# Lavender Foal Syndrome (LFS)

**Affected breeds:** Arabian, especially the Egyptian Arabian

Lavender Foal Syndrome is a severe lethal inherited disease which specifically affects Arabian horses, and in particular Egyptian Arabians. The condition is characterised by an array of neurological signs at birth including seizure, stiff, paddling leg movements and involuntary eye movement. In addition the foal has a typical diluted "lavender" coat colour, hence the name. There is no treatment for LFS.

LFS is a recessive disease, and is spread via carriers which have one copy of the LFS gene, but are physically normal. Carrier-carrier matings should be avoided in order to prevent affected foals.

**This test is particularly useful for breeders:**

- To identify carriers among their breeding stock so that they can avoid CARRIER X CARRIER mating combinations which would risk AFFECTED foals.
- To conclusively diagnose LFS in sick foals.
  In suspected LFS-affected foals for which a rapid, accurate diagnosis is required veterinarians should contact the laboratory on 01223 395577 or 07870 456808 to liaise directly.

**This test will be reported as:**

**CLEAR** : no evidence of the LFS mutation
**CARRIER** : carries one copy of the mutation, which will be passed to 50% of offspring
**AFFECTED** : carries two copies of the mutation and is conclusively LFS-affected

**Typical breeding outcomes:**

CARRIER X CARRIER = 25% AFFECTED, 50% CARRIER, 25% CLEAR
CARRIER X CLEAR = 50% CARRIER, 50% CLEAR
CLEAR X CLEAR = 100% CLEAR

**References:**

Brooks SA, Gabreski N, Miller D, Brisbin A, Brown HE, Streeter C, Mezey J, Cook D, Antczak DF (2010) Whole-Genome SNP association in the horse: Identification of a deletion in myosin Va responsible for Lavender Foal Syndrome. PLoS Genetics 6(4): e1000909. doi:10.1371/journal.pgen.1000909