

By Elise Browning Miller, MA

## yoga for back care

### Learn a sequence of simple poses to maintain a healthy back.

Up to 85% of American adults experience back pain at least once in their lives (Andersson 1999). No doubt some of your clients are among them.

Why is the back so prone to injury? As we age, ligaments and tendons shorten and joint range of motion (ROM) decreases. Disks lose their ability to absorb shock, muscles weaken, and bones lose mass. To add to these inherent biological weaknesses, we spend too much time sitting—in cars, at desks and in front of televisions or computers—and our back muscles weaken. Bad posture makes matters worse. The low back, which bears much of the burden, is particularly prone to disk problems.

### Whole-Body Back Care

Your clients don't have to accept back deterioration lying down. In fact, doctors recommend just the opposite! "I'd say that more than half of back injuries can be prevented," says Michael Hisey, MD, a spine surgeon at the Texas Back Institute in Plano, Texas. "A back maintenance exercise program is key to keeping people out of trouble."

Abdominal strengthening, conventionally emphasized for back health, is important, but on its own is not enough to protect the back from injury. Nor is low-back strengthening. Back problems involve the whole body. Many factors can contribute, including tight or weak muscles, poor posture, obesity, emotional stress, and limited ROM in the peripheral joints (shoulders and hips). In other words, no back problem can be isolated from the functioning of the rest of the body.

Unlike traditional back exercises,

which isolate the parts of the body to be stretched or strengthened, yoga postures are designed to integrate and benefit the whole body. By lengthening connective tissue, expanding ROM and improving posture, yoga can protect against back injury. A sequence of yoga poses selected specifically for back care is described on the next page. The principles that underlie this sequence are outlined below.

### Basic Back-Care Principles

Whether you are teaching a back-care class or doing your own personal practice, keep these anatomical and movement principles in mind:

**Breathe as You Do the Poses.** When we hold our breath, we hold onto tension. Quiet, introspective breathing alters the sympathetic/parasympathetic nerve signal balance to the arteries and veins, allowing increased circulation to tissues whose vessels are constricted during times of stress.

**Create Movement of the Spine With Flexion and Extension.** The spine needs movement to lubricate the joints and provide nutrition to the spongy disks between the vertebrae. During movement, the disks—through a process called imbibition—soak up nutrients. To feed and lubricate the disks properly, it's necessary to reverse the curvatures for brief periods of time, which yoga postures do gently and wonderfully. Cow Cat (pelvic tilts on your hands and knees) and Sun Salutations are excellent ways to create movement of the spine.

**Balance Flexibility and Strength.** Strength is vital, but so is flexibility. Developing strong yet flexible muscles is perhaps the most crucial principle in back care. Remember that a tight muscle is not necessarily a strong one. In yoga sessions,

it is important to lengthen contracted muscles before working on strength. For the back this means stretching the back muscles to lengthen the spine and create more space for the vertebrae and disks.

When lengthening the spine, its natural curves should be maintained, keeping the low back concave. The back's curves are designed to absorb shock and facilitate full ROM throughout the spinal column.

**Start by Stretching. . .** When we live sedentary lives, certain muscles in our body tend to be tight and others weak. To relieve or prevent low-back pain, we need to pay special attention to several muscle groups.

The hamstrings can cause back pain because they insert in the buttocks and, if tight, can pull the pelvis out of alignment. The piriformis, a hip rotator located deep in the buttocks, is a crucial muscle to stretch for releasing sciatica. Supta Padangusthasana (Reclining Big-Toe Pose) is a good pose to open the sequence because the back is on the floor, making it easier to maintain the natural curves of the spine while stretching the hamstrings, adductors and piriformis. This pose can be followed by a leg-lowering pose that gently strengthens the abdominal muscles while lengthening the legs.

Tight hip flexors—iliopsoas and quadriceps—in the front of the thighs can cause low-back pain, since the iliopsoas attaches to the lumbar vertebrae. Lunges and Virabhadrasana 1 (Warrior 1) are good poses to stretch the hip flexors.

It is also important to release tightness from the quadratus lumborum in the low back and from the paraspinal muscles along the spine. One of the best poses to stretch both the back and hamstrings is Downward-Facing Dog.

**. . . And Then Work on Strength.** After muscles have released their tightness, the

## yoga sequence for the back

Teach and practice these poses in the order they are shown. It is important not to hold your breath.

### I. Supta Padangusthasana (Reclining Big-Toe Pose)

**A. Hamstring Stretch.** Bend your left knee to the chest. Place a strap on the ball of the foot. Slowly straighten the left leg, stretching through the heel and ball of the foot. Stretch through the right leg, pressing your foot into the wall. Keep your right inner thigh pressing into the floor.

**B. Adductor Stretch.** Bring the left leg out to the side and up toward the head. Keep the right front hip from lifting off the floor. Extend through both legs.

**C. Piriformis Stretch.** Hold the strap with your right hand. Begin to cross the left leg over the midline. Then roll onto the right hip, turning your right foot to the right with the little-toe side to the floor.

Repeat on the opposite side.

**Gentle Abdominal Strengthener.** After completing each side of Supta Padangusthasana, lengthen through the heel as you lower the left leg from 90 degrees to 60, to 45, to 30 degrees, to a few inches off the floor. Then relax the leg onto the floor. Repeat with the right leg. This extends the legs and provides a gentle abdominal strengthener.

### 2. Right-Angled Wall Stretch

Place your hands at hip level, and walk your feet back so that your body is at a right angle. Hands, shoulders and hips are parallel to the floor with the hips over the ankles. Push palms into the wall and lengthen your spine and hips away from the wall. Keep the low back in its natural concave curve.

### 3. Cow Cat

**A. Cow Tilt.** Inhale as you lift the tailbone and sitting bones like a sway-back cow. Low back is in its concave curve. Lift through the crown of your head.

**B. Cat Tilt.** Exhale and descend the tailbone and sitting bones. Draw the navel to the low back. Lift your midback like a cat as the shoulder blades spread and your head releases down toward the floor.

### 4. Downward-Facing Dog

Start on your hands and knees with your low back in its natural curve. Walk your hands one hand's distance in front of your shoulders. Bring your knees off the floor and lift from your pelvis. Press down through your inner palms and lengthen from your hands to your sitting bones. Slowly straighten your legs as you lift the sitting bones high; keep the low back in its natural concave curve.

### 5. Lunges

**A. Low Lunge.** Bring your right foot forward with your right knee slightly in front of your ankle bone and your

left knee on the floor. Lunge forward to stretch the front of your thigh, where the hip flexors are located. (Use blocks if necessary.)

**B. High Lunge.** Curl the toes under and slowly lift the left knee off the floor. Lift from the inner left thigh as you lengthen back through the leg toward the heel. Repeat on the opposite side.

### 6. Virabhadrasana 2 (Warrior 2)

Place your feet  $4\frac{1}{2}$ –5 feet apart. Bring your right foot out to 90 degrees with your left foot turned in slightly. Place your hands on your hips and level your hips. Stretch the arms out to your sides at shoulder level. Bend your right leg so that your right knee is over the heel and your thigh is parallel to the floor, creating a right angle. Keep your upper body centered over your legs. Keep your back leg straight and press your back heel into the floor like an anchor. Repeat on the opposite side.

### 7. One-Legged Locust

Lie on your stomach with your arms stretched overhead on the floor. Inhale and lift the left arm and right leg. Extend from the left ribs to the finger tips and right hip to the toes, extending in opposite directions. Reverse and lift the right arm and left leg.

### 8. Upward Facing Dog With Chair

Place your palms on the seat of a chair with the hands facing out. Bring the front of the pelvis to the edge of the chair. Lift up through the inner thighs and shins as you bring the tailbone in and down toward the floor. Lift the chest and extend through the crown of the head.

### 9. Standing Chair Twist

Place a chair at the wall with a block on the seat of the chair. Stand with the left side of your body at the wall. Lift the left foot and place it on the block. Bring your hands onto the wall at shoulder height. Inhale and lengthen the spine. Exhale and twist to the left. Press with the left palm to twist deeper and let the neck and head follow the twist of the upper torso. Reverse.

### 10. Seated Chair Twist

Sit sideways on a chair with your left thigh facing the back of the chair and a block between the legs. Bring your hands onto the back of the chair. Inhale and lift the spine. Exhale and twist from the waist, ribs and spine. Push with the left palm into the chair as you pull the body around with the right hand. Allow your neck and head to follow the twist of the spine. Reverse.

### II. Relaxation

focus can shift to strengthening weak muscles. Strengthening the back muscles is crucial for balancing ROM and developing better posture. One-Legged Locust Pose is a good back strengthener to begin with, particularly if there are imbalances such as scoliosis.

Strengthening the leg muscles—particularly the quadriceps, hamstrings and abductor muscles—is necessary as well. When the legs are strong, the back muscles do not have to function as the body's main support, so tightness in the back can decrease. Virabhadrasana 2 (Warrior 2), a pose that strengthens and stretches the body simultaneously, is excellent for strengthening the legs.

#### **The Importance of Sequencing.**

Sequencing the poses from basic to more advanced is very important. More advanced backbends can be contraindicated if the back has not been strengthened and the thoracic spine has not gained flexibility. I do not teach Bhujangasana (Cobra Pose), because it can compress the low back. Twists must also be taught with the low back in its natural curve, so in the beginning I avoid seated twists on the floor. Chair Twist or Standing Chair Twist is a better choice to start with.

### **Sweet Simplicity**

Remind your students that it's never too late to start doing yoga. They don't have to do advanced poses to benefit. Actually the simplest poses are sometimes the most effective for back care. A consistent practice is the key to maintaining a healthy back and preventing future back pain.

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*nia, and has been teaching yoga throughout the United States and internationally since 1976. Her new video/DVD "Yoga for Scoliosis" addresses specific patterns of pain and discomfort for persons with scoliosis. For more information go to [www.yogaforscoliosis.com](http://www.yogaforscoliosis.com) or [www.ebmyoga.com](http://www.ebmyoga.com).*

#### **Reference**

Andersson, G. 1999. Epidemiological features of chronic low-back pain. *Lancet*, 354, 581–85.

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