

*by Kay Wagner*

## IN-BOAT KAYAK STRETCHES

**Y**ou'll get more mileage out of your muscles if you take time to stretch. Lengthening the muscles makes them more efficient and less prone to getting sore and stiff after a day's



*A forward bend. See the instructions for the Sunrise C, page 60.*

**W**hat is a kayaker's most important piece of gear? You can paddle with a \$500 paddle and glide through the water in a \$3000 boat, but if you find your back, neck, wrists or shoulders hurting, you'll realize that your most critical piece of gear is your body.

Stretching your muscles while you are in your kayak can help you achieve your personal paddling goals, whether you are training for the competitive edge, looking to paddle comfortably while recovering from a strain or injury or hoping to be able to kayak for longer periods. A few minutes of in-boat stretching, practiced at regular intervals, breaks up periods of exertion and will help you recover from strain and fatigue, recharge muscles and increase your ability to paddle longer and farther.

Just as eating an energy bar gives your body energy, stretching charges the muscles with oxygen and nutrients. When you combine stretching with deep breathing, oxygen-rich blood fuels your body for peak performance.

During exertion, lactic acid and other wastes are thrown off from the cells at a high rate. Paddling causes muscles to contract, providing power. However during contraction, there's an increased need for blood flow but a decreased supply.

Elongating muscle fibers after contraction allows the capillaries to better access muscles. During this contract and release process, the muscle acts like a sponge. Squeeze the muscle (contract) and then release (stretch), and the muscle soaks up the fluids (blood and nourishment), much like a sponge. Oxygen-enriched blood circulates freely, removing lactic acid and other wastes. This reduces lactic acid buildup, decreasing muscle pain and stiffness later.

Taking stretching breaks allows muscles to regain their pliability while they are warm. Regular stretching of muscles while they're warm and active helps make them longer and stronger. Longer muscle fibers can work harder with less injury. Elongating muscle fibers also helps prevent compression of joints. This in-



*Neck release series: Tilting the head to one side; rotating the opposite shoulder*

creases range of motion and can relieve painful conditions such as tendonitis (tennis elbow), carpal tunnel syndrome, and neck and shoulder pain.

If you are competing, warm up first and then stretch and breathe deeply before the race. While your system is still warm after the race (before you walk up to receive your award!), stretch again.

During long paddle trips, stretch whenever you stop for water or to enjoy the scenery. Stay attuned to your body while you are paddling. If you notice tension or pain, check your body mechanics and your paddle stroke. Breathe deeply and rhythmically. If you are still uncomfortable, stop, stretch, and breathe.

How long should you stretch? Stretching is most effective if you can hold a stretch long enough to feel a softening and release in the muscles. That may be as long as 20 to 30 seconds, enough time to charge your muscles with three complete inhale/exhale breathing cycles. If time is limited, a shorter stretch in areas where you experience strain provides valuable benefits. Because your muscles are already warm and pliable from paddling,



*Continue rotating the shoulder with the head turned away.*

they will oxygenate quickly (an advantage over 'cold stretching'). However, longer stretching time increases surface area in muscles, enhancing the capillary blood supply that feeds the muscles. Holding a stretch for 20 to 30 seconds provides more release to the contracted muscle fibers, more nourishment and much greater release of lactic acid. It also aids the development of longer, more flexible muscles and improves joint mobility.

Use these stretches at home, in the office, in camp, and between sets at the gym, when you are warmed up. They target paddling muscle groups and can prepare your body for paddling even when you are not on the water. Try all the stretches and select two or more, creating your own routine that addresses your individual points of tension or discomfort. Your stretching routine will become familiar so that it's easy to perform when you need it the most—while you are in your kayak and relying upon the power of your body to take you across the water.

Healthy, oxygenated, limber muscles can sustain optimum performance. Prime your body for the joys and demands of



*Neck rolls: side to side with the chin kept down.*

kayaking with these simple, dynamic stretches.

Find a calm place to take your stretching break, if possible. You can also raft up with a partner and take turns stretching while the other provides stability.

Secure your paddle by tucking a blade under the deck bungies or by tethering it alongside.

### **Deep Breathing**

When engaged in paddling, your abdominal muscles should stay contracted to support the low back. As a consequence you don't fully utilize your diaphragm for breathing. To compensate, use deep breathing to increase the width and circumference of your rib cage and also expand your breathing into your upper back and chest. Use deep breathing to energize, relieve stress, and decrease muscle pain.

During stretching breaks, let the abdominal muscles relax and move freely with deep, diaphragmatic breathing. Deep breathing helps advance nutrients effectively. As increased oxygen courses through your system you gain maximum endurance. Exhaling completely helps remove carbon dioxide and waste products that are collected from the cells, via the blood.

Sit comfortably with your spine long. Inhale slowly, allowing your belly to soften and expand. Feel your lungs expand and open downward. Press your shoulder blades down and widen your shoulders. Exhale by drawing your navel and abdominal muscles in and up. Squeeze your abdominals in to release the breath completely. Let the inhalation flow down into your belly, repeating the cycle. Use diaphragmatic breathing during all of the exercises of your stretching routine.

While performing each stretch: On the



*Shoulder shrugs: Inhale and lift the shoulders up, then...*

exhalation, stretch further, deepening and maximizing the elongation of the muscles. On the inhalation, relax your muscles and focus on breathing.

### Neck Release Series

These three stretches will help relieve neck, shoulder and upper back strain. They can even provide relief from headaches. CAUTION: If you have cervical disc irritation, plaque buildup in the vertebral basal artery or a history of cardiovascular disease, consult your physician before performing any neck exercises. If you experience any dizziness, nausea, change in vision or ringing in ears, avoid the exercise and consult with your physician.

Lengthen spine and draw shoulder blades down. Tilt head to the left, bringing the left ear toward the left shoulder. Press shoulders back and down. Slowly circle the right shoulder through its full range of motion: forward, up, back and down, for five rotations. Breathe deeply and allow the neck muscles on the right to release gently. Return head to center. Keep your chin level and turn your head to look over the left shoulder. Slowly circle the right shoulder. Breathe slowly and deeply. Continue for three breaths. Return head to center. Repeat on other side.

Follow with easy neck rolls. Start with the right ear to the right shoulder. Gently let your head roll forward and then to the left shoulder, then forward and over to the right shoulder. This is a slow, side-to-side, 180-degree motion. Don't rotate your head back, just forward.

### Shoulder Shrugs

Shoulder shrugs relieve neck and shoulder tension, especially in the trapezius muscles, the levator scapula (which lifts the shoulder blades) and the neck. These key regions are especially stressed during paddling.

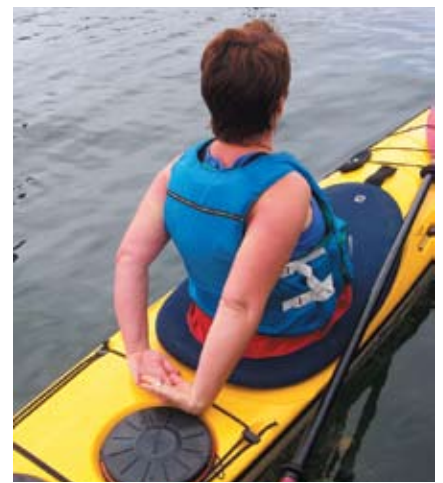


*...exhale and let the shoulders go loose and drop.*

Inhale deeply as you shrug your shoulders up, pressing toward your ears. Continue the inhalation, squeezing shoulders tightly upward. Exhale forcefully through your mouth as you drop shoulders in one quick movement. Press shoulders back, then repeat.

### Chest Stretch

This exercise relieves strain in the pectorals, neck and shoulders, strength-



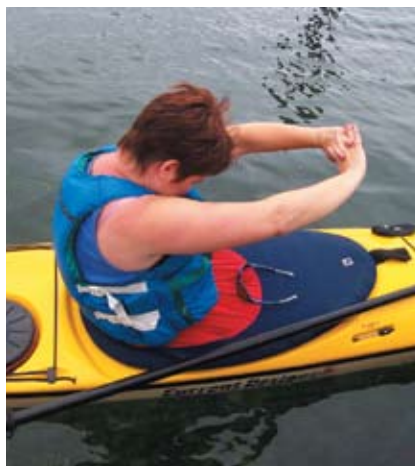
*Chest stretch; Push the hands down and back*

ens upper back and increases breathing capacity. It also increases vital oxygen flow to paddling muscles.

Sit upright. Press arms back and interlace fingers behind you with palms facing each other. Press clasped hands toward bottom of boat. Inhale deeply. Exhale and squeeze the shoulder blades together. Lift chest as you repeat deep breathing cycles. Change the cross of your thumbs, re-lace fingers and repeat.



*Sunrise C: Interlace the fingers, inhale, raise the arms and arch your back...*



*...then push forward and curve your back.*



*Spine twist: Have someone hold your boat if you feel less stable.*

### **Sunrise C**

The Sunrise C increases flexibility in the spine, chest and shoulders. It relieves lower back tension and strain and reduces neck, back and shoulder tension.

Place your feet on floor of cockpit with knees bent. In small cockpits, just bend knees as much as possible. A 20-degree flexion of the knees is adequate to relax the hamstrings and protect the low back from strain. Reach arms above head. Interlace fingers and invert hands to press palms toward the sky. Inhale as you press palms up and arms back. Press chest forward, arching your back comfortably. Exhale as you lower arms and round

your back, curving spine forward into a C shape. (Keep fingers interlaced) Press your palms forward along the foredeck. Pull your navel toward your spine. Inhale as you once again raise arms and press hands up and back, arching your back. Continue this flexion and extension of the spine, synchronizing your breathing with the movements.

This is a good time to add a Forward Bend (see photo, page 57). Contract your abdominal and pelvic muscles and keep a slight bend in your knees as you bend forward, reaching your hands toward the bow of your kayak. Rest hands and arms on the deck. Push fingers toward the bow and breathe deeply.

### **Spine Twist**

Transmissions from your brain flow through the spinal column and out of each vertebra. For example, brachial nerves flow from the lower neck and upper thoracic spine, supplying your neck, shoulders, arms, elbows, hands and wrists. Spine twists reduce constrictions to this nerve flow, allowing transmissions from your brain to fully activate your neck and upper extremities. Spine twist stretches enhance the flexibility of the spine and back muscles, relieve back strain and energize the entire body. They also improve nerve flow by decompressing and nourishing the discs.

**CAUTION:** Avoid spine twists if you have herniated or bulging discs.

If possible, place feet on floor of cockpit with knees bent as much as possible. If you are in a kayak with a small cockpit 20 degrees is adequate flexion. Draw toes up to flex your feet, heels resting on floor of boat. Contract abdominal and pelvic muscles to support your back. Gently twist to the right and place your right hand behind you on the aft deck. Cross your left hand in front to rest on the right side of the kayak. Breathe slowly and deeply as you gently twist further, looking over your right shoulder. Keep your chin level. Imagine a crane lifting the crown of your head straight up to lengthen spine. Visualize your spinal column as a spiral staircase. Hold for several breaths. Do not strain! Slowly return to a neutral spine and repeat on the other side.

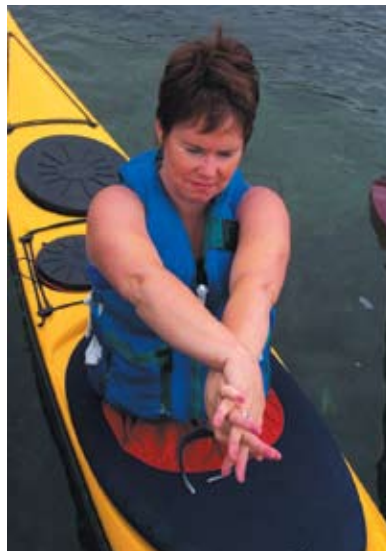
### **Palm Press**

This very simple and effective stretch opens side ribs, releases tension in wrists, neck, shoulders and upper back and spinal column.

Reach both arms straight above your head. Cross the left hand and arm in front of the right. Turn both thumbs to face forward.



*Palm Press: Reach up with your hands pressed palm to palm.*



*The Square Knot: Start with the hands palm to palm, then...*



*...wind the hands in toward the chest, to extend forward again.*

Palms now face each other. Press palms together. Inhale deeply, breathing into the full width of your rib cage. Continue to press arms back while the palms press together. Pause for several slow, deep inhales. Lengthen your spine as you exhale. If your palms do not reach to press together, just press your forearms together. Now reach up, flexing directly to the side, stretching through the side ribs as you reach your arms and torso from side to side. Keep your left and right sitting bones balanced and your pelvis neutral. (Don't lean over with your whole body.) If you feel unstable, have your partner steady your kayak. Release and shake out your arms. Repeat, starting with the right hand in front of the left.

### **T Pose**

To strengthen and massage the muscles between the shoulder blades and increase circulation to neck and shoulders, raise both arms out to the sides at shoulder height. Palms face forward, thumbs up. Squeeze shoulder blades together as if trying to hold on to a winning Lotto ticket between your shoulder blades. Breathe deeply. Raise your hands eight inches and squeeze your shoulder blades together again. Now you should feel the muscles contract higher, in the upper shoulders. Hold for three deep breaths. Lower arms and relax with a few shoulder circles.

### **Stretches for the arms, wrists, elbows and hands**



*The T pose: Squeeze your shoulder blades together with arms held straight out to the side, then with the arms raised 8".*

### **The Square Knot**

This interesting stretch provides intensive relief for strain in the forearms.

Extend arms in front of you. Place backs of hands together, thumbs pointing down. Cross Right hand over Left. Palms are now together. Interlace fingers. Bend at the elbows as you move your hands down and then in toward your chest. Bring your hands upward and slowly extend intertwined hands away from your body. Gently straighten elbows. Do not strain! For some paddlers,



*One Tendon at a Time: Curl each finger into the palm (left), then pull that finger back (right) to stretch the muscles in the forearm.*



fully extending arms is not possible. Just take the position to a comfortable stretch. Breathe deeply into your belly and allow the shoulders and face to relax. Keep fingers clasped while you unwind your arms. Now, with the palms still facing each other, change the cross of your thumbs, re-lace your fingers and repeat. Slowly unwind, then shake your hands and arms. Repeat both finger positions, beginning with left hand over right.

**One Tendon at a Time**

Gently bend your right index finger. With the finger curled, use your left thumb to press the finger into your palm. With

your left hand on the back of your right, press your right hand toward the inner forearm of your right arm, holding your right index finger curled into your right palm. Gradually straighten arm. Slowly rotate at the elbow, moving the arm left and right in a swiveling, swinging motion. Now release and pull the index finger back toward outer forearm. Palm should be face up. Stretch the fingers open. Shake out your hand and repeat the process with the middle and then ring fingers. Repeat stretches on other hand.

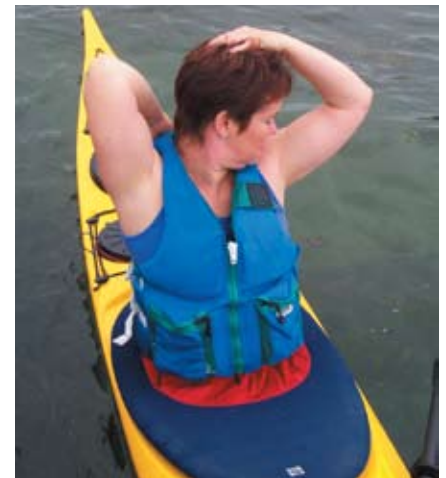
The Square Knot and One Tendon at a Time help relieve and



*Arm and Neck Rescue: Pull your arm across your chest...*



*...then touch your spine and pull your elbow back. Finish by...*



*...turning your head to the side and gently apply a bit of traction.*

prevent tendonitis of the elbow and carpal tunnel syndrome. Both stretches increase flexibility in hands and fingers, and alleviate wrist and forearm strain.

**Arm and Neck Rescue Series**

Do you ever feel a big knot in the muscles at the top of each shoulder blade (the levator scapula)? You can take care of that and, at the same time, relieve pain and tension in triceps, deltoids, neck and shoulders. With this series you'll also feel some relief of wrist and forearm pain.

Draw your right arm across your chest in front of your body. Press the upper arm against your chest with your left hand. Feel the stretch in your deltoids. Reach your right arm straight up and then bend the elbow to pat the top of your right shoulder blade with your palm or fingers. Reach up with your left arm to press the left hand against the bent right arm, just above the



*Lower Body Release: Squeeze a water bottle between your thighs.*

To create this program of kayak stretches I've used a powerful blend of yoga, physical therapy, chiropractic and massage therapy stretches. When you stretch, always use common sense and respect for your body. Pay attention to your body's signals and respond to what it tells you. The Golden Rule of stretching: If it hurts, don't do it! Ease back, breathe deeply and check in with your body. It should feel like a healthy stretch: No pain.

You can easily buy a new kayak, or upgrade your gear and try the latest technical advances in paddling equipment, but your body is a priceless and irreplaceable piece of machinery. It provides the power to carry you upon the earth's shining waters. Take good care of it.



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elbow. Press the right arm back with the left hand. The left elbow is pointing up above the left shoulder. Feel the stretch in the right triceps. Keep your head lifted and level. Breathe deeply. Continue to hold your right arm up, with your right hand on your shoulder blade. Lower the left hand. Look over your left shoulder. Bring your chin toward the left shoulder. Press your right hand lower onto shoulder blade. Feel the release in the right neck. If you are very flexible and want a deeper stretch, gently apply traction to back of head with your left hand, drawing the head toward the left shoulder. Use caution and a light stretch. Inhale and relax with hands at your sides. Roll your shoulders a few times before repeating on opposite side.

### **Lower Body Release**

Locking yourself in a kayak by pressing your thighs against the sides of the kayak and your feet against the foot pedals gives tremendous power to your paddle stroke. It also stresses gluteals, low back and the iliotibial bands on the outer thighs. The iliotibial bands stabilize knees and hips. The following squeeze and release exercise relaxes these areas and engages the muscles that oppose the kayaker's overused outer thighs and low back. It also helps relieve strain in the lower back, pain in the sacroiliac joints and numbness in the legs.

Place your feet on the bottom of the boat with knees bent or, in small cockpits, bend your knees to 20-degree flexion. Place your water bottle between your thighs, just above your knees. Squeeze your thighs together. Hold the squeeze and contract your abdominals, pulling your navel toward your spine. Breathe deeply. Release for a few seconds, then repeat the squeeze.