

# Ocular Melanosis in Cairn Terriers

Background - The clinic we are offering to owners of Cairn Terriers is a low-cost opportunity for you to have a skilled veterinary ophthalmologist (VO), registered with the American College of Veterinary Ophthalmology (ACVO), check the eyes of your Cairn Terrier. Eye checks are recommended for ALL breeds of animals, but we're handling our Cairns with this clinic. Among the most serious symptoms the doctor will be looking for are those of glaucoma, a condition that can cause your dog pain and blindness. Until recently, "pigmentary glaucoma" was the term used for a glaucoma (increased fluid pressure in the eye) caused by blockage of normal eye fluid drainage pathways in the white of the eye. Since pigment (melanin) in the eye CAN cause the blockage, the name for the condition was changed to "ocular melanosis with secondary glaucoma" (that's "OK-u-lar mel-a-NO-sis") by the Genetics Committee of the ACVO. The condition is an inherited, but treatable, disorder in cairn terriers. Affected animals are not used in breeding.

OM is still considered rare, but it is serious. In fact, as one VO told us recently,

*"The Purebred Cairn Terrier is such a healthy breed, it makes a lot of sense to jump on a genetically-transmitted problem and breed it out of your lines as soon as possible."*

As a result of the continuing efforts to test Cairn Terriers across the country, the Cairn Terrier Club of America hopes to supply DNA samples of affected cairn terriers so that Dr Simon Petersen-Jones, a veterinary ophthalmologist based at Michigan State University, can identify the DNA marker for this disorder. Once we have a marker, Cairn Terriers can be tested for OM before they are considered for breeding. Those animals found "positive" for OM can be neutered and placed as pets before any pups with a predisposition for OM can be produced. The marker and breeders' commitment to testing for it can eliminate this dreaded disease from our breed.

Cause of Ocular Melanosis - OM occurs when there is a proliferation of pigment in the eye fluid that causes a blockage of drainage pathways just outside the rim of the cornea. The age of onset for this disorder is often between five and eleven years of age, but OM has been seen in younger Cairn Terriers. As an affected dog ages, the build-up of pigment creates plaques (of pigment) that block the drainage of eye fluid. When the drainage gets blocked, the fluid pressure inside the eye increases, and the dog develops a secondary glaucoma. This elevated pressure causes the dog pain and, eventually, blindness from all the damage caused by the fluid pressure.

Treatment of Ocular Melanosis - If your cairn terrier has OM, it is very important to identify the disease early. If OM and especially glaucoma are identified in time, a cairn terrier can receive a number of medications that will (1) reduce the amount of fluid that the eye produces, (2) increase the removal of fluid from the eye, and (3) reduce the production of pigment in the eye. These drugs all act to reduce the pressure in the eye. Unfortunately, the medication often eventually fails to control the pressure. When that happens, the dog will again experience pain and removing the eye may be the only remaining option. This disorder usually affects both eyes.

Annual OM and CERF Exams - The routine CERF exam does not include checking for OM, since this condition occurs often only in Cairn Terriers and their close relatives. VOs performing CERF exams would not look for OM unless they had examined a substantial number of Cairn Terriers and were familiar with OM. If your Cairn Terrier has had a CERF exam with normal results, it does not mean the dog is not affected with OM. His or her eyes must be checked specifically for OM. Remember, this disorder can show up at any point in your dog's life, so your dog will need OM and CERF exams from 2 years of age until he or she is without symptoms and 13 years old. "Show" breeding animals need to be checked annually, and "pets" with no symptoms of eye pressure or pain (rubbing) can be seen every other year.

Thank You - Thank you for taking good care of your Cairn Terrier and protecting his or her eye health. And thanks to your participation, you may also make it possible to contribute to the eye health of future generations of Cairn Terriers.