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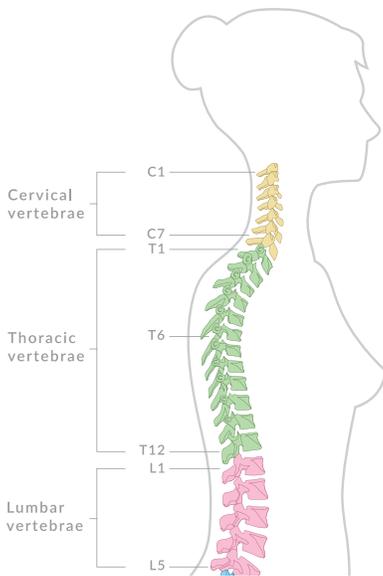
**Stretching, Strengthening,  
and Proper Body Mechanics  
for Your Lower Back and Neck**

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In this section of the booklet, our back experts have provided information on the potential causes of back pain, along with stretches and exercises to prevent and relieve back pain.

# Posture



Good posture is very important. The back is naturally shaped in an “S” with three natural curves.

Posture is the way you hold your body. For many of us, our posture is hunched over, with the chin thrust forward and shoulders slouched. This kind of poor posture keeps our muscles from properly supporting our back, putting stress on the muscles, discs, ligaments, and joints in our back. This is how injury and pain occurs.

With proper posture, you can decrease your risk for back pain.

## Standing Posture

- Stand tall
- Keep your feet shoulder width apart
- Balance your weight equally on both legs
- Avoid leaning to one side
- Have your arms relaxed at your side
- Relax your shoulders down, not close to your ears

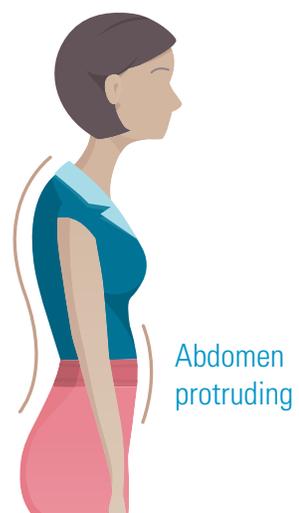
### Good Posture

Balanced upright posture with shoulders down and relaxed



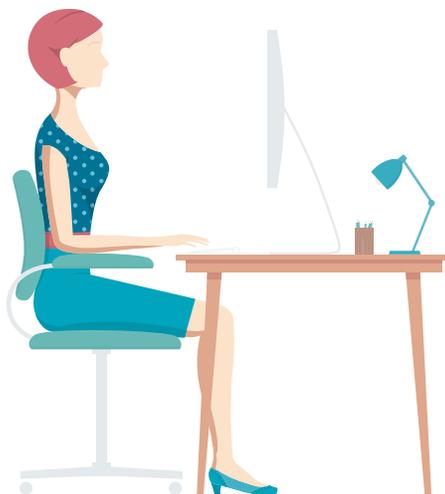
### Poor Posture

Sway back posture with rounded shoulders and over arched spine



## Sitting Posture

- Keep the lower back supported; using a rolled towel may help
- Keep feet supported
- Keep head upright
- Avoid slouching or slumping while sitting



## Sleeping Posture

- Support the curves of the spine when both lying on your side and on your back
- Use pillows to support the curves of the back
- Avoid a mattress that is too soft or too firm



# Good Body Mechanics: How to Move Better

## Basic Guidelines

- Keep your backbone in line
- Keep a wide base of support
- Avoid bending and twisting your back

## Proper Lifting and Carrying

- Bend at your knees, NOT your waist
- Lift with your legs
- Hold objects close to your body
- Use both arms to carry the weight evenly
- Breathe out as you lift



## Proper Reaching

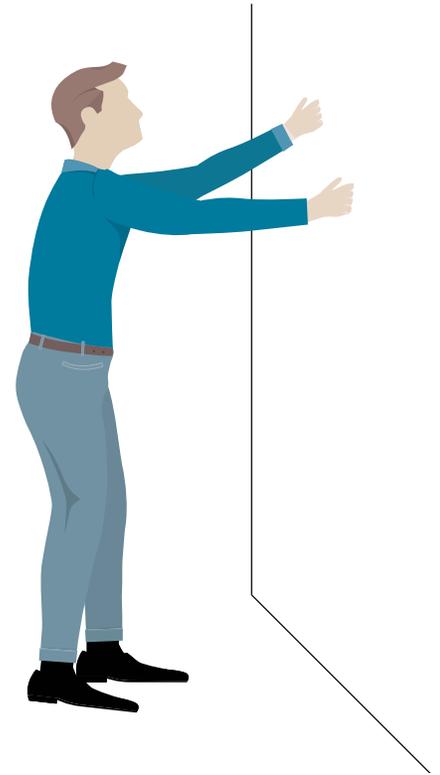
- Position your body close to the object you are trying to reach
- Avoid bending, twisting, and straining when reaching
- Use a step stool if needed



# Stretches

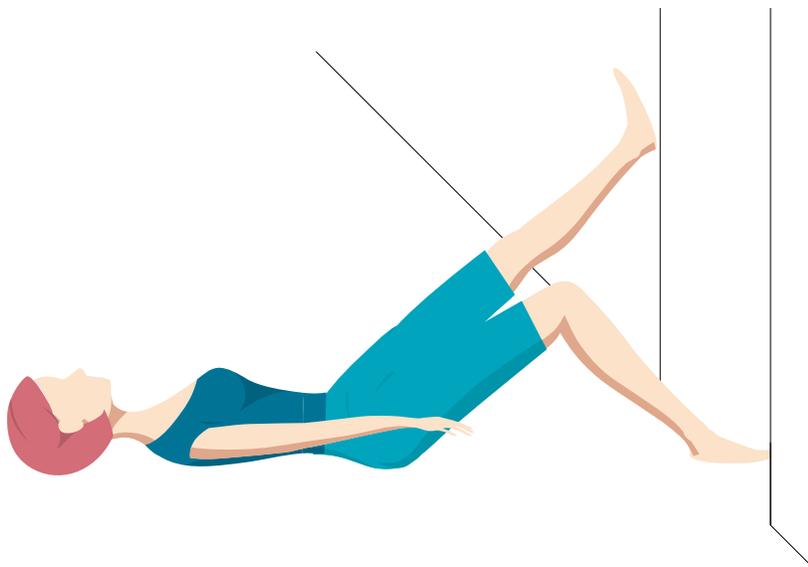
## Calf Stretch

- Position yourself with your arms braced against a wall. Put one foot several inches behind the other.
- Bend your front leg, keeping both heels on the floor. Hold for 30 seconds without bouncing. Do this three times then switch legs.
- Keep your back heel on the floor and your back knee straight. Keep your back foot pointing straight toward the wall.



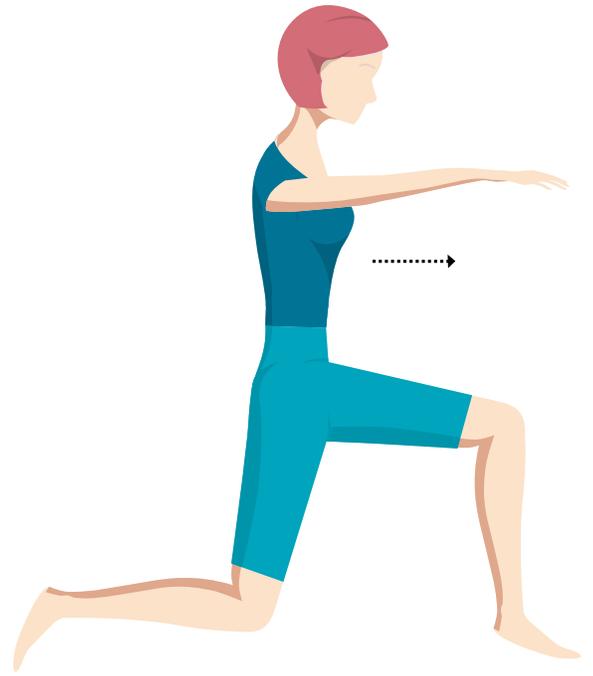
## Hamstring Stretch

- Lie on your back with your buttocks close to a doorjamb. Extend your legs along the floor, bending them slightly.
- Raise one leg and rest your heel against the doorjamb. Straighten your knee by flattening it toward the doorjamb. Feel the stretch in the back of your thigh. Hold for 30 seconds. Do this three times then switch legs.
- Use a pillow to keep your neck from arching. Keep your supporting leg bent and foot flat on the floor.



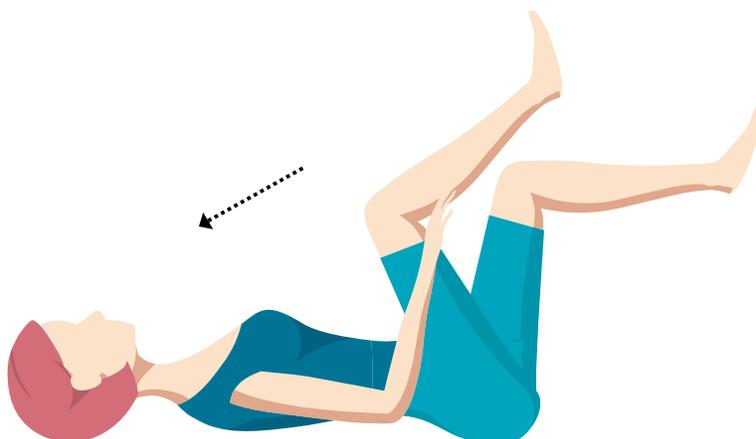
## Hip Flexor Stretch

- Kneel on your right knee (use a pillow if this hurts your knee) and place your left foot on the floor about 20 inches in front of you so your knee is bent. Hold onto a chair if you have a problem balancing.
- Tightening your abdominal muscles, move your hips and pelvis forward, keeping your back and shoulders upright. Feel the stretch in the front of your right hip. Hold for 30 seconds. Do this three times then switch legs.



## Hip Rotator Stretch

- Lie on your back with your knees bent. Use a pillow, if needed, to keep your neck from arching. Rest one foot on the opposite knee.
- Grasp the bottom of your thigh behind the knee and pull it gently toward your chest. (You may also use a towel if needed to pull your knee toward your chest.)
- Feel the stretch in your buttocks. Hold for 30 seconds without bouncing. Do this three times then switch legs.



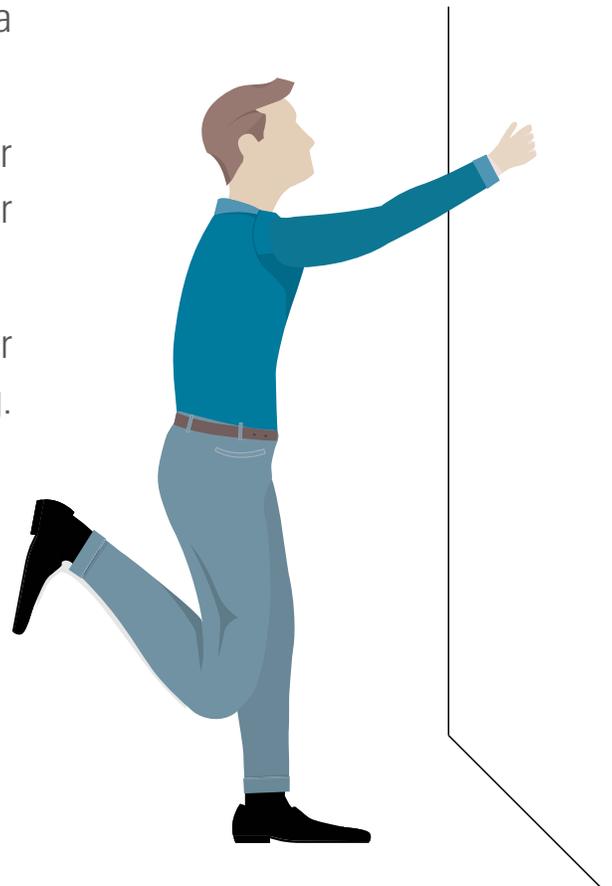
## Knee to Chest Stretch

- Lie on your back with your knees bent. Use a pillow to keep your neck from arching. Keep your feet flat on the floor.
- Grasp the bottom of your thigh behind the knee and slowly pull it to your chest. Keep your other foot on the floor. Hold for 30 seconds. Do this three times then switch legs.



## Quad Stretch

- Position yourself at an arm's length from a wall. Keep your eyes facing straight ahead.
- Place one hand against the wall. With your other hand, grasp your ankle. Pull your lower leg straight back.
- When you feel the stretch in the front of your thigh, hold for 30 seconds without bouncing. Do this three times then switch legs.



# Strengthening

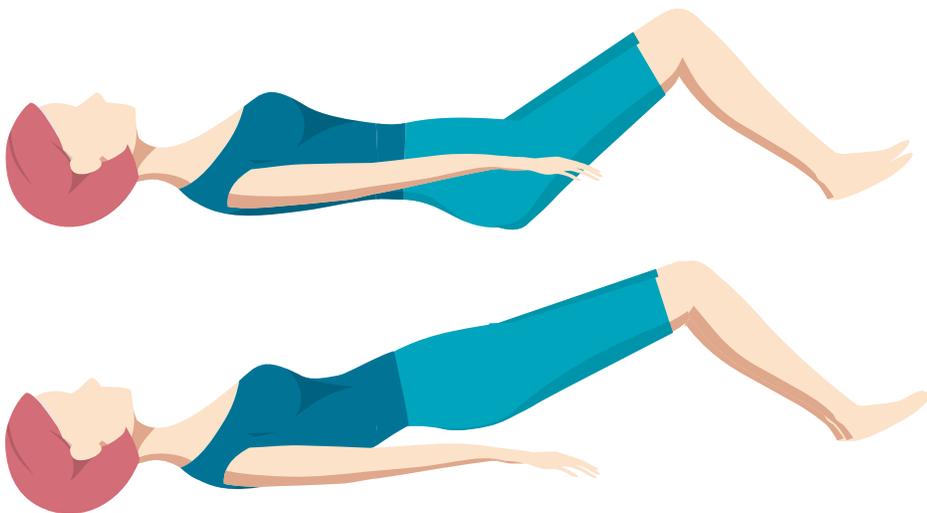
## Partial Curl Up

- Lie on your back with both knees bent and your feet flat on the floor.
- Looking at the ceiling, tuck your chin to your chest slightly and tighten your abdominal muscles. Slowly lift your head and shoulders until your shoulder blades are just off the floor. Hold for at least five seconds, breathing normally. Then, slowly lie back down. Do this ten times.
- Do not pull with your neck.
- If your back begins to hurt, roll a towel and place it under your lower back.



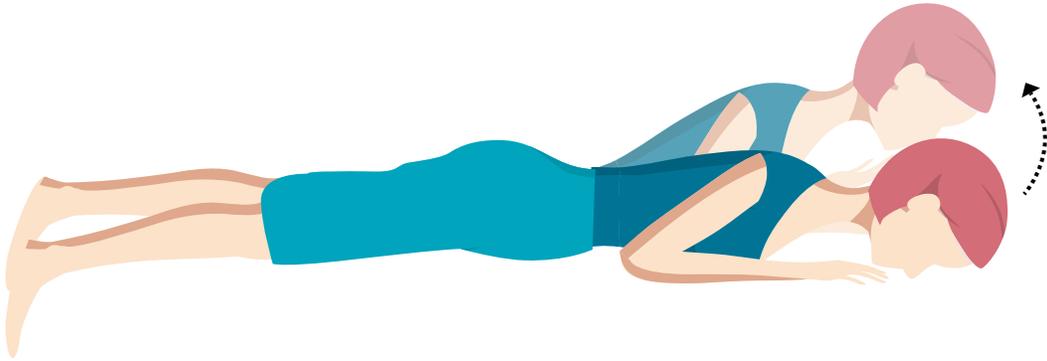
## Bridge

- Lie on the floor with your back and palms flat. Bend your knees. Keep your feet flat on the floor.
- Contract your abdominal and buttocks muscles. Slowly lift your buttocks about three to five inches off the floor. Hold for at least five seconds. Do this ten times.
- Use a pillow if needed to keep your neck from arching.



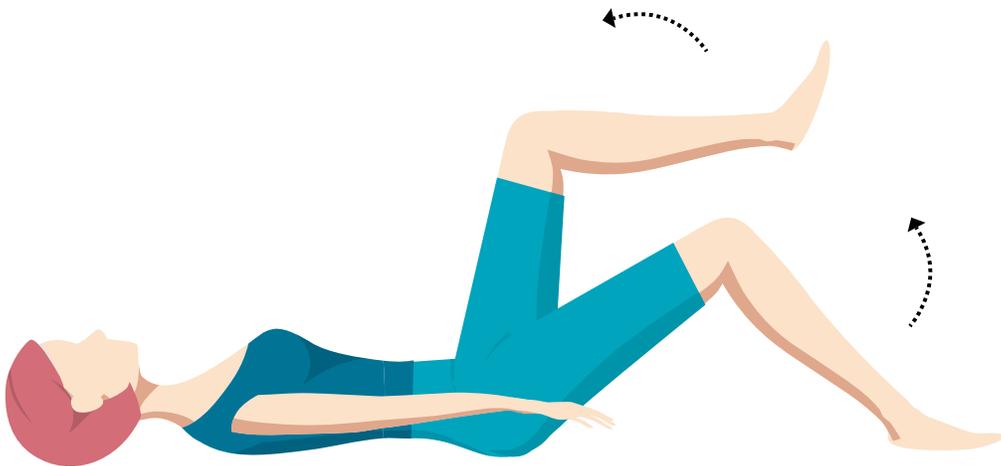
## Prone Press Up

- Lie on your stomach with your feet slightly apart and your elbows bent. Look at the floor. Relax your abdominal and back muscles.
- Push up on your forearms, slowly arching your back. Continue until your belly button is about to rise off the floor. Hold for five seconds then lie down. Do this ten times.
- Keep your stomach and hips on the floor.



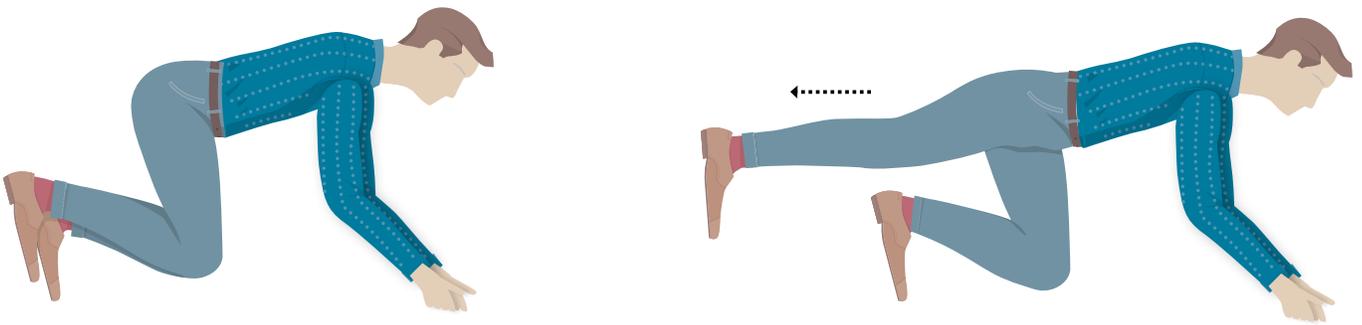
## Knee Lift

- Lie on the floor with both knees bent. Place a pillow under your head. Put your feet flat on the floor and your arms by your sides.
- Lift one bent knee toward your upper body. Keep your abdominal muscles tight and your back flat on the floor. Hold for ten seconds. Do this ten times then switch legs.



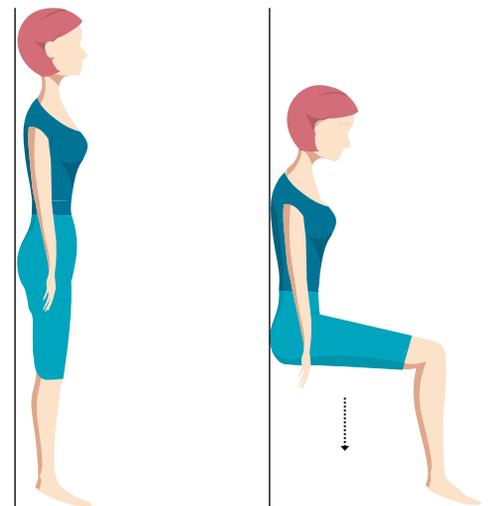
## Leg Reach

- Get on your hands and knees. Keep your knees directly under your hips and your hands directly under your shoulders.
- Keeping your hips level and abdominal muscles tight, extend one leg straight out behind you until it's parallel with the floor. Hold for at least five seconds. Do this ten times then switch legs.
- Use a pillow to kneel on if your knees begin to hurt.
- Challenge yourself by extending opposite arms and legs at the same time.



## Wall Slide

- Stand with your back against a smooth wall. Put your feet at least a foot away from the wall and slightly apart. If you need to, place a rolled towel behind your lower back to help maintain your spine's natural curves. Relax your shoulders and tighten your abdominal muscles.
- Slowly slide straight down until you're halfway between standing and sitting positions. Hold for at least ten seconds then slowly slide back up. Do this five times.
- Do not lower your buttocks below your knees.
- Do not let your knees move past your toes.



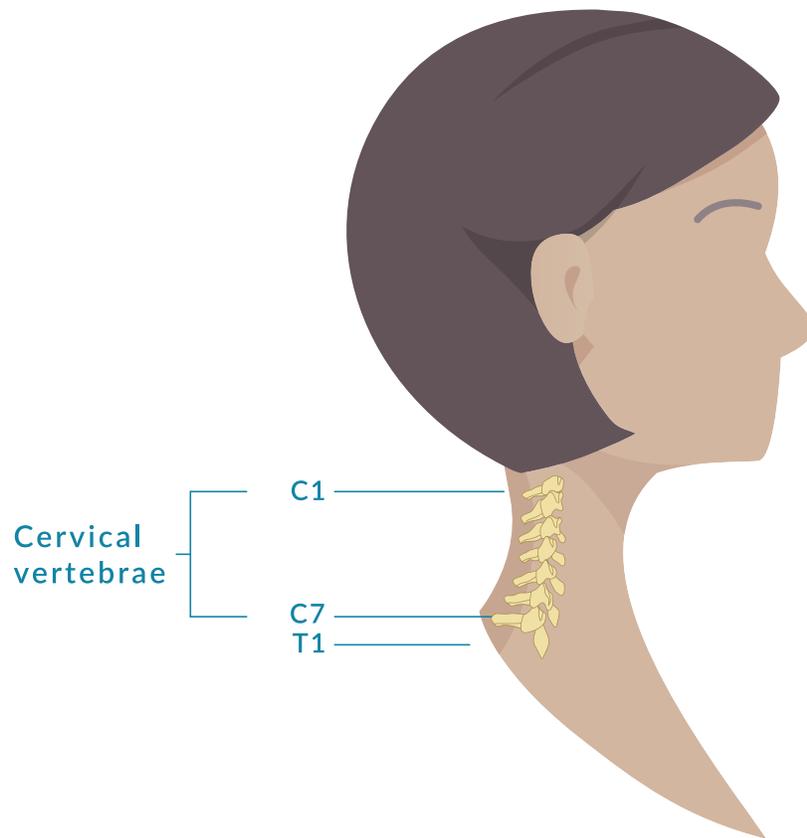




In this section, our neck experts have provided information on the potential causes of neck pain, along with stretches and exercises to prevent and relieve neck pain.

# Protecting Your Neck

Protecting your neck from injuries and decreasing pain involves practicing good posture and body mechanics.



## Why Does Good Posture Matter?

Posture is the way you hold your body. For many of us, our posture is hunched over, with the chin thrust forward and shoulders slouched. This kind of poor posture keeps our muscles from properly supporting our neck, putting stress on the muscles, discs, ligaments, and joints in our neck. This is how injury and pain occurs.

### Improving Your Posture

- Pull shoulders back
- Keep the chin level

# Proper Body Mechanics

## Standing

- Carry objects close to your body
- Keep your ears and shoulders in a line while standing or walking
- To lower yourself, bend at the knees with a straight back
- Work at eye level; do not reach above your head or tilt your head back

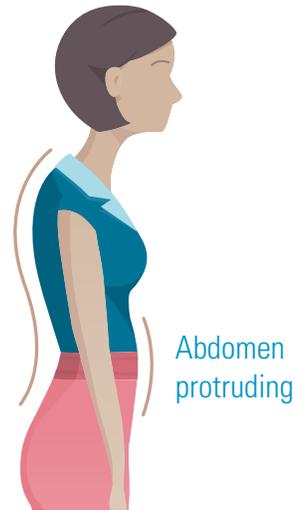
### Good Posture

Balanced upright posture with shoulders down and relaxed



### Poor Posture

Sway back posture with rounded shoulders and over arched spine



## Sitting

- Set up your workstation so your monitor is at eye level
- Keep your knees at or slightly below the level of your hips
- Sit up straight, with your feet flat on the floor; use a footrest if your feet do not touch the floor
- Avoid sitting or driving for long periods; take frequent breaks



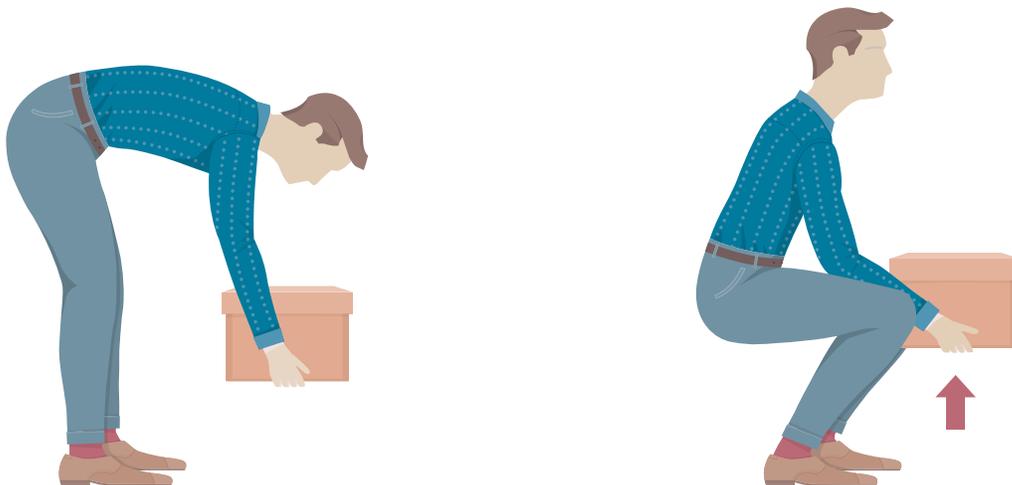
## Sleeping

- Sleep on your back with a pillow under your knees, or on your side with a pillow between bent knees
- Avoid using pillows that are too high or too low
- Sleep on a mattress that supports you, with a pillow under your neck



## Proper Lifting and Carrying

- Bend at your knees, NOT your waist
- Lift with your legs
- Hold objects close to your body
- Use both arms to carry the weight evenly
- Breathe out as you lift



## Proper Reaching

- Position your body close to the object you are trying to reach
- Avoid bending, twisting, and straining when reaching
- Use a step stool if needed



## Finding Your Neutral Neck Position

To prevent a neck strain from occurring, keep your neck in the neutral position as much as possible. The more time you are out of the neutral position the more likely your neck muscles will become sore. Move your head slowly forward and backward. The spot where your head is most comfortable above your shoulders is the neutral position.

Your neck has three basic movements. To avoid injury to your neck, keep within the motion that is comfortable for you.



**A. Rotating:** Your neck rotates when it turns side-to-side.

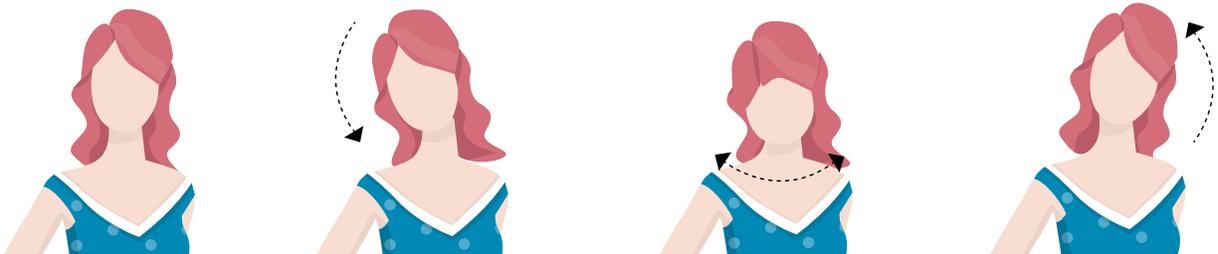
**B. Side Bending:** Your neck side bends when you tilt your head toward your shoulder.

**C. Flexing and Extending:** Your neck flexes when you look down and extends when you look up.

# Stretches

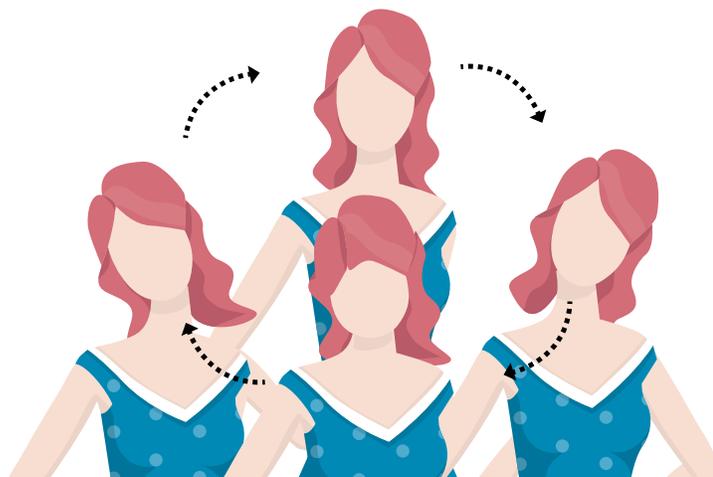
## Neck Rotation

- Lie on your back with your head in neutral position, your knees bent, and your feet flat on the floor. Place a rolled-up towel or neck roll under your neck. Use a pillow under your back if needed.
- Turn your head slowly to one side, keeping your chin level. Try to touch your chin to your shoulder. Hold for five seconds then turn your head to the other side. Repeat ten times on each side.
- Do not force any motion.
- Move slowly and evenly.



## Face Clock

- Lie on your back with your head in neutral position, your knees bent, and your feet flat on the floor. Place a rolled-up towel under your neck.
- Imagine a clock face. With your nose, slowly trace the outer edge of the clock. Move clockwise first, then counterclockwise. Repeat five times in each direction.
- Move slowly and smoothly.
- Stay in a comfortable range.



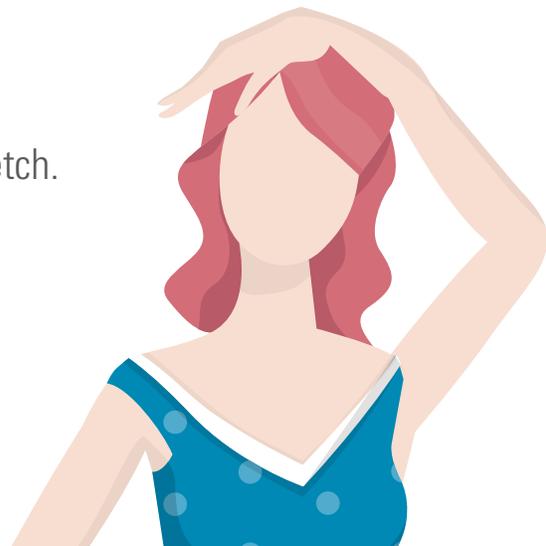
## Neck Flexion

- Sit up straight with your neck in neutral position. For support, rest your left forearm against your lower back. Put your right hand behind your head.
- Gently push your head forward and down, keeping your chin tucked. Hold for ten seconds. Return to neutral position and repeat five times.
- Do not push too hard on your head.



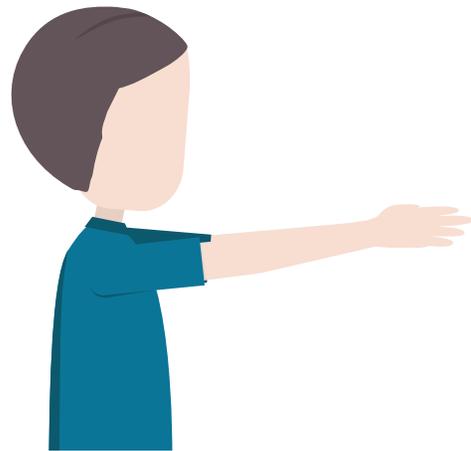
## Side Bend

- Sit up straight with your neck in neutral position. Hold the edge of your chair with your right hand. Tuck your chin slightly then tilt your head to the left, keeping your nose pointed straight ahead.
- Place your left hand on the upper right side of your head. Gently pull your head to the left. Hold for ten seconds then return to neutral position. Repeat five times and switch sides.
- Do not force your head.
- Use gentle pressure to increase the stretch.



## Reach and Pull

- Reach forward with both arms parallel to the floor. Clasp your hands and lower your chin toward your chest. Round your shoulders, feeling the stretch between your shoulder blades. Hold for ten seconds.
- Unclasp your hands and return your head to neutral position. With your palms facing forward, bend your elbows and bring your forearms back until your palms are in line with your ears. Feel the stretch in your chest muscles. Repeat five times.
- Do not push your arms too far behind you.



## Shoulder Stretch

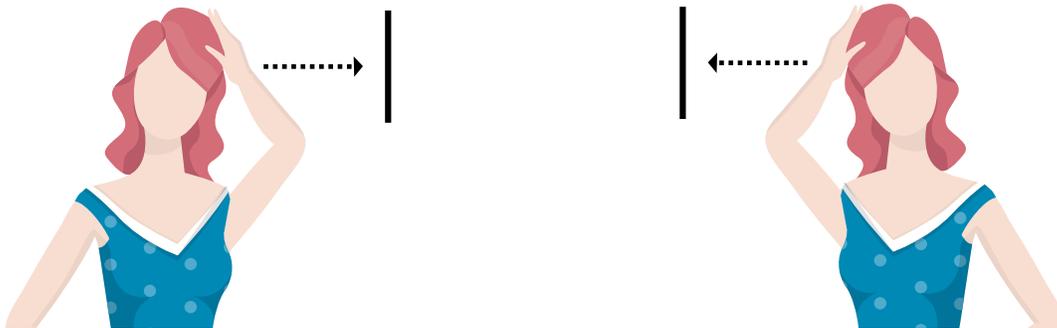
- Bend your left arm in front of you and hold it with your right hand, just beside the elbow. Then pull your left elbow across the front of your body. Hold for ten seconds and switch sides. Repeat five times with each arm.
- Do not force the stretch.
- Use slow, steady movements.



# Strengthening

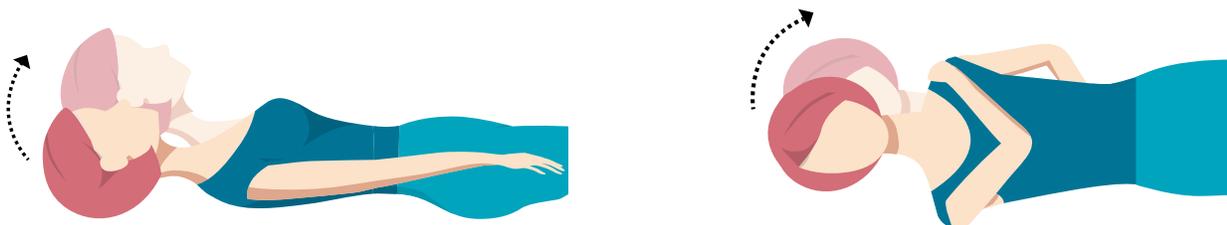
## Head Press

- Sit up straight with your head in neutral position. Place your right palm against your forehead. Push your head against your hand while resisting with your arm muscles so that your head does not move. Hold for ten seconds. Slowly relax the pressure. Repeat five times.
- Move your palm to the side of your head. Press five times. Repeat on the other side.
- Place your palm on the back of your head. Press and repeat five times.
- Do not cause pain.



## Head Lifts

- Lie on your back with your head in neutral position, knees bent, and feet flat on the floor. For support, place a pillow under your neck. Tuck your chin and lift your head toward your chest, keeping your shoulders on the floor. Hold for ten seconds. Repeat five times.
- Turn onto your right side. Place your right palm on your left shoulder. Lift your head slowly toward your left shoulder. Hold for ten seconds. Repeat on your left side.



## Arm Lifts

(If you have shoulder pain talk with your doctor first)

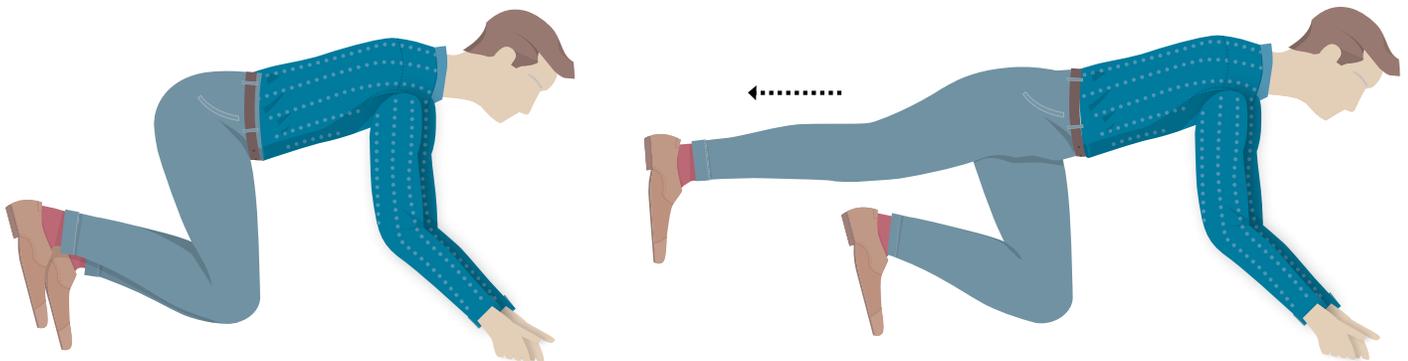
- Keep your head in neutral position and stand with your back straight.
- Alternately raise one arm and push back with the other. Keep your arms straight and your shoulders down. Move in slow, smooth arcs. When you reach the end of your range of motion, hold for ten seconds. Repeat five times.



## Reach and Hold

(If you have shoulder pain talk with your doctor first)

- Get on your hands and knees. Place your knees directly in line with your hips then put your head in the neutral position.
- With your palm down, raise your right arm straight ahead of you. Hold for five seconds then lower your arm. Switch sides and repeat three times with each arm.
- Repeat the exercise, lifting your arm out to the side, leaving both knees on the floor at first. Raise each arm three times. Repeat on opposite side.
- Repeat the exercise, lifting your arm out to the side and your opposite leg out to the side. Raise each arm three times. Repeat on opposite side.







# Your Spine Center Team:

Erkan Alci, M.D.

Wayne B. Bauerle, M.D.

Todd D. Cook, M.D.

Gene M. Massey, M.D.

William L. Mills, M.D.

Stephen Q. Parker, M.D.

Kimberly A. Purgavie, D.O.

Scott B. Sauer, D.O.

Erin E. Watson, M.D.

Kenneth J. Wenz, M.D.

Shan Fu, P.A.-C.

Doug Vick, P.A.-C.

Tasha Lee, D.N.P., F.N.P.-B.C., O.N.P.-C.

Please visit our website for more patient education information and to access your Patient Portal at [WWW.ORTHOSC.ORG](http://WWW.ORTHOSC.ORG).

## **Carolina Forest Clinic**

210 Village Center Boulevard  
Suite 200  
Myrtle Beach, SC 29579  
(843) 236-3222

## **Carolina Forest Pain**

210 Village Center Boulevard  
Suite 150  
Myrtle Beach, SC 29579  
(843) 903-9031

## **Conway**

2376 Cypress Circle  
Suite 300  
Conway, SC 29526  
(843) 347-7222

## **Murrells Inlet**

3545 Frontage Road  
Suite 200  
Murrells Inlet, SC 29576  
(843) 294-1941