

LENS LUXATION

What is the lens?

The lens is a transparent crystalline structure within the eye that is responsible for focussing light onto the retina. The lens is contained by a very thin bag called the lens capsule and is suspended within the eye by zonule fibres. A cataract is any opacification of the lens that prevents the passage of light.

What is lens luxation?

This is the term used to describe abnormal displacement or dislocation of the lens. The small 'zonule fibres' holding the lens in place break allowing movement of the lens inside the eye. Anterior luxation is the term used to describe forward movement of the lens into the front part of the eye. Posterior luxation is the term used to describe backwards movement of the lens into the back part of the eye.

Are particular animals at risk of lens luxation?

Terrier breeds are more prone to the disease including; Jack Russell Terriers, Parson Russell Terriers, Sealyham Terriers, Wire Fox Terriers and Tibetan Terriers. Other breeds such as Collies and Lancashire Heelers are also known to suffer with this disease. The disease is called 'primary lens luxation' in these breeds and is due to a genetically inherited weakness of the zonule fibres.

What are the signs of lens luxation?

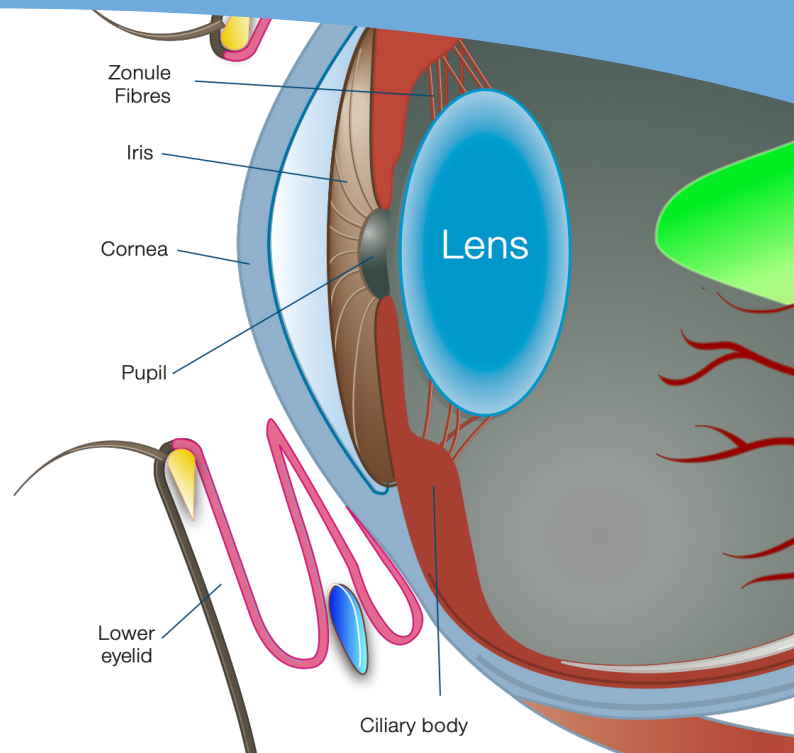
Unfortunately displacement of the lens can create significant ocular discomfort and lead to other diseases such as glaucoma, uveitis (intraocular inflammation) and retinal detachment. Some cases can present with an acutely red, painful and cloudy eye, but others may show intermittent problems. The cornea (transparent tissue at the front of the eye) can turn blue and if left untreated, vision may be permanently lost.

Can both eyes be affected?

Unfortunately in cases of hereditary primary lens luxation (see above) it is likely that both eyes will be affected. The disease does not normally appear in both eyes at the same time, but signs of lens instability may be detected during an ophthalmic examination.

What are the treatment options for lens luxation?

Emergency medical therapy is usually prescribed to prevent damage to the intraocular structures by the luxated lens. In the majority of cases we recommend surgical removal of the displaced lens under general anaesthesia. This involves removing the lens through a corneal incision followed by the placement of very small dissolvable stitches.



What complications could occur with lens luxation surgery?

There is always a degree of anaesthetic risk with any surgical procedure, and we aim to minimise these as far as possible. All intraocular surgery carries risks of infection or inflammation, and eyes that have had a lens luxation are still at risk of glaucoma (see Glaucoma Factsheet) and retinal detachment (see Retinal detachment Factsheet) following removal of the lens. These risks can be reduced with laser surgery (see 'Glaucoma laser surgery' and 'Retinal detachment surgery')

What vision is expected without a lens?

The lens is required to focus light onto the back of the eye. Following surgery there will be a period of adjustment, but we expect that most patients will be able to negotiate obstacles and find objects. Observation of fine detail may be lost, but a failure to treat is likely to lead to a complete loss of vision.

What are the treatment options if the second eye is affected?

If lens instability is detected, removal of the lens before it has luxated may provide the best chance of long-term success and reduce the risk of complications such as glaucoma