



By your veterinary ophthalmologist

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## Normal aging of the eye

### Aging changes in the eye:

#### Iris atrophy and nuclear sclerosis

The loose “flaps” of healing tissue at the edges of the ulcer are gently scraped / debrided away with sterile swabs and then a small needle is used to scratch a grid pattern over the surface of the dead tissue to the healthy cornea below. The intention of this procedure is to create openings through the denatured layer down to the healthy cornea so the healing edges are able to root themselves down. Medical treatment and the wearing of the Elizabethan collar 24h\24 is very important in the healing process following the procedure.

#### Iris atrophy

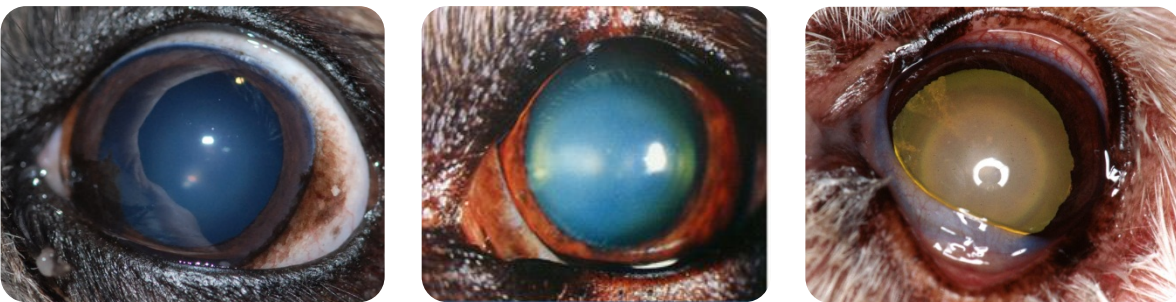
The iris is the colored circle inside the eye and it is pierced by an opening in its center, the pupil. The normal function of the iris is to react to the light intensity in order to control the quantity of light getting to the retina by contraction of the muscles that it contains. In some elderly dogs, the iris loses its regularity at the pupil's edge and also its thickness as the iris muscle get tired and get thinner. This condition is called iris atrophy. It is bilateral but not always symmetrical. All dog breeds are susceptible to be affected by iris atrophy. Miniature and toy poodles, miniature schnauzers and Chihuahua seem predisposed. There is no treatment for this condition associated with aging in order to stop or reduce the progression. Iris atrophy does not affect significantly the vision of the animal except that this animals severely affected might show occasional light hypersensitivity. Sunglasses for dogs are available for those that can tolerate them! [www.doggles.com](http://www.doggles.com).



Three cases of iris atrophy: from moderate to severe.

### **Nuclear sclerosis**

Nuclear sclerosis describes an increase in the density (sclerosis) of the center (nucleus) of the lens that has a bluish/cloudy aspect in its center. The lens is an internal structure of the eye, located behind the iris that direct the ray of light right on the retina. The lens is the structure that is affected when there is a cataract: a cataract is a white opacity of the lens. Sometimes it is hard to differentiate the nuclear sclerosis from certain type of cataract. A partial or complete loss of vision is observed when a cataract is present whereas the vision seems not to be affected when nuclear sclerosis is present (it is called presbytia in humans). Nuclear sclerosis inevitably appears with aging of our pets, when they reach 6 years old, as it is a direct consequence of the growth of the lens. In order to distinguish nuclear sclerosis from cataract, you might want to consult your veterinarian.



Three cases of nuclear sclerosis in dogs: from moderate to severe.