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Biomechanics of the anterior cruciate ligament

Domnick C *et al.* Physiology, rupture and reconstruction techniques

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Abstract

The influences and mechanisms of the physiology, rupture and reconstruction of the anterior cruciate ligament on kinematics and clinical outcomes have been investigated in many biomechanical and clinical studies over the last several decades. The knee is a complex joint with shifting contact points, pressures and axes that are affected when a ligament is injured. The anterior cruciate ligament (ACL), as one of the intra-articular ligaments, has a strong influence on the resulting kinematics. Often, other meniscal or ligamentous injuries accompany ACL ruptures and further deteriorate the resulting kinematics and clinical outcomes. Knowing the surgical options, anatomic relations and current evidence to restore ACL function and

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