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NORTHWESTERN
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Augmented Brostrom / Lateral Ligament Reconstruction

Chronic ankle instability is a condition where the ligaments on the outside of the ankle (lateral) are no longer able to provide stability to the joint. In cases where activity modification, the use of a laceup ankle brace, and/or therapy has not provided sufficient relief, surgery can be considered.

Historically, repair of the ligaments was performed to improve stability to the ankle (Brostrom). Despite its status as the "gold standard" for lateral ankle instability, the utility of the Broström repair is limited by the need for postoperative protection that precludes safe early mobilization, as well as a recorded failure rate of up to 20% over time. Although a number of augmentation procedures have been applied to the Broström repair in an attempt to overcome this failure rate, even these techniques require postoperative protection, leading to suboptimal ligament healing. In addition, the nonanatomic nature of these augmentation procedures either sacrifices local tissue (including the peroneal tendons, a critical ankle dynamic stabilizer) or has been associated with overtightening of the ankle and subtalar joints and the subsequent development of arthritis. Internal Brace ligament augmentation repair is a simple technique that may be used to overcome the shortcomings of the Broström repair. Broström repair with Internal Brace augmentation exceeds the native ATFL strength, does not violate normal tissue, and helps protect the ligament repair while it matures, allowing early mobility during recovery and a quicker return to activity.

Historically without augmentation, a prolonged period of immobilization with a cast or a boot is required to allow for ligament healing. We have developed an accelerated rehabilitation protocol where most patients are walking at 2 weeks in a boot, with a rapid transition to a lace up ankle brace along with early physical therapy intervention 4 to 6 weeks from surgery.

In cases of prior surgery where instability is still present, we will determine to the best of our ability, the root cause of the continued instability. Further imaging may be required to help us determine the most appropriate surgical plan and this can include revision with Internal Brace® or the use of graft or reconstructive procedures to restore stability.

In addition to focusing on the lateral ligaments, we also evaluate and treat the ankle as a whole in order to maximize your function. In many cases, the peroneal tendons are inflamed or even torn and require reconstruction. Spurs that develop within the ankle joint after a history of ankle instability are addressed and removed so that a smoother ankle motion can occur and minimize pain. Soft tissue scarring within the ankle joint is commonly present. Often cartilage damage occurs with repeated ankle sprains and these are resurfaced with our modern cartilage restoration technique. In some cases, the shape of the foot contributes to the instability and the alignment of the heel bone and the arch may need to be addressed to ensure long-term stability.