

KNEE DISLOCATIONS

What is a knee dislocation?

A knee dislocation is a violent injury resulting in severe knee trauma. Three of the four major ligaments that provide stability to the knee joint must be torn to be classified as a knee dislocation. Vascular and nerve damage are possible after a knee dislocation (20-30%). Loss of limb has occurred in 20-30% of patients in some reported series. Historically, knee dislocations have been treated non-surgically, however, with the development of better surgical instrumentation and improved technique, the treatment for multiple ligament knee injuries has become primarily surgical.

What structures are injured in a knee dislocation?

As mentioned above, at least three major ligaments that help hold the knee together will be torn when one suffers a knee dislocation. Ligaments are like "cables" that hold the thigh bone to the shin bone. In most cases, the two "cruciate" ligaments, the anterior cruciate ligament (ACL) and the posterior cruciate ligament (PCL) will tear, as well as one of the ligaments on either side of the knee, the medial collateral ligament (MCL), on the inner part of the knee, or the lateral collateral ligament (LCL) on the outer part of the knee. The posterolateral corner of the knee may also be damaged. It consists of the LCL, as well as several other soft tissues in that area. Meniscal (cartilage) injuries and associated fractures are seen fairly commonly in knee dislocations. In unusual situations the knee can be dislocated without tearing both of the cruciate ligaments.

Nerve and blood vessel structures are also at risk of injury. The popliteal artery may be at most risk in a knee dislocation. If this artery is injured, sufficient blood flow to the lower leg cannot be maintained, and can, potentially, result in a loss of the lower limb. The peroneal nerve is also at risk. Because of its location near the outer part of the knee, the mechanism of a knee dislocation can result in a traction injury to this nerve. This can result in a temporary "foot drop", or, in more severe cases, a permanent one.

Knee dislocations can be associated with fractures about the knee, fractures of the limb (femur, tibia). They may be associated severe soft tissue injury. They can have severe swelling associated with them with resultant compartment syndrome. With high energy injuries there may be associated "poly trauma" with associated injuries to other extremities, the spine, abdomen, chest, and /or head.

What causes a knee dislocation?

Dislocations are caused by sports injuries that involve falls, such as football, basketball and gymnastics. They can also result from motor vehicle accidents or industrial accidents. They can be classified as low energy (most sports) and high energy (motor vehicle, pedestrian-motor vehicular, motorcycle, fall from a height). Depending upon the mechanism, the dislocation may be classified relative to the direction of the lowerleg

