CYMATHERAPY®

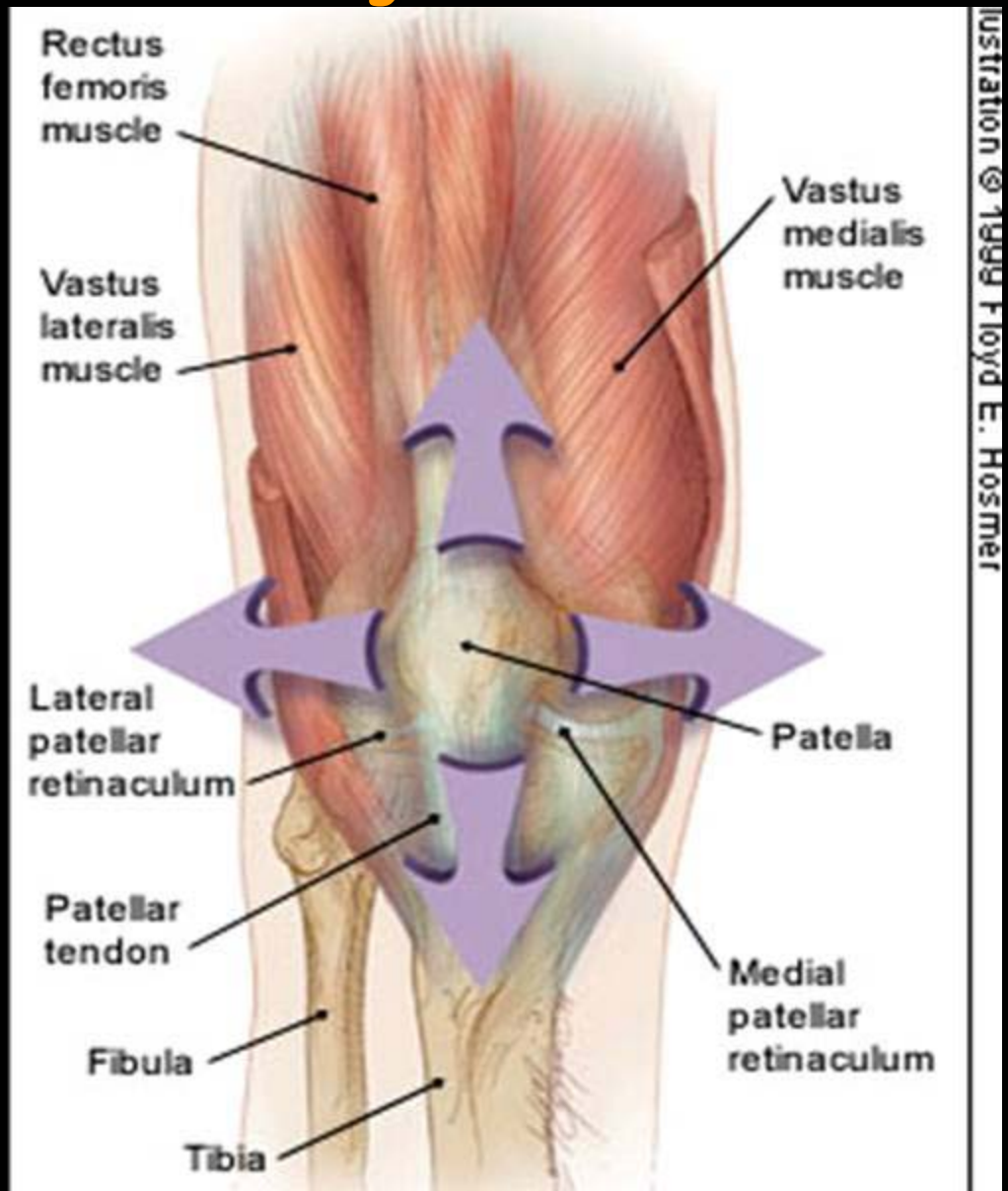
Orthopedic Solutions

The Knee

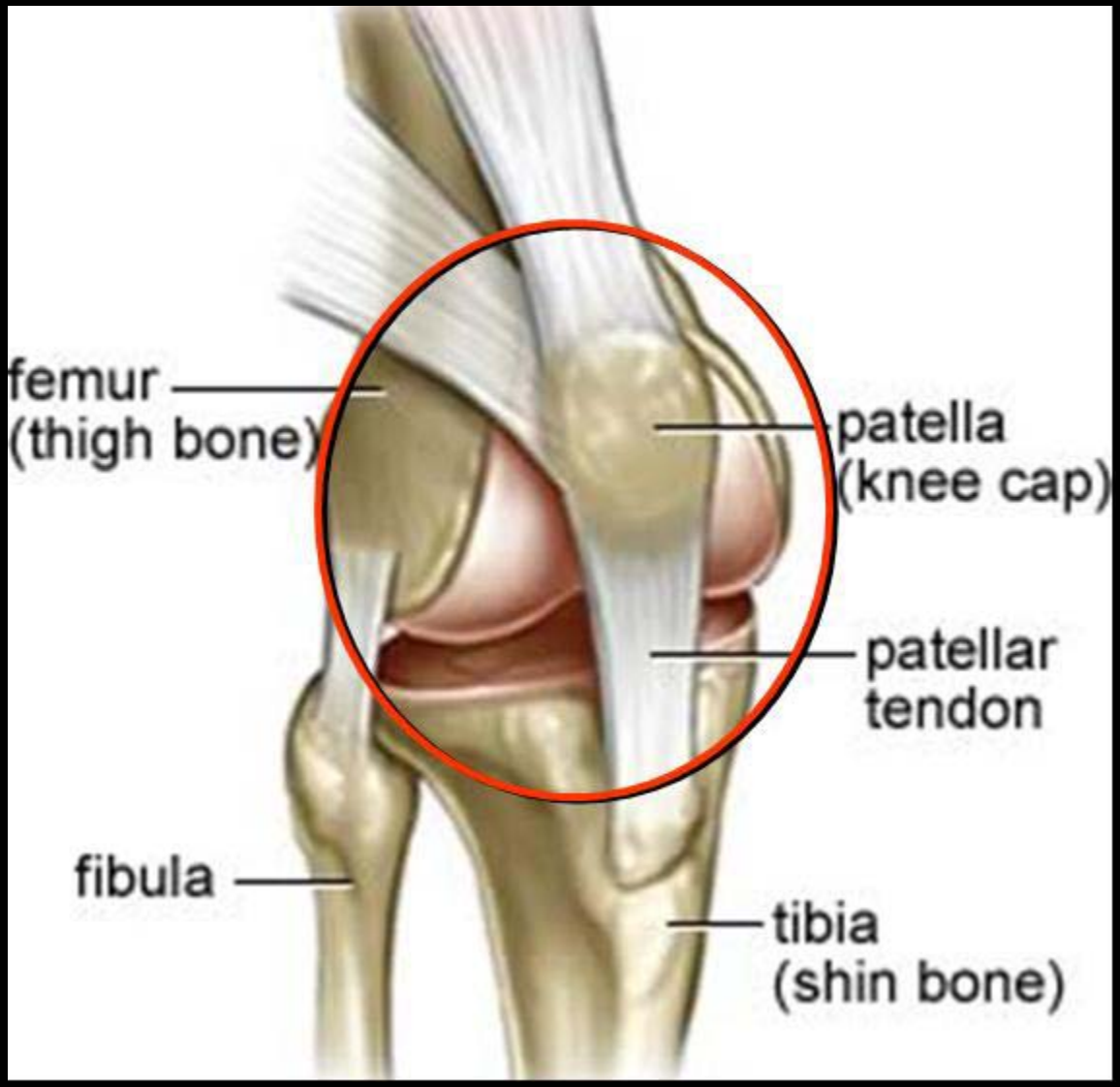
~ Sound Advice in Sports Medicine ~

A Look Inside!

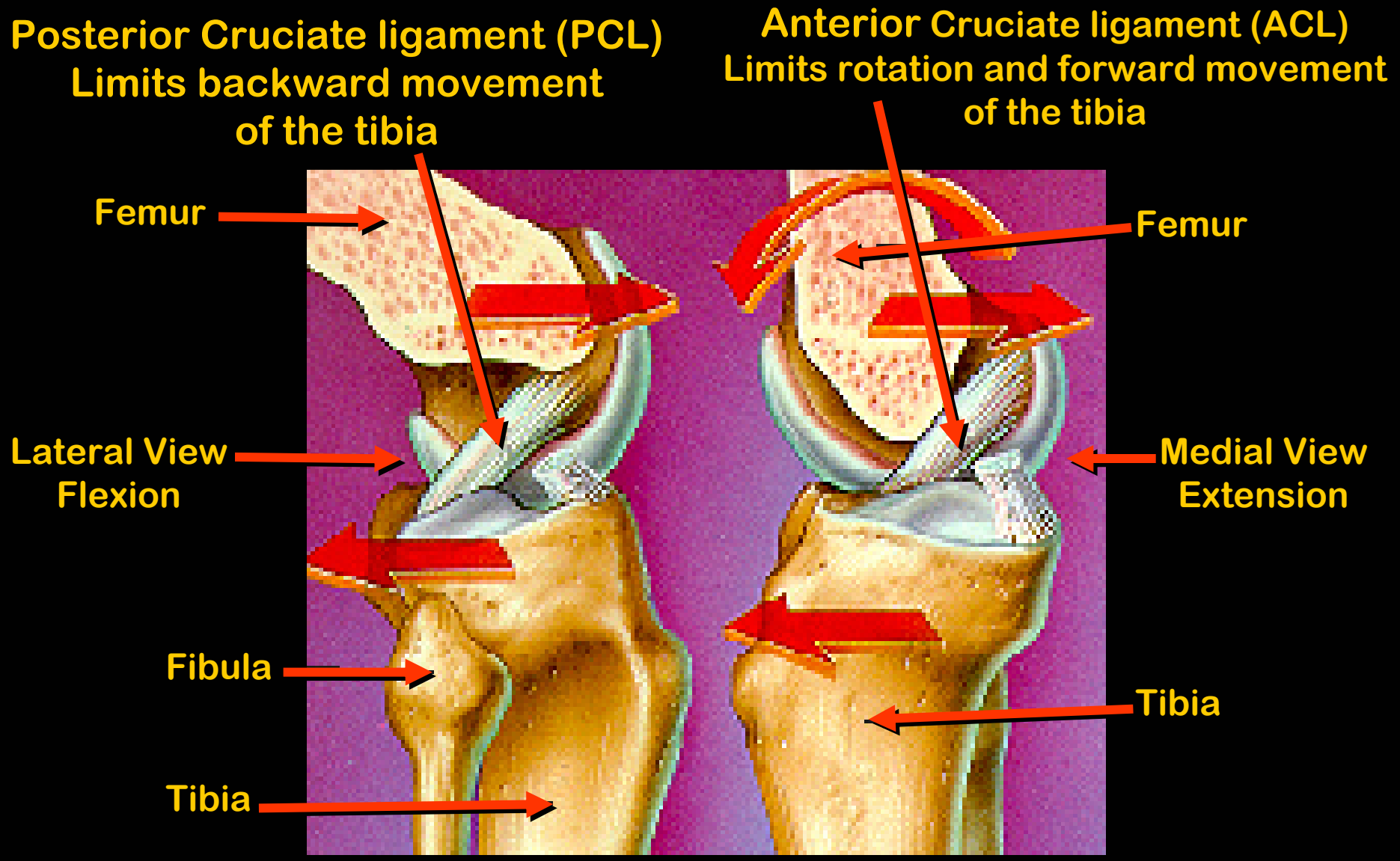
Dynamic Stabilizers of the Knee
Suspension System of the Patella



The Patellofemoral Joint

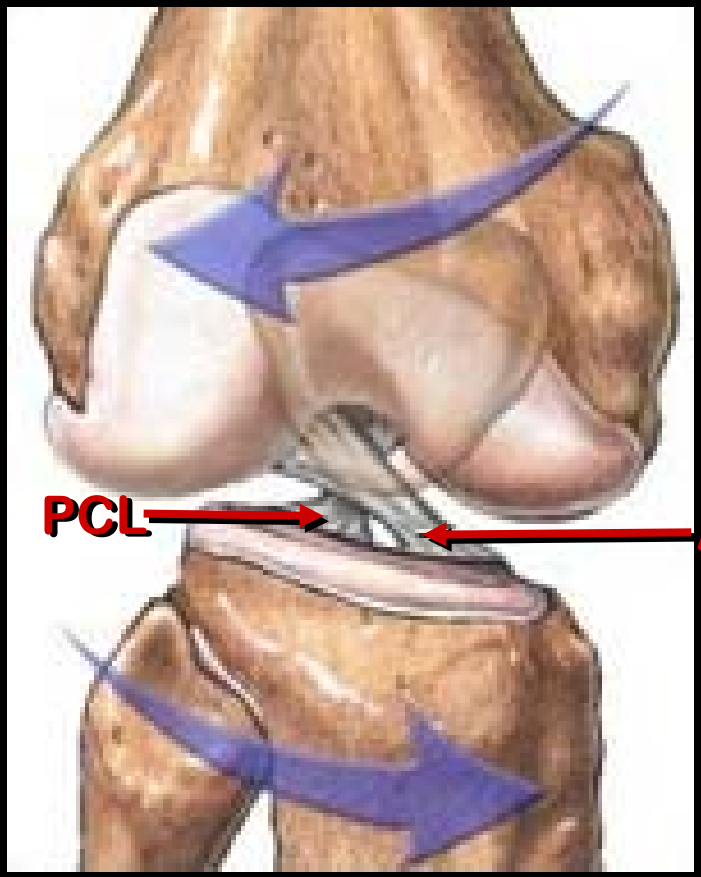


Anterior and Posterior Stabilizers



ACL and PCL

Stabilizers-Transmitters-Mechanoreceptors

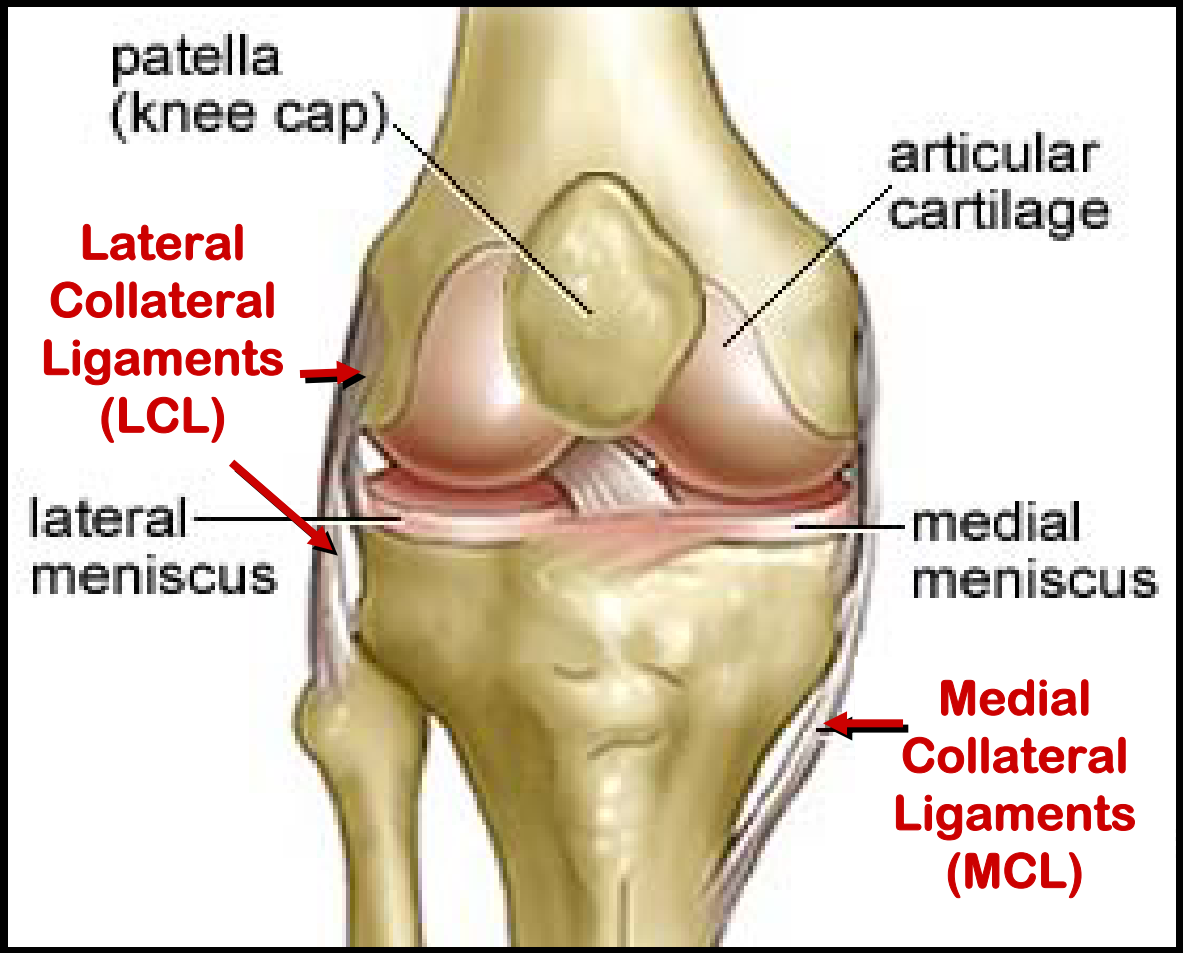


The ACL and PCL center weight that is transmitted through the knee joint minimizing the amount of wear and tear on the cartilage inside the knee

- Mechanoreceptors inside the ACL and PCL transmit proprioceptive information to the brain giving us perception of sensory 3D time and space
- Proprioception provides neurological input that aids in the stabilization of a joint

The Medial and Lateral Collateral Ligaments

Provide stability to the outside of the knee

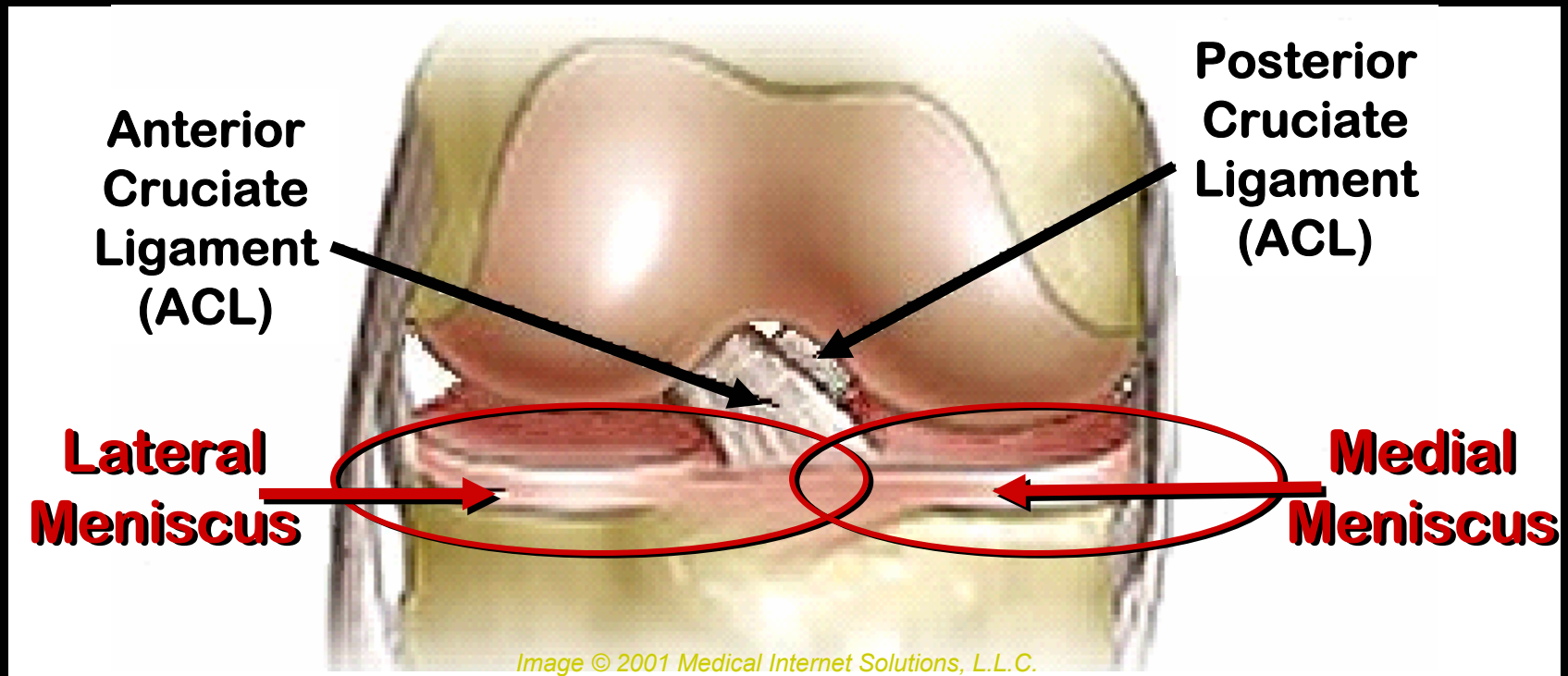


Provide stability to the inside of the knee

The Menisci: Shock Absorbers

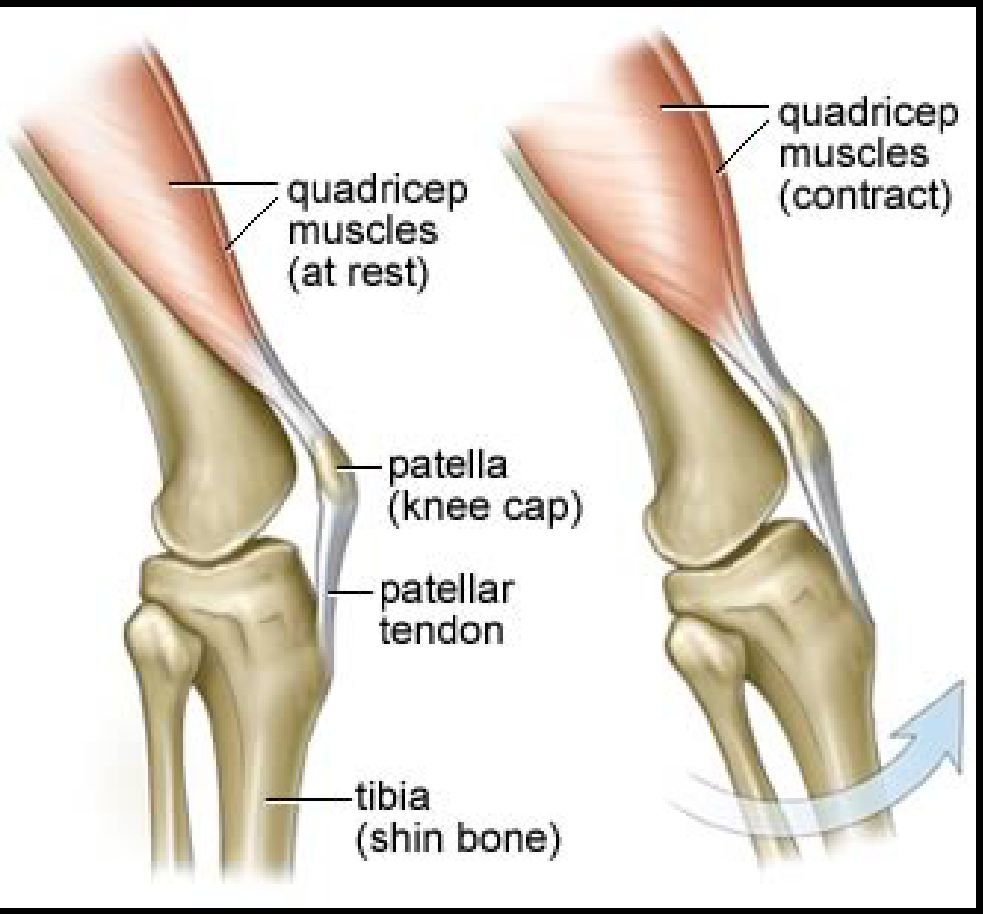
Function: load bearing

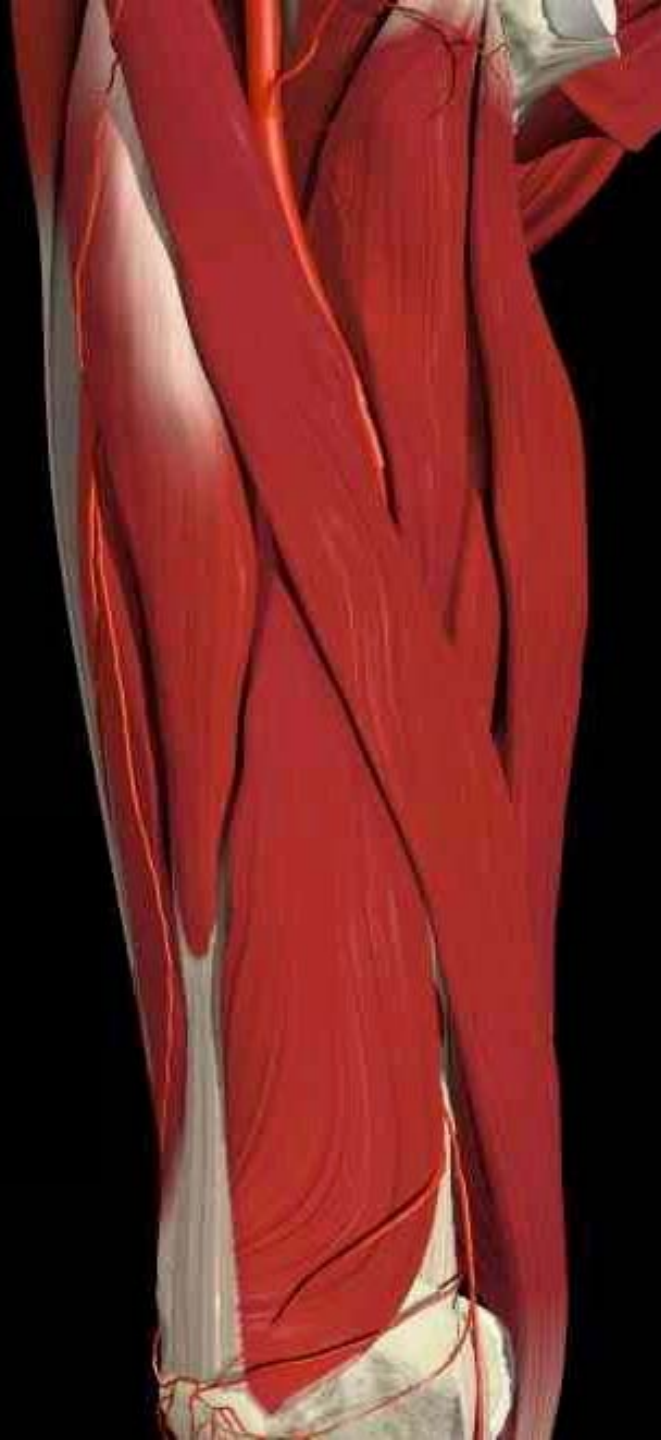
- Distribute forces throughout underlying articular cartilage, minimizing point contact
- Bear 40 to 50% of the total load transmitted across joint in extension
- 85% of the compressive load is transmitted through the menisci at 90 deg of flexion



The Quadriceps

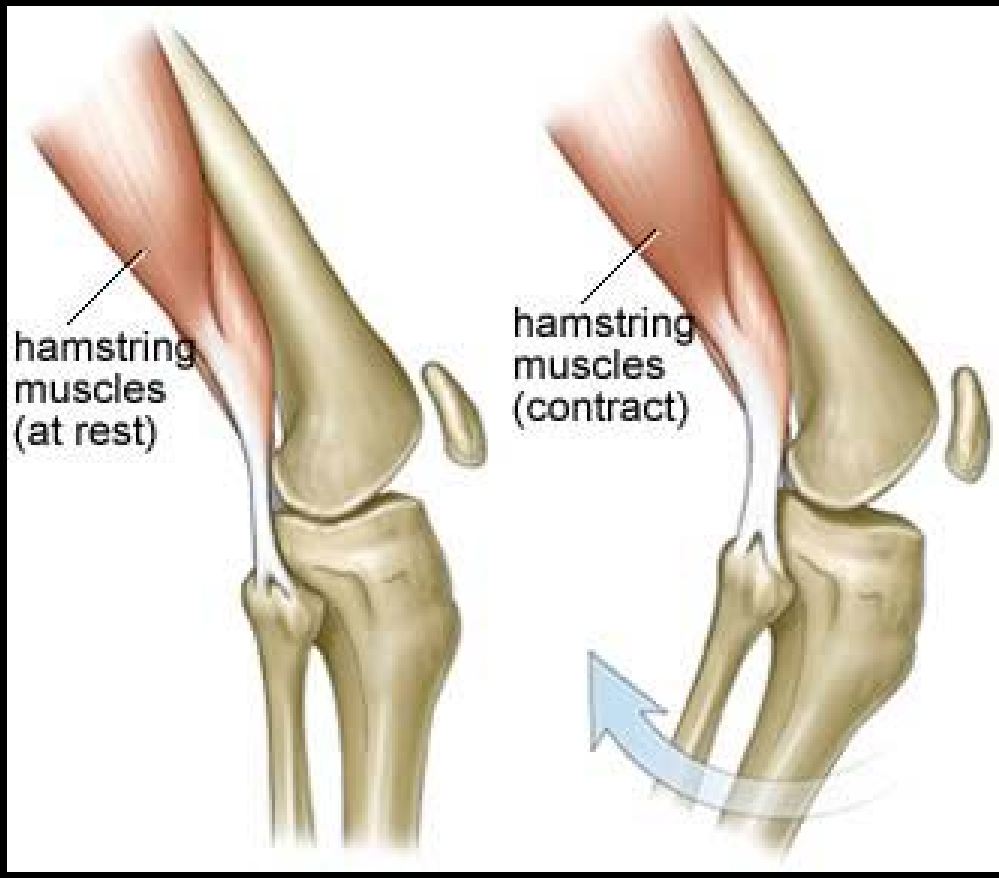
The quadriceps contract extend or straighten the knee





The Hamstrings

The hamstrings contract to flex or bend the knee



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