



Hoof Wall Separation Disease (HWSD) is a genetic disease characterised by the separation and breaking of the dorsal hoof wall and has been identified in the Connemara Pony. Horses bear their entire weight on their third toe and in severe cases of HWSD ponies place their total weight on the sole of their foot which leads to severe lameness. This disease has been seen in young ponies. Researchers at the School of Veterinary Medicine, University of California, Davis have described a genetic variant which is associated with HWSD and a test is now available to determine the genetic status of animals for this disease.

HWSD is inherited as an autosomal recessive disorder. Carriers are clinically normal and only when an animal has two copies of the mutation will they show clinical signs of the disease.

The genetic test now available can determine if ponies are normal or are carriers of one or two copies of the HWSD mutation. Knowing the genetic status of breeding stock can assist in mating decisions.

Results

N/N= Normal

N/HWSD=Carrier

HWSD/HWSD= Likely to be affected

Mating Results

MATING 1

N/N (Normal) X N/HWSD (Carrier)

50% (1/2) of the matings will result in Normal individuals.

50% (1/2) of the matings will result in Carriers

MATING 2

N/HWSD (Carrier) X N/HWSD (Carrier)

25% (1/4) of the matings will result in normal individuals.

50% (1/2) of the matings will result in Carriers

25% (1/4) of the matings will likely result in an affected individual



Weatherbys DNA Laboratory can **now offer** this test to breeders.

SAMPLE: Hair sample: 20-30 plucked clean and dry hairs (hair follicle) taken from the mane or tail.

Please include **animal ID, contact details & payment.**

PRICE: €30.00 inclusive of VAT/test

ENQUIRIES TO: Weatherbys DNA Laboratory, C/o The Irish Equine Centre

Johnstown, Naas, County Kildare, Ireland.

Phone: + 353 (0)45-875521 **E-mail:** dnalab@weatherbys.ie

Reference: <http://www.plogenetics.org/article/info%3Adoi%2F10.1371%2Fjournal.pgen.1005122>