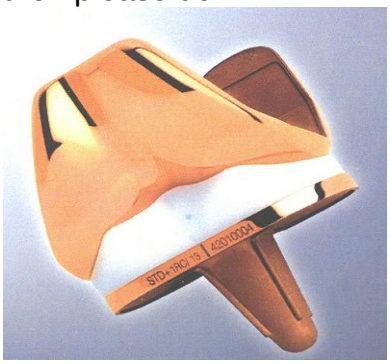
TOTAL KNEE REPLACEMENT (TKR)

PATIENT INFORMATION

The following information is to help you understand what is going to happen when you have a TKR. It is only a guide and some aspects will vary according to the individual. Should there be anything that is not clear or you wish to discuss anything in more detail with me, then please do.



Pre-operatively

The decision to undergo a TKR would have been made based on symptoms such as pain, stiffness, deformity, swelling, instability or a combination of these. These are all features of degeneration or osteoarthritis. The aim of the surgery is to diminish, if not, eliminate the above symptoms.

Pre-operative investigations

In patients over the age of 60 or in patients with chronic medical problems, some routine tests will be performed prior to admission. Usually a visit to a Specialist Physician would be arranged and the following investigations would be carried out:

- Chest XR – this tells us about the state of the heart and lungs
- ECG – the tracing of the heart tells us about the heart rhythm and function
- Blood tests – tells us about the kidney function, and the thickness of the blood, amongst other things
- A Pre-operative Staph Aureus swab will be taken by Dr Bayes in the rooms.

Admission

Usually this takes place the night before the operation. The nurses will take a medical history from you and carry out the routine preparation on admission. If necessary the knee area will be shaved.

All usual medications should be taken prior to the surgery unless you have specifically been advised otherwise. You should be starved from the previous night at 12pm. A small sip of water will be acceptable to take your usual medications.

NB If you have any XRays/scans, please bring them with you.

Day before surgery

To reduce the risk of infection you will take a bath/shower (including washing of hair) with Hibiscrub obtained from a pharmacy. It contains chlorhexidine which is the recommended guidelines for reducing the risk of peri-prosthetic infections.

On the day of surgery

- You will be seen briefly by the anaesthetist and me, where last minute questions can be answered. Your leg will be marked and consent will be taken for the operation
- The anaesthetic procedure will be discussed. Any anaesthetic concerns can be discussed at this point
- Usually a “spinal” anaesthetic will be administered, involving an injection in the spine to numb the whole of both lower limbs
- You will be taken to theatre soon afterwards, where the anaesthetic will be administered.

During the operation

- Routine antibiotics will be given to you, and three more doses post-operatively, eight hours apart.
- The operation takes between 1 – 2 hours.

Post-operatively

- You will spend about 20min in the recovery area quite soon after the operation. You will then be moved to the high care unit, where you will spend the night.
- There will be a white stocking and an ice pad on the operated leg and there may be 2 drains exiting the top of the stocking.

Some general points :

- The white TED stockings play a role in preventing DVT or deep vein thrombosis (clots in the leg veins). They also reduce swelling by compressing the knee. You will be asked to continue to wear both stockings for 2 weeks and then the one on the operated leg for another 4 weeks.
- Blood thinning tablets will be given to you once a day, while in hospital. They thin out the blood to also prevent DVT. This will need to be continued post-operatively at home for about 10 days.

Day 1 -7

- Mobilisation will begin on day one or two. It will start with bed to chair transferring, then walking with a Zimmer frame. You will transfer to crutches by day 2-4.
- You will be asked to keep your leg up as much as possible to reduce swelling, except when specifically doing your exercises.
- The “polar-care” (icing) will be applied to the knee most of the time, to also reduce swelling.
- Pain control is usually achieved with strong medication (morphine/pethidine) over the first 24-48 hours. Tablets can usually manage to control the pain thereafter. There is some individual variation though.

Discharge (usually between 5 - 8 days)

The following should have been achieved prior to your discharge:

- Adequate pain control
- Mobility should be such that you are independent on crutches
- There should be no problems with the wound, like bleeding or infection. This will be assessed prior to your discharge
- You will be given a pamphlet by the hospital staff explaining what to do with the dressings. It will also contain some general information and advice as well as the contact details for the clinic and me in case you have any problems
- You will be asked to make an appointment with me for +/-2 weeks post-op
- Physiotherapy should be arranged within the first week post discharge. Usually your physiotherapist decides how often you need to attend but please remember that a lot

depends on you. You will be shown enough exercises and things to do to keep you busy with your program of “self help physiotherapy” at home.

Expectations

- Between 6 weeks to 3 months, you should be off the crutches, and walking reasonably normally
- You should be able to straighten your knee properly within a few weeks, and your knee bending (flexion) should reach its maximum by about 6weeks to 3months. Remember if you had more than about 130deg of bending ability prior to the operation you may lose some of this ability due to the scarring caused by the surgery and the mechanical restrictions of the prosthesis. The usual amount of bend that most patients achieve is about 90-130deg.
- You can expect to have a swollen and warm knee for up to 6 months, or sometimes even 1 year post-operatively. This is due to ongoing inflammation in the knee which takes a long time to subside.
- You may feel or even hear the occasional click coming from the knee during certain movements. This is caused by the prosthetic components knocking against each other and is quite normal unless your knee becomes very loose and unstable.
- While most severe pre-operative symptoms are much improved, some patients may still be aware of the occasional ache/pain that limits certain activities and that may require occasional painkillers.
- Improvement can be expected up to about 1 year, after which things usually reach a plateau.
- Non-impact gym activities can usually be commenced at about 6 weeks. These include cycling, swimming and some muscle toning exercises.
- Golf activities can usually be resumed by about 4 months, commencing with the use of a buggy initially, then over the next few months to full golf activity.
- You should be able to walk for about 1 km comfortably after about 3 months.
- I would not recommend any impact, contact or twisting and turning sports, as they will loosen the TKR prematurely.

Remember

Any prolonged activity will flare the knee up. Should this happen, then elevate and ice the knee and keep the leg up. If you are worried please contact me.

Results

- The average TKR lasts between 10-15yrs
- It can be revised, even more than once, but the results are not as good as after a first time TKR.
- The cause of failure is usually loosening of the prosthesis which occurs over time.
- Other causes of failure are:
    - Infection (this may cause early failure)
    - Fractures (uncommon and due to trauma)
    - Breakages of metal or plastic (rare)
    - Mal-alignment of the prosthesis. This is usually surgical error, but it can occur spontaneously with time.
    - Instability, where the soft tissues surrounding the knee are lax and the knee feels unstable.
    - On-going pain, and general dissatisfaction with the knee(s) can also be a problem in the occasional patient, where no particular cause can be found.

I also advise patients that the alignment of their knee(s) may be altered due to the “filling in” of the joint space, with prostheses. This may take some time getting used to, but patients usually end up with the physiological or normal alignment, and most patients get used to this.
Some patients with osteoarthritis maintain a good range of movement (bend) in their knees, and in these patients it is possible to lose some bend in the knee, compared to before the operation.
You will probably never be able to sit on your haunches again, but you will have a very good range of movement, to enable you to carry out most daily activities

Prior to any dental work in future, antibiotics should be given – please discuss this with your dentist

IT IS ADVISABLE NOT TO UNDERTAKE ANY LONG HAUL AIR TRAVEL FOR 6 WEEKS POST SURGERY (SHORT HAUL – 4 WEEKS). THERE IS A RISK OF DVT (DEEP VEIN THROMBOSIS – CLOTS IN THE VEINS OF THE LEG). PLEASE DISCUSS THESE ISSUES WITH ME IF YOU INTEND TO TRAVEL.

If air travel is essential, then certain precautions are necessary:

1. You may be given “blood thinning” injections around the time of your flights – we will discuss this.
2. The most important factor that causes DVT is immobility – This results in inadequate venous blood flow to the heart, resulting in possible clots forming in the calf veins. The following may help to enhance the blood flow to the heart
3. During the flights I recommend TED stockings – these are compressive medical stockings, which may empty out the deep veins in the calf, resulting in less clot formation
4. It is recommended that you do calf pumping exercises during the flight, as often as possible.
5. It is also recommended that you get up and stretch, as well as walk up and down the isle of the aircraft as often as possible.
6. Limit alcohol intake and drink a lot of water. Dehydration plays a role also

Please make contact with me on dr.gh.bayes@gmail.com or on 082 887 7457 should you have any further enquiries.

Graham Bayes