



SEARCH

# MOSAICPLASTY FOR OSTEOCHONDRAL LESIONS OF THE TALUS

## WHAT IS MOSAICPLASTY FOR OSTEOCHONDRAL LESIONS OF THE TALUS?

**Osteochondral lesions of the talus** (OLT) are ankle joint injuries involving damage to the joint surface (cartilage) and/or underlying ankle bone (talus). A normal, healthy ankle joint is made up of smooth cartilage supported by strong bone underneath. Sometimes an ankle injury leads to damaged, rough areas of cartilage and bone underneath. **Foot and ankle orthopaedic surgeons** call this type of injury an OLT. Since the ankle joint moves while walking, the rough spots may cause pain, swelling, stiffness, and decreased motion. It is kind of like having a pothole in the joint surface.

One way to treat the damaged ankle cartilage is through surgery. One type of surgery is called mosaicplasty (MP), which is the transplant of small amounts of bone and cartilage. The primary goal of this procedure is to smooth out the surface of the ankle joint by replacing the unhealthy spots with healthy, smooth cartilage. By reconstructing the surface, pain and other symptoms should decrease or stop all together.

### Diagnosis

Your **foot and ankle orthopaedic surgeon** might recommend MP if you continue to have symptoms after non-surgical treatment. This procedure also might be considered if an OLT completely detaches from the ankle bone and/or begins to move around in the joint space (causing locking and catching), if an OLT is too large to heal on its own but small enough to allow for the transplantation of new tissue, or if you had previous surgery for an OLT and are having symptoms again.

You should not have MP if the size of the OLT is too large for this technique, if there is infection of the ankle joint or underlying bone, or if your ankle is unstable. This surgery typically is not recommended for young patients with a skeleton that is not yet mature, or elderly patients with medical problems that would complicate recovery. Advanced **arthritis** throughout the ankle joint is another reason to avoid surgery, and is best treated with a different surgical procedure.

## Treatment

The MP procedure includes obtaining (harvesting) graft tissue from the knee joint or from a tissue donor. Your foot and ankle orthopaedic surgeon will make incisions on the ankle to access the injured area. Once they find the unhealthy tissue, they will remove it to leave healthy bone underneath. The healthy cartilage and bone graft are then transplanted as tubes into holes in the ankle bone until the joint surface is smooth. Your surgeon may need to use multiple plugs to fill the gaps in the ankle surface. This gives the repaired surface the appearance of a mosaic. It is important to place the transplant tissue so that it produces a smooth surface. Once the procedure is finished, the surgeon closes the openings with stitches. A bandage is placed around the incision sites.

## Recovery

Patients are advised to **keep all weight off the operated leg** for 4-6 weeks after surgery. After this, the patient can begin physical therapy to regain strength and motion of the ankle. There may be pain and swelling after surgery, but the swelling usually subsides after a few weeks. Stitches will be removed once the swelling has decreased to a safe level, typically 2-3 weeks after surgery. More than 90% of individuals undergoing this procedure have good to excellent results.

## Risks and Complications

All surgeries come with possible complications, including the risks associated with anesthesia, infection, damage to nerves and blood vessels, and bleeding or blood clots.

MP generally is safe but there are potential complications that can occur during and after treatment for an OLT. Typical risks include pain that does not go away after the surgery (in the joint or the ankle), swelling, numbness, tingling, stiffness, non-healing of the transplanted tissue, and poor healing of the area from where the transplant was taken. The risk of infection and poor healing are much higher for patients who have uncontrolled diabetes or **those who smoke**.

During recovery, you should call your foot and ankle orthopaedic surgeon if you experience excessive bleeding, fever or chills, redness that expands from the incision site, continuous severe pain, new numbness of the foot or nausea, and vomiting that do not get better with medication.

## **Will I have to stay overnight after mosaicplasty surgery?**

Most healthy patients will be able to go home the same day as the surgery as long as they can take medication by mouth and their pain is under control. Patients with significant health problems may require a longer stay.

## **How much will this procedure hurt?**

This procedure can cause some discomfort. Your surgeon will provide you with the appropriate pain medication. Other ways to decrease pain and swelling include resting, icing, and elevating the affected limb above the level of the heart, especially during the first two weeks.

## **Will I regain all of my original function in my ankle joint?**

After your ankle has had time to heal, you will start physical therapy for ankle range of motion and strength to regain the function you had prior to surgery.

## **Where will the healthy cartilage transplant come from?**

There are two sources of graft. The first comes from a healthy site in the patient's own body. This is known as an autograft. The second comes from a deceased donor (cadaver). This is called an allograft.

## Will taking cartilage from other joints in my body cause long-term problems?

The graft that is harvested is removed from a place in the healthy joint that has little weight bearing. This reduces the chance that problems will occur.

## When can I go back to exercising or sports?

Although returning to activity is based on the individual patient's progress as well as the surgeon's expert opinion, most people can begin to increase activity as tolerated by 10-12 weeks.

## When will I be able to drive?

You will be permitted to return to driving once you can walk without crutches and are able to react appropriately without pain of the ankle. You cannot drive if you are taking narcotic pain medications.

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