



Exercises for a...

HEALTHY

NECK AND BACK

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This manual contains exercises commonly used to address typical back and neck problems. It is not anticipated that these suggested exercises be applied in the absence of a complete evaluation by a qualified health care provider. All cases must be evaluated individually and the provider responsible must adjust any exercise program to ensure it is safe and appropriate for a specific patient case. These exercises are not intended to represent a complete treatment plan for patients suffering from back or neck pain. Rather, these exercises should be used (*where deemed appropriate*) as part of a comprehensive plan of care.

The author finds that most patients suffering from acute anterior problems (*disc related*) will respond best to extension patterns. A positive response would be one in which the peripheral or radicular symptoms are reduced or eliminated with the exercise.

The exercises that feature flexion, rotation and/or the use of the exercise ball are best suited for posterior or non-disc related conditions. They promote increased length of spasming or tightened tissues. Flexion, rotation and ball exercises can, however, be safely and effectively employed with the disc-related (*anterior*) condition once the peripheral symptoms have been brought under control (*as in the sub-acute to chronic stages of rehabilitation*). As a general rule, movement patterns that increase peripheral symptoms should be avoided. Those movement patterns that reduce peripheral symptoms (*if peripheral symptoms exist*) should be employed.

Finally, the ball exercises that have been provided are generally intended to be used with patients whose conditions are stable. They are excellent for general strengthening of the trunk muscles (*core stabilization*). They certainly promote range of motion, and are effective for teaching postural control. Most patients can eventually be moved to performing ball exercises, but many may not find them comfortable in the initial stages of rehabilitation.

ANTERIOR PROBLEMS

(i.e. Herniated / Protruding Disc)

Cervical Exercises



1. Sit on a stool or the edge of a chair, allowing your body to completely relax and your head to protrude slightly.
2. Slowly pull your head straight backward as far as you can while keeping your chin tucked down and in. Your eyes should remain level and forward.
3. This exercise can be enhanced by pressing on your chin to increase the posterior direction movement.
4. Hold for 5 counts.
5. Repeat 5-6 times.

Note: These exercises are intended to produce a decrease in cervical pain radiating into the upper extremity (peripheral symptoms). If peripheral symptoms increase (pain, numbness, muscle weakness, reflex changes) in the upper extremity, stop the exercises and re-evaluate the condition.

Retractions Supine



1. Using a bed, lie down on your back placing your arms parallel to your body.
2. Using your head alone, push the back of your head firmly into the mattress while pulling your chin inward. Keep your eyes and face toward the ceiling.
3. Hold for 5 counts.
4. Repeat 5-6 times.

Note: These exercises are intended to produce a decrease in cervical pain radiating into the upper extremity (peripheral symptoms). If peripheral symptoms increase (pain, numbness, muscle weakness, reflex changes) in the upper extremity, stop the exercises and re-evaluate the condition.

POSTERIOR PROBLEMS

*(i.e. Facet Syndrome, Degenerative Disc Disease,
Soft Tissue - Muscle and Ligament)*

Cervical Exercises



Flexion



1. Sit on a stool or the edge of a chair, allowing your body to completely relax and your head to drop forward with your chin as close as possible to your chest.
2. Place your hands behind the back of your head with the fingers interlocked.
3. Allow your arms to relax and your elbows to drop down toward the floor bringing your chin closer to your chest.
4. The exercise can be enhanced by using your hands to gently pull your chin even closer to your chest. Do not pull excessively. Simply add slight overpressure.
5. Hold for 5 counts.
6. Repeat 5-6 times.

***Note:** This exercise is intended to be a gentle stretch that produces elongation of tightened tissue. The patient should use only the force that is needed to produce a comfortable stretch. High velocity forceful movements should never be used.*

Left & Right Rotation



1. Sit on a stool or the edge of a chair with your feet comfortably positioned, your back straight, and your hands on your thighs.
2. Rotate your head directly to the right and hold for 5 counts. Imagine your nose is painting a straight line from center to right.
3. Rotate your head directly to the left and hold for 5 counts. Imagine your nose is painting a straight line from center to left.
4. Repeat 3-10 times.

Note: Some patients may have compromised vertebral artery flow. If your patient experiences any symptoms that might be related to vertebral artery syndrome (dizziness, visual disturbance, fainting) he should stop these exercises and his condition should be re-evaluated.

Left & Right Side Bending



1. Stand behind a chair with your back straight and your hand resting on the back of the chair.
2. With your right hand on the chair, tip your head directly to the left and hold for 5 counts.
3. With your left hand on the chair, tip your head directly to the right and hold for 5 counts.
4. Repeat 3-10 times.

***Note:** Some patients may have compromised vertebral artery flow. If your patient experiences any symptoms that might be related to vertebral artery syndrome (dizziness, visual disturbance, fainting) he should stop these exercises and his condition should be re-evaluated.*

ANTERIOR PROBLEMS

(i.e. Herniated / Protruding Disc)

Lumbar Exercises



Prone On Elbows



1. Lie facedown with arms parallel to your body and your head turned to one side.
2. Bringing your arms forward and putting pressure on your forearms, raise your upper body. Make sure your elbows are placed directly under your shoulders. Hold for 10 counts.
3. Relax your lower your body back to the starting position.
4. Repeat 3-10 times.

Note: These exercises are intended to reduce peripheral symptoms commonly associated with root entrapment (i.e., lower extremity radicular pain, weakness, reflex changes). If peripheral symptoms increase, these exercises should be stopped and the condition re-evaluated.

If the clinician believes the patient's condition is stable enough for additional exercise, consideration should be given to adding exercises found on pages 16 - 21 of this manual. Most patients with herniated discs respond best to extension exercises, however, some will benefit from flexion patterns displayed on pages 16 - 21.

Prone Press-Ups



1. Lie facedown with your hands under your shoulders as if preparing to do a push-up.
2. While relaxing your lower body, straighten your elbows. Extend your arms as far as possible and hold for 10 counts. Only your upper body should be raised. Do not raise your lower body (*as in a conventional push-up*).
3. Repeat 3-10 times.

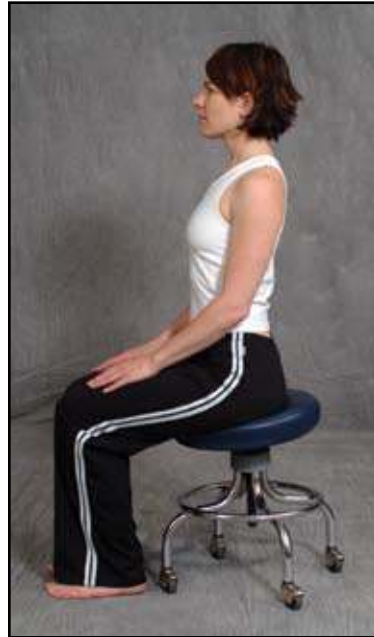
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Seated Extension

(Creating a Lordosis or inward curve in the low back)



1. Sit on a stool or the edge of a chair.
2. Slowly draw yourself up to an erect position, pulling your stomach inward while at the same time allowing your lower back to curve inward and the shoulders to be pulled back. This is Lordosis. Hold this extreme posture for a few seconds.
3. Return slowly to a comfortable seated posture.
4. Repeat this exercise 10-15 times in a slow rhythmic sequence. Repeat this exercise 3-4 times per day.

Note: *These exercises are intended to reduce peripheral symptoms commonly associated with root entrapment (i.e., lower extremity radicular pain, weakness, reflex changes). If peripheral symptoms increase, these exercises should be stopped and the condition re-evaluated.*

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POSTERIOR PROBLEMS

*(i.e. Facet Syndrome, Degenerative Disc Disease,
Soft Tissue - Muscle and Ligament)*

Lumbar Exercises



Pelvic Tilt



1. Lie on your back placing your hands on your abdomen.
2. Exhale, pulling in your abdomen, and rolling your pelvis backward. Your low back should be pressed into the surface upon which you are lying.
3. Hold 5 counts.
4. Repeat 3-10 times.

Note: The key to this exercise is the kinesthetic awareness of the abdominal muscles to control the position of the pelvis. The patient should be led to focus on abdominal contractions, avoiding holding the breath, and feel the posterior movement of the pelvis. The low back should be pressing on the supportive surface as the exercise is completed.



1. Lie on your back, placing your arms parallel to your body.
2. Exhale while pulling in your abdomen.
3. Bring one knee toward your chest. You may want to use your hands to gently assist your knee toward your chest by grasping just below and in front of your knee.
4. Hold 5 counts.
5. Slowly lower your leg, return to the starting position.
6. Repeat using the opposite leg.
7. Repeat 3-10 times.

Note: Knee to chest exercises help to elongate the gluteal muscles, provide some stretch to the hamstrings, produce a posterior movement of the pelvis, and produce flexion in the lower lumbar spine. The posterior tissue in the lumbar spine is gently stretched by these movements. These movements should be carried out slowly and rhythmically.



Double Knee-Chest



1. Lie on your back placing your arms parallel to your body.
2. Exhale while tightening your buttocks and pulling in your abdomen.
3. Bring both knees toward your chest clasping your arms around your knees.
4. Gently rock back and forth 5 times.
5. Return to starting position.
6. Repeat 3-10 times.

***Note:** Knee-to-chest exercises help to elongate the gluteal muscles, provide some stretch to the hamstrings, produce a posterior movement of the pelvis, and produce flexion in the lower lumbar spine. The posterior tissue in the lumbar spine is gently stretched by these movements. These movements should be carried out slowly and rhythmically.*

Half Sit-Ups



1. Lie on your back, stretching your arms straight out toward your knees.
2. Exhale, and while tightening your abdominal muscles, stretch your arms forward pulling your shoulders off the floor.
3. Hold 5 counts.
4. Repeat 3-10 times.

Note: Do not be confused by the term “sit up.” This exercise should be performed as a “curl up.” It is important that the movement be driven by the abdominal muscles and not the hip flexors. A degree of lumbar flexion should be achieved. If the hip flexors are used excessively (as in the traditional sit up) the lumbar spine will be extended.



Cat-Back



1. Kneel down on all fours with your head dropped down.
2. Exhale and while tightening your abdominal muscles curve your back upward into an arch.
3. Hold 5 counts.
4. Repeat 3-10 times.

Note: This exercise is intended to produce a stretch of the lumbar posterior soft tissue. It is best used with patients whose flexion is limited due to muscle or ligament tightness.

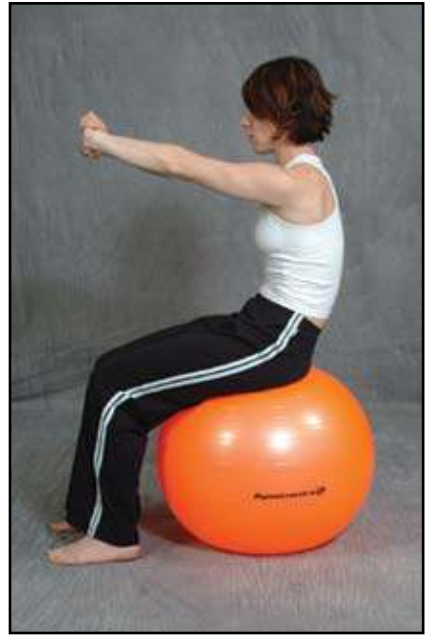
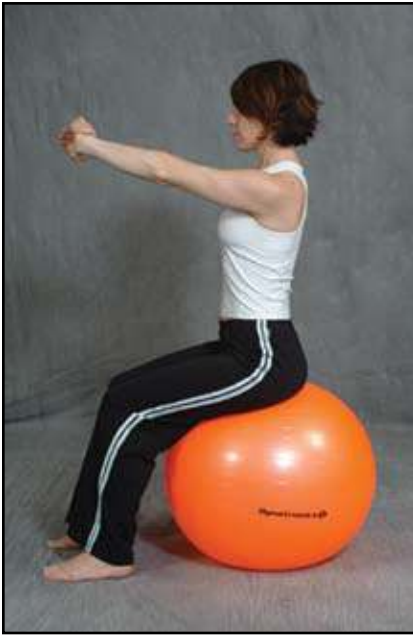
Seated Flexion



1. Sit on a stool or the edge of a chair with your feet positioned well apart and your hands on your thighs.
2. Bend forward and grasp your ankles.
3. Holding your ankles, slowly pull your body and head toward the floor.
4. Releasing your ankles, stretch and reach with your hands under the chair thus pulling your body even further down.
5. Repeat this exercise 5 or 6 times in a slow rhythmic sequence.

Note: This exercise is intended to produce a stretch of the lumbar posterior soft tissue. It is best used with patients whose flexion is limited due to muscle or ligament tightness.

BALL EXERCISES



(Back Muscle Warm-Ups)

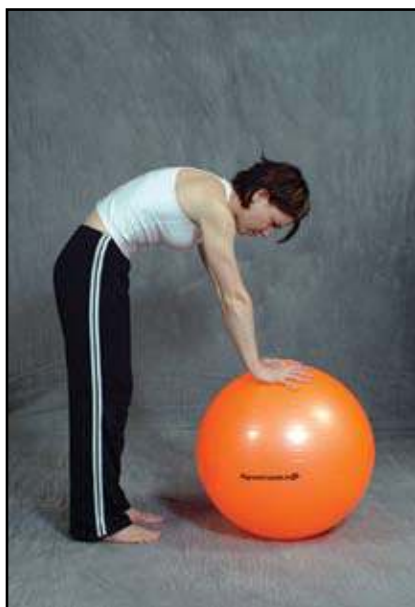
1. With your back straight and in an upright position, sit directly over the center of the ball with your legs squarely in front.
2. Tilt your pelvis forward as if your pelvis is a glass of water and you are emptying water. Hold for 5 counts.
3. Tilt your pelvis backward and hold for 5 counts.
4. Return to upright position.
5. Repeat 6-8 times.

***Note:** The exercise ball is a very effective tool for facilitating core or trunk strengthening. While acutely involved patients are not usually candidates for ball exercises, those patients whose symptoms are resolving and who can benefit from core strengthening may respond well to these movement patterns using the ball.*

As has been mentioned before, care should be taken to match the patient and the exercise program. Any movement pattern that increases peripheral symptoms should be suspended and an evaluation of the patient's status made before continuing.



Standing Pelvic Tilt



(Back Muscle Warm-Ups)

1. Place both hands in the center of the ball, hands and feet slightly apart for balance. With your back straight and your knees slightly bent, lean over the ball.
2. Tilt your pelvis forward. Hold for 5 counts.
3. Tilt your pelvis backward and hold for 5 counts.
4. Straighten your back.

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1. Begin in a supine position with your arms crossed over your chest. If there is lower-back tension, adjust your position by walking forward or backward until a comfort level is established.
2. Slowly lift your head and shoulders, curling slightly forward, not more than 45° .
3. Slowly return to starting position.
4. Repeat 8-15 times.

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Crunch with Leg Lifts



1. Begin in a supine position with your arms up and hands behind your head. If there is lower-back tension, adjust your position by walking forward or backward until a comfort level is established.
2. Slowly lift your head and shoulders, curling slightly forward, not more than 45°.
3. Slowly lift your right foot up and down. Repeat 8-15 times.
4. Slowly lift your left foot up and down. Repeat 8-15 times.

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1. With your back straight and in an upright position, sit directly over the center of the ball with your legs squarely in front.
2. Using your right arm, place your right hand on the back of your head. Keep your elbow raised and to the side.
3. Tighten your abdominal muscles and tip your upper body to the right. Slowly return to the upright position. Repeat 8-15 times.
4. Using your left arm and tightening your abdominal muscles, tip your upper body to the left. Slowly return to the upright position repeat the exercise 8-15 times.

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1. Kneel on the floor and curl your trunk over the ball, resting your chin and body on the ball.
2. Place both hands behind your head.
3. Lift your head, chest and shoulders off the ball and slowly return to the starting position.
4. Repeat exercise 8-15 times in a rhythmic fashion.

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1. Lie on your back, knees bent and heels slightly apart resting on the center of the ball.
2. Tightening your abdominal muscles, lift your hips off the floor. Hold for 5 counts.
3. Slowly lower your hips back to the starting position.
4. Repeat exercise 8-15 times.

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Exercises for a Healthy Neck and Back Manual

