



Don't let pain from knee cartilage damage keep you from your active lifestyle.

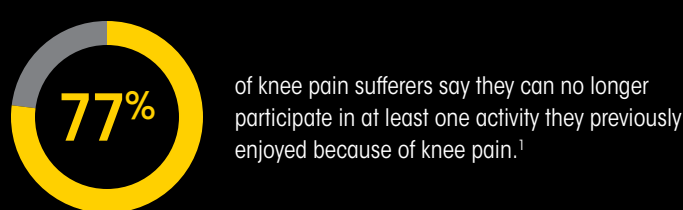
Cartilage injuries are chronic and often get worse as time goes on. If conservative treatment has not worked to relieve pain, surgery may be the answer.

Causes of cartilage damage

Cartilage damage is a common condition with several possible causes. Chronic or repetitive actions such as exercise, sports, or physical work can cause cartilage to weaken and wear out over time. Acute or traumatic events such as a fall can cause immediate and severe cartilage damage.

Cartilage damage can limit activity

Knee pain from cartilage damage can hold you back from the active lifestyle you love. Symptoms of cartilage damage often get worse over time and can limit your ability to do simple tasks, such as climbing stairs.



Symptoms of knee cartilage damage²



PAIN



SWELLING



CLICKING



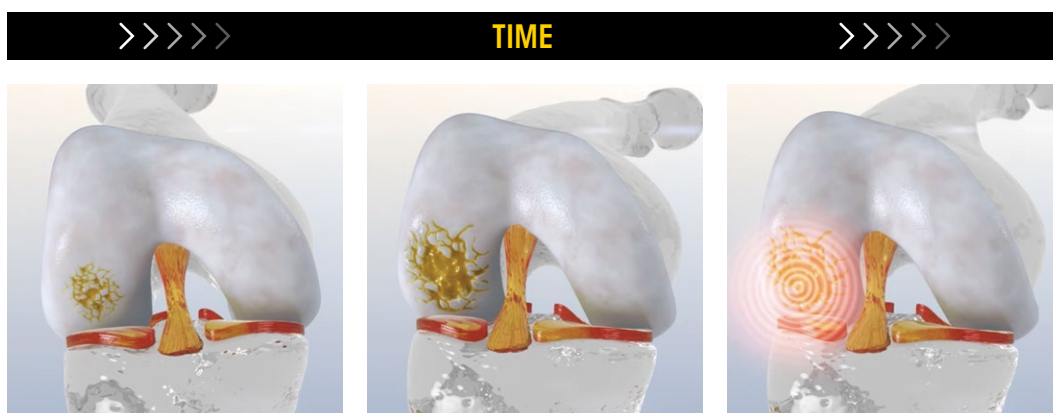
LOCKING

Indication: MACI is used for the repair of symptomatic cartilage damage of the adult knee.

Important Safety Information: Common side effects include joint pain, tendonitis, back pain, joint swelling, and joint effusion. More serious side effects include joint pain, cartilage or meniscus injury, treatment failure, and osteoarthritis.

Please see additional Important Safety Information below and [Full Prescribing Information](#).

Unlike other tissues, cartilage does not naturally regenerate. That's why cartilage injuries are chronic and frequently get worse as time goes on.



Over time, knee cartilage damage can impact your physical activities including:

- Walking
- Running
- Bending down
- Playing sports
- Climbing stairs
- Working out

In a study of patients undergoing cell-based knee cartilage restoration, it was shown that **cartilage damage can progress and new defects can form** as time between cartilage biopsy and implantation increases.³

CARTILAGE DEFECT EXPANSION³

0.6 cm²

mean change in defect size between biopsy & implantation

NEW HIGH-GRADE CARTILAGE DEFECTS³

16.2%

of patients developed a new high-grade cartilage defect between biopsy & implantation

Before choosing what, if any, surgical procedure is best, you and your surgeon may consider your overall health and age, whether you have more than one cartilage injury, the size of your injury, and the type and length of rehabilitation. **Speak with your doctor if you have questions.**

Indication

MACI[®] (autologous cultured chondrocytes on porcine collagen membrane) is made up of your own (autologous) cells that are expanded and placed onto a film that is implanted into the area of the cartilage damage and absorbed back into your own tissue.

MACI is used for the repair of symptomatic cartilage damage of the adult knee.

The amount of MACI applied depends on the size of the cartilage damage. The MACI film is trimmed by your surgeon to match the size and shape of the damage, to ensure the damaged area is completely covered.

Limitations of Use

It is not known whether MACI is effective in joints other than the knee.

It is not known whether MACI is safe or effective in patients over the age of 55 years.

Please see [Full Prescribing Information](#).

Important Safety Information

MACI should not be used if you:

- are allergic to antibiotics such as gentamicin, or materials that come from cow, pig, or ox;
- have severe osteoarthritis of the knee, other severe inflammatory conditions, infections or inflammation in the bone joint and other surrounding tissue, or blood clotting conditions;
- have had knee surgery in the past 6 months, not including surgery for obtaining a cartilage biopsy or a surgical procedure to prepare your knee for a MACI implant;
- or cannot follow a doctor-prescribed rehabilitation program after your surgery

Consult your doctor if you have cancer in the area of the cartilage biopsy or implant as the safety of MACI is not known in those cases.

Conditions that existed before your surgery, including meniscus tears, joint or ligament instability, or alignment problems should be evaluated and treated before or at the same time as the MACI implant.

MACI is not recommended if you are pregnant.

MACI has not been studied in patients younger than 18 or over 55 years of age.

Common side effects include joint pain, tendonitis, back pain, joint swelling, and joint effusion.

More serious side effects include joint pain, cartilage or meniscus injury, treatment failure, and osteoarthritis.