

Do This (**Not That!**)

Weighing the Risks of Common
Strength Training Exercises

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Bench Dip

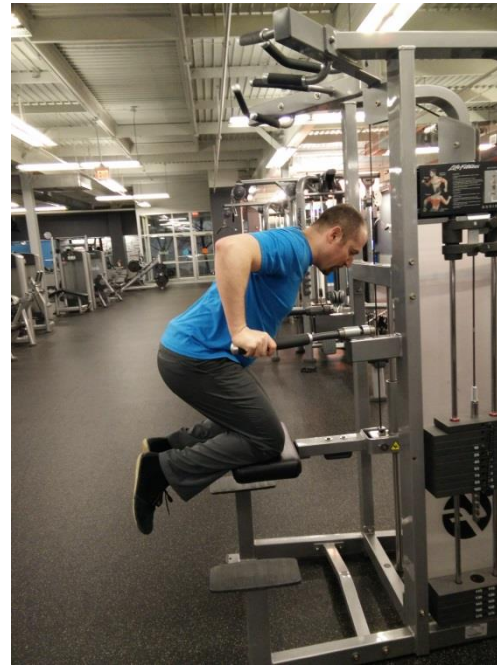
When to do it: **Never**

- Typical range of motion in the shoulder (glenohumeral joint) is **50** degrees of extension



Safer Alternative: Dip (Assisted or Unassisted)

- Bend hips and face down to keep shoulder within your **active range of motion**



Behind the head...anything...

When to do it: **Never**

- These exercises risk putting joints outside their active ROM
- Shoulder (GH) joint = **least stable** joint in body



Safer Alternatives



Knee Extension

When to do it: **Never**

- The quadriceps and hamstring work together to stabilize the knee joint. This machine causes excessive shear force on the knee joint
- Reinforces quadriceps dominance in imbalanced clients



Safer Alternative: Squat

- Safer exercises typically maximize compression (adjacent bones push into each other at the joint) and minimize shear (force applied perpendicular to the joint)



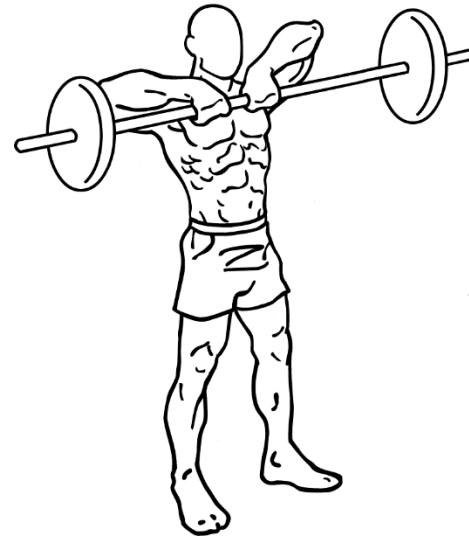
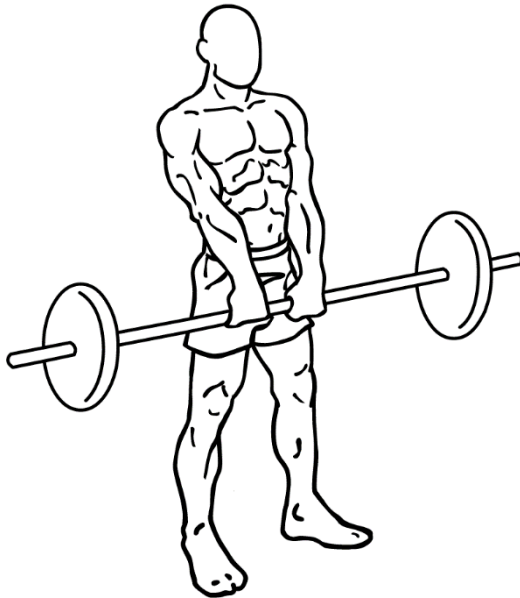
Safer Alternative: **Horizontal Leg Press**



Upright Row

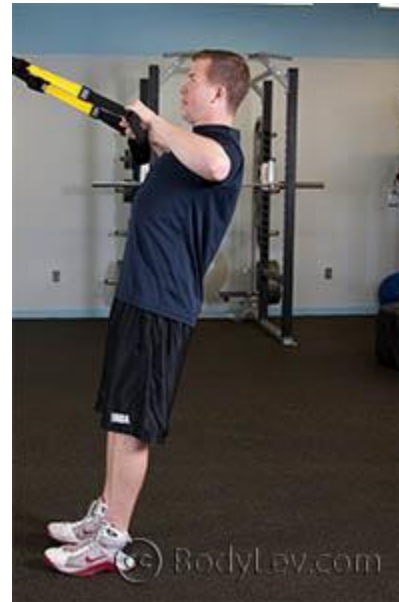
When to do it: **Never**

- Shoulder abduction paired with internal rotation can cause a rotator cuff impingement. Many trainers and organizations (such as the ACSM and NFPT) consider this a contraindicated exercise for all people ([link](#))



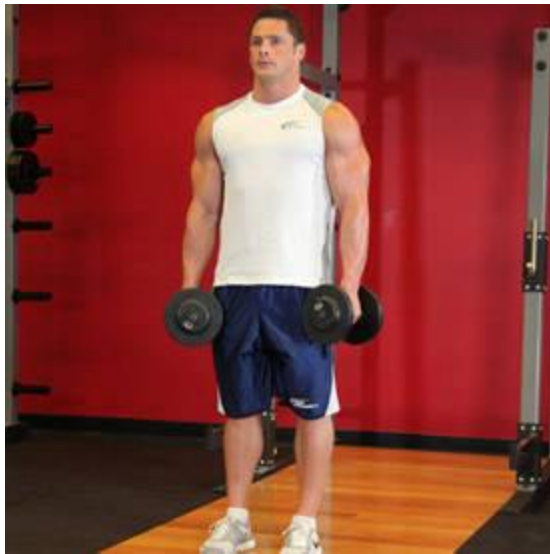
Safer Alternatives

- High Back Row
(Use TRX / Band / Cable / Shoulder-height bar)



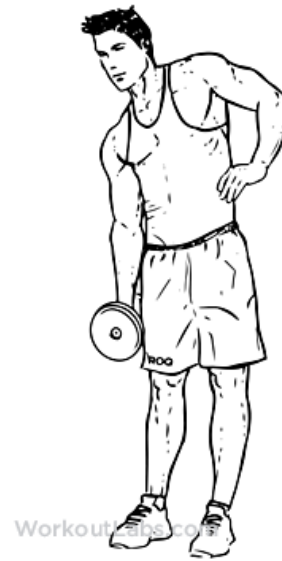
Safer Alternatives (Continued)

- Shoulder Shrug



Standing Lateral Bend

When to do it: **Never**



Safer Alternatives (Continued)

- **Roman Chair or TRX Lateral bend**

To avoid excess pressure on intervertebral discs, position your body so that movements directly oppose the resistive force (e.g. gravity)



Dishonorable Mention (Shear Force)

- Supine (lying on back) chest/shoulder exercises can prevent retraction and protraction of the scapulae, subjecting GH joint to excess shear force
- Likewise, flies (straight elbow shoulder exercises) produce significant shear force on the GH joint
- Forward lunges (traditional lunges) exert undue shear force on the knee. Substitute reverse or stationary lunges where possible.

More resources

- This Presentation: budser.com/DTNT
- <https://www.acefitness.org/certifiednewsarticle/1657/follow-up-q-and-a-dangerous-dips/>
- <https://www.acefitness.org/acefit/healthy-living-article/24/5277/train-this-not-that-the-upper-body-edition/>