

Dach-Facts: Lafora Disease in Mini Wirehaired Dachshunds



Health & Welfare Information from the Dachshund Breed Council

What is Lafora Disease?

Lafora Disease is an inherited form of epilepsy that affects Miniature Wirehaired Dachshunds.

Symptoms develop because the dog cannot efficiently process starch into sugar. Over time, Insoluble starch platelets gradually build up in the central nervous system. Survey results indicate that the majority, if not all dogs will go on to show clinical symptoms to a greater or lesser degree. It typically becomes apparent any time from age 5+ with a variety of symptoms including myoclonus (jerking, characteristically this can be induced by flashing lights, sudden sounds and movement, especially when close to the dog's head) and/or generalised or complex partial seizures. As the disease progresses, other neurological symptoms such as ataxia, blindness and dementia may occur. To see real life examples of the impact, look up the ['Lafora disease in dogs and humans' on YouTube.](#)

Genetics of Lafora

Lafora is an inherited autosomal recessive condition. A dog must inherit two of the mutated genes, one from each parent to be classified **"Affected"**. A dog that has only one mutated Lafora gene is a **"Carrier"**. It will not become clinically affected by the disease but, if bred to another "Carrier" or "Affected" dog, some of the puppies born will be likely to receive the two mutated genes and thus be clinically affected. If a dog carries no mutated genes it is **"Clear"**.

(Read more about the research and genetics of Lafora's Disease at <http://laforadogs.org/about-lafora/genetics>.)

WHDC Testing Programme

Wirehaired Dachshund Club launched a Lafora testing programme in 2010 and since 2013 have coordinated mass testing sessions using a blood test developed by Dr Berge Minassian and his team at the Hospital for Sick Children in Toronto, Canada.. By April 2017 approximately 600 UK MWHDs had been tested. Of dogs tested, approx. **10%** are **"Affected"**, **40%**

"Carriers" and **50% Clear.**

Kennel Club Approved Test

Lafora Screening is now mandatory for Kennel Club Assured Breeders and it is expected that ALL responsible breeders will use this test. Test results are sent direct to the Kennel Club, to be added to the dog's registration details, triggering publication of results in the next Breed Records Supplement, any new registration certificate, on certificates of any future progeny, and on the Kennel Club Health Test Results website.

Safe vs. Unsafe Breeding

See a larger version of this breeding chart on the reverse of this leaflet or at <http://www.whdc.co.uk/lafora-test-results.php>

Parents	Puppies (expected proportions)
Clear parent = Clear parent	100% Clear puppies
Clear parent = Carrier parent	50% Clear puppies and 50% Carrier puppies
Clear parent = Affected parent	100% Carrier puppies
Carrier parent = Carrier parent	25% Clear, 50% Carrier, 25% Affected puppies
Carrier parent = Affected parent	50% Affected and 50% Carrier puppies
Affected parent = Affected parent	100% Affected puppies

Because the disease is "late onset", the only way to avoid breeding "Affected" Mini Wires is to use the full DNA test to screen dogs before mating. Dogs that are "Affected" by the disease, or are "Carriers" of the genetic mutation, are at risk of producing more "Affected" puppies if they are bred with others carrying the mutation.

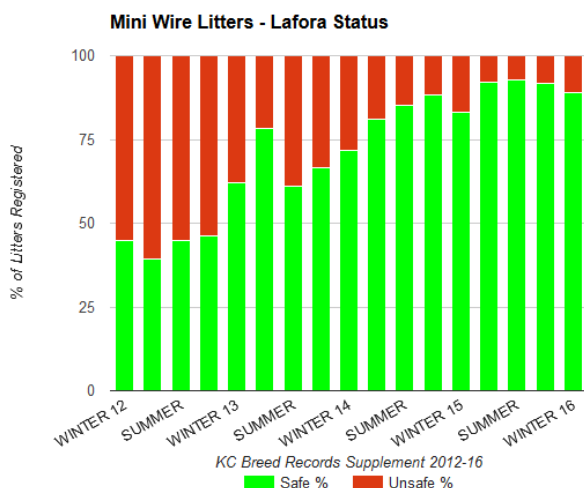
(N.B. if a dog is described as "Unaffected" it is either a confirmed carrier or was tested with an earlier version of the current test that could only identify dogs that were affected, so others may be either carriers or clear).

Dach-Facts: *Lafora Disease in Mini Wirehaired Dachshunds*



Health & Welfare Information from the Dachshund Breed Council

Since the DNA test was introduced, we have been monitoring its uptake and reporting the number of litters that are 'unsafe' and at risk producing Affected puppies.



Unsafe combinations are:

- Not Tested to Not Tested
- Carrier to Carrier
- Affected to Carrier
- Affected to Affected
- Carrier to Not Tested
- Carrier to Not Affected
- Affected to Not Affected
- Not Affected to Not Affected
- Not Tested to Not Affected.

With a reliable, proven, subsidised DNA test available, there is NO Excuse for so many unsafe litters being bred.

Who should test?

The Breed Council's and all UK Dachshund Breed Clubs' Code of Ethics states breeders will:

Use all Health Scheme tests currently required or recommended for the KC Assured Breeder Scheme on all breeding stock. Make responsible decisions in the light of Health Scheme test results to avoid producing clinically affected puppies and will follow any breeding advice issued under each scheme prior to breeding.

Owners of Show-Winning Dogs.

It is easy to lay the blame for irresponsible breeding on pet owners or those that produce puppies purely for financial reasons. However show-winning dogs are in demand for breeding and males are very likely to be used widely at stud. This means they have a far greater influence on the general health of the population, therefore owners of top winning dogs should be leading the way.

Owners of Stud Dogs

Stud dog owners have a responsibility to the breed to know not only the status of their own dog but also that of any bitches brought to them and refuse to mate any unsafe pairings.

Why not take a proactive stance and promote yourself as a 'safe' breeder? Get the dog tested then only allow known safe breeding combinations - better still, test your stud AND insist that you will only allow a mating with a tested bitch, as that will encourage others to test.

Owners of dams

Ensure you know the status of both your own dog and that of any prospective studs. Dogs should not be mated unless you can **guarantee that no affected dogs will be born**. Sadly, experience suggests that you cannot always take the word of the owner.

Owners of dogs that might be affected

1: If your dog shows symptoms, alert the breeder of your dog now and get your dog tested as soon as possible.

2. Check the status of your dog's dam, sire and known littermates on the Kennel Club Health Test Results website. If any are affected, use the diagram and information on the WHDC test pages to decide whether your dog might be affected or contact the WHDC testing team for advice.

Dach-Facts: Lafora Disease in Mini Wirehaired Dachshunds



Health & Welfare Information from the Dachshund Breed Council

How to get your dog tested

The Kennel Club Approved Lafora DNA test is available from Dr Berge Minassian at the Hospital for Sick Children in Canada, with support from the Wirehaired Dachshund Club (WHDC).

The test costs approximately £225 including courier and vet fees, but a subsidy is available for a limited period if tested via the WHDC regular bulk testing sessions in the UK, minimising vet and courier fees and simplifying the testing process for owners. The total subsidised price is £150.

Please visit www.whdc.co.uk for the latest news or contact a member of the testing team to confirm the date of the next testing session:

Nora Price: 01543 276797
pn.price274@btinternet.com

Sue Holt: 0161 308 4403

susan.holt@talktalk.net

Owners may request a test direct to Dr Minassian. However, individual enquiries reduce time for his invaluable research into developing a treatment for the human and canine form of Lafora. Enquirers must organise their own test, courier paperwork and payment etc. All results are shared with the WHDC and Kennel Club.



Dilys, Daisy and Bertie: grandmother, mother and grandson. Daisy and Bertie are both Lafora affected. Copyright Pat Debley

Further information

Dachshund Breed Council's Health website

www.dachshundhealth.org.uk

For the latest Dachshund health and welfare information and advice.

This DBC Dach-Fact leaflet has been written in conjunction with the

Laforadogs Support Group:

- Working to eradicate Lafora
- Advice on how to manage and cope with a dog suffering from Lafora
- Raising awareness
- Supporting fundraising for research

www.laforadogs.com

Gill Key 01934 862992

laforadogs@btinternet.com



With grateful thanks to the Red Foundation for designing and distributing this leaflet. (contact details etc. here)

Please print a copy of this leaflet and take it to your vet so they are up to date with what is happening.

Dach-Facts: Lafora Disease in Mini Wirehaired Dachshunds



Health & Welfare Information from the Dachshund Breed Council

Parents	Puppies (expected proportions)
"Clear" parent + "Clear" parent 	100% "Clear" puppies
"Clear" parent + "Carrier" parent 	50% "Clear" puppies and 50% "Carrier" puppies
"Clear" parent + "Affected" parent 	100% "Carrier" puppies
"Carrier" parent + "Carrier" parent 	25% "Clear", 50% "Carrier", 25% "Affected" puppies
"Carrier" parent + "Affected" parent 	50% "Affected" and 50% "Carrier" puppies
"Affected" parent + "Affected" parent 	100% "Affected" puppies