

(The term 'glaucoma' refers to a characteristic pattern of damage to the optic nerve)

Background:

Glaucoma Drainage surgery aims to create a channel for the aqueous fluid to drain out from the front part of the eye, to better control the eye pressure.

Keeping the eye pressure in the lower end of the normal range is the best way to preserve the remaining vision in an eye with advanced glaucoma. A further advantage is that eyes with successful glaucoma surgery often have a more consistent level of pressure without fluctuations as compared to eyes that are on drops for glaucoma.

In eyes that have had a Trabeculectomy operation there is a raised 'bleb' or bubble - situated just on top of the eye under the eyelid – this is where the eye fluid drains into. The problem is that over time the body tends to heal over and close this channel; then the eye pressure can go up.

Why might I need a trabeculectomy bleb needling or revision?

- Where the eye pressure is not low enough to prevent further deterioration of glaucoma, and the eye has had a previous trabeculectomy operation
- Where excessive scarring or 'encapsulation' of the bleb by scar tissue is evident

What is involved?

- Needle revisions can be performed either in the clinic or in the operating theatre under an operating microscope, usually under local anaesthetic, and usually as a day procedure
- The surgeon will attempt to break the scar tissue and open up the pathway where fluid drains out of the eye. Anti-scarring medication is also used to prevent further scarring and to keep this drainage channel open
- There is a period of after-care as with the initial trabeculectomy, during which postoperative drops are used and a number of follow-up appointments are required to ensure the channel stays open and the bleb continues to function

What are the benefits?

- A lower eye pressure with less fluctuations and possibly without the need for further glaucoma medications (or at least a decrease in the number of drops)

What are the risks?

- As with any surgery in the eye there is a small risk of infection, bleeding and inflammation. Eyes with a bleb have a life-long risk of getting potential infection
- In eyes with advanced glaucoma, any surgical manipulation can result in reduced vision. This may be temporary, but occasionally be permanent
- The bleb can scar over again resulting in elevated eye pressures, and further bleb needling or other glaucoma operation may be required
- The eye pressure can occasionally go too low following surgery, and this may require further surgery

What is the chance of success?

- Compared to repeat glaucoma surgery, bleb needling or revision is successful in roughly 50% of cases
- If successful this surgery can result in better control of glaucoma, and often without the need for glaucoma medications
- Other times it is not possible to restore drainage through the bleb, in which case continued medical therapy or, alternatively, repeat glaucoma surgery (either a new trabeculectomy or glaucoma shunt device) are the main options

Important Points to bear in mind:

- Bleb needling is a relatively quick, safe and minimally invasive technique as compared to repeat glaucoma surgery, and this is a major advantage
- While there is some risk with any glaucoma surgery it should be remembered that there are also risks associated with **not** having surgery in cases where glaucoma is poorly controlled
- Once vision is lost from glaucoma it cannot be regained. Often surgery is the only way to preserve vision in cases with advanced or poorly controlled glaucoma

Most people with glaucoma do not require surgery. In a small percentage of patients who have advanced glaucoma which cannot be controlled with medications or laser, surgery is the best way to keep their vision and the closest thing we currently have to a cure.

Please note this information is provided as a general guide, and it is important to discuss any questions you have about the procedure including the risks and benefits, as well as how it may affect you and its after-care with your eye specialist.

Our Mission: To eliminate glaucoma blindness

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