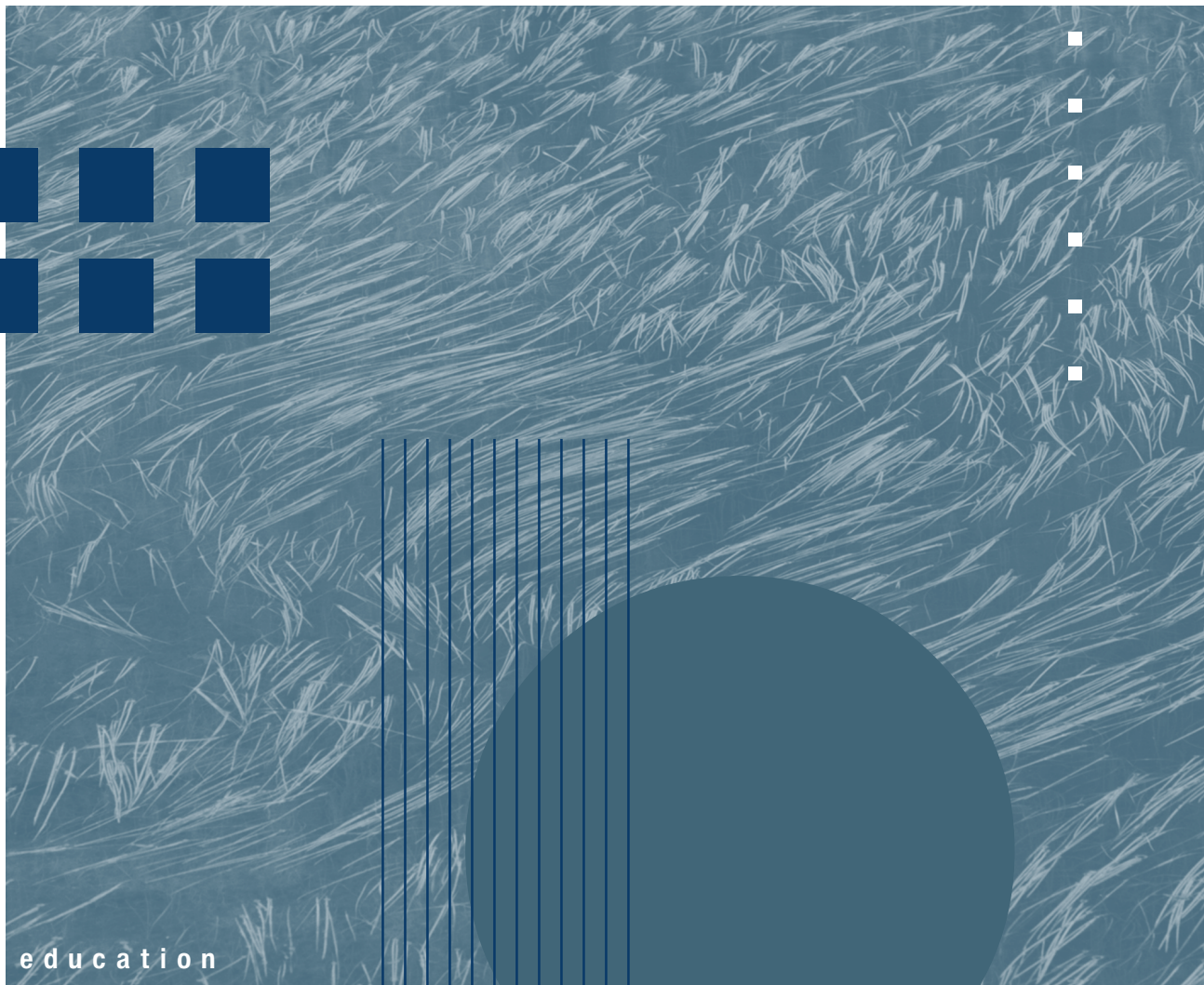


Neutral Spine

Dynamic Spine Stabilization Program



patient education



Introduction

These exercises are for use at home following instruction by your health-care provider. When performed as directed, these exercises may strengthen the muscles that support your spine and help you to maintain a healthy posture or neutral spine position.

Do these exercises slowly and gently. If you experience increased pain while performing one of these exercises, stop the exercise immediately and relax. If the pain goes away, repeat the exercise with reduced speed and intensity. If the increased pain continues after you have stopped exercising, speak with your health-care provider before resuming the exercise.

Lying (Supine) Posture

You can develop and maintain a relaxed, neutral position of your spine while lying down. To find this neutral position practice the following exercise:

- Lie on your back on a firm, flat surface with your knees bent.
- Place your feet a comfortable distance apart.
- Rest your hands on your chest, hips or alongside your body.
- Arch your back slowly and lift your abdomen toward the ceiling (see figure 1).
- Press your back flat into the floor (see figure 2).
- Slowly repeat these movements within your comfortable range of movement.
- Slowly move from the flattened position to find a relaxed, balanced, comfortable position. This is the neutral position for your spine (see figure 3).

Finding your neutral spine position

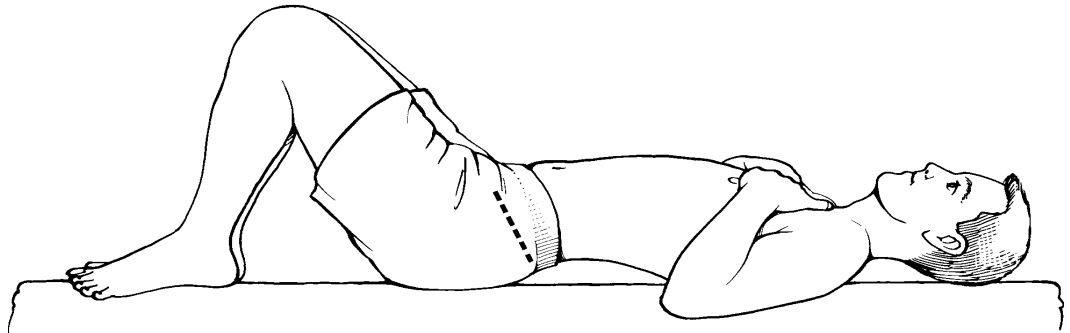


Figure 1. Back arched

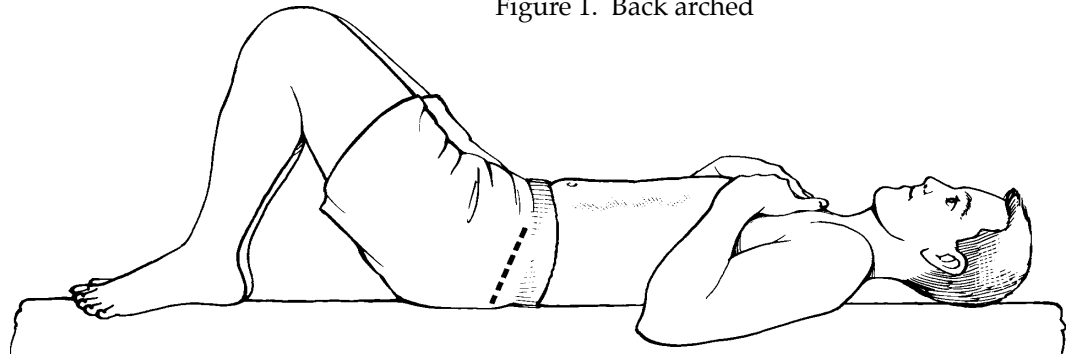


Figure 2. Back flat

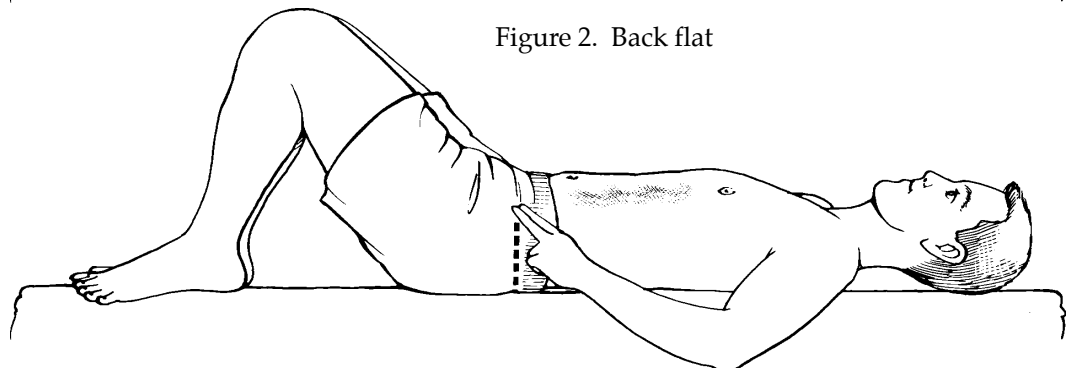


Figure 3. Neutral

- When lying on your back, place a small pillow under your knees or thighs to support the neutral curve of your lower back (see figure 4).
- Place a small pillow under your lower back for additional support.
- Place a small pillow under your head for support if desired.

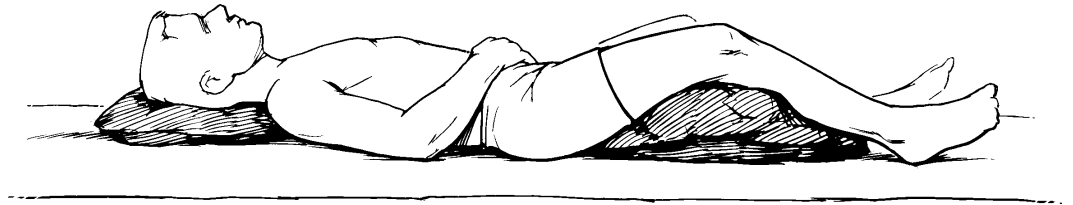


Figure 4. Lying on your back

- When lying on your abdomen, place a pillow under your pelvis and lower abdomen (see figure 5).

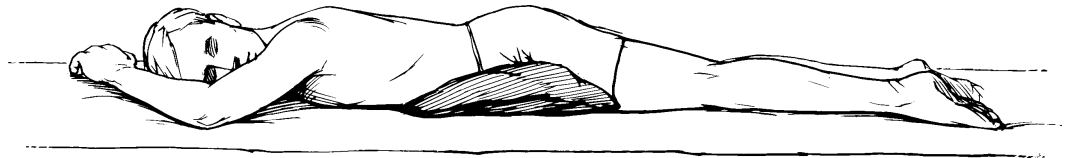


Figure 5. Lying on your abdomen

- When lying on your side, bend your knees and place a pillow between them (see figure 6). Place a small pillow under your waist to help maintain your normal spine curves.

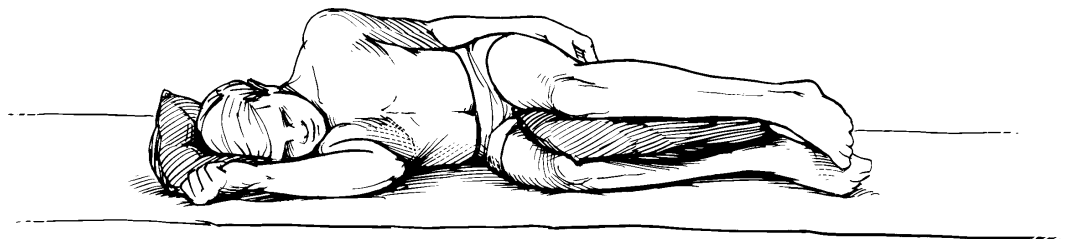


Figure 6. Lying on your side

Sitting Posture

You can develop and maintain a relaxed, neutral position of your spine while sitting. To find this neutral position practice the following exercise:

- Slouch while seated in a chair by allowing your head to come forward and rounding out your upper back (see figure 7).
- Sit up straight, arching your lower back (see figure 8).
- Slowly repeat these movements within your comfortable range of movement.
- Slowly move from the slouched position to find a relaxed, balanced, comfortable position for your spine.
- This is your position of neutral spine or healthy posture while sitting (see figure 9).
- Place a small pillow or rolled towel at your lower back to help maintain your normal spine curves.
- Practice maintaining a relaxed, neutral position during your daily activities.

When sitting with a neutral spine, your feet are supported by the floor or a raised surface and your hips are bent so that your spine is maintained in a relaxed, neutral position.

**Finding your
sitting neutral
spine position**

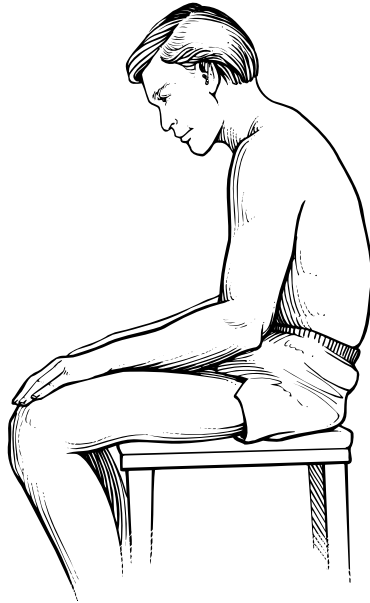


Figure 7. Slouched

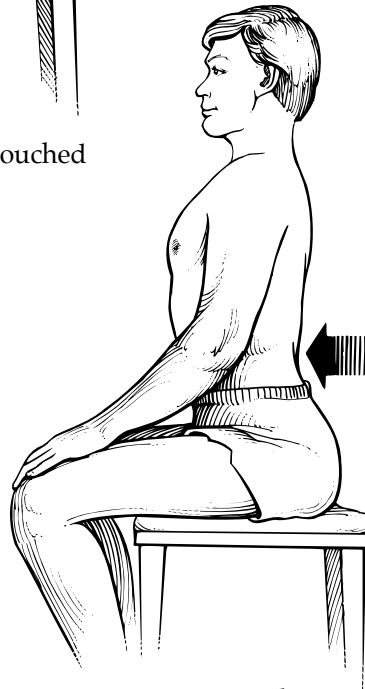


Figure 8. Arched

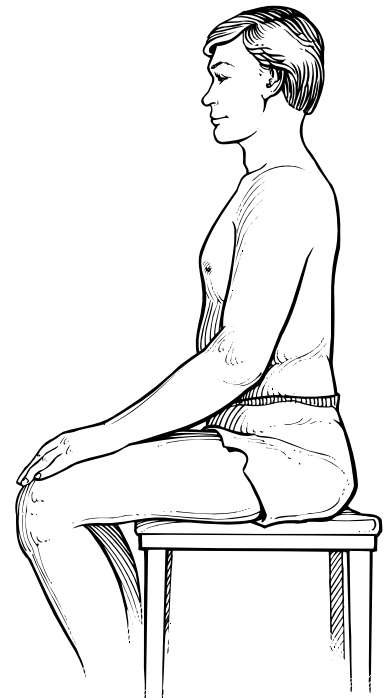


Figure 9. Neutral

Standing Posture

You can develop and maintain a relaxed, neutral position of your spine while standing. To find this neutral position practice the following exercise:

- Stand tall with your chin tucked toward your chest and your shoulders and arms relaxed.
- Straighten your knees without locking.
- Place your feet parallel or turned outward slightly.
- Using your abdominal muscles, arch and flatten your back until you find your neutral spine position (see figures 10 and 11).
- Breathe normally while doing these exercises.
- This is your position of neutral spine or healthy posture while standing (see figure 12).
- Practice maintaining a relaxed, neutral position during your daily activities.

When standing with a neutral spine, your head is balanced over your shoulders and hips. Your neck, abdominal and back muscles maintain this position as you move about. Uncontrolled movements away from the neutral position may place excessive stress on your spine and can cause injury.

**Finding your
standing neutral
spine position**

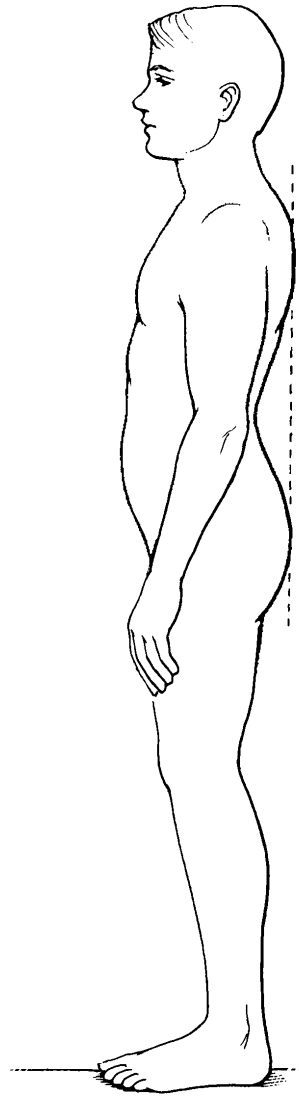


Figure 10. Arched

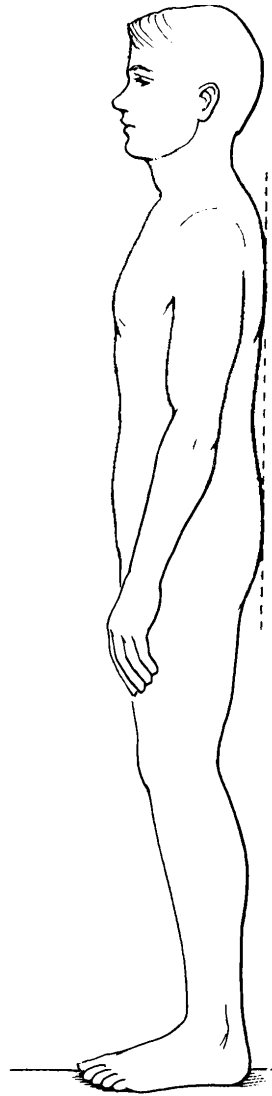


Figure 11. Flattened

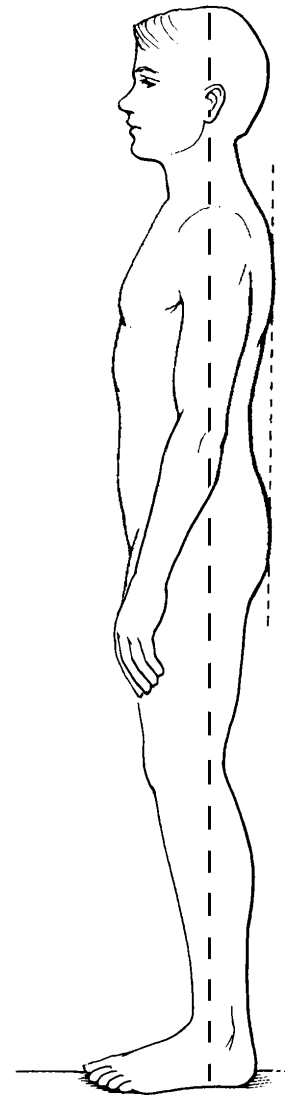


Figure 12. Neutral

Head and Neck Posture

You can develop and maintain a relaxed, neutral position of your head and neck by practicing these movements:

- While sitting or standing, tuck your chin down slightly and pull your head back and up as if to flatten your neck against a wall (see figure 13).
- Looking straight ahead, jut your chin forward as if you were moving your neck away from a wall (see figure 14).
- Slowly repeat these movements within the comfortable range of movement of your neck.
- Slowly find a comfortable head and neck position between the two movements.
- This is the relaxed, neutral position for your head and neck (see figure 15).
- Practice maintaining a relaxed, neutral position during your daily activities.

Finding your head and neck neutral spine position

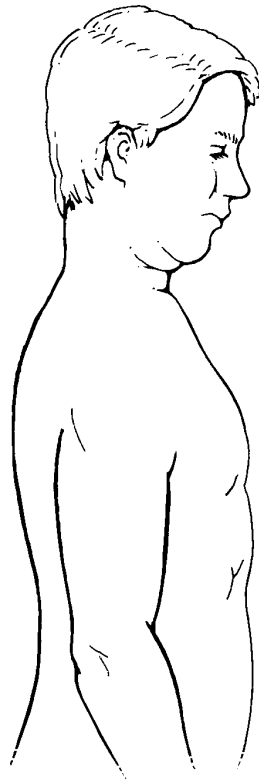


Figure 13. Flattened

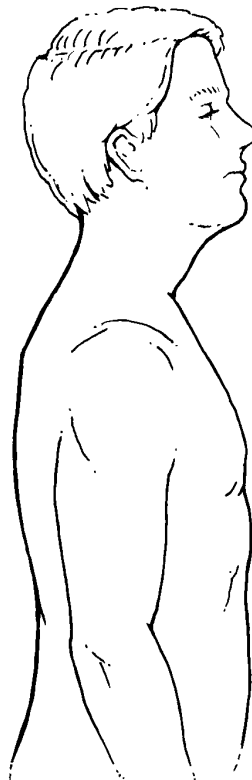


Figure 14. Forward

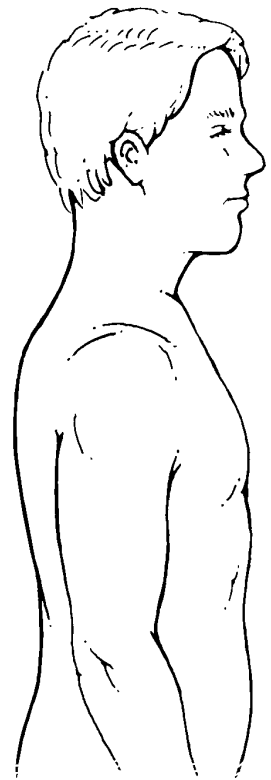


Figure 15. Neutral



200 First Street SW
Rochester, Minnesota 55905
www.mayoclinic.org

MC4136-04