

# RETINAL DETACHMENT

## What is the retina?

The retina is a very thin tissue at the back of the eye which contains specialised cells (photoreceptors) which can convert light into electrical signals. These electrical signals are passed along nerve fibres through the optic nerve and into the brain for processing. Vision is the interpretation of these electrical signals by the brain.

## What is a retinal detachment?

The majority of the very thin retina is only loosely attached to the underlying tissues. The retina is pushed against the underlying tissue by the thick gel-like vitreous. Separation of the retina from the underlying tissue is known as a retinal detachment.

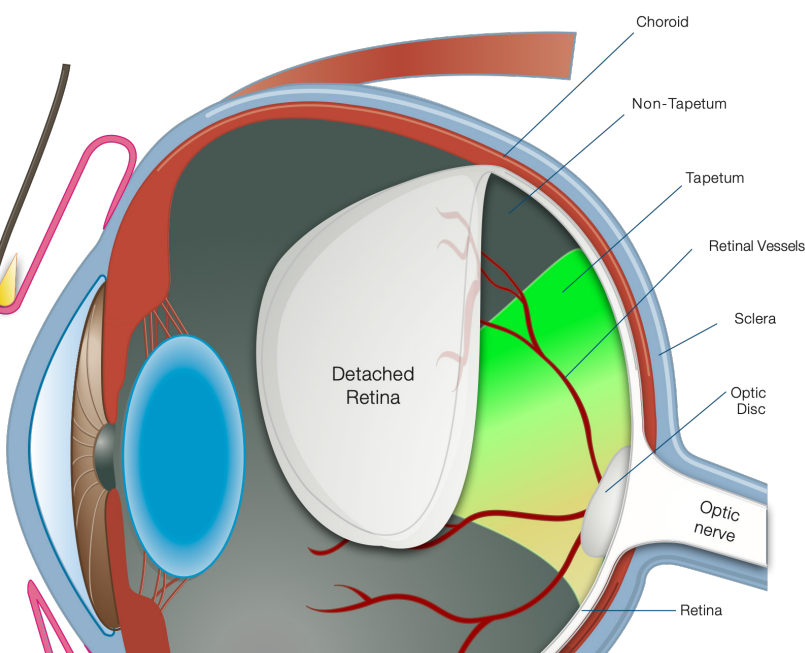
## What causes a retinal detachment?

There are a number of potential diseases including:

- Congenital abnormalities (birth defects)
- Trauma
- Inflammation
- Infection
- High blood pressure
- Cancer
- Intraocular surgery

## Can both eyes be affected?

This depends on the primary cause of the retinal detachment. Diseases that affect the whole body (e.g. high blood pressure) are likely to be seen in both eyes. Early detection and treatment can often prevent the development of the disease.



## How can a retinal detachment be diagnosed?

A full ophthalmic examination will allow us to make the diagnosis. We may use ocular ultrasonography during the consultation to provide further detailed information about the retina and back of the eye. We will often recommend blood pressure monitoring and blood tests which may be performed by ourselves or your own vets.

## Are particular animals at risk of a retinal detachment?

Some breeds are prone to hereditary retinal diseases that may allow a retinal detachment to occur. Retinal dysplasia (RD), Collie Eye Anomaly (CEA) and Persistent Hyperplastic Primary Vitreous (PHPV) are all congenital diseases that may develop subsequent retinal detachments.

**Retinal dysplasia** is a condition that can be seen in: Bedlington Terrier, Sealyham Terrier, English Springer Spaniel, Labrador Retriever, Golden Retriever, Spaniel Breeds and the Hungarian Puli

**Collie Eye Anomaly** is a condition that can be seen in: Rough Collie, Smooth Collie, Border Collie, Lancashire Heeler and the Shetland Sheepdog

**Persistent Hyperplastic Primary Vitreous** is a condition that can be seen in: Doberman and the Staffordshire Bull Terrier

## What are the signs of retinal detachment?

The clinical signs will vary depending on the cause of the detachment and the extent of the detachment. In cases of partial retinal detachment the eye may appear outwardly normal, but with total retinal detachment the neurosensory retina is unable to function and the patient will be blind in the affected eye. In more severe cases the pupil may appear dilated, a floating sheet may be seen inside the eye and the patient may collide with obstacles on the affected side.

## What are the treatment options for a retinal detachment?

Finding the underlying cause of the detachment is critical to the effective treatment of any case. We may start a course of eye drops and tablets while we wait for test results to return from a laboratory. Some cases can be managed medically, and if the retina can be encouraged to reattach, vision may return. However, if the retina cannot be reattached with medication surgery be the only way to regain sight.

**Veterinary Vision is one of only a few centres in Europe with the facility for retinal re-attachment surgery** including a high-speed posterior vitrectomy, and two different types of laser that may be used to 'weld' the retina onto the underlying tissue. Please see our Factsheet on Retinal Surgery for more information.