieved, limb use becomes more normal, and arthritis is permanently relieved

🐾 If a femoral head and neck osteotomy was performed, a mild limp will likely remain, but pain and arthritis are relieved.

BREEDING ADVICE

Canine hip dysplasia remains a problem in many breeds of dog, but responsible, well researched and planned breeding programs, good health, diet and fitness are all part of working to reduce its occurrence in the breed.

The best way of control is based on a grading scheme to identify the defect; and a breed policy of recording and publishing the results for as many dogs as possible.

Breed organisations and vets around the world have developed control programs that rely on radiographic evaluation and a central registry of dogs.

All dogs used should be evaluated by an established screening program before being used for breeding, and should be bred based on the guidelines of that program.

The best way to prevent hip dysplasia is to breed only dogs that have disease-free joints, based on appropriate radiographic evaluation, and that come from a family of animals with disease-free joints.

PREVENTION

There is no known method of preventing hip dysplasia except for a thoughtful and carefully executed breeding programs with regular radiographic analysis of all stock before breeding.

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