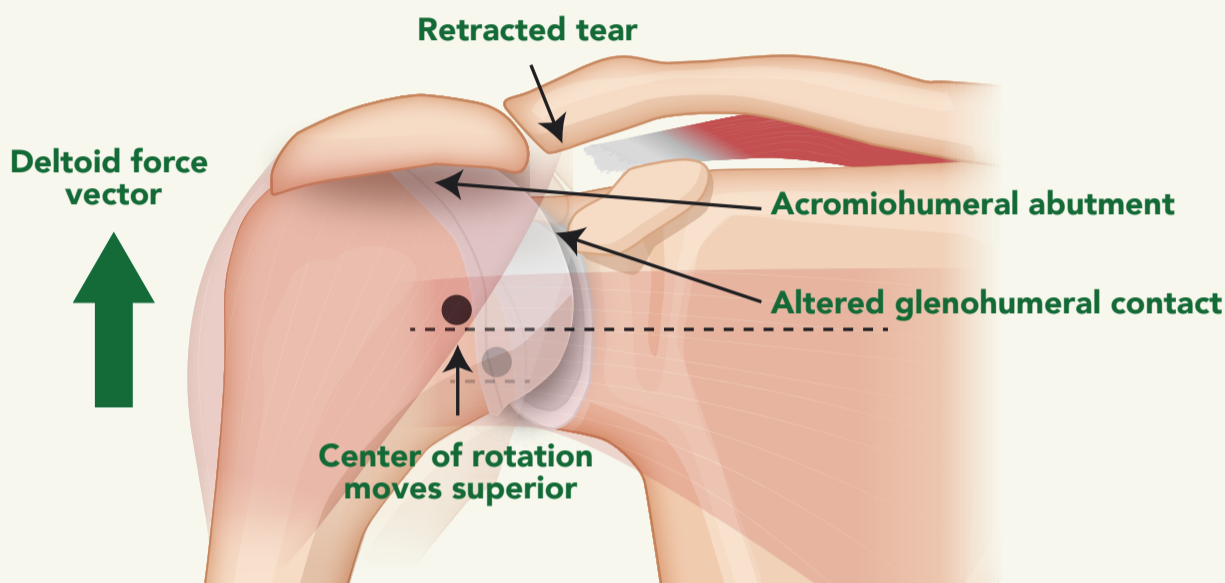


Superior Capsular Reconstruction (SCR) Biomechanics

Background

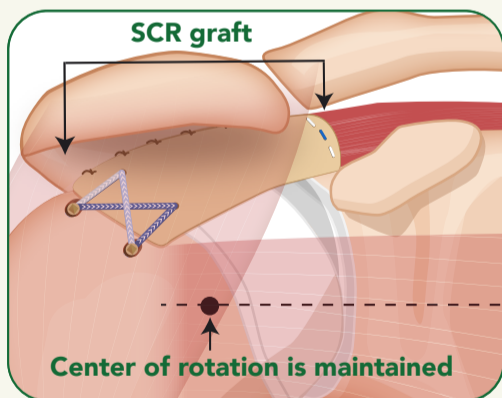
- Irreparable posterosuperior rotator cuff tears lead to pain and dysfunction
- SCR is a treatment option for this scenario
- Several mechanisms contributing to SCR effectiveness are proposed

Irreparable rotator cuff tear (right shoulder)



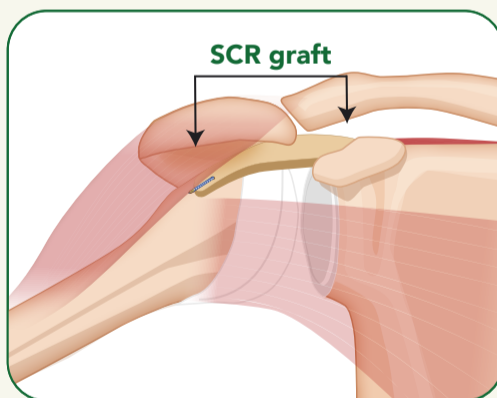
SCR Biomechanical Effects

Center of rotation restored



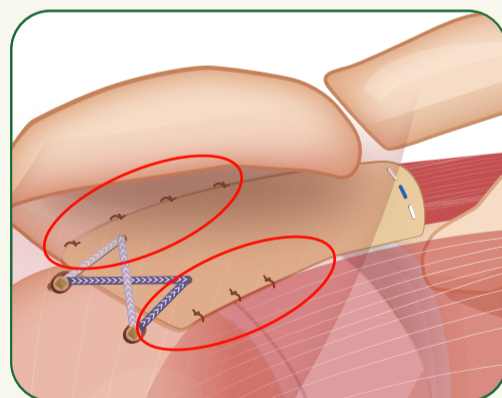
- ✓ SCR resists humeral head superior migration and improves abduction force

Inter-positional spacer effect



- ✓ Subacromial contact pressure reduced
- ✓ Greater reduction in contact pressure with thicker grafts

Capsular continuity effect



- ✓ Side-to-side suturing (red ovals) may improve joint stability and reduce graft elongation

Graft options for SCR

Acellular human dermal allograft

Fascia lata autograft

Long head of the biceps tendon autograft