

## Hip and Shoulder Flexibility: Hinge Theory Prevention

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### Purpose

- The pictures and exercises in this handout are means to help to prevent injury with regards to hinge theory. The purpose is to make the shoulder angle more open, the upper thoracic spine more moveable from its traditional kyphotic curvature, and to allow the hip flexors to be truly flexible, unilaterally and bilaterally, without turnout and compensation.

### 1. Roller

Start with roller in mid back



Arch over the top with straight elbows, arms by ears, touch hands to floor. Repeat in multiple locations up and down the upper back

### 2. Wall Lat Stretch



- Stand with arm on a wall
- Keep back straight, and abs tight
- IF you arch, this is less useful
- Push armpit forward to stretch lats, subscap, and triceps

### 3. Thomas Stretch



- Lay on the end of the table, butt at the very end
- Must be high enough to drop leg
- When you lay down, to protect your back, pull one leg up to your chest
- Grab it tightly. This blocks the one side of your hip, or Ilium, so that the LEFT is stretching independently and takes pressure off of your spine
- Partner pushes RIGHT leg up, and LEFT (Stretching) knee down to "wishbone" if you will, without excessive force
- To add the stretch to the two-joint hip flexors (that also extend the knee), try to flex the knee gently with the partner's leg

### 4. Prone Shoulder Flexion



- Laying on stomach, with chest and head relaxed, place arms on higher surfaces (box, panel mat, Stall Bars, Low beam, TumbiTrak, etc.)
- Make sure arms are straight and not hyperextended, too much stress on elbows.
- Relax the lower spine

### 5. Partner Bridge



- Place hands on partners ankles
- Push up to back bend
- Straighten elbows
- Partner- pull back toward you to counterbalance, hands on their shoulders, to “fulcrum” the armpit to open
- Walk feet out away so that there is enough counterbalance, don't care what the knees and legs do, as long as there is no low back pain

### 6. Partner Stick Up stretch



- Sit with legs out
- Partner stands behind you, places her knee to block your upper spine (not to arch your lower spine)
- Place hands behind head, clasped
- Partner holds arms and pulls back (not- do not grab with finger tips, pull back with forearms)
- Try to keep your abs tight to avoid arching, if you arch, you get a “fake” Stretch

### 7. Bent Knee Hip Roll Under



- Kneel as shown
- Body in line with femur
- Do not “arch” and lean forward (arching defeats the purpose of stretching the hip flexors- as hip flexors shorten with arched lumbar spine)
- Tilt your pelvis under (bring pubic bone up toward breast bone, undoing a lumbar arch/lordosis)
- Keep chest upright (when tilting pelvis, do not drop rib cage or breast bone at all)
- Hold, do not bounce or lean

### 8. Square Split Position

Unsquare splits- fine to do to just get down. Stretches more the adductors of both legs

Square splits- needs to be up on parallettes or panel mats so she is not leaning. Hips square, stretches hamstring of the front leg more than hip flexor, but needed



### 9. Measuring “Square” split

Pull to square, have them hold  
Notice, I am blocking the external rotation of the back hip



Goniometer- the front and back femur. As the hamstring of the front leg gets better, and the hip flexor of the back leg improves, this angle will increase



### 10. Measuring Standing Shoulder Flexion without Compensation



- Can also measure active standing shoulder angle.
- Heels against wall, walk out a ½ foot length
- Back flat against wall (place your hand behind if you want to make sure the pressure does not decrease)
- Lift arms, by ears, straight elbows. Measure angle of thorax (without compensation) and humerus