Basic Guide to Hip Dysplasia (HD) in Estrela Mountain Dogs

**What is hip dysplasia?** Hip dysplasia occurs because dogs can be born with varying degrees of laxity in their hip joints. The hip joint is a ball and socket and its growth is controlled by chemical signals that occur when the ball and socket meet. If the ball and socket are not held in place properly then they don’t grow properly and become malformed – this is called dysplasia. The laxity and malformation can cause osteoarthritis as well. The laxity is caused by the dog’s genetics and is inherited from its parents.

**Is HD a problem for Estrelas?** Yes. A large study in 2001 showed that 80% of Estrelas had mild or worse hip dysplasia. Thankfully since then, a lot of breeders have worked hard to score their dogs and breed Estrelas with better hips. The average hip score (see **what is a hip score?**) has reduced to 10 in the UK which is fantastic and shows just how successful these scoring schemes are. However HD and arthritis was still the third biggest killer of Estrelas in the 2018 health survey after cancer and ‘unknown’. Nearly 30% of Estrelas had HD and associated osteoarthritis. Until all breeders are breeding for healthy hips, HD will continue to be a problem.

**Does it matter if my puppy has HD?** Some Estrelas can live a long life, not outwardly showing signs that they have HD. This should be treated cautiously as ‘proof’ that HD isn’t a concern, as it does not prove the dog is pain free, especially in a stoic breed like the Estrela. People with certain degrees of hip dysplasia can walk and exercise seemingly normally whilst actually being in pain. The structure of the hip, means that lameness isn’t necessarily a symptom. However undiagnosed pain can have an impact on behaviour, making the dog intolerant of other dogs or being moved or handled by the owner for example.

HD also has a big impact on the average age of death with the most common age to be put to sleep due to HD being just 8 years old. Sadly some dogs are put to sleep at only 6 months or a year when HD is severe.

As well as possibly needing long term pain medication, in very severe cases, the dog or puppy may need one or both hips replacing. The surgery is expensive with a long period of crate rest to recover afterwards. This can be a very stressful time for both puppy and owner.

It is advisable to buy good quality pet insurance – especially if you are buying a puppy from a high risk litter.

**How can I buy a puppy without HD?** When you are looking to buy a puppy, always ask the breeder about how they breed to avoid HD. They will give you one of 3 answers:

1. They hip score their dogs and research the pedigree. Although there is never a 100% guarantee, these breeders will be able to give you a relatively accurate estimate of risk and their level of confidence, for each litter bred in this way.
2. They hip score the parents. They may be cagey about actual results or be keen to impress on you that HD is recessive and so there is no guarantee that the parent’s hip scores mean a reduced risk of HD. Luckily Estrelas have 80% heritability estimate for HD so it is likely that the puppies will have the same score as their parents but less certain than from breeder type 1. If the breeder is reluctant to share the actual scores or answer questions/makes excuses about HD in the family. It may be better to walk away.
3. They do not hip score. They might say things such as in their opinion hip scoring doesn’t work /HD is caused by the environment (they will often misquote studies to try to ‘prove’ this)/HD is caused by owners/their dogs are ‘fine’ etc. In this situation as a puppy buyer, you have no way to really assess the individual risk other than simply taking the breeders word for it. What we do know is that, statistically, at breed level, there is an 80% chance that the puppy will have HD when there is no scoring and subsequent selective pressure. It would be advisable to walk away.

**What is a hip score?** Hip scores are a way for us to take the complex structure of the hip and give it a value so we can more easily understand and compare how ‘good’ or ‘bad’ a dogs hips are.

Different countries have different methods of scoring;

* some countries actually say hips are ‘excellent’, ‘good’ or have ‘mild’, ‘severe’ etc HD which makes the dogs hip situation pretty obvious!
* Portugal uses A,B,C,D,E,F with A being the best, completely perfect hips, C being mildly dysplastic and F the most severe dysplasia. A dog can have a different score for each hip. Make sure you are given the scores of both hips.
* In the UK we use a numerical system where 0 is a perfect hip and 53 is the worst possible score in one hip. You might see a dog with a score of 0/12 in which case the dog has one perfect hip and one with borderline dysplasia. You might see a score of 6/6 in which case both hips are good. These scores will sometimes be added together so both of these dogs would have a total score of 12.
* PennHIP is another method of scoring which is somewhat more complicated to understand but does include a measure of the laxity of the hip so some breeders prefer this. It also includes a scale showing the breed average and where the dog falls in this average so that part is easy to understand even for a novice. It would be likely that a breeder using this method would be both willing and able to explain the results to a puppy buyer.

In an ideal world, breeders would only breed from dogs with a score that is lower than the breed average however with a rare breed it is sometimes necessary for genetic diversity, to use a dog with a higher than average score. You should talk to the breeder about this, they should be able to explain their choice to you and give you an idea of the risk to your puppy.

The family history of the dog can make it a higher or lower breeding risk. A dog might have C grade hips but have the highest score in its family. Another dog might have C grade hips but be average or even the lowest score in its family. This second dog will be a much riskier breeding choice. Your breeder should be able to discuss with you how they have assessed this risk.

If you have any questions or are unsure, please contact your breed health co-ordinator.

**What are the symptoms of HD?** In more some cases the dog may be unable to walk, lame or have changes in gait such as bunny hopping (only run with its two back legs together), have a shortened stride or be reluctant to trot etc. There may be more obvious signs of pain such as yelping or panting and a distressed look on the face.

Not doing these things or being able to do things such as; standing up on its back legs, lying with its legs behind it etc do not prove that a dog hasn’t got HD. Treatment with NSAIDs and a physical exam by a vet may help but the only definitive diagnosis is with an X-ray.

Less obvious symptoms would be the behavioural symptoms of undiagnosed pain such as; being intolerant of other dogs or people, not wanting to be touched or get up from their bed, slow or stiff when getting up or lying down, circling a lot before lying down, changes in posture, not wanting to go for walks or being slow on walks, seeming stiff after exercise. This list is not exhaustive, the point is to be aware of these types of behaviours and not just write them off as being due to the dog’s temperament, personality or experience.

**I have bought my puppy; what can I do to help keep their joints healthy?** You should receive advice from your breeder and you can also look at our advice guide; **Healthy Joints.**

It needs to be made clear that you won’t cause HD in your dog by not following the advice. Equally, the advice will not cure HD or prevent it in a dog with hip laxity. What we can do is slow the progress of the disease. This is useful even in asymptomatic dogs, to keep them that way for as long as possible. Any dog can develop arthritis so these tips are useful even if your dog has great hips.

**What happens if my dog has HD?** You should inform your breeder so they can use the information to inform future breeding decisions andpossibly the breed health coordinator if it is severe so they can keep track of the issue. See our advice guide; **Healthy Joints** and talk to your vet; there are lots of treatment options available.