

Osteochondral Lesion

Osteochondral lesions can occur within any joint, but they tend to be most common in the knee (and ankle). Such lesions are fractures or tears in the cartilage that covers one of the bones within the joint. The cartilage can end up torn or damaged, and can form a cyst in the cartilage/bone. This is known as an osteochondral cyst. An osteochondral lesion may also be known as an osteochondral defect.

Within the knee, cartilage damage can happen between the thigh bone and the shinbone. Within the ankle, these lesions often occur on the talus, which is the bone that joins the foot and the leg together.

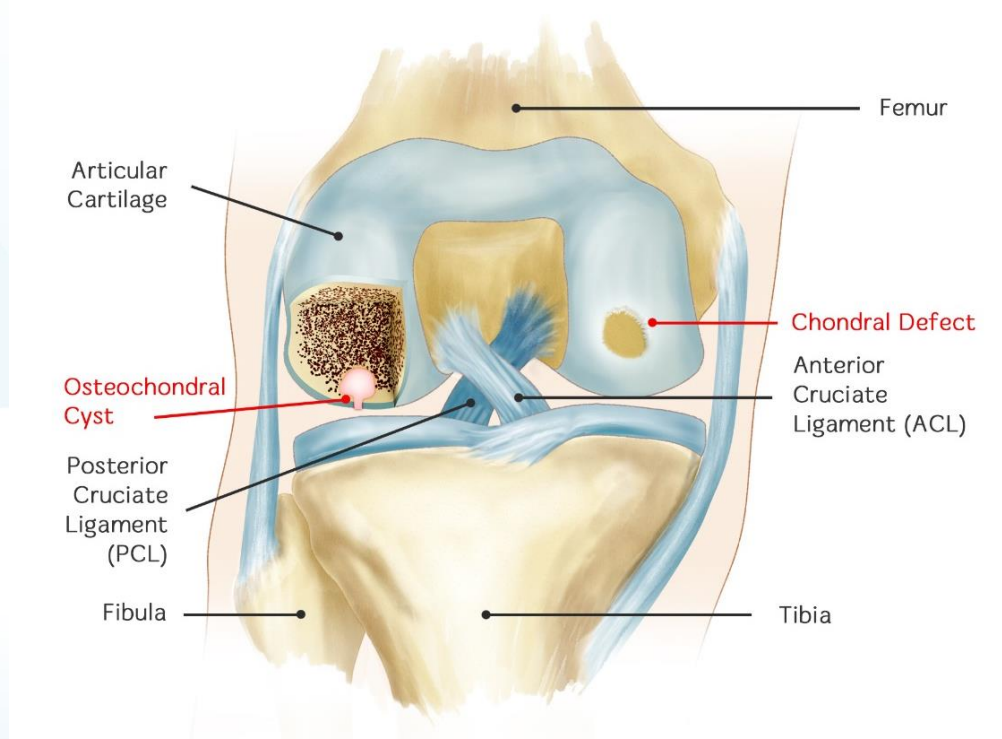
Osteochondral lesions are commonly the result of excessive force going through the knee. They can start as bone bruising that develops into an osteochondral lesion. They can also occur following severe trauma to the knee such as a skiing accident where the meniscus/cartilage is damaged. An osteochondral cyst can also be present following surgery. In some rare cases, osteochondral lesions can occur for no apparent reason.

Osteochondral Lesion Anatomy

The skeletal system is made up of all the joints and bones in the body. All of the bones are a complex group of living organs that are composed of multiple cells, protein fibers and a range of minerals. The skeleton serves as a scaffold by delivering protection and support for the soft tissues that make up the remainder of the body. The system provides a series of attachment points that allow the muscles to move at the joints.

New blood cells are generated by the red bone marrow that is inside of the bones. The bones act as the warehouse for the body's calcium, energy and iron in the form of fat. The skeleton continues growing throughout childhood and serves as a framework for the remainder of the body to continue growing along with it. Cartilage lines the joints, and if this cartilage becomes bruised or damaged, osteochondral lesions can form on the surface or just beneath the cartilage.

Chondral Defect



How to Treat an Osteochondral Lesion:

1. Brace

Even though wearing a cast or a brace might help to alleviate some of the pain caused from the lesion, they are often not enough to correct the problem on a permanent basis, except for children who tend to respond good a to non-surgical approach.

2. Therapy

Physical therapy can help improve the biomechanics of a particular joint or limb, which can reduce stress on that particular joint and reduce the inflammation within the bone. This can lead to gradual healing of the area. If physical therapy does not work, then usually surgery is performed.

3. Surgery

In adults, this condition often necessitates surgery to correct it. The type of surgery needed will depend largely upon the severity and location of the lesion. Surgeons often perform arthroscopic exploration and treatment to remove and clean out any cartilage that is damaged. If there is only a small area of damage, the surgeon might drill a very thin hole into the bone, which can cause a small amount of bleeding and promote the healing process.

When the damage is excessive, a bone graft can be used to replace the cartilage. For those who are older, knee replacement might be an alternative. It isn't a preferred option for younger individuals, since the failure rates for knee replacement and revision need is often more likely.

Tips:

- Apply ice to the affected area for 5-10 minutes at a time three to five times per day. Make sure to wrap the ice in a thin towel to prevent ice burn.
- Take some time to rest and allow the lesion the chance to heal.
- An anti-inflammatory medication is beneficial to relieving pain and inflammation relating to the lesion.
- Steroid injections can help to decrease symptoms of the lesion, but only for those lesions that are smaller.
- Physical therapy is beneficial to improving joint mobility and flexibility for those suffering from lesions.

