Patient Information And Rehabilitation Guidelines Following Unicompartmental Knee Replacement

This booklet aims to improve your understanding of unicompartmental knee replacement surgery and the rehabilitation afterwards.

Anatomy

Osteoarthritis can affect any joint in the body but is more common in joints in the lower limb weight-bearing joints, eg hip and knee.



A joint is formed where two bones meet. The ends of the bones, which form the joint, are covered in articular cartilage.

This provides a smooth, slippery and low friction surface that also cushions the joint. Healthy cartilage absorbs stress and allows the bones to glide across each other smoothly.

Osteoarthritis

The word arthritis means joint inflammation. Also known as 'degeneration' or 'wear and tear' arthritis, osteoarthritis is the most common type of arthritis and develops over a long period of time.

It affects the articular cartilage, which can start to wear away. Sometimes this affects one side of the knee joint more than the other.



What is a unicompartmental knee replacement?

Unicompartmental knee surgery is an operation, which replaces half of your knee joint.

If you have osteoarthritis (wear and tear) and it only affects one side of the knee (usually inner side), it may be appropriate to have a unicompartmental knee replacement instead of having a total knee replacement. There are other factors you must also fulfill which will be assessed prior to offering this surgery.

The advantages of having a unicompartmental knee replacement compared with a complete (total) knee replacement is a quicker recovery, lower risks of surgery, less blood loss and preservation of bone and other structures. This is will help delay the affects of arthritis.

Having the operation will reduce your pain and help delay the progression of your arthritis.

Below is the implant Mr McNicholas would use to replace half your joint which is produced by Zimmer.



For further information please visit:

https://www.zimmerbiomet.com/medical-professionals/knee/product/ persona-partial-knee.html#

Alternatives to unicompartmental knee replacement

Alternatives to surgery include:

- Conservative measures, these include painkillers anti-inflammatories, using a walking stick.
- High tibial osteotomy: cutting of the shin bone to change the weight bearing forces on the knee.
- Atlas implantation: the insertion of a shock absorber under the skin but outside the knee joint.
- Total knee replacement. This remains an option but in younger patients it too is likely to wear out and require revision. It also will not let you return to high impact activities.

Complications

Complications do occur. Some are minor and some require further surgery. It is important you understand this before proceeding with surgery. The table below gives you some examples of complications and the rates compared with total knee replacement (TKR).

Complication	Recorded in literature
Anaesthetic risks	Anaesthetist will discuss
Numbness on the outer side of the scar	100%
Infection	1%
Deep vein thrombosis (clot in the calf)	5%
Proximal deep vein thrombosis	0.1-4%
Pulmonary embolism (clot to the lung)	0.1-3%
Damage to artery	0.02-2%
Nerve injury	0.3-2%

Stiffness requiring a manipulation or operation	1.3-12%
Painful knee	1%
Fractures	0.05-2.5%
Ligament damage causing instability	0.02%
Loosening requiring removal of the implant	2% by 10 years
Wound and skin problems	1-5%
Knee arthrodesis (permanent stiffening)	0.001%
Above knee amputation	0.003%
Death	0.06%

Compared with total knee replacement unicompartmental knee replacement the risks have been found to be much lower in terms of blood transfusion, clots in the legs or lung, stroke, heart attack, mortality and shorter stay in hospital.

Pre-operative Assessment

An assessment of your fitness to undergo surgery including a detailed medical history, height, weight, blood pressure and pulse will be performed before surgery. Blood tests and a heart trace (ECG) may also be needed.

The Day of the Operation

You are asked not to drink or eat anything for at least 6 hours before your operation.

You will be seen by Mr McNicholas and your Anaesthetist before your operation.

In the anaesthetic room, you will have a needle put into your arm and will be placed on an anaesthetic machine.

Surgery usually takes around 1 hour.

You will wake-up in the theatre recovery room. On return to the ward you will have the following:

- Dressings wool and crepe bandage on the knee and a splint
- Drips and drains there may be small tubes in the back of your hand. You
 might also have a tube into your bladder (catheter).

 Analgesia – this may be oral medication or patient controlled analgesia (PCA), which looks similar to a drip.

Discharge Instructions

The wound is to be kept dry until healed and the dressing is not to be disturbed unless soiled and a clean one applied.

Regular cryocuff application (10-15mins every 1-2 hours).

You will be given pain relieving medications to take home with you, please take these as prescribed to prevent pain from building up to a level that is hard to control.

Physiotherapy appointment arranged. Expect bruising in the thigh and lower leg.

Remember your scar is highly susceptible to the sun, and use of a higher factor sun block is advised.

General Advice

Return to work will depend greatly on the job that you do (desk-based jobs 2-4 weeks; manual jobs 6-12 weeks; jobs requiring ladders etc. 3-4 months).

Return to driving at 6 weeks for manual geared cars and automatic cars if it is the right leg that has been operated on. If it is the left leg that has been operated on, you may drive an automatic car once the wounds are healed at 2 weeks.

You should notify your insurance company of the procedure that has been undertaken to ensure that your cover is valid. For further information follow this web link: <u>https://www.gov.uk/driving-medical-conditions</u>

Flying is not permitted for 8 weeks following surgery due to a higher risk of developing a blood clot. For further information follow the web link below: http://www.nhs.uk/chq/Pages/2615.aspx?C%20ategoryID=69

Follow-up

You will be seen at 2 weeks, 3, 6, 12 weeks and 3, 6, 9, 12 months, 2, 5, 10 years annually after that.

Rehabilitation (Physiotherapy) Programme

Rehabilitation programme to follow.

VTE (blood clots)

VTE is a collective term for two conditions:

- **DVT** (deep vein thrombosis) this is a blood clot most commonly found in a deep vein that blocks the flow of blood.
- **PE** (pulmonary embolism) a potential fatal complication where a blood clot breaks free and travels to the lungs.

Whilst you are less mobile, especially during the first few weeks following your procedure, the risk of VTE is higher because of your immobility.

Mr McNicholas may prescribe you a daily injection of low molecular weight heparin to help thin your blood and these should last approximately six weeks. If this is needed, you will be shown how to inject this drug yourself.

Symptoms:

- Swelling you will have some swelling due to your surgery but if you have any concerns please call for advice
- Pain any new pain we want to know about
- Calf tenderness
- Heat and redness compared with the other leg
- Shortness of breath
- Chest pain when breathing in

Things you can do to prevent VTE

- Move around as much as possible. Be sensible though, short and regular movement is best
- Drink plenty of water to keep yourself hydrated
- We strongly advise you not to smoke this will have been discussed in pre op but we can also refer you to our smoking cessation team within the Hospital.
- Move your ankle around as much as possible to keep your calf muscle pumping

Small preventative measures can have a huge impact on your recovery.

Ms A Hatcher, Orthopaedic Physiotherapist Specialist Mr Richard Norris, Orthopaedic Physiotherapist Specialist Professor MJ McNicholas, Consultant Orthopaedic Surgeon Miss F Rashid, Orthopaedic Registrar Written by: October 2020

Date last reviewed: