

# Paul D Maitino DO FAOAO Hip Knee Shoulder & sports medicine Oklahoma City OK

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## Revision Knee Replacement

### Introduction

Revision Knee Replacement means that part or all of your previous knee replacement needs to be revised. This operation varies from very minor adjustments to massive operations replacing significant amounts of bone. The typical knee replacement replaces the ends of the femur (thigh bone) and tibia (shin bone) with plastic inserted between them and usually the patella (knee cap).

### Why a knee replacement procedure needs to be revised?

Revision surgery is performed for various reasons such as

- Persisting pain after the surgery
- Wearing of implants or plastic lining
- Instability
- Loosening of either the femoral, tibial or patella component
- Surgical site infections
- Osteolysis (bone loss)
- Stiffness

### Preparation for surgery

Pre-operative Preparations

- Your surgeon will send you for routine blood tests and any other investigations required prior to your surgery
- You will be asked to undertake a general medical check-up with a physician
- You should have any other medical, surgical or dental problems attended to prior to your surgery
- Cease aspirin, anti-inflammatory medications, naturopathic or herbal medications 10 days prior to surgery
- Stop smoking as long as possible prior to surgery

### Day of Surgery

- You will be admitted to the hospital usually on the day of your surgery and certain tests

may be performed after admission

- You will meet your anesthetist, who will ask you a few questions
- You will be given hospital clothes to change into and have a shower prior to surgery
- The operation site will be shaved and cleaned
- Approximately 30 minutes prior to surgery, you will be transferred to the operating room

## **Surgical Procedure**

Each knee is individual and knee replacements take this into account by having different sizes for your knee. If there is more than the usual amount of bone loss sometimes extra pieces of metal or bone are added.

Surgery is performed under sterile conditions in the operating room under spinal or general anesthesia. You will be on your back and a tourniquet applied to your upper thigh to reduce blood loss. Surgery takes approximately two hours.

The Patient is positioned on the operating table and the leg prepped and draped. A tourniquet is applied to the upper thigh and the leg is prepared for the surgery with a sterilizing solution. An incision around 7cm is made to expose the knee joint and in case of minimally invasive surgery, 2-3 smaller incisions will be made on the knee joint. The bone ends of the femur and tibia are prepared using a burr. Trial components are then inserted to make sure they fit properly. The real components are then put into place with or without cement. The knee is then carefully closed and drains usually inserted, and the knee dressed and bandaged.

## **Post-operation Care**

When you wake, you will be in the recovery room with intravenous drips in your arm, a tube (catheter) in your bladder and a number of other monitors to check your vital observations. You will usually have a button to press for pain medication through a machine called PCA machine (Patient Controlled Analgesia).

Once stable, you will be taken to the ward. The post-operative protocol is surgeon dependant, but in general your drain will come out at 24 hours and you will sit out of bed and start moving you knee and walking on it within a day or two of surgery. The dressing will be reduced usually on the 2nd post-op day to make movement easier. Your rehabilitation and mobilization will be supervised by a physical therapist.

To avoid lung congestion, it is important to breathe deeply and cough up any phlegm you may have.

Your orthopaedic surgeon will use one or more measures to minimize blood clots in your legs, such as inflatable leg coverings, stockings and injections into your abdomen to thin the blood clots or DVT's, which will be discussed in detail in the complications section.

A lot of the long term results of knee replacements depend on how much work you put into it following your operation.

Usually you will be in hospital for 3-5 days and then either go home or to a rehabilitation facility depending on your needs. You will need physical therapy on your knee following surgery.

You will be discharged on a walker or crutches and usually progress to a cane at six weeks.

Your sutures are sometimes dissolvable but if not are removed at approximately 10 days.

Bending your knee is variable, but by 6 weeks it should bend to 90 degrees. The goal is to get 110-115 degrees of movement.

Once the wound is healed, you may shower. You can drive at about 6 weeks, once you have regained control of your leg. You should be walking reasonably comfortably by 6 weeks.

More physical activities, such as sports previously discussed may take 3 months to be able to do comfortably.

When you go home you need to take special precautions around the house to make sure it is safe. You may need rails in your bathroom or to modify your sleeping arrangements especially if they are up a lot of stairs.

You will usually have a 6 week check-up with your surgeon who will assess your progress. You should continue to see your surgeon for the rest of your life to check your knee and take X-rays. This is important as sometimes your knee can feel excellent but there can be a problem only recognized on X-ray.

You are always at risk of infections especially with any dental work or other surgical procedures where germs (Bacteria) can get into the blood stream and find their way to your knee.

If you ever have any unexplained pain, swelling, redness or if you feel unwell you should see your doctor as soon as possible.

## **Risks and Complications**

- As with any major surgery, there are potential risks involved. The decision to proceed with the surgery is made because the advantages of surgery outweigh the potential disadvantages
- It is important that you are informed of these risks before the surgery takes place

Complications can be medical (general) or local complications specific to the Knee

## **Medical complications**

Medical complications include those of the anesthetic and your general well being. Almost any medical condition can occur so this list is not complete. Complications include

- Allergic reactions to medications
- Blood loss requiring transfusion with its low risk of disease transmission
- Heart attacks, strokes, kidney failure, pneumonia, bladder infections
- Complications from nerve blocks such as infection or nerve damage

- Serious medical problems can lead to ongoing health concerns, prolonged hospitalization or rarely death

## **Local complications**

- Infection
- Blood Clots (Deep Venous Thrombosis)
- Fractures or Breaks in the Bone
- Stiffness in the knee
- Wearing of the plastic lining or implants
- Wound Irritation or Breakdown
- Cosmetic Appearance
- Leg length inequality
- Dislocation
- Patella Problems
- Ligament Injuries
- Damage to nerves and Blood Vessels

Discuss your concerns thoroughly with your Orthopaedic Surgeon prior to surgery.

## **Summary**

Surgery is not a pleasant prospect for anyone, but for some people with arthritis, it could mean the difference between leading a normal life or putting up with a debilitating condition. Surgery can be regarded as part of your treatment plan it may help to restore function to your damaged joints as well as relieve pain.

Surgery is only offered once non-operative treatment has failed. It is an important decision to make and ultimately it is an informed decision between you, your surgeon, family and medical practitioner.

Although most people are extremely happy with their new knee, complications can occur and you must be aware of these prior to making a decision. If you are undecided, it is best to wait until you are sure this is the procedure for you.