

# Risk Engineering – Stretching Examples

Stretching is an example of an administrative control that can be easily implemented. Dynamic stretching stimulates blood flow which in turn improves oxygen and nutrient delivery to fuel muscles. When done periodically throughout the day, dynamic stretching offers a mental and physical break from work activities, and assists with reducing static postures. Dynamic stretching (slow, smooth, controlled motions) is preferred over static stretching (holding a position for a period of time) as they are relevant to what motions a person will actually perform versus loosening the muscles. In addition, keep in mind that stretching is one tool in an ergonomics tool box, but not the only tool.

While the following stretching exercises may be beneficial to some employees, all stretches should be approved by a qualified healthcare provider before stretches are encouraged or mandated.



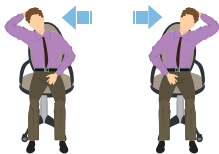
## Neck Flexion

While standing or sitting with good posture, slowly bend your neck forward by tucking your chin into your chest until you feel the muscle start to stretch. Return to center. **Do Not** stretch the neck backwards (by lifting the chin). Repeat 8 times.



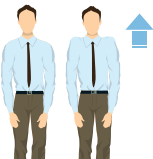
## Lateral Neck Stretch

While standing or sitting with good posture, slowly bend your neck to the right until you feel the muscle start to stretch. The stretch should be felt in the left side of the neck. Return to center. Then bend your neck to the left until you feel the muscle start to stretch. Repeat 8 times.



## Neck Rotation

While standing or sitting with good posture, slowly turn your chin to your right shoulder until you feel the muscle start to stretch. Then slowly rotate your chin to your left shoulder until you feel the muscle start to stretch. Repeat 8 times.



## Shoulder Shrug Rotation

While standing or sitting with good posture, slowly raise your shoulders toward your ears. Then slowly and smoothly move your shoulders backwards and down. Repeat 8 times.



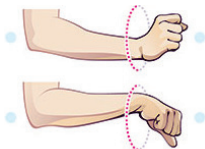
## Arm Rotations

Move one arm in a slow, smooth, and controlled circular motion, starting in a forward direction for 8 rotations. Then reverse the direction for 8 rotations. Switch arms and repeat the cycle.



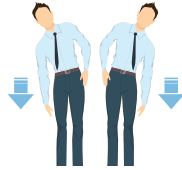
## Arm Cross-Overs

Slowly and smoothly swing both arms out to the side and then cross them in front of your body. Repeat 8 times.



## Wrist Rotations

Rotate your wrist, in a slow, smooth, and controlled circular motion, clockwise for 8 repetitions. Then rotate counterclockwise for 8 repetitions. Repeat the cycle with your other wrist.



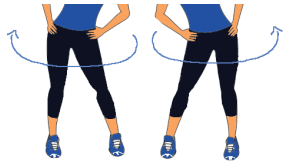
### Side Bends

Stand with your feet shoulder width apart, and your hands on your hips. Slowly and smoothly lean to your left side until you feel the muscle start to stretch. Return to center. Then slowly and smoothly lean to the right. Repeat 8 times.



### Trunk Rotations

Move your trunk in a slow, smooth, and controlled motion. Start by leaning to the right, and then continue to rotate forward. After rotating forward continue the motion to the left until you are leaning to the left. Now come back to a standing position. **Do Not** continue the motion by leaning backwards. Repeat 8 times.



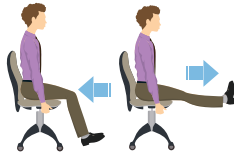
### Hip Circles

Stand with your feet slightly wider than shoulder width, and your hands on your hips. Slowly and smoothly move your hips in a clockwise circular direction for 8 repetitions. Then repeat 8 times in the counterclockwise direction.



### Half Squat

Stand straight and tall with your feet shoulder width apart. Slowly and smoothly, bend your knees until your thighs are at about a 45° angle with the floor. Then slowly and smoothly return to the starting position by straightening your knees and hips. Keep your back straight and tall throughout, and keep your toes pointing in the same direction as your knees throughout the movement. If desired, hold your arms out in front of you for balance. Repeat 8 times.



### Leg Swing Forward and Backward

Stand straight and tall next to a wall (or something stable to hold onto). Place your weight on your left leg and your right hand on the wall for balance. Slowly and smoothly, swing your right leg forward and backward 8 times. Turn around and repeat the motion for the left leg 8 times.



### Leg Swing Cross-body

Lean somewhat forward with both hands on a wall (or something stable to hold onto). With your weight on your left leg, slowly and smoothly swing your right leg side to side in front of your body 8 times. Keep your toes pointed upward. Repeat the motion 8 times for the left leg.



### Walking Knee Hug

Slowly and smoothly, walk forward. With every step, raise your knee up to chest height and hug it briefly with both arms (pulling the knee in toward your chest). Keep your back straight and tall throughout the cycle. Repeat 8 times for each leg.



### Heel to Toe Walk

Slowly and smoothly, walk forward. Place your heel on the ground, roll forward onto the ball of your foot, and then rise as high as possible (like you are standing on tip-toe) while bringing the other leg forward in the same heel to toe motion. Repeat 8 times for each leg.

No liability is assumed if an employee is injured using these stretching exercises. Furthermore, no guarantee of any efficiency improvement or reduction/elimination of musculoskeletal disorders by using these exercises is expressed or implied.

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