

Partial Knee Replacement



Late to very late stages

What is it?

A surgical procedure to replace a portion of the knee that is the most worn out.

Each of the three knee compartments can be replaced in separate procedures.



LA

GA



Works best in stage 4 & 5



Benefits

Good to very good evidence for performing partial replacements - 96% survival at 5y when patients are correctly selected.

Moderate success and quicker recovery than total knee replacement.



Risks

All risks associated with major operations.

Specific complications for this procedure, such as improper realignment of the implant, dislocation of plastic, damage to surrounding structures by the implant, need for further surgery to treat infection and fractures.



High cost



Painful for 3+ months



Affected 2+ months



Affected for 2+ weeks



No - 3+ months



Affected 2+ months



Affected 2+ months



Affected 3+ months



Affected 2+ months

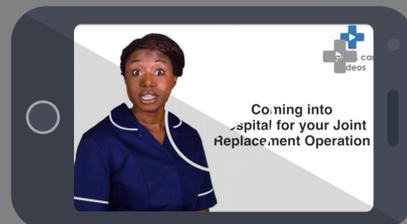


Affected 6+ months



Affected 2+ months

Limitations due to treatment



Video

What does it involve?

Replacing a single compartment between the thigh bone (femur) and shin bone (tibia) is a unicompartmental knee replacement. This can be done on the inside (medial - more common), or on the outside (lateral - more uncommon).

Replacement of the joint between the knee cap (patella) and thigh bone (femur) is called a patella-femoral knee replacement.

The procedure is performed under full anaesthesia and, in some cases, can be done as a day-case operation where the patient may not need to stay in hospital.

Effort/burden

This is usually a one-off procedure to address the pain.

The patient must accept the risks associated with a major operation.

It may take between three and six months to fully recover.

You may not be able to drive a car for up to six weeks.

Benefits

There is good to very good evidence for performing such procedures in a selected group of patients. (96% survival at 5y when patients are correctly selected).

Moderate success is reported for patellofemoral replacement.

Recovery from this operation can be quicker than a full knee replacement.

This is likely to delay the need for a full knee replacement in many patients.

Limitations and side effects

All limitations and side effects after a major operation should be taken into account.

Scar sensitivity may limit some functions for months.

Knee pain may not completely diminish.

Pain might limit what you can do during a day.

Pain may get worse before it gets better. However, medication may help you with this.

There may be side effects from medications - especially pain killers and aesthetics (skin rash, constipation, liver or kidney damage). Please ask your doctor if you would like a full list of these possible side effects.

While you recover from the operation you may need to use physical aids such as crutches, boots or a plaster cast depending on the operation you have.

You will need to take care of the area that was operated on. This may mean using dressings and being careful with the surgical site.

You may need to visit your GP or hospital for follow up checks.

To get the most out of the surgery, you may need to visit a physiotherapist regularly.

These are likely to be affected after the operation:

- Family life
- Sleep
- Intimate relationships
- Leisure activities
- Driving
- Work

Risks

There is a high revision rate to full knee replacement (20% according to NJR data).

Pain, bleeding, swelling, stiffness, superficial infection or inflammation, sensitive scar, change in the appearance of the operated area, numbness, failure of tendon or muscles to heal, incomplete symptom relief, deep infection needing further treatment, puckering of scar, keloid or thick scar, recurrence of problem, urinary tract problems (infection, retention) needing catheter, nerve damage, blood vessels damage, deep vein thrombosis (DVT), pulmonary embolus (PE) and complex pain.

General complications include heart problems (attack, irregular heartbeats), lung-related problems (pneumonia, lung collapse), post-operative delirium, postoperative decline in brain function, kidney failure, pressure sores, diathermy burns, wrong side surgery, severe allergy to medications, damage to structures unrelated to surgery, the regret of undergoing surgery, removal of the implant, arthrodesis - fusion of joint, amputation and death.

Specific complications for this procedure, such as improper realignment of the implant, dislocation of plastic, damage to surrounding structures by the implant, need for further surgery to treat infection and fractures.

Cost

There are significant costs for both the patient and the NHS.

Patient: You will need to take time off work, require help during initial stages and visit the hospital, GP surgery and physiotherapist, which may cost in taxis and parking.

NHS: Generally an expensive option, however, the cost of treatment can increase significantly should the need for treating complications arise.

What if no treatment is done?

- Failing to treat your condition may result in ongoing pain and the need for the regular intake of medications.

Progression of the condition and subsequent health deterioration.

This may affect your social circumstances by intruding on your various activities of daily living (ADL), family life, working environment and leisure activities.

If the condition progresses further, complex and more demanding procedures might be required.

If it progresses significantly, no further treatment may be available.

Additional procedures may be needed to minimise inconvenience in the future.

The patient may feel regret for not choosing a surgical or other option at an earlier stage.

References

- <https://bmjopensem.bmj.com/content/2/1/e000195> (unloading knee brace)
- <https://www.ncbi.nlm.nih.gov/pubmed/29543576> (Valgus off-loading brace)