PARTIAL KNEE REPLACEMENT

Knee Clinic
SPIKE ERASMUS

WHAT IS A PARTIAL KNEE REPLACEMENT?

Your knee consists of three compartments:

1. Patello Femoral compartment – this is the articulation between the back of your kneecap (patella) and the front of your upper leg (femur)
2. Medial compartment – the articulation on the inner half of the knee between the upper leg (femur) and the lower leg (tibia)
3. Lateral compartment – the articulation on the outer half of the knee between the upper leg (femur) and the lower leg (tibia)

Only one of the three compartments in your knee is worn, the other two are still in good shape.
With a partial knee replacement we will only replace the worn surfaces on the affected compartment of that knee, the other two compartments will be left as they are still normal.

We believe that partial knee replacements are especially suited to younger patients where it should be seen as an intermediate solution that may later be changed to a total knee replacement.
It is also indicated in older patients (older than 75 years) where the damage is restricted to only one compartment.

ADVANTAGES

* Smaller procedure
* Might functionally be a bit better than a total knee replacement although this is debatable
* Can quite easily be converted to a total knee replacement if required

DISADVANTAGES

* The non-replaced compartments might over time deteriorate and it may then be necessary to revise it into a total knee replacement
* The life expectancy of a partial replacement is shorter than that of a total replacement.

The reasons for this is the progressive degeneration in the un-replaced compartments of the knee. The life expectancy of a partial replacement is about 10-15 years compared to 20-25 years of a total replacement. It is however much easier to redo a partial than a total knee replacement.

POSSIBLE COMPLICATIONS

Like with all surgical procedures there is a possibility of complications with partial knee replacement surgery. In our practice, spanning a period over 30 years with more than 1,000 partial replacements, the incidence of complications is five in a thousand (0,5%). We are specifically concerned about infections (0,2%), restricted range of motion (0.05%), bearing dislocation (0,3%) and systemic complication (0,05%).

THE PROSTHESIS

Two types of partial prosthesis are used either in a fixed bearing or mobile bearing. On the inner half of the knee we usually use a mobile bearing and on the outside and in the patello femoral joint a fixed bearing.

PRE-OPERATIVE

To reduce the possibility of complications we ask the pathologist to do the following examinations two weeks pre-operative - full blood count, urea and electrolytes, urine examination and a nose swab.
You should report any septic lesions like ingrown toenails, tooth abscess etc. to us as they may need treatment before we can do a knee replacement.
If indicated we might ask the anaesthetist to evaluate you two weeks or more pre-operatively and if necessary he might refer you to a specialist physician or cardiologist.

MEDICATION

We would like you to stop the use of anti-inflammatory drugs (Celebrex, Voltaren, Brufen, etc.) at least 3 days preoperative as their use increases the risk of bleeding. Platelet inhibitors like Disprin, Plavix etc should be stopped 10 days before surgery. However in some cases it might be necessary that you continue with these medications notwithstanding the surgery and in that case you should contact us before stopping the medication.

If you are on Warfarin it should be stopped 4 days before surgery and replaced with other medication like heparin (Clexane, Fraxiparine)

Women should stop hormone therapy at least 3 day preoperatively and resume use at least 2 weeks after surgery.

With the rest of your medication you should carry on as usual.

If you take a regular drink it is important that you carry on as before in both frequency and volume, it will accelerate your recovery and decrease the use of sedative medicine. The hospital does not provide drinks, please bring your own supply.

THE OPERATION

Normally you would be admitted to hospital the afternoon prior to the surgery. This allows us time to do special X-rays to preoperatively plan the surgery, give the anaesthetist adequate time to properly evaluate you and all on time for skin preparation. The surgery is usually performed under local anaesthetic, if you wish you can be totally awake, most patients prefer to have sedation which make them unaware of the theatre and the surgery. This type of anaesthetic decreases the possibility of infection and blood clots, and on top of that the patient feels much better than after general anaesthetic.

Before we start the surgery we will look into your knee with a telescope (arthroscopy) to inspect the whole knee, should we find that the other compartments are also worn we might decide to rather do a total than a partial knee replacement.

We use the most sophisticated and newest method in knee replacement surgery called kinematic replacement. With the aid of a proper clinical examination, special preoperative X-rays, preoperative planning and a very specific surgical technique we are able to implant the knee according to your specific knee ligaments and natural alignment. This technique allows for faster rehabilitation and a better long term functional outcome. This is in contrast to results that have been obtained with so called patient specific instrumentation where the planning is outsourced to a third party who has never seen or examined the patient; the result is that the surgeon has very little control over the procedure he is performing. In some complicated cases we make use of computer assisted surgery (CAS). And in some cases, especially with patella femoral (knee cap) replacements we might also use patient specific instrumentation.

After the surgery we will get you out of bed and allow you to walk around the bed taking full weight on the operated leg. The next day we will continue with further mobilization. With a single knee replacement expected hospital stay is 2-3 days and with bilateral replacements 3-4 days.

FIRST FEW WEEKS HOME

On discharge the hospital pharmacy will supply you with the necessary medication; these will be medication to prevent blood clots (Xarelto, Ecotrin), an anti-inflammatory (Arcoxia, Vimovo or similar), analgesics (Tramacet, Synaleve or similar) and a sleeping tablet (Amitriptyline, Stilnox or similar).

From the day of surgery you can walk full weight bearing on the operated leg. In the beginning it is easier to use two crutches or even a walking frame. As soon as you feel comfortable and safe you can go on one crutch and then no support. The period of using crutches differs from patient to patient from one day to four weeks, there is no fixed period and crutches should be used as needed. On discharge you should be self-sufficient; you would be able to dress, take a shower and make a cup of tea. You can drive a car as soon as you feel confident doing so, which on average will take 2-4 weeks.

We will give you an exercise program which you can do at home and in most cases we have found it to be sufficient. However if you do not progress or feel unsure about your knee, please get help from a physiotherapist.

Expect your knee to be warm and swollen for at least 6-12 weeks after the surgery.

LONGTERM

We expect that you will be able to walk well within 4-6 weeks after the surgery. It is important to realise that complete healing is a slow process which will continue for up to 18 months. In the long term we expect that you will become unaware of your knee.

You will probably be aware of some clicking in your knee, this is normal and caused by the metal hitting the hard plastic.

You will have a numb feeling on the outside of the scar, this cannot be prevented but will slowly decrease although a small area might have permanent numbness.

Long haul, international flights should preferably be avoided in the first three months post-surgery; local flights are not a problem. The prosthesis will set off metal detectors at the airport, wear loose fitting clothes allowing you to show the surgery scar to the security personnel.

Should you develop any septic area or a tooth abscess it is important to have it seen to and take the necessary antibiotics. We recommend the following; Cepalexin (Keflex), Cephradine (Cefril), Amoxicillin (Amoxil, Augmentin), – if you are allergic to Penicillin you can use Clindamycin (Dalacin C).

We would suggest that no injection or aspiration is done on your knee except by an orthopaedic surgeon.