



**Posture, Body Mechanics,  
Alignment, and Moving Safely**

**SANFORD<sup>®</sup>**  
HEALTH



# Introduction

Using correct posture, proper body mechanics and safe alignment are important no matter what your age is. These techniques are even more important for persons with osteoporosis.

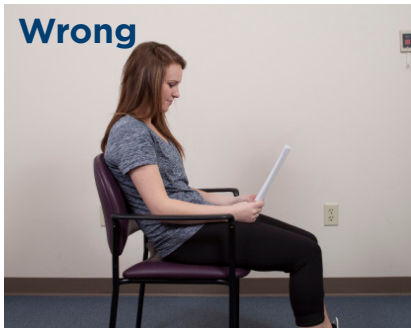
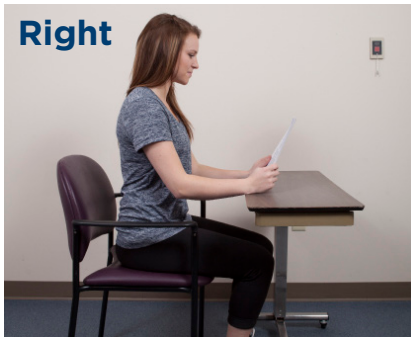
- Body mechanics is how you move your body when doing your daily activities. Using proper body movements, when sitting and standing, helps to prevent strain and stress on the bones and joints. This can help you stay active longer and prevent broken bones and disability.
- Posture is the way you position your body when sitting or standing. It is the way you hold your body. You can limit the amount of curve in the upper back (kyphosis) by using the correct posture.
- Alignment is how the head, shoulders, spine, hips, knees and ankles relate and line up with each other. Safe alignment of the body reduces stress on the spine and maintains the correct posture. Do not:
  - Slump (a head-forward posture)
  - Bend forward from the waist with straight legs
  - Twist or bend your trunk (or torso)
  - Twist your trunk while bending forward for activities, such as:
    - Coughing
    - Sneezing
    - Vacuuming
    - Lifting
  - Perform activities where you may reach far and could lose your balance, such as, reaching up for items on a high shelf.
  - Lift items over your head or carry heavy packages.

Do not do exercises that cause you to bend over from the waist if you have osteoporosis or low bone density. These types of exercises can hurt your spine. Do not do exercises, such as:

- Toe touches
- Abdominal crunches
- Sit-ups

Other types of exercises, such as, yoga, Pilates, tennis and golf may need to be changed to offer safer movements. These activities involve twisting and bending motions. Keep your back flat to move safely and protect your spine.

## Sitting



## Sitting (Continued)

- Keep your hips and knees at the same level (horizontal) with your feet flat on the floor. There should be a natural inward curve to your lower back. Stretch the upper back upward and straight while trying to keep a comfortable posture. Pull your belly button in with your stomach muscles to help strengthen your core muscles. Over time, your muscles will become stronger as they get used to this sitting posture and alignment.
- Tying shoes or working on your feet: First, sit in a chair and place one foot at a time on a footstool or on your other leg. Lean forward at the hips with a straight back to reach your foot. Do not allow your upper back to slouch. Keep the natural inward curve of your lower back and a straight upper back.
- If you are sitting for long time and your feet do not touch the ground, use a footstool to keep your hips and knees horizontal.
- Bucket seats, soft couches and some chairs may not support your lower back at the natural inward curve. Place a rolled up towel or pillow in this area to support your lower back.
- When reading, working on crafts, or other activities in front of you, do not slump over. Set your book on a desk, table or pillow on your lap. If you are sitting at a desk, prop up a clipboard so it slants toward you, like a drafting table.
- To stand up from a chair, first move your hips forward to the front of the chair. Then use your leg muscles to lift yourself up.
- When driving or riding in a car, use the head rest.
- After sitting for a while, stand up and stretch or move around.



## Standing

- Hold your head high, chin in, and shoulder blades slightly pinched together.
- Keep the natural inward curve of your lower back. Pull your belly button in with your stomach muscles to help strengthen your core muscles.
- Point your feet straight and knees forward.
- Standing in one place for a long time is tiring for the back and legs. Try placing one foot on a stool or in an open cabinet. Switch feet every so often.

You can help yourself know what a correct standing posture should feel like by practicing these steps:

- Stand with your back against a wall. Your head, shoulders and buttocks should touch the wall. Place your heels 2 to 3 inches from the wall. Pull in your chin and tighten your stomach muscles and buttocks.
- Press your back against the wall while leaving a small space behind the natural curve of your lower back. If helpful, place a small towel behind the natural curve of your back.



## Walking

- Wear well-fitting shoes that are not loose or slip-ons. The soles should be of non-slip material.
- Hold your head high, chin in, shoulder blades slightly pinched together. This is the same position as the standing position.
- Point your feet straight ahead, not to one side.
- Face your knees forward and keep them slightly bent.
  - Your knees should not lock as you bring your weight over your feet.
- Keep your back and neck straight and keep the natural curve in your lower back.
- As you take steps, land lightly on your feet.
- Pull your belly button in with your stomach muscles to help strengthen your core muscles.
- Let your shoulders and arms move freely and naturally.





## Climbing Stairs

- The stairs can offer an easy and handy method of exercise and help maintain your bone density. Always ask your doctor if it is safe for you to go up and down the stairs.
- Build up slowly with this exercise.
- Hold your head high, chin in, shoulder blades slightly pinched together. This is the same position as the standing position.
- Point your feet straight ahead, not to one side.
- Face your knees forward and keep them slightly bent.
- Line your feet up under the same-sided hip. Keep your feet a few inches apart.
- Hold on to the rail while going down for your safety.
  - If you are steady on your feet, try to avoid holding on to the rail. Use your leg muscles to go up each step and avoid pulling yourself up by using the railing.
- Pull your belly button in with your stomach muscles to help strengthen your core muscles.
- Be careful going downstairs to avoid falling.



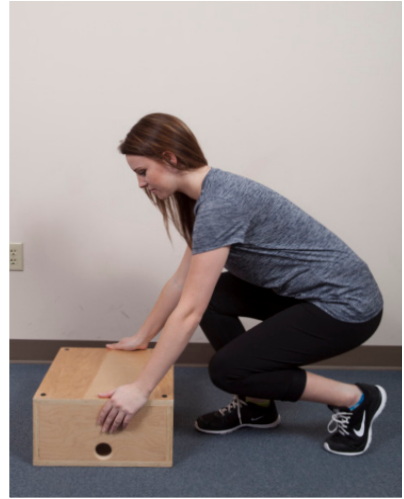
# Bending and Turning

- Both bending and turning place stress on the spine. Proper alignment, posture, and body alignment are important with these movements.
- Place your feet flat on the ground about shoulder-width apart.
- Hold both upper arms at your sides, touching your ribs. This is not necessary if one or both hands are being used for support.
- Keep your back upright and straight and your shoulder blades pinched together for the full bending movement.
- Bend at the knees and hips, not your waist.
  - Bending at the knees and hips helps keep your back straight.
  - Bending at the waist will round the upper back; this places stress on these bones and can cause broken bones. Try not to bend over at your waist with everyday activities such as:
    - Brushing your teeth      - Sneezing
    - Washing dishes            - Coughing
  - When you need to cough or sneeze, support your back with one hand. Place one hand behind your back or on your thigh. This protects the spine from harm caused by a sudden bend forward.
- When you change direction, move your feet with your body. Do not twist the spine. Pivot on your heels or toes with your knees slightly bent. Keep your face, knees, and toes pointing in the same direction.



## Lifting and Carrying

- Follow your doctor's instructions on weight limits for carrying objects, packages, and babies, etc.
- When picking up an item from the floor or ground, keep your back in proper alignment. Do not bend forward so that your back is even to the ground. This puts strain on your spine and back muscles.
- To lift an item off the floor or ground:
  - Kneel on one knee. Support your leg muscles by placing one hand on a table, counter or stable chair if needed.
  - Bring the item to your body at waist level.
  - Pull your stomach in to support your back and breathe out while lifting the item and standing up.
  - Do not hold your breath.
  - Use your leg muscles to stand.
- Ask the grocer to pack your grocery bags lightly. Split heavy items into separate bags and if needed, take more trips to carry fewer bags. Hold bags close to your body. Balance the bags by carrying about the same weight in each hand.
  - Place bags on a chair or table rather than on a high counter or floor. This prevents extra lifting and twisting of the spine.
- Do not carry a heavy pocketbook or purse. Try using a clutch or fanny/waist pack.





## Pushing and Pulling

- Vacuuming, raking, sweeping, mopping and other like activities naturally pull the upper body forward. When you do these activities, spread your feet apart and have one foot in front of the other.
- Face your work to prevent twisting your back.
- Shift your weight from foot-to-foot in a smooth rocking movement. Keep your knees bent and your shoulder blades pinched together. Move forward and back, or from side to side.
- Do not bend forward from the waist.



## Getting In and Out of Bed

### Getting Into Bed

- Use good body mechanics, posture and alignment to sit down on the side of the bed. Place both hands on the bed towards the head and lean in that direction. Support your body with both hands.
- Lie down on your side and bring both feet up onto the bed at the same time.
- Keep your knees bent and arms in front of you. Roll onto your back in one motion. Pull your belly button in with your stomach muscles as you roll to support your back and to help prevent twisting.
- Keep your face, knees and toes pointing in the same direction.
- Do not lift your head and upper back to move in bed. This strains the spine and could cause breaks in the spine.

- Avoid using extra pillows to prop your head and upper back. This causes a rounded upper back position.
  - Those who have a rounded upper back with a forward head may need two pillows to support your neck.
- When lying on your side, place a pillow between your knees and one under your head to keep your spine aligned.
- When lying on your back, use one or two pillows under your knees and one under your head.

## **Getting Out of Bed**

- To get out of bed, reverse the steps you took to get into bed.
  - Keep both arms in front of you
  - Pull your stomach in and breathe as you roll onto your side.
    - Keep your stomach pulled in. Use your hand to raise your upper body as you place your legs over the side of the bed. This is one motion.
    - Some persons may get light headed when moving from lying to sitting (and sitting to standing) positions. To lessen any light headedness, sit on the edge of the bed for a minute or two before you stand up.
    - When on your back, never lift your head and upper back to sit up in bed or get out of bed.







