

{ ASANA SOLUTIONS }

Banish Back Pain

Neck and shoulder pain is epidemic in our Web-surfing, sofa-lounging, highway-commuting society, and the typical asana practice may not cure it. Here are three easy poses to keep you pain-free.

By DOUG KELLER

One of the most common problems my yoga students complain about is chronic pain around the shoulder blades and in the upper back and neck. This kind of pain plagues those of us who work with our arms extended in front of us, whether we're typing on the computer, cooking, carrying children, lifting heavy objects, or washing dishes. Let's face it: that includes just about all of us. Because these activities are especially demanding on the arms, shoulders, and upper back, it's not surprising that back pain is so widespread, even among the most dedicated yoga students.

Upper back pain commonly stems from the tendency to slump in the spine and round the shoulders. Slumping causes the shoulder blades to slide away from the spine, chronically overstretching and weakening the muscles around them. Eventually these muscles harden into tough bands to protect themselves from this constant strain. As they tire, these weakened fibrous muscles go into spasm, creating hot, persistent pains along the edges of the shoulder blades and the sides of the neck.

Common shoulder stretches reduce the upper back pain only marginally, and some can even make the problem worse. That's because stretching often focuses on the pain without addressing its deeper causes. The cause of the slumping, paradoxically, lies in the front of the body, deep within the shoulder area of the upper chest. Tightness in the upper chest muscles pulls the shoulders forward and down, while

rotating the upper arms inward. By releasing the tension in these muscles, we can undo the most persistent cause of chronic upper back pain.

CHALLENGES IN YOGA

Tightness in the upper chest makes it difficult—and sometimes even harmful—to perform basic asanas. Tense muscles draw the shoulders forward and rotate the upper arm bones inward, straining the shoulder joints in a number of common poses. For example, if you tend to hunch your shoulders while extending your arms to the sides in poses such as *virabhadrasana II* (warrior II), the deepest part of the shoulder joint can be harmed where the misaligned bones pinch the rotator cuff muscles. Moreover, hunched shoulders cause the upper back to round and the shoulder blades to “wing out” to the sides, weakening the muscles of the upper back. >>

ROUNDING THE SHOULDERS

creates pain in the neck and along the edges of the shoulder blades.

HUNCHING causes the shoulder blades to “wing out” to the sides.



The tightness also shows up in poses in which the arms are extended overhead, such as *virabhadrasana I* (warrior I) and *adho mukha svanasana* (downward-facing dog). The same tightness that causes shoulder problems in warrior II will make it difficult for you to fully extend your arms overhead or open your chest in these poses. In warrior I, your elbows may bend out to the sides as the upper arm bones rotate inward, again causing the bones of the shoulder joints to pinch the rotator cuff muscles deep in the shoulder sockets.

The same is true in downward-facing dog. Though it is generally easier to straighten the arms in this pose, the upper arm bones still tend to rotate inward toward the ears. The weight-bearing nature of the pose makes this inward rotation all the more dangerous if you (like many students) push your chest toward the floor, straining your shoulders at their weakest point.

Finally, when you extend your upper arms behind your body in poses such as *sarvangasana* (shoulderstand), the same tightness in the fronts of the shoulder joints turns the shoulders strongly inward and causes the elbows to slide out

laterally. This misalignment severely compromises the shoulders and causes the chest to collapse, putting harmful weight on the bones of the neck.

THE ROOT OF THE PROBLEM

What's the common denominator in these poses? In each case, the upper arms rotate inward as the shoulders roll forward and down, bringing the shoulder blades with them. The cause of these problems is tightness in a trio of muscles that run from the inner arm through the armpit to the chest.

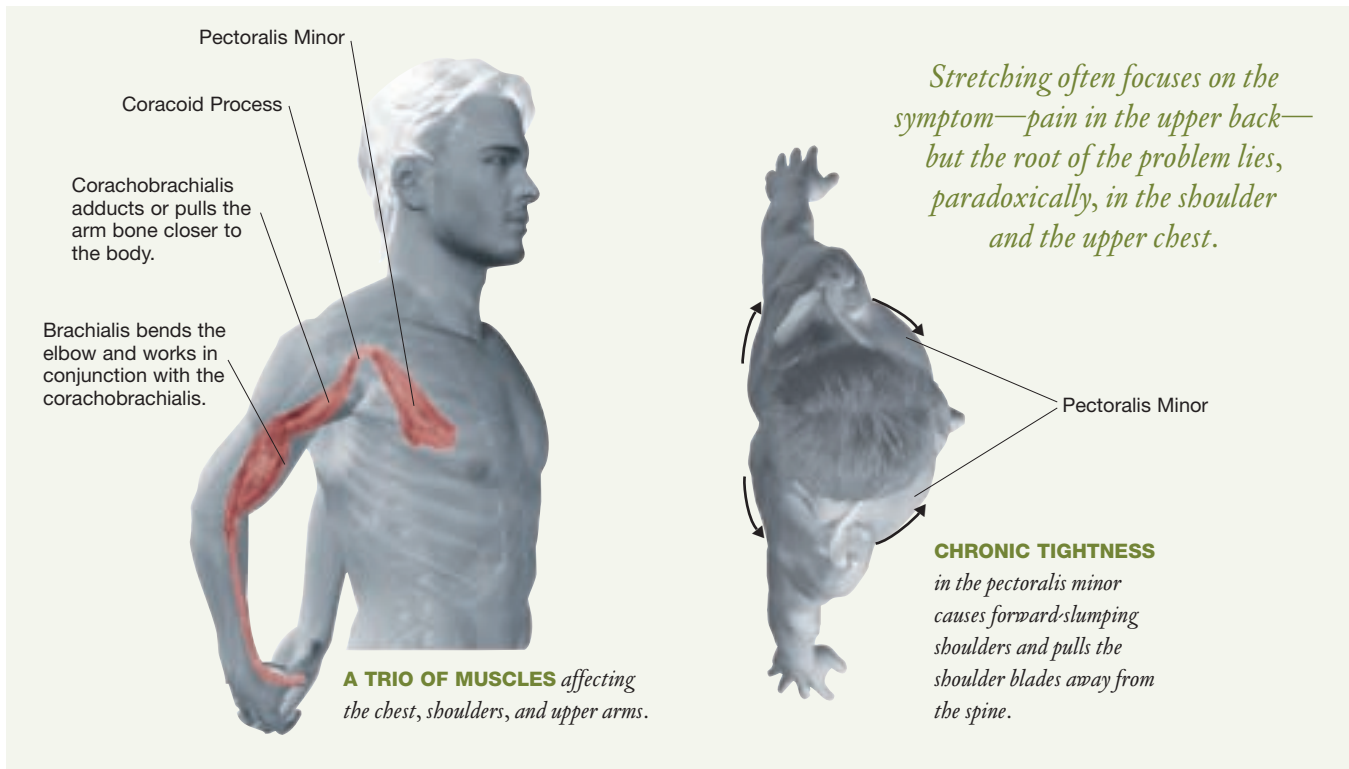
Two of these muscles run along the inner edge of the upper arm: the brachialis, which (along with the biceps) bends the elbow, and the coracobrachialis, which adducts the upper arm, bringing it closer to the body. A third muscle, the pectoralis minor, attaches at one end to the coracoid process, a thumb-like forward extension of the shoulder blade, and at the other end to the ribs of the upper chest. The role of this muscle is to draw the shoulder forward and down. When we reach forward to move or manipulate objects—an action we perform frequently—the pectoralis minor, coracobrachialis, and brachialis muscles all contract.



WARRIOR I Tightness in the shoulder joints makes it difficult to raise the arms.



SHOULDERSTAND Misalignment strains the neck and collapses the chest.



Among the three, the pectoralis minor is most responsible for postural problems. Although it is a relatively small muscle, its attachment to the coracoid process allows it to exert a good deal of leverage on the shoulder. As we reach for something, contractions of the pectoralis minor draw the shoulder forward, in turn pulling the shoulder blade away from the spine and rounding the upper back. Chronic tightness in the pectoralis minor, then, promotes forward-slumping shoulders, while tightness in the muscles along the inner arms further aggravates problems by causing the arms to rotate inwardly.

Although the muscles responsible for causing our discomfort are in the front of the body, the *pain* we feel is in the upper back. It is caused by a misalignment of the shoulder blade that has been persistently pulled *away* from the spine by the slumping in our shoulders. This pull causes painful muscle spasms along the edges of the shoulder blades. The muscles that are most affected are:

- The rhomboids, muscles that connect the shoulder blades to the spine. The upper rhomboids are particularly strained by their effort to pull the shoulder blades

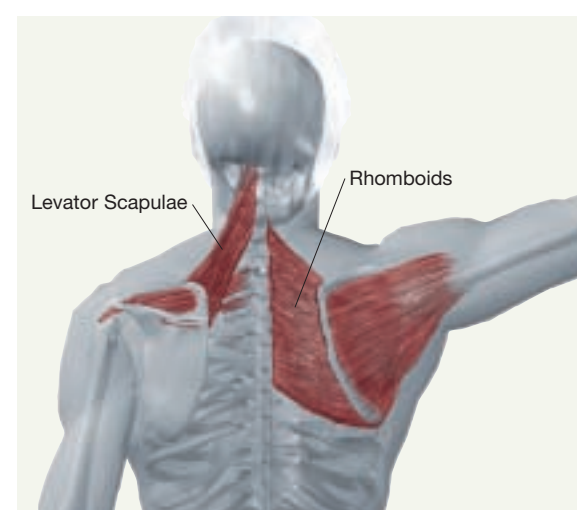
back into place, countering the pull of the pectoralis minor.

- The levator scapulae, which extends from the top edges of the shoulder blades to the upper vertebrae of the neck. These muscles elevate the shoulder blades and are strained by the pull of the shoulders as they slump forward and down.

Tension in the rhomboids causes chronic pain along the edges of the shoulder blades nearest the spine, while tension in the levator scapulae creates pain in the sides of the neck, which can make it difficult to turn the head. If, for instance, your right shoulder is hunched forward, tension in the levator scapulae on the right side of your neck will make it more difficult to turn your head to the right. This pain may also shoot down through the inner edge of your shoulder blade.

Skillful body work concentrating on these upper back muscles will help ease your pain, but it will not eliminate the cause, which is tension in the front of the chest, in the pectoralis minor. If you suffer from upper back pain, try massaging just beneath your collarbones, especially between the third and fifth ribs, which will likely be quite tender. (You may be sur-

prised to feel a corresponding twinge under your shoulder blade, a hint of the neurological link between these areas.) It is just as important for you to massage the muscles in the front of your upper chest as it is to have your upper back massaged. Tenderness in the muscles of your chest indicates that problems will persist until the muscles are relieved of their chronic tension through focused stretching. >>



TIGHTNESS IN THE CHEST stresses the rhomboids and the levator scapulae leading to chronic pain in the back.

STRETCHING AND OPENING

Hatha yoga gives us powerful tools to stretch and open the chest. However, we must be attentive to some simple details to ensure that these stretches properly target the problem. One of the most common stretches for the upper chest, for example, is often performed incorrectly. In this stretch the hands are clasped behind the body, and the arms are drawn away from the back to stretch the fronts of the shoulders. But if you are not careful, the very muscles you are trying to stretch can cause the arms to become misaligned, further straining the shoulders.

To perform the stretch correctly, bend your elbows and interlace your fingers behind you, separating the palms of your hands. Keeping the elbows bent, lift and square your shoulders; then draw your shoulders back, moving your elbows toward each other so that your upper arms are parallel. Flexible people

will be tempted to straighten the arms and hyperextend the elbows, but this is a temptation to resist, since it reduces the effectiveness of the stretch. The proper action of squaring the shoulders, bending the elbows, and bringing the upper arms parallel will rotate the upper arms out-

Shoulder work is a foundation for nearly all hatha yoga poses.

ward, opening the space between your upper chest and the fronts of your shoulder joints. Moreover, the arm bones will “hug” the shoulder joints, protecting your rotator cuff muscles.

To increase the stretch, keep your chest elevated as you draw your hands away from your back. Ultimately, you can straighten the arms, but only if this does not make the shoulders rotate in and downward. Since many of us are too quick to straighten the arms, it’s better to keep the elbows slightly bent. >>



INCORRECT
Slumped shoulders and hyperextended elbows strain the neck and shoulder joints.



CORRECT *Square the shoulders, bend the elbows, and open the chest, drawing the shoulders back.*

PREPARATION for
upward-facing plank.
Lift and open the chest.



SEATED STRETCH

Purvottanasana (upward-facing plank) is a posture that stretches the brachialis (inner arm muscles) as well as the chest. To begin, sit on the floor with your knees bent and your feet a comfortable distance in front of you. Place your hands on the floor 12 to 16 inches behind you, wider than your hips and (ideally) with your fingers pointing forward. (If you feel wrist pain in this position, place a support such as a folded towel under the heels of your hands or turn your hands outward.) Bend your elbows slightly, and, as you exhale, soften your chest downward, bowing your head. As you inhale, draw your shoulders back, keeping your elbows bent and your upper arms parallel. Lift and open your upper chest, feeling the stretch just below the lines of your collarbones. Keep your hips on the floor.

Next, with each inhalation, lift your chest and straighten your arms, maintaining the open space between your chest and the fronts of your shoulder joints. The more you straighten the arms while pressing downward through the mounds of your index fingers, the more you feel the stretch along the inner edges of your biceps and forearms.

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NEXT STEP *Raise your hips as you continue to lift the chest.*



Progress in the pose by raising your hips. Don't take your head back at first—keep it lifted, looking toward your knees. Continue to lift your chest. Ultimately you can take your head back by lengthening through the crown of your head.

Avoid throwing your head back in a way that collapses your chest and hyperextends your neck. Do not lift your hips if your arms turn in, if you feel a sharp pulling deep inside your shoulder, or again, if your chest collapses.

UPWARD-FACING PLANK

Extend the legs and lengthen through the crown of the head.



In the full pose, the legs are extended straight out in front of you. Isometrically draw your heels toward your hands to activate your hamstrings. Extend through your toes, lift your hips, and open your chest. >>

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USE A WALL to stretch fascia and deep muscle tissue.

STANDING STRETCH

This stretch addresses some of the deepest levels of tightness in the arm, shoulder, and chest. Stand next to a wall with your feet parallel and comfortably separated. Place the fingertips of one hand on

the wall at shoulder height with your arm fully extended. Place your other hand on your hip. Cup your fingers so that only the fingertips touch the wall, and rotate your arm outward slightly so that your thumb (rather than your index finger) points upward. Keep your shoulder aligned with your hand and begin to lift and open your chest with your breath, rolling your collarbones back.

Now, twisting from the waist, turn just your upper body, extending through your arm to the fingertips, as if the wall were moving away from you. This stretch extends from the chest and the armpit down through the entire length of the inner arm to the thumb. You may feel the stretch at any point along this line. It is a

deep fascial stretch that feels unlike most muscle stretches—it may tingle, which indicates a lengthening of the tougher fascial tissue. Breathe. The tingling is normal and fine, as long as it does not become a sharp localized pain. This stretch reaches some of the deepest levels of tension in the arm and shoulder, and opens the flow of circulation to the entire area.

GETTING RESULTS

Shoulder work is a foundation for nearly all hatha yoga poses. Lengthening the chronically short muscles in the inner arm and chest establishes better alignment in the shoulders and frees you of fatigue and painful spasms in your upper back. When your shoulder joints are aligned, they enjoy their fullest range of motion. Your chest feels broad and open, and the lower tips of your shoulder blades stay firmly and comfortably in place on your back.

If you take a quick inventory of your body as you progress with these three easy stretches—the chest opener with the arms clasped behind the back, the upward-facing plank, and the standing stretch near a wall—you’ll notice that the muscles between the shoulder blades and the spine feel broad and lightly toned. Your arms hang easily at your sides with a slight outward rotation, maintaining the feeling of breadth across your upper chest. Your head turns from side to side without difficulty, and you experience greater freedom when you extend your arms to the side and overhead. When your arms are stretched overhead in warrior I, for example, you will feel the inner edges of your shoulder blades release downward as your chest opens. There will be no bunching up of the muscles at the base of your neck. These are all signs of progress, signs that you are dissolving the chronic pain in your upper back and creating space for a more fruitful asana practice. +



WARRIOR I *As the shoulder blades release down, the upper back remains spacious. Expand the chest as you rotate the arms inward.*

