



## DISPLAY 26-14

# Contribution of the Shoulder Musculature to Joint Stability

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- Passive muscle tension from the bulk effect of the rotator cuff muscle
- Rotator cuff contraction causing compression of the articular surfaces
- Joint motion that secondarily tightens the passive ligamentous constraints
- Barrier or restrain effect of the contracted rotator cuff muscle
- Redirection of the joint force to the center of the glenoid surface by coordination of muscle forces from both GH and ST joints
- Scapulothoracic muscle balance
  - Efficient compressive forces on the rotator cuff are partially dependent upon the stability of their origins on the scapula<sup>241</sup>
  - Scapular position affects length-tension properties of the rotator cuff
  - Scapula upward rotation, posterior tilt, and lateral rotation is necessary to maximize subacromial space<sup>242-244</sup>