

OCULAR MELANOSIS (PIGMENTARY GLAUCOMA)

The following is some information about ocular melanosis.

Ocular melanosis is an eye condition that appears to mainly affect Cairn Terriers.

- It is inherited although we cannot prove the mode of inheritance yet.
- The condition starts with increased pigmentation in the iris of the eye. At this stage the eye looks normal from the outside, but a trained ophthalmologist can detect the abnormalities.
- The pigment progresses and can appear as black areas on the white of the eye (sclera). This must be distinguished from pigmentation in the conjunctiva of the eye, which is normal.
- After there has been a lot of proliferation of pigmented cells inside the eye glaucoma (an increased pressure within the eye) can develop.
- Glaucoma as a result of ocular melanosis develops gradually. It does not respond well to treatment and typically will eventually cause vision loss and often pain.
- The age at which the pigmentation starts varies considerably between affected dogs (ranging from a few years of age to old age). Usually the pigmentation progresses more rapidly if it starts in a young dog and is slower if it starts in an older dog.
- The age at which glaucoma develops depends on the rate of pigment proliferation.



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Research into ocular melanosis

- The aim of our studies is to eventually identify the gene defect that causes ocular melanosis so that we can develop a test to identify dogs that will develop the condition. Such a test would allow the condition to be eradicated.
- Before this aim can be achieved there is a massive amount of work to be done:
 - We need to identify further affected dogs and collect DNA samples from them and all their close relatives.
 - We need to follow dogs related to affected dogs over a period of several years to see if they develop the condition. This will help us establish the range of ages at which the condition can develop, prove a mode of inheritance and gather the samples for our genetic studies.

Please help us with this study by allowing us to look at your dog's eyes and locate as many affected dogs and their relatives as we can.

This work is expensive to complete and we are actively seeking funding to allow us to do the studies – donations will help in this work (any checks should be made payable to Michigan State University and endorsed Ocular Melanosis Study).

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