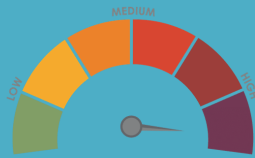


Chondral Graft



Late to very late stages



Works best in stage 5 & 6

What is it?

Taking cartilage from an area where there is less stress and transplanting it to an area where there is significant damage.

The procedure is done under anaesthesia and only recommended to younger patients usually secondary to sporting injuries.



Benefits

Treatment may decrease the pain in a select group of patients.

Might also slow down joint wear. However, it is difficult to identify who will benefit from this.

The procedure may delay the need for more invasive surgery.



Risks

Pain, infection, redness, persistent swelling, stiffness, anterior knee pain (especially on kneeling) and all other complications associated with open surgery.

The risks are very similar to that of a total knee replacement.



Mid cost



Painful for 3+ months



Crutches 6+ weeks



Affected for 2+ weeks



No - 6+ weeks



Minor



Affected 2+ months



Affected 3+ months



Affected 4+ weeks



Affected 4+ months



Affected 4+ weeks

Limitations due to treatment



Video

What does it involve?

Harvesting cartilage from the body, growing it in a lab and re-implanting it in the damaged area.

Mosaicplasty is harvesting cartilage from an area where there's less stress and transferring it to an area where there is significant damage.

Both procedures are done under general anaesthesia.

For a chondral graft, the operation has to be done twice - once to harvest the graft, another to implant the graft after culture. Parts of the procedure can be done arthroscopically (keyhole surgery).

Mosaicplasty is generally done as open surgery and occasionally patients may have to stay in the hospital for receiving regular physiotherapy in the form of continuous passive movement (CPM).

These treatments are invasive and carry significant risks, including the risk of failure. Therefore they're usually recommended for younger patients who sustain focal cartilage damage in an otherwise good joint and are not suitable for replacement surgeries. This may be secondary to sporting injuries.

NICE recommends offering this procedure under strict audit/new procedure guidelines with clinical governance procedures in place. Details of the procedure are collected in ICRS (International Cartilage Regeneration & Joint Preservation Society) Patient Registry for monitoring.

Effort/burden

The procedure must be done under general anaesthetic.

You may have to use crutches for a few weeks.

You might have to consider time off work, difficulty in completing daily tasks and child-care for a few weeks.

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

Some physiotherapy may also be needed. In some cases, this means inpatient physiotherapy.

Benefits

Some studies show that this treatment may decrease the pain in a select group of patients.

In some patients, this may slow down joint wear. However, it is difficult to identify who will benefit from this.

The procedure may delay the need for more invasive surgery.

Limitations and side effects

Your knee pain may not completely diminish.

The procedure may not work at all.

You may have to be non-weight bearing for six weeks. Drains may be used to decrease bleeding and blood clot formation.

It may take between six and nine months to know if the graft has been successful or not.

Risks

Severe risk of pain, infection, redness, persistent swelling, stiffness, anterior knee pain (especially on kneeling) and all other complications associated with open surgery.

The risks are very similar to that of a total knee replacement.

Cost

This is a high-cost option for both the patient and the NHS.

Patient: Cost may vary depending on local arrangements. Some commissioning bodies do not authorise the use of these graphs, so some patients may have to have this done in a private setting. This can cost between £8,000 and £10,000 not including the cost of a private consultation. Some insurance companies will not cover this cost.

NHS: Exact cost is not known, but is likely to be as much as the cost in the private sector.

What if no treatment is done?

Ongoing pain.

Arthritis may deteriorate and affect your activities of daily living (ADL), family life, working environment and leisure activities.

If the condition progresses, you may require more complex and demanding procedures.

If your arthritis progresses significantly, no further treatment options may be available.

You may regret not opting for treatment earlier.

References

<https://www.nice.org.uk/guidance/ipg607/chapter/1-Recommendations>