Connective Tissue: Focus on Ligaments

A ligament is a short band of tough, flexible, fibrous connective tissue made up of many individual fibers that connect bone to bone. Ligaments holds bones together and support stability.

Ligament injuries can occur at any joint. The knee and ankle ligaments are particularly vulnerable due to the role these joints play in weight-bearing and directional changes made in ambulation, running and propulsion.

Ligaments can become strained when the joint is stretched beyond its normal range of motion. Common causes of a ligament injury include twisting and landing awkwardly. The 3 Grades of Ligament Injury are:

Grade l : Mild ligament tear
Grade 2 : Moderate ligament tear
Grade 3 : Severe (ruptured) ligament tear

What are the Symptoms of a Torn Ligament?

Sudden onset of pain and severe swelling
Joint instability
Impaired function, i.e. can't walk or run

When a ligament is torn or stretched, it is called a **sprain**.
A tendon, which connects muscle to bone, can also be torn or over stretched, but that is called a **strain**.

There are four ligaments in the knee that are prone to injury:

Anterior cruciate ligament (ACL) is the most commonly injured knee ligament. It connects the thigh bone to the shin bone.

Posterior cruciate ligament (PCL) also links the thigh bone to the shin bone in the knee. (It's rarely injured except in car accidents).

Lateral collateral ligament (LCL) connects the thigh bone to the fibula, the smaller bone of the lower leg on the outer side of the knee.

Medial collateral ligament (MCL) links the thigh bone to the shin bone on the inside of the knee.

Hands-on ligament work has to do with tissue bunching and elongation. Can be done with any accessible ligament. Very useful in working with ligament of the knee.