

## Osteoarthritis in the Knee

Medial and Lateral osteoarthritis involves the cartilage between the femur and the tibia. Deterioration of this cushion layer, results in your knee bones rubbing together, which causes pain, joint effusion (swelling), and limitations to daily activities. Compartment unloading braces are typically recommended to unload the femur and tibia resulting in decreased pain symptoms. <sup>1</sup>

## Symptoms:

- Pain on the inside of the knee joint
- Stiffness within the knee joint
- Inflammation
- Malformation of the joint
- Discomfort/ pain with activity

## Treatment:

Keeping the joint moving will allow proper nutrients into the joint and keep the joint mobile. Strengthening the knee joint along with the hip joint can help decrease pressures placed onto the knee joint. It is important to not only strengthen weak structures, but to increase flexibility in the tissues that are restricted. Decreasing the amount of pressure from ground reaction forces and general body weight can also unload the knee joint.



## Brace Recommendation:

For individuals with mild to moderate OA, we recommend the Bledsoe Legacy Thruster OA and the Z12 OA. The Legacy Thruster is for more severe osteoarthritis and has a unilateral hinge on the affected side of the pain. The more you dial up the hinge the more of a pulling action the brace will have to open the affected joint space. The dynamic control allows for increased unloading during extension and relaxes during flexion, which is great for an individual who is always going from sitting to standing frequently<sup>2</sup>. The Bledsoe Z12 OA, is a dual hinge brace that has a push and pull factor. The non-affected side has the push factor while the affected side is being pulled open by the frame of the brace.

## References

1. Haladik et al. 2014, 2. Komistek 2005

