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Refractive Lens Surgery

Patient Information leaflet and Consent Form

The intended benefits of the operation

The main aim of refractive lens surgery is to reduce your requirement for spectacles or contact lenses. However, you should be aware that, even with the most modern pre-operative measuring and surgical techniques, it is only possible to completely remove the requirement for distance spectacles in approximately 90% of people. The ultrasound (phacoemulsification) method of lens removal is the gold standard for refractive lens surgery and has been demonstrated in several recent scientific publications to be safer than the laser method.

Pre-operative and discharge information for patients

Upon arrival in the hospital, the Day Case Unit staff will place dilating drops or a pellet just inside your lower lid. The drops will make your vision blurred but this enables Mr Tanner to have a good view of your lens during the surgery. When you come to the Theatre, a local anaesthetic will be administered to make the operation painless. Some patients have anaesthetic drops (topical anaesthesia) and some will have an injection around the eye (sub-tenons anaesthetic).

Although you may see light and movement during your operation, you will not be able to see the surgery, and do not have to worry about keeping your eye open or closed. The other eye will be covered up. The skin around your eye will be cleaned, and sterile coverings will be placed around your head. The operation usually takes about twenty minutes, sometimes a little longer. General Anaesthesia is also available for patients who are particularly nervous or unable to lie still.

The lens is removed using ultrasound energy. Mr Tanner has introduced new techniques to allow the surgery to take place through an incision of only approximately 2mm in length. This micro-incision technique is not only safer during the procedure but also helps ensure a rapid, pain free recovery in most cases.

Immediately after surgery

When the operation is complete, a clear plastic shield, and sometimes a pad, will be placed over your eye. This is to protect your eye for 2-3 hours while most of the anaesthetic wears off, you do not have to wear it longer than that. However, some patients like the reassurance of covering the eye with a shield for a few days and nights post-operatively. The local anaesthetic takes up to 24 hours to fully wear off. You may notice at first that your eyelid is droopy or even closed – this is normal, and usually recovers within a few days. Temporary double vision during this “waking up” process is also very common.

After a short stay back on the Day Case Unit you will be ready to leave. You should plan to have someone drive you home or take a taxi.

*Micro-incision
Cataract
Surgery*

*Vitreo-Retinal
Surgery*

*Diabetic
Retinopathy*

Glaucoma

General Ophthalmology

*Age-Related
Macular Degeneration*

The days after surgery

The following day, you will have some vision, although usually quite blurry to start with. This should improve within 24-48 hours. It is normal for the eye to feel inflamed, gritty, and watery after surgery. You should aim to have a restful couple of days. You can drive when you feel comfortable and confident, and when you are able to read a car number plate at 20 metres (about three car lengths).

You can bend down to pick things up, and after 24 hours you may wash your hair, obviously being careful not to get any shampoo in your eye. Please avoid mascara for the first week, or any other products that may cause pressure on the eye. After the first week, you may apply products around the eye carefully.

You will normally be seen for a follow up appointment 1-3 weeks after your operation and second eye surgery discussed if appropriate. Usually, 4-5 weeks after surgery, you are asked to visit your Optometrist for spectacle testing and dispensing if required. The delay is so the eye can settle fully, and to allow time for subtle changes in corneal shape (and therefore spectacle requirement) to occur.

The main need will usually be for reading glasses. A small distance correction (perhaps for driving) is sometimes necessary and some people like to have intermediate spectacles for computer use. While waiting to see your Optician you may find it helpful to try a pair of "off the shelf" readers.

Following surgery you will need to:

- Use the eye drops as prescribed and be careful not to rub or press on your eye
- Use over-the-counter pain medicine if necessary – occasional paracetamol is usually sufficient
- Avoid jogging, golf, swimming and high impact exercise for one week.
- Continue normal daily activities and light exercise
- Report any significant pain or deterioration of vision

What if I have a problem?

If you experience significant eye pain or loss of vision:

Please contact Mr Tanner's team on 0800 644 0700 or 0800 644 0900

Out of hours, please contact the Hospital where you had surgery and they will contact Mr Tanner or his team.

Main Hospital Switchboards are:

Princess Margaret Hospital, Windsor - 01753 743434

Spire Dunedin Hospital, Reading - 01189 587676

Circle Hospital, Reading - 0118 922 6888

Eye Casualty at Royal Berkshire Hospital, Reading - 0118 322 8855

There is a 24 hour ophthalmology emergency service at the Royal Berkshire hospital which can be accessed via your General Practitioner or the Main Accident and Emergency Department at The Royal Berks.

Additional Information - Premium Intraocular Lenses

In some cases Mr Tanner will discuss your suitability for a premium intraocular lens rather than the standard distance monofocal lens. The premium lenses fall into two main categories - toric intraocular lenses and multifocal intraocular lenses. The aim of these lenses is to further reduce spectacle requirement, However, you should be aware that is not achieved in every case and it would be unrealistic to expect to never wear glasses again for any activity after surgery

Toric Intraocular Lenses

These lenses are designed to decrease astigmatism in the eye and compensate for an irregular or rugby ball/oval shaped cornea. Use of the toric intraocular lens usually improves your visual quality and Mr Tanner generally recommends the lens in anybody with more than 1 dioptre of astigmatism. Toric lenses decrease your spectacle requirement for distance and help with the quality of vision achievable through varifocal or reading glasses. As with any lenses it is possible that the measurements and assumptions made with regard to the shape of your eye leave a residual refractive error which still has to be corrected with spectacles. In approximately 5% of cases, further surgery may be required to reposition the lens implant and achieve best results in those patients particularly motivated to decrease spectacle use. Further surgery to reposition the lens would usually be covered by the self-pay package. Additional laser refractive top-up surgery is requested by 5% of people and carries a separate charge of approximately £2,000.

Multifocal Lenses

Multifocal lenses are designed to reduce requirement for glasses for intermediate and/or near work. They come in various styles and the technology is evolving continuously. All multifocal-style lenses work by splitting light energy into a distance and intermediate or near focus point. These lenses have the advantage of decreasing but not entirely eliminating your need for intermediate/near glasses. The downside is that all of the designs carry a risk of glare and halo around bright lights at night, which can be troublesome when driving. Up to 20% of people find the glare and other phenomenon irritating either during night driving or other activities dependent on exact lens design. However, over 90% of people are still happy with this type of lens and accept the risk of side effects in return for decreased dependence on glasses. Some people also feel that the quality of vision obtained through a multifocal lens is not quite as clear as with a standard monofocal lens. Multifocal lenses work best when inserted in both eyes but I will make a decision on the second eye lens type, once the outcome of the first eye is known.

I currently recommend the Symphony extended depth of focus lens in most cases. This distance and intermediate focus lens offers a good opportunity to reduce spectacle use for most activities while avoiding the side effects associated with stronger/near multifocal lenses. Glasses will still be needed for very close work.

Again variations in intraocular lens calculation and measurement mean that some residual refractive error and glasses requirement may be necessary in certain cases. Approximately 5 % of patients, who are very motivated to become spectacle free, may elect to have additional laser refractive surgery on the cornea to fine-tune the final spectacle prescription. This type of secondary enhancement is not covered by any of the standard self-pay packages. If secondary refractive enhancement is required, you can anticipate that it will cost approximately £2,500. In a few people, (approximately 1%) side effects of the multifocal lens are sufficiently troublesome for patients to request replacement with a single focus lens which is usually covered by the self-pay package.

Of course lens replacement surgery using any type of intra-ocular lens can potentially result in complications. One of the commoner complications includes capsular bag rupture. The more advanced premium intra-ocular lenses are all designed to sit within the capsular bag. Should you be unfortunate and develop a capsular bag complication during the procedure, then it will not be possible to insert a premium intraocular lens. In this scenario Mr Tanner would usually insert a standard distance dominant monofocal lens, aiming to give you good distance vision but accepting that premium lens implantation was not possible in your case. I do hope you find the above information helpful in addition to the other information you have received prior to your surgery.

If you have any further questions please do not hesitate to contact me or my team.

Serious or frequently occurring risks during the operation

It is possible for a lens operation to leave your vision worse than it is now. One person in every 1000 will go blind in that eye as a direct result of the operation. One in 10,000 will lose the eye. Details on some of the most common complications are given below.

Bruising of eye or eyelids (quite common).

Eyelid drooping – common and temporary, rarely needs further surgery.

Posterior capsule rupture and / or vitreous loss - a split in the thin back wall of the lens, which can allow communication between front and back compartments of the eye. 1:100

Dropped nucleus - part or all of the lens falls through a posterior capsule rupture into the back part of the eye, needing another operation to remove it.

Suprachoroidal haemorrhage - bleeding inside the eye.

Post-operative raised intraocular pressure - raised pressure in the eye for the first day or so in the eye (common).

Cystoid macular oedema - inflammatory fluid in the centre of the retina.

Allergy - to drops given after the operation, causing an itchy swollen eye.

Corneal decompensation - clouding of the clear front window of the eye – may require corneal graft.

Detached retina – may require additional retinal surgery.

Endophthalmitis - severe (usually painful) infection inside the eye. 1:1000

Sympathetic endophthalmitis - a very rare condition in which surgery in one eye triggers inflammation and sight problems in the other (1:10,000)

Lens edge effect - some patients notice the edge of the intraocular lens when the pupil is dilated at night. The semi-circular line in the far peripheral vision usually fades with time and no action is required.

Refractive surprise – unexpected need for glasses. Occasionally glasses are not sufficient to correct refractive surprise and further surgery may be required.

Lens removal/exchange – due to side effects from multifocal lens, problems with glasses or very rarely a problem with the lens implant itself.

Dislocation of the implant – movement out of position of the lens implant.

Posterior capsular opacification - clouding of the membrane behind implant causing blurred vision. Common

This may require a YAG Laser Capsulotomy to clear the visual axis, a simple outpatient procedure.

Commoner if young, highly short-sighted or having multifocal lens inserted. Insurance companies understand that capsular thickening is frequently treated by laser after cataract surgery and will usually cover the cost of this procedure. Those on a self-pay package should be aware that the procedure is separate to their lens procedure and does not fall within the self-pay package offered by the Private hospitals. The self-pay cost of a YAG laser Capsulotomy is approx. £1000.

Although the above list may seem daunting, serious sight threatening complications are rare and in most cases can be treated effectively.

In a small proportion of cases, a further operation may be required.

Please read this form carefully.

If you have any further questions, please ask - we are here to help you. You have the right to change your mind at any time, even after you have signed the form. Any procedure in addition to those described on this form will only be carried out if it is necessary to save life, or to prevent serious harm to your health or sight.

I have been told about additional procedures above which may become necessary during my operation. I accept there are other potential complications and have listed below any further questions or procedures which I do not wish to be carried out without further discussion.

PATIENT CONSENT

Patient details

The above explanation has been read by/to me. The nature of my eye condition has been explained to me and the proposed treatment has been described. The risks, benefits, alternatives, and limitations of the treatment have been discussed with me. All my questions have been answered.

I hereby authorise Mr Tanner to carry out: **left** **right** **bilateral** **lens replacement surgery**

Inserting a: Monofocal lens Toric lens Multifocal lens Toric Multifocal lens

Using the following anaesthesia

Topical Subtenons General

Patient's Signature.....Date.....

Confirmation of consent

I have confirmed with the patient that he or she has no further questions and wishes the procedure to go ahead.

Mr Vaughan TannerDate

RIGHT LEFT LENS REPLACEMENT SURGERY

ANAESTHETIC : GA Sub-Tenon Topical

90° marked superior and inferior in anaesthetic room

INCISION : Superior Temporal

KERATOME : 1.8mm 2.2mm

Biolon Provisc Healon Healon GV Viscoat
Vision Blue I.C P.E.

RHEXIS : Central/circular other

PHACO : Divide/Conquer Chop

Incision enlarged slightly

IOL : BAG SULCUS AC

Miochol

Wound Closure: Hydration Nylon

I.C CEF

Iopidine 1% Oftaquix

Shield Pad

Complications/Comments: