

## **Osteoporosis Exercise: Balance, Posture and Functional Exercises**



# Introduction

You can help improve and maintain your balance, posture and ability to do daily activities with some of these exercise examples. Good posture is work. You need to practice and strengthen posture muscles. These exercises may decrease your risk of falling and breaking a bone. As a complete exercise program, these exercises should be done along with a weight-bearing exercise program. Weight-bearing activities help to build bone.

Kyphosis is seen when one's posture becomes stooped forward or hunched. The back becomes stiff and hard to straighten.

- Bending forward squeezes the front of the spine.
  - \* This makes it more likely to break a bone in this area.
- Leaning or bending backward makes space in the spine.
  - \* This decreases the chance of a broken bone. A person with osteoporosis can gently lean back to comfortably stretch out and strengthen the back.

Remember:

- Talk with your doctor or physical therapist before starting new exercises or activities.
- Avoid movements that call for bending forward from the waist or too much twisting of the spine, such as, touching your toes or doing sit-ups.
- A little muscle soreness lasting for 1 to 2 days after new or increased exercise movements is normal.
  - \* Exercises should **not** hurt while you are doing them or cause soreness for more than 1 to 2 days afterward.
  - \* Talk to your doctor about pain or soreness that goes past 1 or 2 days.
- Your legs and feet may feel a little wobbly when doing balance exercises. You should **not** feel like you could fall. If you do feel like you may fall, reposition yourself and try again.
  - \* Hold onto a stable chair or table with both hands.
  - \* As you feel stronger and no longer wobble, hold on with only one hand.
  - \* When you are steady, touch the chair with one fingertip or hold your hands a couple inches above the table or chair.

Start by choosing a few exercises that you can grow from. Choose some that work on balance, posture and function and some that work on weight-bearing. As time goes on, add more exercises, repetitions, weight or duration and you will have success.

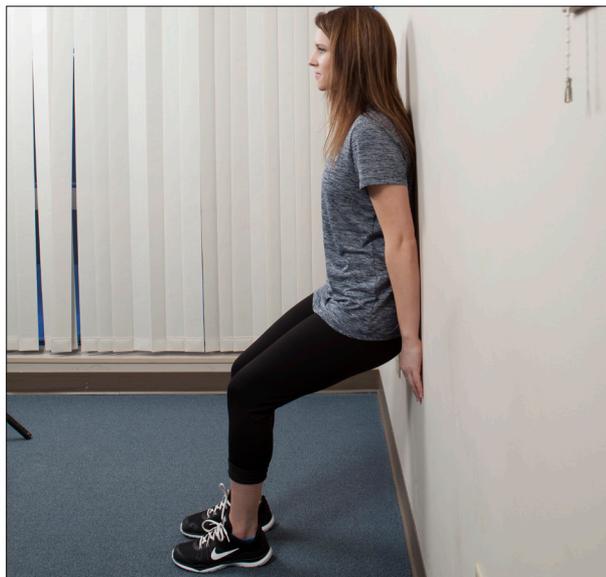
For floor exercises, place a blanket or thick mat under you for comfort. If you have a problem getting up and down from the floor, try the exercise on a firm bed.

# Standing Exercises



**Practice doing some simple exercises to strengthen your muscles and improve your posture and balance. Correct standing posture is key for proper sitting and walking postures.**

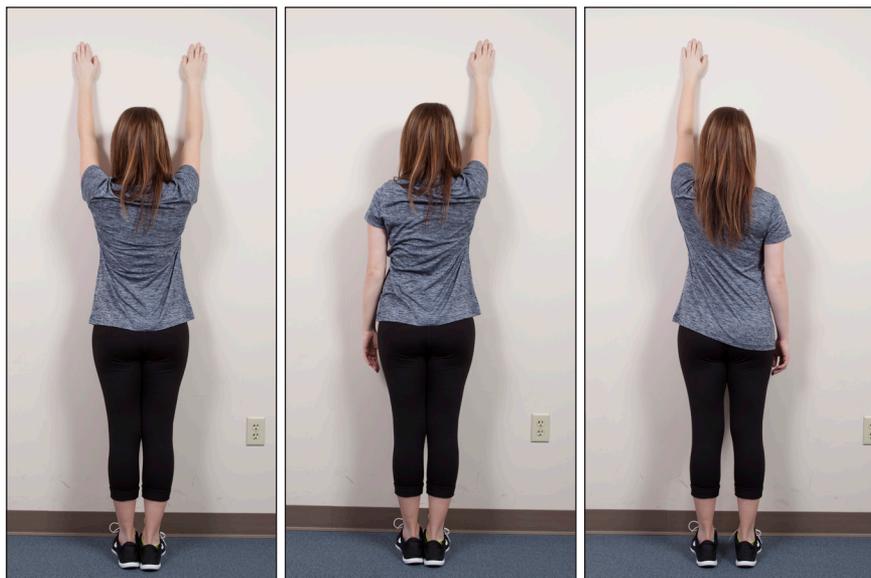
- Stand with your head, shoulders and buttocks against a wall, with your heels 2 to 3 inches from the wall. Avoid knees in front of toes with exercise. May use a chair in front for safety if needed.
- Pull in your chin and tighten your stomach and buttocks.
- Press your back against the wall, leaving a small space behind the curve of your lower back.



## Wall slide:

**This exercise helps strengthen the thighs, stomach and back. It helps improve a rounded upper back and forward head posture. In addition, this exercise improves leg alignment.**

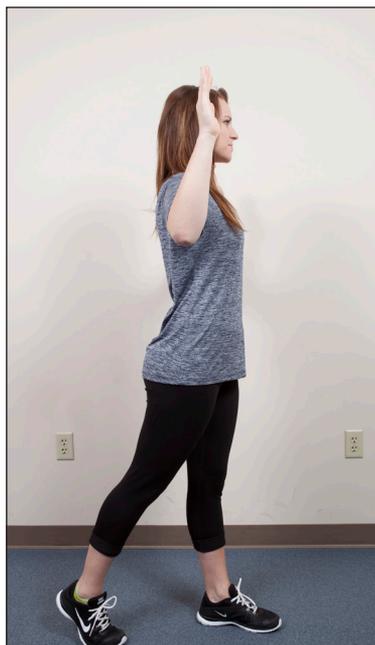
- Stand with your back to the wall, heels at least one shoe-length from the wall. Avoid knees in front of toes with exercise. May use a chair in front for safety if needed.
- Point your feet straight ahead and shoulder-width apart.
- Place your buttocks, palms of your hands and shoulders against the wall.
- Tuck your chin. The back of your head should be as close to the wall as possible. Tighten your stomach muscles during the entire exercise.
- Slide up and down the wall and get as close to a sitting position as possible. It may take several days or weeks to reach this position. Repeat this 10 times.
- Remember: Keep your shoulders back. Keep your stomach and back flat.



## Wall Arch:

**This exercise will stretch your shoulders and calves and tone your back and stomach muscles.**

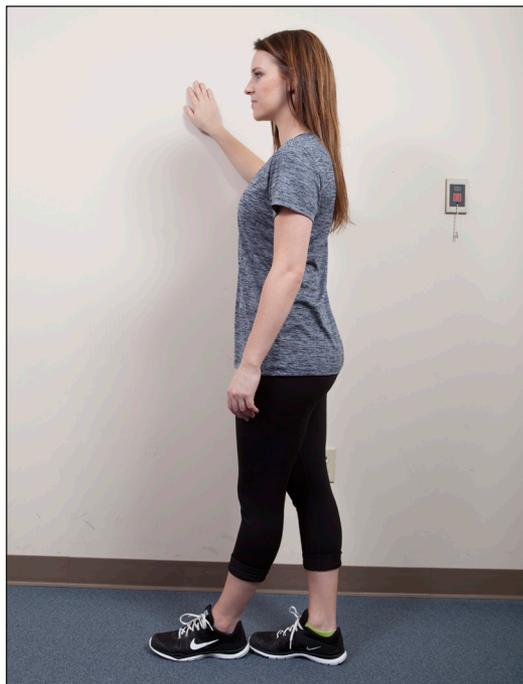
- Stand facing the wall with your arms at your sides. Feet should be about 6 inches apart and 6 inches from the wall.
- Slowly inhale and tighten your stomach muscles as you stretch both arms up above your head and touch the wall.
- Slowly exhale and lower both of your arms to the starting position.
- While slowly inhaling again, reach up with your right arm to touch the wall and stretch down with your left arm.
- Slowly exhale and return to the starting position.
- Switch arms. While slowly inhaling, reach up with your left arm to touch the wall and stretch down with your right arm. Slowly exhale and return to the starting position.
- Repeat 10 times



## Corner stretch:

**This stretch enhances proper posture, stretches the shoulders, flattens the upper back and improves rounded shoulders.**

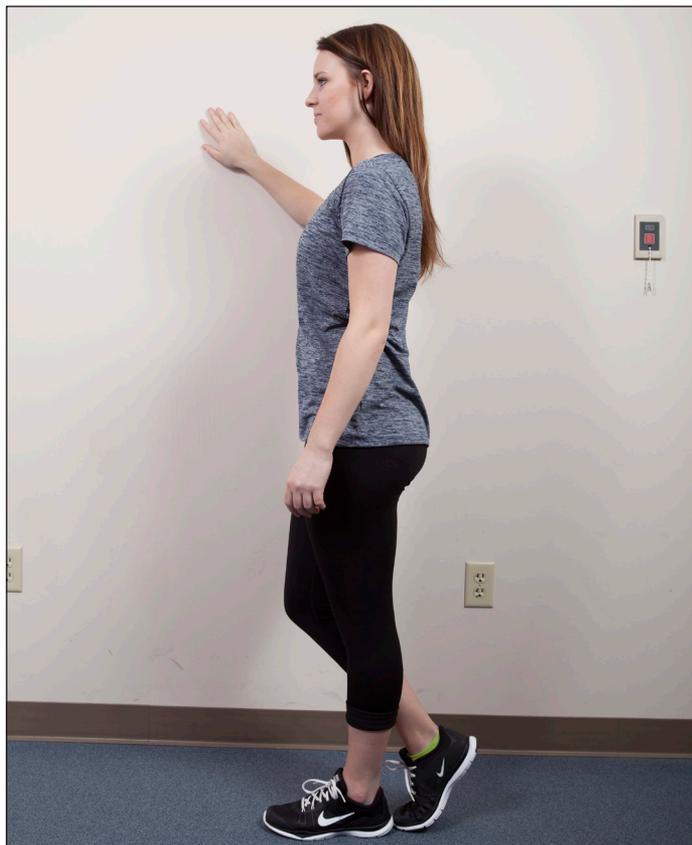
- Stand in the corner of a room. Bend your arms at a 90 degree angle at shoulder level and hands touching the walls.
- Step one foot forward keeping that knee bent.
- Lean onto the front leg as you bring your head and chest toward the corner. You should feel a light stretch in your shoulders.
- Hold this position for 20-30 seconds.
- Stand up straight and switch feet.
- Repeat this stretch on the other side.
- Do 2 on each side and increase slowly.
  - \* This exercise should **not** hurt in any way or cause muscle soreness lasting more than 2 days.



## Tandem stand:

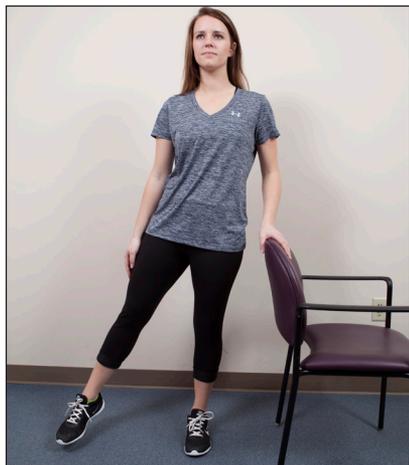
**This exercise helps improve balance, alignment and posture.**

- Stand sideways next to a wall for support. Place one hand on the wall for support if needed.
- Keep your stomach muscles tight and your chin tucked in.
- Place one foot directly in front of the other touching heel to toe.
- Try to stay as still and steady as possible. Do **not** move your feet around to maintain balance. Rather, steady yourself using the wall for support.
- Hold the tandem stand for 10 seconds.  
Rest. Repeat 5 times.



## Tandem walk:

- Stand sideways next to a wall for support. Place one hand on the wall for support if needed.
- Keep your stomach muscles tight and your chin tucked in.
- Place one foot directly in front of the other touching heel to toe.
- Step forward with the heel of one foot touching the toes of the other.
- Tandem walk for about 10 feet.
- Repeat 5 times.



## Standing Exercises with a Chair or at a Counter

### Hip Abductor Strengthening or Side Hip Raises:

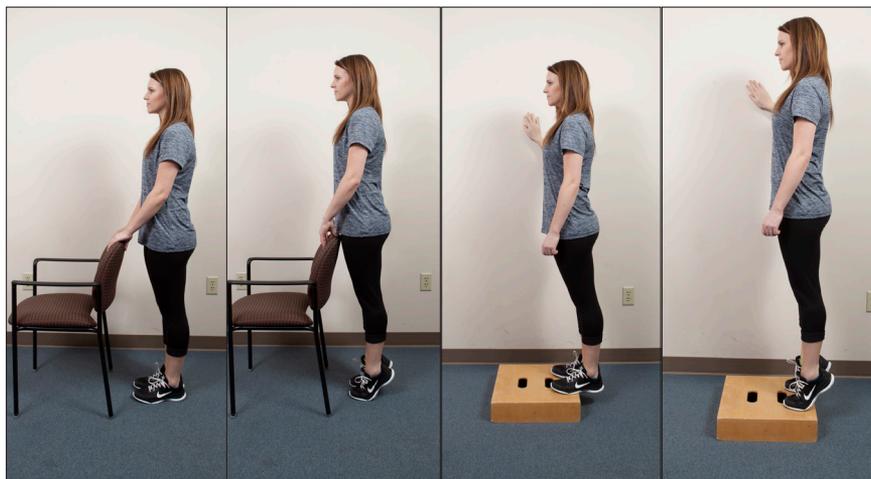
**This exercise strengthens the hips, thighs and buttocks and improves balance**

- Stand straight with your feet slightly apart and toes facing forward. Keep your legs straight but do **not** lock your knee. Steady yourself by holding onto the back of a sturdy chair or the counter. Do **not** bend your waist or knee.
- Place your left hand on your left pelvis. Slowly lift your left leg/foot out to the side as you count to 2. Pause. Slowly lower your left foot back to the ground as you count to 4.
- Make sure your pelvis does **not** rise up. It should remain in the same spot for this exercise.
- Repeat 10 times with the left leg and then 10 times with the right leg. Rest for 1-2 minutes. Do a second set of 10 times with each leg.
- Advanced move: You may add ankle weights to make the exercise more difficult. Start with 1 to 3 pounds. Follow your doctor's directions regarding weight limits.
- Only a small amount of movement out to the side is necessary. It is very important to do this exercise in a slow, controlled motion.



## Flamingo swing:

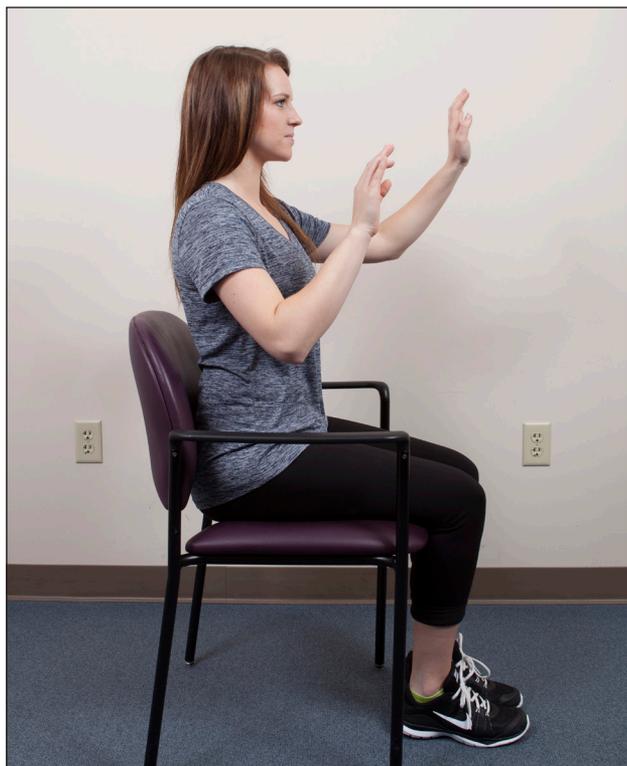
- Stand straight and hold onto the back of a sturdy chair or the counter. Do **not** bend your waist or knee.
- Place your hand on your pelvis. Raise your leg forward and back with control.
- Perform 10 swings.
- Turn and repeat on the other leg.
- Advanced move: You may add an ankle weight. Start light with 1 or 2 pound weights. Follow your doctor's directions regarding weight limits.



## Toe raises/heel raises:

This exercise strengthens the lower legs and improves balance.

- Stand straight with your feet shoulder-width apart. Support yourself by holding onto the back of a steady chair or a counter. Do **not** bend at your waist or knees. During the exercise, support yourself on the chair or counter as little as possible to challenge your balance.
- Slowly rise up on your toes as you count to 4. Hold this position for 2 to 4 seconds and then back onto your flat feet. As you rise up onto your toes, imagine stretching your head toward the ceiling.
- Slowly lower your heels back to the floor as you count to 4.
- Repeat 10 times. Rest for about 1 minute. Then complete a second set of 10.
- Do **not** lean on the counter or chair. This is for balance only.
- Breathe regularly throughout the exercise.
- Advanced move: Perform this exercise on a staircase to increase its intensity.



## Finger Marching:

**This exercise strengthens your upper body and grip. It also improves the flexibility of your arms, back, and shoulders.**

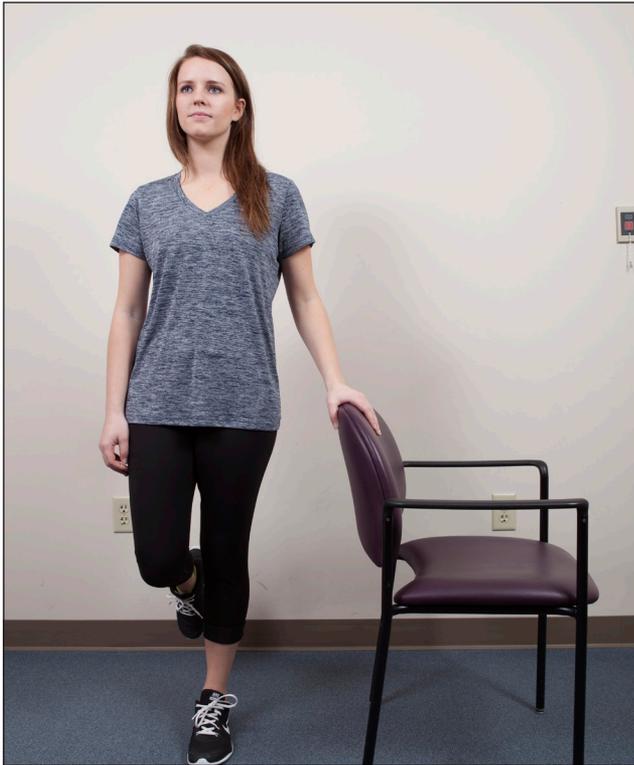
- Stand or sit forward in a chair with your feet shoulder-width apart and flat on the floor.
- Pretend there is a wall in front of you. Slowly walk your fingers up the wall until your arms are above your head. Hold your arms overhead and wiggle your fingers for 10 seconds. Slowly walk them back down.



## Standing Back Bends:

**This exercise stretches the spine and muscles for flexibility.**

- Stand straight up with your feet shoulder-width apart and your buttocks against a counter.
- Place your hands on your waist. Pinch your shoulder blades together. Lean back slightly but stay comfortable.
- Keep your head aligned in the normal position. Keep your chin level with the ground and your eyes looking straight ahead.
- Hold for a slow count of 5.
- Relax back to your normal posture.
- Repeat 5 times.



## Balance at the chair:

### Practice balancing on one leg.

- Stand straight and tall. Support yourself by holding onto the backs of 2 steady chairs or a counter. Do **not** bend at your waist or knees. During the exercise, support yourself on the chairs or counter as little as possible to challenge your balance
- Lift one leg.
- Keep your stomach muscles tight and your chin tucked in.
- Hold for a slow count of 5.
- Relax back into your normal posture.
- Repeat 5 times.

# Walking Exercises



## Walking posture:

**Walking strengthens your legs, heart and other muscles and helps to improve your balance.**

- Hold your head high keeping your back and neck straight.
- Tighten your stomach muscles.
- Your shoulders and arms should move freely and naturally.

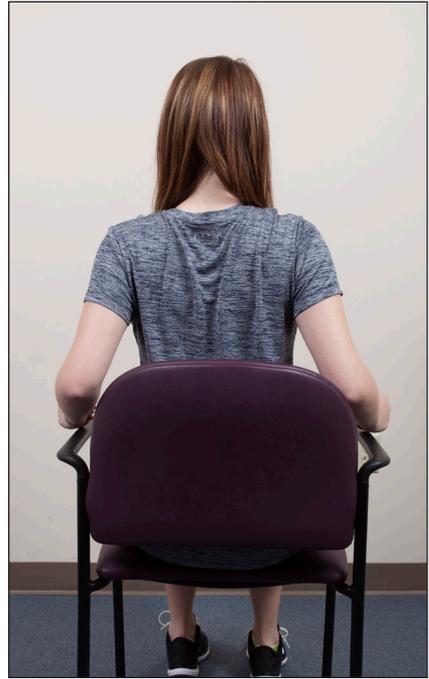
# Sitting Exercises



## Chin Tuck or Head Press:

**This exercise stretches your neck and works on the correct alignment of your head and shoulders.**

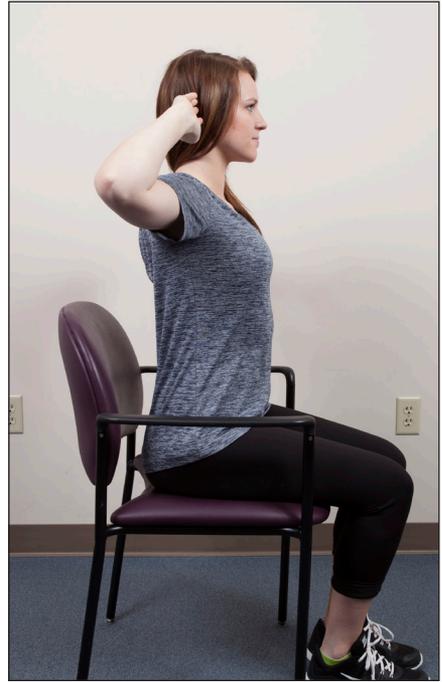
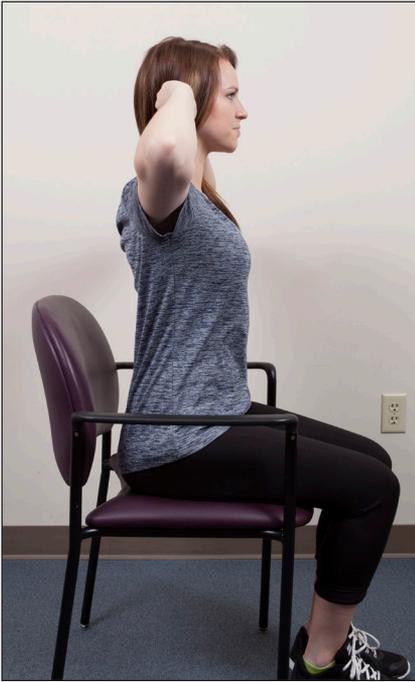
- Sit in a sturdy chair with your back well-supported. Look straight ahead.
- Pull your chin in toward your neck, but keep looking straight ahead. Do **not** tilt your chin or bend your forehead forward.
- Push your hands down on your thighs to help straighten your back.
- Hold this position for a few seconds. You will feel a stretch in the back of your neck.
- Then relax back to your normal posture for a second or 2. Repeat this exercise 5 times.



## Shoulder blade squeeze:

**This exercise stretches your chest and strengthens your upper back muscles.**

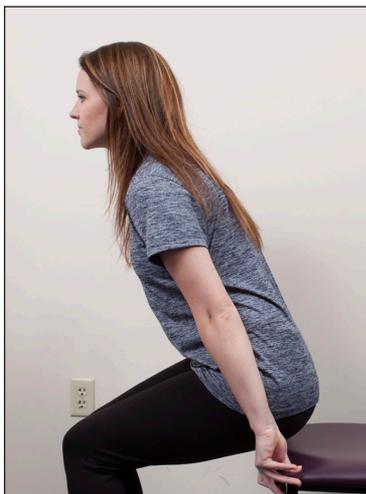
- Place your feet flat on the floor. Sit slightly forward in a sturdy chair, keeping your back and neck straight.
  - Look straight ahead. Bend your arms at the elbows.
  - Gently move your elbows and shoulder blades back as far as you can and still be comfortable.
  - Hold the position for 5 seconds. Breathe normally.
  - Return your arms to the starting position.
- Repeat this exercise 5 to 10 times.



## Chest Stretch:

**This exercise helps to flatten your upper back and stretch your chest.**

- With your feet flat on the floor, sit in a chair with your hands resting comfortably behind your neck.
- Inhale while gently moving your elbows backward.
- Hold the position for a few seconds, breathing normally, before returning to the starting position. Repeat 5 to 10 times, depending on your ability.



## Chair Rise Exercise:

**This exercise improves balance and strength in the stomach and legs.**

- Sit on the front edge of a sturdy chair keeping your knees and feet hip-width apart. This exercise should be done without using your arms. Cross your arms or hold them out in front of you to help avoid using your arms.
  - \* If unable to safely stand without using your arms, support yourself with your arms as shown in the picture
- Tighten your stomach and stand up. With control, sit back down again. Do **not** sit down quickly. Do **not** lean your weight too far forward or onto your toes when standing up.
- At first, you may find it easier to place a pillow on the seat of the chair. Once you are able to comfortably stand and sit, remove the pillow.
- Stand and sit 10 times
- If this is a hard exercise, start by using your hands for support.
- If you feel pain or discomfort while sitting back down, place 1 or 2 pillows on the chair or only squat down 4 to 6 inches.
- Do **not** allow your knees to come forward past your toes. This places stress on the knee joint.

# Floor Exercises



## Pelvic Tilt:

**This exercise improves posture and tightens the stomach and buttocks muscles.**

- Lie on your back on the floor or on a firm mattress. Bend your knees. Place your feet flat on the floor or mattress. Keep your arms at your sides with the palms facing the ground.
- Slowly push your pelvis toward your stomach. Your hips and lower back will be off the floor as you count to 2. Keep your upper back and shoulders on the floor or mattress.
- Slowly lower your pelvis back to the starting position as you count to 4.
- Do this 10 times. Rest for 1 to 2 minutes. Then do a second set of 10.
- Remember to breathe throughout the exercise.



## Back and Shoulder Stretch:

**This exercise stretches your upper back and shoulders.**

- Lie on the floor. Bend your knees, tighten your stomach muscles and stretch your arms above your head.
- Keeping your arms straight, spread them out and lower them until they are level with your shoulders.
- Hold the position for a few seconds while breathing normally.
- Return your arms to the starting position. Repeat this exercise 5 to 10 times.



## Shoulder Press:

**This exercise strengthens your back muscles.**

- Lie on your back on the floor or on a firm mattress. Bend your knees. Place your feet flat on the floor or mattress. Keep your arms at your sides with the palms facing the ground.
- Gently press the back of your shoulders into the floor or wall. Hold for 10 seconds. Do **not** hold your breath. Count out loud to avoid holding your breath.
- Do this 10 times. Rest for 1 to 2 minutes. Then do a second set of 10.



This photo shows an advanced exercise.

## Abdominal Press:

**This exercise improves core stability and spinal alignment.**

- Lie on the floor. Bend your knees. Inhale slowly.
- As you exhale, tighten your stomach.  
**Advanced exercise:** Lift one leg at a time or both legs to create a 90 degree angle at the hips and knees.
- Inhale again. As you exhale, draw the stomach in more while you press your hands into your thighs. Do **not** allow your legs to move more than 90 degrees.
- Keep the legs in the air and repeat the abdominal press (inhale, exhale and press) up to 10 times.





