

## MCL Tear – In Soccer, the M Stands for Major

My first year in professional soccer was 1976. I had come from a football background with little knowledge of the biomechanics of the “World’s Game”. My first encounter with a soccer related MCL (medial collateral ligament) tear was halfway through that first year. It was a 1<sup>st</sup> degree tear that should have been ready in 2-4 weeks. Two months later the player was still struggling. In the summer of 2003, while playing an exhibition game, a veteran Dallas Sidekick player had a 2<sup>nd</sup> degree tear. This happened at the end of June. He was still struggling in November. As you can tell from these examples, MCL damage in soccer must not be taken lightly.

The medial collateral ligament is one of the four major ligaments stabilizing the knee joint. The MCL runs on the inside of the knee from the tibia (shin bone) to the femur (thigh bone) (see picture1). It helps with rotation stability and the inward bowing of the knee. The most common mechanism of injury is a blow to the outside of the knee opening the joint on the inside. Sometimes an inward rotation of the knee will also overstretch the MCL. The initial feeling of the joint opening up will cause immediate pain along the ligament. Pain may be concentrated at the origin, insertion, joint line, or the full length of the ligament depending on where the tissue was damaged. Other structures may be damaged along with the MCL and should be evaluated as well. It is common with an ACL tear to have also torn the MCL as well as the medial meniscus (cartilage). You may also just tear the meniscus with the MCL. An MRI may be necessary to rule out any other structural damage and help confirm the MCL tear. Just after the injury the player may try to go back into the game but should be held back to prevent more serious damage. Usually pain and muscle weakness will not allow the player to continue. The mechanics of playing soccer puts a tremendous stress on even a healthy MCL. The MCL is stressed with internal rotation of the knee (cutting), kicking the ball (inside of foot

and top of foot) (see picture2), and inside of foot tackles (see picture3). This encompasses many movements in a soccer game. An injured MCL can put the whole knee joint in jeopardy.

After the initial icing (15-20 min) and orthopedic visit, the rehab may proceed. The doctor may put the player in a brace and partial weight bearing on crutches. Rehab will consist of stationary bike, SLR (see picture4), ham curls, and heel raises progressing to more functional exercises as the ligament allows. Caution should be used in any abduction exercises (see picture5) as well as any rotation of the knee. A small amount of stress on the ligament, while it is healing, will result in stronger ligament when healed. The final stages of rehab will add light kicking of ball progressing to long kicks. Inside of foot tackles will be the final test for the healed ligament. A successful return to play will depend on an aggressive, graduated rehab program. Returning too soon will end in a re-injured ligament and a frustrated player and coach.