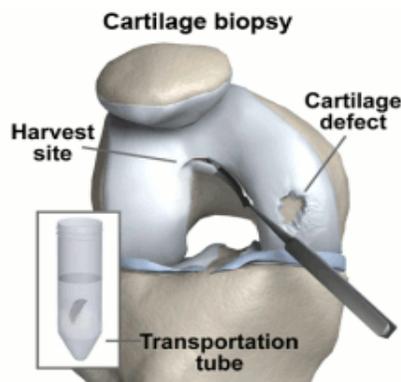




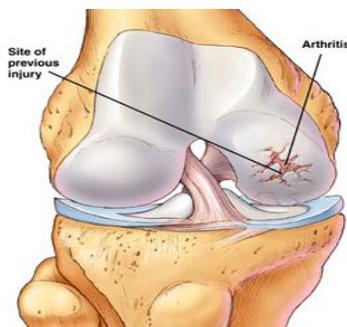
What is Autologous Chondrocyte Implantation (ACI)?

Autologous chondrocyte implantation (ACI) is a two-stage state-of-the-art procedure used to treat isolated full-thickness (down to bone) articular cartilage defects. In short, a small piece of your articular cartilage is taken and sent to a special lab that grows your new cartilage cells over a 6 to 8 week period. When ready, these new cells are then transplanted to the injured area.



Why ACI Procedure?

There are a number of reasons that cartilage can become sick. Articular cartilage is a form of living tissue that lines the bony surface of all joints. It serves as a thin shock absorber that allows for a smooth, friction free gliding surface. Articular cartilage is made to withstand weight-bearing movements during daily activities as well as athletics such as running, climbing, and jumping. The most common places



that these defects are found are on the end of the femur, the top of the tibia, the back of the patella (knee cap), and areas of the ankle.

An articular cartilage defect can be very painful. Many affected patients cannot walk long distances, run, or participate in physical education or sports due to pain.

Common Causes

The two most common reasons that the cartilage can become sick are due to acute injuries occurring during sports or from chronic or non-healing Osteochondritis Dissecans (OCD) lesions.

What to Expect

- If you were scheduled for a procedure such as an osteotomy or ligament reconstruction, this will be rescheduled until the time of the ACI transplant.

- The biopsy (stage 1) is an outpatient procedure and you will go home the same day.
- After ACI transplant (stage 2), you will be in the hospital 2 to 3 days.
- You will have a continuous passive motion (CPM) machine, for gentle range of motion of the knee. The joint fluid helps to nourish the new cells and promote healing.
- There will be a **strict** post-operative protocol to follow and compliance is not negotiable. The new cartilage cells are fragile and following instructions allows for the best outcomes.
- There is no physical education (PE) or sports activity allowed for 1 year post ACI.
- Once a surgery date is set up, you will have a pre-op appointment within 30 days of surgery.
- The surgery team will call you 24 to 48 hours prior to surgery date and will give you complete instructions and arrival time.

