

Glaucoma Surgery



How can we treat glaucoma?

Initially, we can try and reduce the pressure inside the eye with eye drops. If the glaucoma happens very suddenly, we can release some of the fluid in the eye with a needle. This procedure is called a 'Paracentesis'. However, at some point the drops will no longer be effective and despite these medications the pressure inside the eye will continue to increase. If this is a concern and the eye still has sight, then surgical interventions can be considered. There are two types of surgery – laser or a shunt. If the eye is blind with an uncontrollable pressure removal of the eye will be advised.

What does the surgery involve?

Surgery is performed under general anaesthesia. We currently offer two surgical options:

Laser:

A state of the art Micropulse™ diode laser is used to destroy some of the fluid producing cells inside the eye. In effect, we are turning the tap down inside the eye. This is a non-invasive treatment - the laser is shone inside the eye but there is no direct cutting of the eye.



Shunt:

A drainage tube is surgically placed inside the eye that allows fluid to drain out of the eye. This involves us making a small incision into the eye. The shunt, which can be seen as a tube inside the eye (as below) drains into a larger pocket under the conjunctiva, which is hidden under the upper lid.



What are the risks of glaucoma surgery?

- Risks with anaesthesia
- Permanent blindness
- Inability to control the pressure inside the eye
- Bleeding into the eye
- Inflammation inside the eye
- Infection
- Laser burns
- Dry eye
- Corneal ulcers
- Shunt rejection or failure

What are the chances of success of glaucoma surgery?

Glaucoma surgery is relatively new in our profession and so the reported success rates are variable. In the most recent papers with the surgical techniques we use the following success rates have been reported.

Micropulse laser

- Often repeat laser procedures are required and the outcomes reported here include multiple procedures.
- Control of pressure one year after surgery = 42%
- Vision maintained one year after surgery = 50%

Baerveldt shunt

- Control of pressure one year after surgery = 70%
- Vision maintained one year after surgery = 60%
- However, 1 out of 3 of dogs had to have their eyes removed in the first 8 months following surgery either due to uncontrollable pressure inside the eye or complications such as infection.

