

Your Guide to Understanding

Canine Hip Dysplasia

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HYDRO & VETERINARY PHYSIO

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Canine Hip Dysplasia

Canine hip dysplasia is a debilitating degenerative condition that commonly affects large-breed dogs at a young and old age. There are various management strategies and surgical options that you may want to consider for your dog with hip dysplasia.

Hip dysplasia is a degenerative condition that starts as laxity within the hip joint in young dogs, and progresses to arthritis as the dog ages. It is a painful condition that can be effectively managed with a combination of strategies, including surgery, diet, weight management, hydrotherapy, physical rehabilitation, and environmental management.

Hip dysplasia can be effectively treated and managed when identified at a young age.

What is hip dysplasia, and how does my dog get it?

Many large-breed dogs have a genetic predisposition to developing hip dysplasia, although small-breed dogs can also suffer from the condition.

In young dogs, a malformation of the hip joint can lead to a joint that is lax or unstable. The excessive movement in the joint can be anything from uncomfortable to very painful for a puppy or young dog, and over time will cause arthritis to form in the joint as the bones try to create stability in the area. This will become progressively more painful.

The better the muscle coverage a dog has over the hip joint, the better they can stabilise the joint. This means that puppies that build strength in the correct muscle structures may lack any signs or symptoms of hip dysplasia during normal activity – often for many years.

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Some of the factors that can contribute to the development of hip dysplasia and its severity in dogs include:

- **Excess weight:** Young dogs should be kept at lean body weight, and any dog with hip dysplasia or prone to hip dysplasia should be kept at a lean weight throughout their lifetimes.
- **Excess activity:** Repetitive, excessive activity at a young age can cause early wear and tear of the hip joint. In young dogs, encourage free activity over various terrains for short periods of time daily.
- **Genetic predisposition:** Breeds such as Labradors and German shepherds have the greatest genetic predisposition, although many large-breed dogs are predisposed to hip dysplasia, as well as a few small-breed dogs. Responsible breeding programmes form a big part of the strategy to reduce the incidence of this condition.



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What happens to my dog's body when they have Hip Dysplasia?

Canine hip dysplasia starts in one joint, but soon has an impact on structures throughout the body. The hip joint becomes inflamed and painful, especially when the joint is taken into extension behind the body (which happens during normal walking, running, jumping and playing), or when the joint rotates outwardly during playing, running or turning.

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The muscles that start to take strain in canine Hip Dysplasia



To protect the joint, dogs will adjust how they move, performing fewer activities such as jumping, and bringing their hindlegs closer underneath their bodies. This starts to put stress on certain muscle structures, some of which are shown in the image, including the gluteal muscles that try to stabilise the hip joint, the iliopsoas complex that draws the pelvis and limbs forward into more flexion, the sartorius muscle, the back, the trapezius above the shoulders, and some of the muscles of the neck and forelimb.

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Common compensation patterns in canine Hip Dysplasia



In dogs with hip dysplasia, we find a compensatory ‘flow’, or a change in posture and movement, as indicated in the image:

- The head and neck will lower to shift more body weight off the hindlegs.
- The hindlegs will step a little further forward under the body to reduce the degree of extension in the hips.
- The pelvis and lumbar spine will flex, creating an arch in the back.
- The forelegs will come a little further backwards underneath the body.
- The carpus will become progressively more extended and lax as it carries more weight, in a poor biomechanical position.
- The centre of mass will shift forward and down.

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Areas that become painful in dogs with canine Hip Dysplasia



All of these compensation changes will cause muscles to become painful and overworked in all the wrong places. When we place our hands on our own dogs, we will often find that they are sensitive in the areas highlighted by the green lines.
Why not try to feel whether your dog is experiencing pain or tightness in any of these places?

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How can you help your dog with canine Hip Dysplasia?

If you suspect that your dog might have hip dysplasia, speak to your vet to get a diagnosis for the condition. The earlier you identify hip dysplasia, the more treatment options will be available to you and your dog.

Your veterinarian might recommend various treatment options, depending on the age of your dog and the severity of the condition. Some of the options your vet might discuss with you include:

- **Weight management and diet:** Maintaining your dog with hip dysplasia at a lean body weight and adding joint support supplements to their diet can hugely impact their quality of life, level of inflammation and the pain they experience.

- **Pain control:** Your vet may recommend a variety of pain medications to use in the short or long term to help control the pain and inflammation your dog experiences.

- **Surgical correction:** Performing a total hip replacement is the only 'cure' for hip dysplasia, and is recommended in dogs that will have a performance career or have an active lifestyle. There are multiple other surgical options available to help reduce or manage the symptoms, including some that are performed in puppies before the growth plates of the pelvis close. Diagnosing the condition at a young age provides the best opportunity for early surgical intervention.

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- **Rehabilitation:** Whether surgery is performed or a conservative approach is chosen, rehabilitation can drastically improve the outcome for patients with this condition, and is recommended both before and after surgery for the best possible long-term outcome.

While canine hip dysplasia is a degenerative, debilitating condition, there is much you can do to help and support your dog with this condition to live a long, healthy and pain-free life. The right support from your veterinarian and veterinary rehabilitation team will make a huge difference. Ideally, find a team that will support you and your dog through your dog's life journey as you navigate the ups and downs of living with this condition.



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