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Consultant Ophthalmic Surgeons
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Micro-Incision Cataract Surgery

Patient Information leaflet and Consent Form

The intended benefits of the operation

The main aim of the cataract operation is to improve the quality of your vision. It may also be of benefit to improve the view of the back of your eye. Mr Tanner will try to reduce your dependence on spectacles as much as possible, but you may still require distance glasses for best vision, and you will probably need reading glasses dependent on the type of intraocular lens you choose. It is usually the case that your glasses prescription will change after the operation. You should be aware that, even with the most modern pre-operative measuring and surgical techniques, it is only possible to remove the requirement for distance spectacles altogether in up to 90% of people.

The ultrasound (phacoemulsification) method of cataract removal remains the most widely used and safest technique.

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 cataract 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 cataract is removed using ultrasound energy. Mr Tanner uses the latest 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 just to protect your eye for 4 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 the first 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 quickly. Temporary double vision during this “waking up” process is also very common, particularly with the sub-tenons anaesthetic.

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.

The days after surgery

The following day, you should have some vision, although usually quite blurry to start with. This should improve within 24-48 hours. It is normal for the eye to be a little 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), usually less than one week.

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 have a follow up appointment (virtual, telephone or face to face) 1-4 weeks after your operation and second eye surgery discussed if appropriate. After one month, when you have finished your drops, an optician visit will be needed for spectacle testing and dispensing. The delay is so the eye can settle fully, and to allow time for subtle changes in corneal shape (and spectacle requirement) to stabilise. 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. Whilst 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 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 5111

There is also 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.

Covid virus

There is of course a risk associated with any hospital attendance of possibly catching Covid 19 virus. The hospital and Mr Tanner's team take many precautions to reduce this risk, but it will never be eliminated entirely. The private hospitals used do not treat Covid positive patients. If you were unfortunate enough to catch Covid in the perioperative period, then this may affect your recovery from surgery particularly with possible difficulty accessing urgent care.

Additional Information - Premium Intraocular Lenses – FOR PRIVATE PATIENTS ONLY

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/Extended depth of focus intraocular lenses. The aim of these lenses is to 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 significant 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 calculations may leave a residual refractive error which you still have to correct 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. A few patients (less than 1%) may be so motivated to remove all need for distance glasses that they elect to have “top up laser surgery”. This would not be covered by the insurance or self-pay packages.

Extended depth of Focus (EDoF) Lens Implants

The side effects are much lower with the newer extended depth of focus lenses. Over 98% of people are very happy with this type of lens and accept the need for reading glasses for very small print whilst avoiding most of the side effects associated with stronger multifocal implants. I currently recommend the Alcon Vivity extended depth of focus lens, or Rayner EMV lenses, in most cases. These distance and intermediate focus lenses offer a good opportunity to reduce spectacle use for most activities while avoiding the side effects associated with stronger multifocal lenses. Glasses will still be needed for very close work. Some people prefer “micro mono vision” with usually the second eye being corrected to slight short sight, to help with reading.

Again, variations in intraocular lens calculation and measurement mean that some residual refractive error and glasses requirement may be necessary in certain cases. Approximately 1% 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 or insurance packages.

Of course, cataract surgery using any type of intra-ocular lens can potentially result in complications. One of the commoner complications includes capsular bag rupture as described on the next page. 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 for additional information.

Multifocal Lens Implants

Multifocal lenses are designed to reduce requirement for glasses for distance, intermediate and near work. They come in various styles and the technology is evolving continuously. All multifocal-style lenses work by splitting light energy from sharing light energy from different distances into one focus point. These lenses have the advantage of significantly decreasing your need for distance, intermediate and near glasses. The downside is that all the implants carry a risk of glare and halo around bright lights at night, which can be troublesome when driving. Up to 20% of people with full multifocal implants find the glare and other phenomenon irritating during night driving or other activities. 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. 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

Serious or frequently occurring risks during the operation

If you decide against a cataract operation, your vision will probably slowly worsen. However, it is possible for a cataract operation to leave your vision worse than it is now.

One in 100 people (1%) will have worse vision (higher in some patients with pre-existing conditions)

One in 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 or significant complications are given below

Temporary bruising of eye or eyelids - common.

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

Dry eye with surface irritation requiring long term lubricating drops - common

Posterior capsule rupture and / or vitreous loss – 1% - a split in the thin back wall of the cataract, possibly needing stitches, another operation and a risk of longer-term problems.

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

Suprachoroidal haemorrhage - bleeding inside the eye, which may damage vision - very rare

Post-operative raised intraocular pressure - raised pressure in the eye for the first few weeks, common and usually easily treated with drops.

Cystoid macular oedema - inflammatory fluid in the centre of the retina, needing prolonged drops and possibly damaging vision. Less than 1%

Allergy - to drops given after the operation, causing an itchy swollen eye. Drops usually changed to preservative free - common

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

Detached retina – requiring additional retinal surgery – very rare

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

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 - patients notice the edge of the intraocular lens, often 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 - common

Refractive surprise – unexpected need for glasses - 5%. Occasionally glasses are not sufficient to correct refractive surprise, and further surgery may be required.

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

Dislocation of the implant – movement out of position of the lens implant – very rare

Unusual reaction to drugs used in surgery or for anaesthesia resulting in damage to the eye or severe allergic reaction in rest of body - rare

Double vision - exposure of existing tendency to squint or muscle damage from sub-tenons anaesthetic solution - rare

Posterior capsular opacification – common

Clouding of the membrane behind implant causing blurred vision. 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/ EDoF 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 cataract procedure and does not fall within the self-pay package offered by the Private hospitals. The self-pay cost of a YAG laser Capsulotomy, if required is approx. £1000.

RIGHT LEFT CATARACT SURGERY

ANAESTHETIC : GA Sub-Tenon Topical
.....ml 2% Lignocaine) (Proxymetacaine then oxybuprocaine)

90°, 0 and 180 marked in anaesthetic room

INCISION : Superior Temporal on axis

KERATOME : 2.2mm

Biolon Provisc Healon Viscoat Healon 5 Hypromellose
M Ring Vision Blue I.C P.E. I.C.Mydrane

RHEXIS : Central/circular other

PHACO : Divide/Conquer Chop

Incision enlarged slightly

IOL : BAG SULCUS AC

Miochol

Wound Closure: Hydration 10/0 Nylon x

I.C CEF

Iopidine 1% Oftaquix

Shield Pad

Complications/Comments: