



Ichthyosis Golden Retriever

ICT-A Test

Golden Retriever Ichthyosis

The Golden Retriever breed is affected by a genetical skin disease, called Ichthyosis. This dermatosis is very frequent in Europe and the United States with around 30% of dogs which develop more or less marked symptoms.

Clinical signs appear between 1 and 18 months of age in affected dogs and will persist during the lifespan of the animal.

Symptoms are characterized by many scales (dandruffs) of big size, whitish then blackish, mainly localized on the trunk and particularly visible on the stomach. They give a dirty and lepidic appearance to the skin, this one becomes dry, rough and usually hyperpigmented. Itching are rare. Infectious complications (bacterial, fungal or parasitic) can be observed.

No specific or efficient treatment exists up to date. Used treatments mainly rely on increased hygiene measures (brushing, kerato-regulating shampoo, weakly emollients, ...) and fatty acid enriched diet. The cosmetologic prognostic is reserved, treatment should be taken during all the lifespan of the dog.

Expression and mode of inheritance

Golden Retriever Ichthyosis is inherited as an autosomal recessive trait. A dog must have two defective copies (one from each parent) of the mutated gene to be affected by the disease. The DNA test provides an answer among three possible situations:

DNA test result	The dog is	Genetic status	Will develop the disease ?	Will transmit the genetic anomaly?
Normal homozygous	Clear	2 normal copies of the implicated gene	NO	NO
Heterozygous	Carrier	1 normal copy and 1 defective copy of the implicated gene	NO	YES, statistically to 50% of its progeny
Mutated homozygous	Affected	2 defective copies of the implicated gene	YES	YES, to 100% of its progeny

The DNA test, a reliable and validated test

Researches led by Canine Genetic team from CNRS-University of Rennes (Dr Catherine André), Dr Eric Guaguère (Clinique Vétérinaire Saint-Bernard, 59160 Lomme, France) and their partner (ANTAGENE laboratory) have identified the mutation responsible for Ichthyosis and have validated the DNA test.

The process underlying the test is patented by CNRS. ANTAGENE has an international license to provide this test.

The DNA test is reliable, easy to do from a cheek swab (cytobrush) sample that can be done at any age as soon as the animal is identified (by tattoo or chip). Once validated by the test, the genetic status of the dog will not change throughout his/her life.

Early DNA screening allows:

- detection of affected dogs before the first symptoms,
- easy identification of this disease before considering other time and money-consuming exams,
- assistance in selecting sires and dams to be bred,
- avoiding selling dogs who will eventually become affected,
- controlling the dissemination of the genetic defect in the breed.

Ordering

Kits for sampling have to be ordered by email. They will be mailed to your postal address. Directions for sampling are included and must be authenticated by a veterinarian. A certificate with genetic results will be mailed to the owner.

For more information on ordering kits, our diagnosis services, and current genetic research on dogs and cats, please consult our web site at www.antagene.com