

## **Familial Nephropathy in the English Cocker Spaniel breed**

A fatal Kidney disease prevented thanks to a DNA test

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### **Summary**

*Familial nephropathy leads to an early and fatal renal failure. Around 11% of English Cocker Spaniels are carriers of the genetic mutation responsible for the disease. A reliable DNA test can screen stud dogs and brood bitches, in order to adapt matings and avoid birth of affected puppies and spread of the disease in the breed.*

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### **A fatal hereditary disease**

Familial nephropathy leads to progressive and irreversible renal failure between 6 months to 2 years. The first clinical signs are excessive water consumption, excessive urine volume, a slowdown in growth, weight loss, reduced appetite, vomiting and diarrhoea. Kidney dysfunction moving inexorably towards a premature death of the animal.

### **A fairly common disease**

About 11% of English Cocker Spaniel in Europe are carrier of the genetic mutation responsible of Familial Nephropathy. A breeder can mate without noticing a male « carrier » and a female « carrier » and produce a litter containing affected puppies.

A dog « carrier » of the mutation will not develop the disease but transmits it to 50% of the puppies. A stallion « carrier » of the mutation which is used a lot for reproduction, spreads the disease through the breed and helps to increase the frequency of the mutation and multiply the number of affected dogs.

### **A preventable disease**

A puppy can be affected if his two parents are carriers of the mutation. Breeders unaware of Familial Nephropathy can mate stud dogs and brood bitches carriers of the mutation and produce affected puppies which will not develop the disease before the age of 6 months.

A DNA test called FN, can detect the Familial Nephropathy of the English Cocker Spaniel with a reliability above 99%

### **Avoid the birth of affected puppies**

In order to secure its kennel and avoid the risk of production of affected puppies, the breeder must screen its breeding dogs thanks to the FN DNA test.

When acquiring a puppy for breeding or when a stud dog is used for a mating, the breeder verifies the genetic status of the dog for Familial Nephropathy asking for the result of the FN DNA test.

### **A DNA test easy to perform**

The veterinarian performs a simple cheek swab and sends it to the laboratory. The result, delivered within few days, indicates if the tested dog is clear, carrier or affected for the Familial Nephropathy. A genetic certificate displaying the result must be used as a guarantee for a mating or to justify the sale of puppies clear of Familial Nephropathy.

The veterinarian who notices early kidney issues in a young English Cocker Spaniel can process a DNA test to confirm or refute the diagnosis of Familial Nephropathy. If the dog is affected, parents have to be screened.

A breeder who knows the genetic status of the dog can select its breeding dogs, adapt matings, avoid the birth of affected puppies and limit the spread of this kidney disease in the breed.

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