

A new Knee Joint: Rejuvenated Life..!

1. Do I need Joint Replacement?

If you are crippled by your knee pain or it is affecting your 'Quality of Life' then you may consider going ahead for joint replacement.

2. Why me?

You are not the only one going through this misery of joint pain. In England alone over 30000 knee replacements are done each year. Another 35000 hip replacements are done as well. The joint replacement is highly successful for most people.

3. Whether it is the right thing at this particular time?

If you are over 60 years of age then yes. If you are much younger then you may want to consider other options to reduce pain like lifestyle change, exercises, losing weight and other surgical alternatives.

4. What are the benefits of 'new knee joint'?

Freedom from pain is the main benefit. You are more mobile too. Following operation you should be able to get out of a chair, walk up & down the slopes and climb stairs without difficulty. Carrying out household jobs, shopping & using public transport all become easier. You can walk up to 7 kms, drive a car & can play golf!

5. What are the disadvantages?

It is 'three quarters normal' as compared to natural knee. Bending up to 100 degrees is usually regained but kneeling could be a problem due to scar in front of the knee. Although sitting cross-legged & squatting is possible it is generally better to avoid. You may be aware of some clicking or clunking in the new knee.

6. What is Knee replacement?

Arthritis damages hard cartilage so that it becomes thin and wears away in places. The bones rub against each other & become deformed. During operation, the surgeon removes the worn ends and replaces them with metal and plastic parts. The new joint is designed to simulate human anatomy. The metal parts are fixed with to the bone with cement (same as used by dentist) and polyethylene insert in between acts like cartilage. The new joint movement is between metal and plastic. That's why it is smooth, painless and lasting. All these materials like metal, ceramic or plastic have been specially developed to medical purpose with good tissue tolerance.

7. What are the surgical alternatives?

A) Arthroscopic washout

Arthroscopy is a method of viewing the inside of a joint through small incisions. (5mm- keyhole surgery) The surgeon clears away debris & smoothen the damaged cartilage. Reduced mechanical friction relieves the pain. Its benefits are limited and unpredictable.

B) Micro-fracture

If there is a cartilage ulcer then multiple drill holes are made into sub-chondral bone to make the channels for good cells to grow new alternative cartilage. The benefits are encouraging especially in early arthritis but not as good as joint replacement in advanced arthritis.

C) Osteotomy

Performed in Younger patients with arthritis. The surgeon cuts the shin bone to create a wedge so as to shift the load through the area away from arthritis. This may allow knee replacement to be postponed by 8 to 10 years but shows poorer benefits in the long term. It can also make the further knee replacement operation more difficult.

D) Unicompartamental Joint replacement

If arthritis affects only one side of your knee then it is possible to have half knee replacement. It is suitable only for about 1 in 4 patients with arthritis. It is less extensive operation and allows quicker recovery. It does offer better mobility for 10 or more years. Quite often Total Knee Replacement is done in later years due to further progression of arthritis in other half of the joint.

8. What are the risks for Total Joint Replacements?

Most of the operations are problem free but complications do arise despite precautions being taken to avoid them. Most of the complications are minor and can be successfully treated. Younger patients will be at lower risk than the elderly.

A) Thrombosis: It means a blood clot in the leg. Usually this causes no problems but 1 person in 20 (5%) will have some pain and swelling. This is treated with blood thinning medicines like heparin or warfarin. In very small number of cases a clot can travel to lungs (Pulmonary Embolism) which can be treated with Oxygen Therapy. In extreme circumstances PE could be fatal.

B) Wound Infection: This can happen in about 1 in 50 (2%) patients. The risk is reduced by Pre-op and Post-op antibiotics. Rarely 1 in 150 (0.6%) patients a deep infection can happen which will require further surgeries.

C) Medical complications: Overall risk of death due to Heart Attack, A stroke or Embolism is about 1 in 200 (0.5%) but it varies between patients.

D) Minor problems: Risk of damage to ligaments is about 2% which can be mended during main operation or treated with brace. Risk of accidental damage to artery

is 1 in 1000 (0.1%). Chance of damage to nerve is about 1%. Very rarely, in about 1 in 5000(0.02%), a compartment syndrome can occur.

9. What happens in the hospital?

Your fitness for surgery is confirmed again and Physicians advice is taken. Anaesthetist will discuss the Spinal, Epidural and Nerve block procedures. The operation usually takes 2 hours depending on complexity of surgery. Following operation you will be in recovery ward. You will find different tubes attached to your hands, knee and for waterworks. You will receive intravenous antibiotics, pain relief medications, injections to thin your blood and knee-high stockings to prevent thrombosis.

10. How about getting mobile again?

On the day of surgery exercises start. The physiotherapist will guide you slowly from next day of operation through sitting, standing, walking and climbing. Initially this is with walking frame and then move on to single stick. Patients progress at different rates.

11. What about going home following operation?

It is possible to go home as soon as your wound is healing well and you are safely walking to & from the toilet, getting dressed and managing stairs. Most people achieve this in between 4 to 7 days. Your physiotherapist and occupational therapist will teach you to take bath, get in & out of bed and exercise schedule at home.

12. What about Follow Up?

Usually at 2 weeks to remove stitches and then at 6 weeks, 3 mths, 6 mths and 1 year. You will have X-ray evaluation at 1 year. Then there is yearly further follow-up.

13. When will I get back to normal?

Obviously it will take more than few weeks to feel the benefits of your new knee. You will also need to take care and follow the instructions.

- **Walking:** Do not twist the knee. Take small steps. 3 weeks after surgery it is possible to walk outside.
- **Going up & down the stairs:** Use handrail for support while holding the stick in free hand. For going up put your non-operated leg up first & for coming down your operated leg first with your stick.
- **Sitting:** Make sure you do not sit with your legs crossed for first 6 weeks.
- **Sleeping:** You can sleep as normally as you do. One should avoid lying with a pillow underneath your knee as this can cause loss of movements.
- **Household jobs:** You will be able to manage light household tasks like cooking, dusting & washing dishes with few weeks of operation but for first 3

months you should avoid heavy duties like changing beds, house cleaning or washing clothes. Try to avoid standing for long periods as this could lead to ankle swelling.

- **Driving:** By 6 weeks you can start driving.

14. How should I look after my knee?

The new knee will continue to recover for up to 2 years as scar tissue heals and muscles are restored by exercise.

- **Stiffness:** Sometimes the knee can become very stiff in the weeks after operation for no obvious reasons. If this happens, speak to your surgeon and physiotherapist at the earliest. If problem does not improve after 6 weeks you may need to come back to hospital to get your knee manipulated under anaesthesia.
- **Pain:** It can take about 4 weeks for pain to reduce following bruising from operation. In some patients unexplained pain can stay for 6 months and then disappear in due course.
- **Infection:** It is especially important to prevent the infection getting into the knee joint. If you experience any sores, ulcers, dental or ear infection one should make sure to get it treated properly as these infections can spread to new knee through blood.
- **Warning signs to watch for:** Watch out for any hot, reddened, hard & painful areas in your leg in first few weeks after your operation. This might suggest blood clot and if so you should notify immediately to your nurse or doctor. If you experience pain in chest or breathlessness you need to rush to your nearest hospital to start urgent Oxygen therapy.

15. What are the likely longer term problems?

A replacement knee joint rarely lasts forever. In time new joint will also wear out and become loose. For most people (90%) the artificial knee lasts about 18 to 20 years and it may well last longer. For half knee replacement 1 in 10 patients need further surgery after 10 years. Younger patients are likely to need repeat knee operation at some point in later life. The likelihood of second operation is increased if you are overweight or involved in heavy manual work.

Repeat knee replacement could be done for second or even third time. This is called Revision Surgery. The repeat operation is more difficult than first and has slight higher risks of complications.