



City of Duluth Flexibility (Stretching) Program Vehicle, Truck, Equipment Operators



Why perform flexibility exercises?

- After spending countless hours behind the wheel of a vehicle, truck or piece of equipment, muscle tightness just begins to come with the territory.
- When temporarily stopped, for example, at a red light, when an airplane is on the runway, or when taking a break, it is beneficial to do some stretching.
- The range of motion (ROM) around a joint is improved immediately after performing flexibility exercise.
- Stretching helps to reduce the risk of musculoskeletal injury, and can also improve postural stability and balance. The goal of a flexibility program is to develop ROM in the major muscle/tendon groups.
- Stretching may seem simplistic; however, try doing flexibility exercises several times a day. You might be surprised at how much even a few minutes several times a day will help!

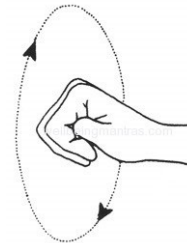
Instructions

- Flexibility exercise is most effective when the muscle temperature is increased through warm-up exercises. If unable to warm-up, modify to shorter duration and add more repetitions.
- Unless otherwise noted, hold each stretch for 10-30 seconds to the point of slight tightness. Repeat each stretch 2-4 times, accumulating 60 seconds per stretch. If you experience pain, do not do the stretch.
- Adjust time/duration and repetitions according to individual needs, for example, two 30 second or four 15 second stretches. Modify to shorter duration, 5-10 seconds, and add more repetitions if muscles are tight or cold.
- Perform each stretch slowly while breathing deeply. Go as far as your body is capable.
- Stretches are grouped by those that can be performed while seated inside a vehicle, truck, or piece of equipment, and those that can be performed outside of a vehicle, truck, or piece of equipment when stopped for a break.

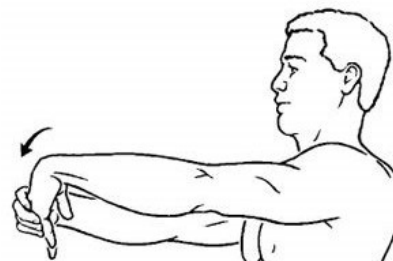
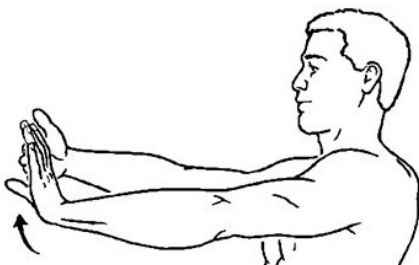
Hand & Wrist Stretches Inside the Vehicle, Truck, or Equipment

After steering a vehicle, truck, or piece of equipment for hours, fingers and hands may start to feel stiff or painful to move once you let go of the steering wheel. Hand and wrist stretches help reduce the risk of chronic conditions such as carpal tunnel syndrome.

Wrist Rotation: Rotate right wrist in a circle 10 times, change direction and rotate another 10 times. Repeat on left wrist.



Wrist & Hand Stretch: Grasp one hand. With finger tips up and palm facing away, slowly pull back fingers. Then turn stretching hand down with palm facing you. Gently press the back of the hand. Repeat on each hand.



Shoulders, Neck & Chest Stretches Inside the Vehicle, Truck, or Equipment

If you spend a lot of time behind a steering wheel, your shoulders, neck, chest can get tight. When this happens your upper back can fatigue and lose its ability to stabilize your thoracic spine and neck, which can lead to kyphosis (or hunch back).



Shoulder Rolls: Sit with back straight. Elevate shoulders upward toward ears, rotate them backward, down, and then forward in a continuous, circular motion. Repeat 5 times. Reverse direction. Repeat 5 times.

Side Neck Stretch Option #1: Tip head to right side, keeping shoulders straight, and bringing the ear towards the shoulder. Anchor left arm behind back by holding it with right hand and gently pull the stretch further. Lift chin up and away from anchored left arm. Repeat. Tip head to left side, anchor right arm and repeat.



Side Neck Stretch Option #2: Tip head to left side, keeping shoulders straight, and bringing the ear towards the shoulder. Anchor right arm by holding vehicle seat. Lift chin up and away from anchored right arm. With the hand on the same side as your head is tipped, reach up to your head and gently pull the stretch further. Repeat. Tip head to right side, anchor left arm, and repeat.



Page 3

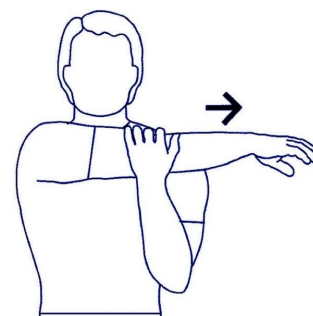
Shoulders, Neck & Chest Stretches Inside the Vehicle, Truck or Equipment

Back of Neck Stretch: Lower chin to chest. For an added stretch, place hands on the back of head and very gently press down on head so stretch felt more through the back of the neck. Repeat.



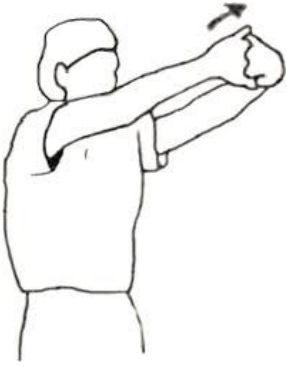
Neck Rotation Stretch: While holding on to steering wheel, look back over one shoulder and then the other, while keeping back straight.

Across the Body Shoulder Stretch: Place right hand under left elbow. Lift the elbow and extend it across chest without rotating body. Pull gently. Stretch will be felt along the back of the arm and into the back of the shoulder. Repeat on other side.



Page 4

Shoulders, Neck & Chest Stretches Inside the Vehicle, Truck, or Equipment



Reaching Shoulder & Back Stretch: Interlace fingers with palms facing outward and arms straightened. Press palms forward. Feel stretch in hands, arms, and upper part of back and shoulder blades. Repeat.



Overhead Shoulder Stretch: Lift right arm and gently bend it behind head. Place left hand on the bent right elbow and gently pull down on the elbow. Feel stretch in the back of upper arm, shoulder and back. Repeat with the left arm. Repeat both sides.

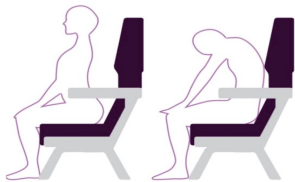
Elbows-Out Chest Stretch: Place hands behind head. Squeeze shoulder blades back and down as you bring your elbows as back as far as possible. Repeat.



Page 5

Trunk Stretches Inside the Vehicle, Truck, or Equipment

Trunk Twist Stretch: Place left hand on outside of right knee or just above it. Rotate upper body and look over and behind right shoulder. Place right hand on outside of left knee or just above it. Rotate upper body and look over and behind left shoulder. Repeat on both sides.



Seated Cat Cow: Inhale, pull chest up and forward. Gently arch spine. Exhale, lower chin to chest, round back and bring shoulders forward. Repeat several times.

Bend Forward and Stretch Up: Inhale, pull chest up and forward. Gently arch spine. Exhale, lower chin to chest, round back, bring shoulders forward, hinge forward at the hips (top of legs), and extend arms toward the floor as far as possible (reach for ankles). Repeat several times.

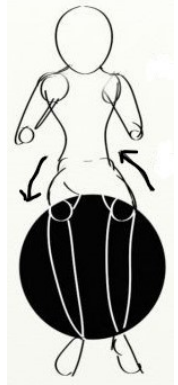


Page 6

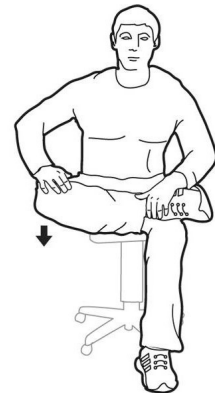
Low Back, Glutes, and Back of Leg Stretches Inside the Vehicle, Truck, or Equipment

If you spend a lot of time behind a wheel, discomfort can creep into the low back, buttocks, and hamstrings (back of leg) due to prolonged sitting. Hips and backsides play a huge role in spine flexibility.

Low Back Side to Side: Sit tall without moving upper body while shifting all of your weight to one hip and then the other. When shifting the weight to the left hip, the right buttock should be lifted slightly off the seat and vice-versa. Repeat several times.



Seated Hamstring Stretch: While sitting at the edge of the seat, straighten one leg in front of the body with the heel on the floor. If space is tight, sit up straight and try pushing the navel towards the thigh without leaning the trunk of the body forwards. If space is available, sit up straight and hinge forward at the hips (tops of legs). The degree of the stretch is varied by the placement of the leg. Repeat on the other leg

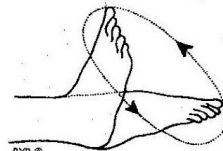
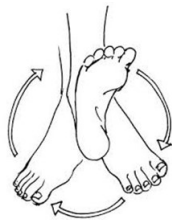


Seated Gluteal Stretch: While seated, cross right leg over left knee. Bend slightly forward, making sure to keep back straight. Place right hand on right knee, and gently push down towards floor. Repeat on the other side.

Page 7

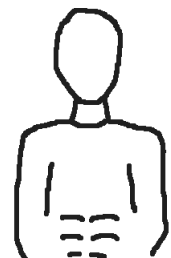
Ankle Rotations Inside the Vehicle, Truck, or Equipment

Ankle Rotations and Pumps: Rotate left foot and ankle 10 times clockwise, then 10 times counter-clockwise. Repeat for the right foot. Move the left foot up and down (point toes) 10 times. Repeat for the right foot.



Abdominal Strengthening Inside the Vehicle, Truck, or Equipment

Abdominal Crunch: Sit tall. Squeeze abdominal muscles and hold for entire length of a favorite song, news report, or red light. If unable to squeeze abdominal muscles for long, then aim to squeeze for at least one to two minutes. Repeat at every favorite song or red light.



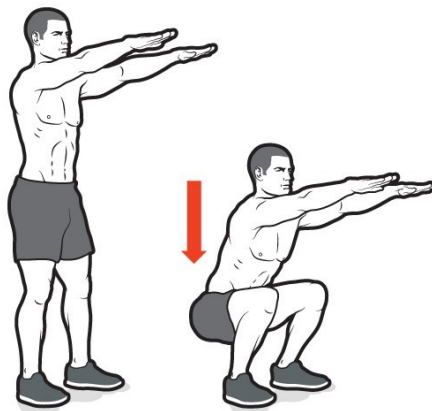
Page 8

Increase Circulation Outside the Vehicle, Truck, or Equipment

Take advantage of a break and get blood flowing, especially after sitting for a prolonged period of time. Both walking and body weight squats give the leg muscles a workout, and also help to increase circulation.

Walk or Brisk Walk: Naturally walking cannot be done while driving, but a walk or a brisk walk can be done during a break. If limited on space, do laps around the vehicle, truck, or equipment.

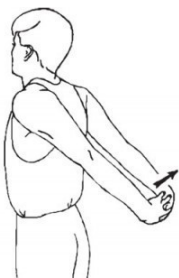
Body Weight Squats: Stand with back straight and feet hip width apart. Extend arms parallel to ground/floor. Bend knees and lower hips until thighs are parallel to ground/floor while keeping back flat (bend knees within comfort limits). Stand up and raise arms overhead, or keep arms parallel to ground/floor. Repeat.



Page 9

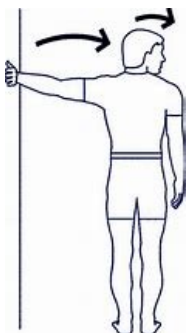
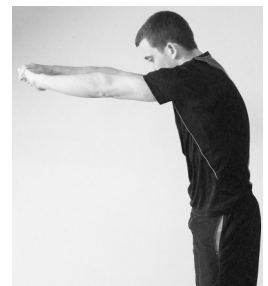
Shoulders, Neck & Chest Stretches Outside the Vehicle, Truck, or Equipment

All the shoulder, neck, and chest stretches that can be done inside the vehicle, truck, or equipment can also be done outside the vehicle, truck, or equipment. Following are additional stretches for when outside of the vehicle, truck or equipment:



Reverse Shoulder Stretch: Clasp hands behind back. Keep arms straight and slowly lift hands upwards. Return to start position and repeat.

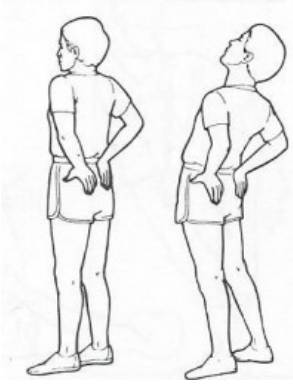
Reaching Upper Back Stretch: Stand with arms out in front with hands crossed at wrists. Slowly push hands forward as far as possible and let head fall forward. Stand upright and repeat.



Parallel Arm Chest Stretch: Stand with left arm extended to the rear and parallel to the ground. Place open palm on wall or hold on to an immovable object. Turn shoulders and body away from outstretched left arm. Repeat on the right arm.

Page 10

Back and Trunk Stretches Outside the Vehicle, Truck, or Equipment



Backward Bend: If you have disc problems or experience back pain, do not do this stretch. Stand with back straight, feet hip width apart, and hands on hips. Lift chest up and arch back to gently lean backwards while simultaneously pushing hips forward. Compression, not pain, should be felt in the lower back. Stand upright and repeat.

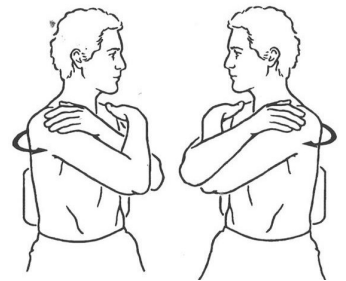


Side Bend: If you have disc problems or experience back pain, do not do this stretch. Stand with back straight, feet hip width apart, and hands on hips. Reach up with one or both hands as high as possible and bend slightly to the left side until stretch is felt in the waist and up through the shoulder. Stand up right and bend slightly to the right side. Repeat on both sides.

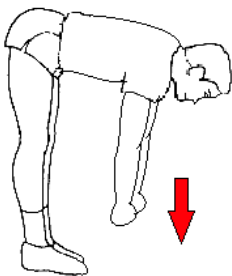
Page 11

Back and Trunk Stretches Outside the Vehicle, Truck, or Equipment

Rotational Stretch: This exercise stretches the lower back muscles through rotation in both directions. Performing the rotational stretch periodically throughout the day helps prevent lower back pain and stiffness, especially if sitting for long periods of time. Stand upright with feet 6 to 12 inches apart. Cross hands over chest. While keeping feet flat on the floor and hips facing forward, twist to the left until tension is felt through your lower back. Breathe normally while holding the stretch and try to twist slightly farther with each exhale. Return to the starting position, and then perform the exercise in the opposite direction.



Glutes, Hip and Leg Stretches Outside the Vehicle, Truck, or Equipment



Forward Bend: If you have disc problems or experience back pain, do not do this stretch. Stand with back straight, feet hip width apart, and arms at sides. While maintaining a straight back, slightly bend knees if necessary, hinge forward at the hips (top of legs) and extend arms toward the floor as far as possible. Place hands on thighs, knees, shins, ankles, or floor. Stand upright and repeat.

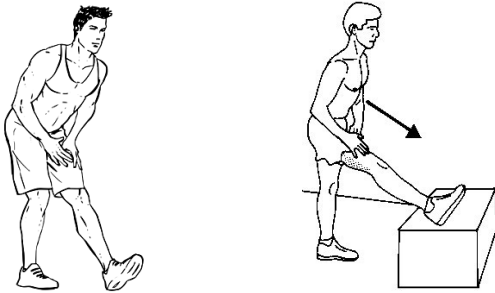
Wide-Legged Forward Bend: If you have disc problems or experience back pain, do not do this stretch. Stand with back straight, feet 3 to 4 ½ feet apart depending on length of legs. While maintaining a straight back, slightly bend knees if necessary, hinge forward at the hips (top of legs) and extend arms toward the floor as far as possible. Place hands on thighs, knees, shins, ankles, or floor. Stand upright and repeat.



Page 12

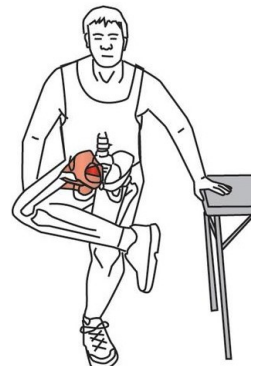
Glutes, Hip and Leg Stretches Outside the Vehicle, Truck, or Equipment

Standing Hamstring Stretch: Stand with back straight, feet hip width apart, and arms at sides. With toes facing forward, place right foot one stride length in front of the left foot with heel down and toes pointing up. Bend the left knee, hinge forward at the hips (top of legs), push hips back, and keep back flat. Stretch will be felt in back of right thigh. Repeat with left leg forward.



Modified Standing Hamstring Stretch: Place right foot on a step with heel down and toes pointing up. Hinge forward at the hips (top of legs), push hips back and keep back flat. Stretch will be felt in back of right thigh. Repeat with left leg forward.

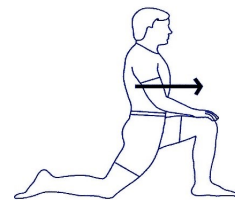
Standing Glute Stretch: For balance, hold on to the back of a chair, table top, or grab handle. Stand with back straight. Lift right foot off the ground and place the outside of the right ankle on left knee. Lower hips by bending left knee, about 45 degrees toward the floor. Lean forward (hinge at hips) and lower chest toward knees while keeping back straight. Switch legs and do the same on the other side.



Page 13

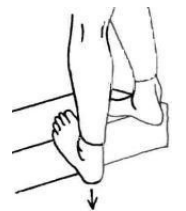
Glutes, Hip and Leg Stretches Outside the Vehicle, Truck, or Equipment

Kneeling Hip and Quad Stretch: Kneel on right knee and left foot. If needed, hold on to something for balance. Gently push hips forward while bending left knee, and keeping back straight. Stretch will be felt in front of hips and in quadriceps. Repeat on other side: kneeling on left knee and right foot.



Standing Quad Stretch: If you have knee problems or experience knee pain, do not do this stretch. Hold on to a chair, wall, or grab handle for balance. Stand tall with feet hip width apart. Bend right leg, bring heel toward buttock, and grasp right foot or ankle with right hand. Don't lock the knee of base leg (standing leg). Switch legs and repeat.

Single Heel-drop Calf Stretch: Stand on a raised step. Hold on to handrail or place hand on adjacent wall for balance. Position the ball of left foot on the edge of the step. Bend left knee slightly and let left heel drop towards the ground/floor. Use right leg to return to starting position to avoid contracting left calf — the muscle just stretched. Repeat. Switch to the other side (ball of right foot on edge of the step) and repeat.



Calf Stretch Against Step, Wall, or Tire: Stand about two feet away from a step, wall or vehicle tire. Place the ball of right foot against the step, wall, or tire while the heel remains on the ground. Gently lean into the step, wall, or tire while keeping knee straight. Repeat on other side.



Page 14