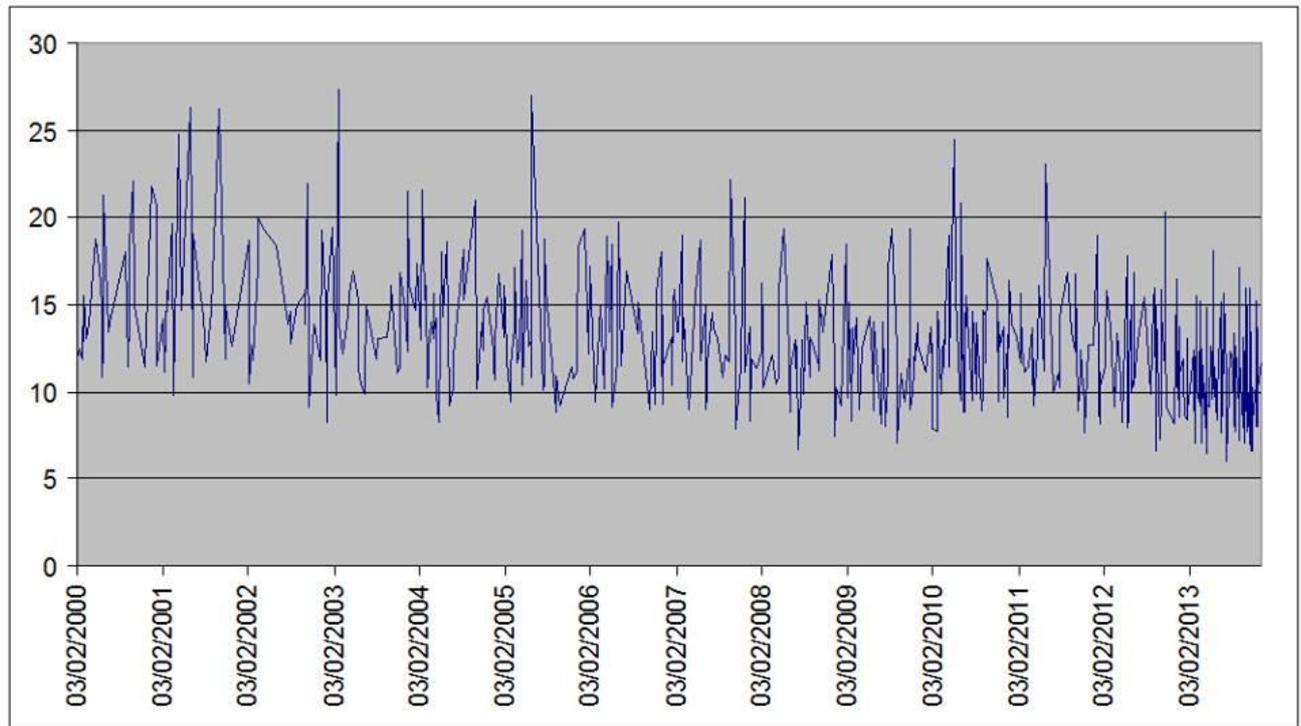


Hip Dysplasia: Improving the odds

Hip dysplasia is a serious condition affecting dogs of many different breeds. This disease can be crippling, especially in medium and large dogs like Labradors.



If you are searching through advertisements for a Labrador puppy you will notice that many litters advertised for sale will state the 'hip scores' of the parents of their puppies. Sometimes the advert will simply state that both parents are 'hip scored' without actually telling you what the scores are.

Hip dysplasia testing

All responsible Labrador breeders in Europe the USA and elsewhere, now have their breeding stock tested for signs of hip dysplasia, using some kind of standardised hip score.

This test is crucial and must be carried out by anyone breeding from a Labrador. That includes people that are simply breeding from a family pet. **There are no exceptions.** If the breeder of the puppy you intend to buy has not tested her bitch and/or has not ensured that the stud dog was tested, you need to walk away.

Here's the reason: Labradors are the most popular pedigree dog breed in the UK and in the USA. There are many, excellent litters of Labrador puppies available nationwide, both show and field, that have been properly tested for this condition.

There is absolutely no need for anyone to purchase a puppy from parents that have not been tested, or that have poor test results. What does the hip score mean?

Each dog that is to be hip scored has its hips x-rayed under sedation or general anaesthetic. These

x-rays are then sent off to a team of expert vets, who examine the hip joints and 'score' them according to a number of criteria. They have in mind the ideal or perfect hip joint, and every deviation from perfection adds to the hip score. So a score of zero is perfect, a score of fifty is very bad indeed.

The scores for each criteria are added together to make a total score for each hip. These two hip scores are usually written down like this 5/6 or this 5:6 In this case the score tells you that the dog has one hip with a score of 5 and the other hip has a score of 6, an overall total hip score of 11.

Why does hip scoring matter?

Hip scoring is a very important procedure because it gives us a clear indication of the likelihood of the dog being scored developing this serious disease we call hip dysplasia. Because there are genetic aspects to this disease, these scores also give us an indication as to the likelihood that the offspring of the tested dog will have sound hips.

To improve the overall joint health of Labradors (or any other breed of dog), it is important that breeders always breed from animals with better than average scores. That way, over time, the breed mean will improve. The kennel club display current breed mean scores on their websites. The breed mean score for Labradors is at present (2011) a score of 12.

What is Hip Dysplasia?

Canine hip dysplasia or CHD is a 'malformation' of the hip joint that affects the dog's ability to move freely and causes pain. Unlike some of the other conditions we can now test our dogs for, hip dysplasia is a complex condition and has its origins both in the genetic information inherited by the dog from its parents, and in the environmental factors that have acted on the dog's skeleton as he grows and ages.

In a healthy dog the rounded end (ball) at the top of the major weight bearing leg bone (femur) sits comfortably into a deep socket. In a dog with hip dysplasia, the socket is shallow and inadequate and this leads to further progressive damage within the joint as the dog ages.

How do dogs get hip dysplasia?

The mechanism of inheritance for hip dysplasia is not straightforward. It is not a question of a single faulty gene being passed on from one or both parents.

Rather it is a polygenic condition where a group of several genes determines the potential for the development of a faulty hip socket in any puppy unlucky enough to inherit them. And the genes inherited by the puppy are only a part of the story. The fact that CHD is not caused by one single defective gene makes it difficult to accurately trace the path of inheritance.

What we do know, is that if we breed from a dog with poor hips then the puppies that result are more likely to develop poor hips themselves, than if we breed from dogs with good hips.

The hip sockets the puppy with CHD is born with, in most cases look similar to the hip sockets of healthy puppies. But the hips of puppies who inherit the CHD genes do not grow normally.

In these puppies what should be a nice deep socket, which safely cradles the top of the femur, fails to grow properly and over time this inadequate socket allows damage to develop in the joint in the form of arthritis.

A number of environmental factors can strongly influence the development of the joint and two key factors involved in this process are the growth rate of the puppy, and the physical stress applied to the joint whilst it is still developing.

What are the effects of hip dysplasia?

Because so many factors are involved in the development of this disease, hip dysplasia can vary widely in its severity, from premature arthritis and lameness in middle age to severe disability in a young dog.

My own CHD dog (a working cocker spaniel) was crippled before her first birthday and x-rays clearly showed that she had virtually no hip sockets at all. This is an extreme form of the disease, but in most cases CHD causes pain and some degree of disability. It often requires (very expensive) major surgery in order to provide the dog with permanent pain relief and freedom of movement.

How will I know that my dog has hip dysplasia?

Your vet may suspect hip dysplasia if your dog is displaying a number of characteristic symptoms but an x-ray is the diagnostic tool. If your dog is limping or moving awkwardly you need to have him checked out by a vet. My own dog went lame at ten months old after I increased her exercise, and displayed a bunny hopping gait with both back legs being used together as she negotiated steps.

Not all dogs with CHD will do this and not all dogs that 'bunny hop' will have CHD. So a vet's examination is essential, and an x-ray will be required to confirm the diagnosis.

What can I do to protect my puppy from hip dysplasia?

There are three key steps you can take:

- Buy from tested parents
- Feed correctly
- Do not over-exercise

The most important action you can take to ensure your puppy does not develop this disease is to buy a puppy from hip scored parents whose scores both fall below the breed mean score and are balanced. This means that each hip is similar to the other.

For example a score of 11 in a dog with 6/5 hips is OK, but a score of 11 in a dog with 2/9 hips is not OK because one hip is in much worse shape than the other. Multiply the worst hip by two and ask yourself if you would be happy about this as your total score.

Be aware that buying a puppy from hip scored parents in this way, will not guarantee your puppy is free from hip dysplasia, but it greatly improves the odds. Always ask to see the certificates for both

bitch and stud dog. The breeder will have copies of these ready to show you. Never, never take a Labrador puppy home without seeing them!

The next action you should take is to ensure that your dog does not grow too rapidly. Do not overfeed your puppy, no matter how hungry she seems. Most Labradors are very greedy and will eat far beyond their needs. Rapid growth means that the hip joint may not develop properly.

Last but not least, do not over-exercise your puppy. People sometimes take puppies for long walks at far too young an age. Puppies do not need to go hiking. Playing in your garden for short periods is fine. Likewise avoid teaching or encouraging young puppies to jump or climb stairs as this places stress on the growing joints and is not necessary.

Veterinary Insurance

I believe that it is a good idea to insure your single puppy against veterinary treatment. There have been huge advances in the treatments available to dogs in the last twenty years, but this technology comes at a price. Even if you take all the precautions outlined above, it is still possible that your dog will get hip dysplasia. It is such a complex condition that all we can do is swing the odds in our favour. There can be no guarantees.

So getting your puppy insured will give you the peace of mind that comes from knowing that should he develop this or any other condition, your choice for treatment can be entirely based on his needs and not on your wallet. Insurance can become prohibitive if you have several dogs. If you have multiple dogs as I do then you may be better off putting the insurance premiums in a savings account.

Your dog

Finally, please remember that the information in this article is not a substitute for veterinary advice. If you are concerned about your dog's health, your first port of call should always be your vet.

Andy Smith

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