THE STRAIGHT TRUTH ON POSTURE
By Marlene Royle

The image of a slumping swan is not what you plan on when going to see the ballet *Swan Lake*; you expect the tall posture and sense of lightness that are part of the elegance of the dance. Most sports, from martial arts to show jumping horses use posture as an axis to support the limbs and execute correct technique. In sculling or rowing, our core strength and trunk stability serve to connect our leg power to the oarhandle. In a racing situation you need to stay composed when fatigue sets in to stay effective in the boat. Losing trunk control means that power is lost.

Volker Nolte's article, *Biomechanics of Rowing* in *Rowing Canada Aviron, winter 2002*, describes posture as one of the three key principles of the stroke, "Good posture reduces the probability of losing any force through movable soft parts of the body and prevents injury at the same time. Good posture means a strong and solid body positioning but not stiff." The famous coach and inventor of modern rowing technique, Steve Fairbairn, called it "freely erect" posture-horizontal chain and keeping the head and shoulders moving on one level during the whole stroke are main indications when the rower does it correctly, "If this horizontal movement of the head and shoulders is achieved, the center of gravity of the rower moves minimally in the vertical direction, conserving energy, and maintaining the run of the boat." Nolte continues that rowers with good posture put themselves in a position to transform all their forces onto the handle, maintain a large force over the whole stroke, and produce a high peak force. Although good posture is necessary during the whole stroke, it is most important at the entry and at the release. In these positions, the rowers can gain the necessary length of the stroke arc and stabilize their bodies to avert injuries. The length of the stroke depends on several factors: the size of the athlete, the fitness of the athlete, the boat class, the length of the oar etc. The larger and stronger the athlete, the faster the boat; the shorter the oar, the longer the stroke must be! However, the athlete must always maintain good posture.

What is good posture? When you are standing correctly your ear, shoulder, and hip are in a straight line from a side view. Your head is directly on top of your shoulders without deviating in front of your spine. Your upper back is generally straight and is not slouched. Shoulder blades are lying flat against your back; shoulders are level and relaxed. Your pelvis is in neutral meaning the bony protrusions toward the top of the pelvic bones line up vertically with the pubic bones. The top of your pelvis does not tilt forward or backwards in any extreme way. When you sit in your boat, initially establish your posture by sitting with your ear, shoulder, and hip in a straight line. Make sure you head is centered over your shoulders and not dropping forward. Lift your rib cage and relax your shoulders. Settle your "sit bones" or ischial tuberosities in the holes or depressions of the seat so you feel you are sitting squarely and firm up your abdominal muscles. Although your upper body angle will change during the stroke, aim to feel that you maintain the firmness of your abdominal muscles, keep your rib cage elevated, and head up.

Modern life works against good posture. Driving cars and hours of computer work encourage a forward-head posture that is carried into the boat with you or can lead to nerve compression

syndromes in the upper extremities. You can improve your rowing technique on land if you are aware of your posture throughout the day and make a point to do exercises to align your body when you take breaks from your work. In her book, *Posture, Get it Straight*, Janice Novak offers a simple routine to correct imbalances. Her sequence of movements starts with standing with your feet hip-width apart. Knees should be soft and neutral, not locked. Pull in your abdominal muscles like you are pulling your belly button towards your spine. Lift your rib cage and try to elongate your midsection by drawing your rib cage away from your hip bones. Unround your shoulders by rotating your arms until your thumbs are in a hitch hiking position. Press your shoulders down away from your ears. Move your shoulder blades towards your spine. Then relax your arms at your sides. Finally, stretch the top of your head toward the ceiling as if a string were pulling you upward. Hold the position for a few moments, relax into it, and breathe normally. Then walk around the room for a few minutes and repeat the movement series to reset your posture. With practice you will feel more comfortable and be able to find a natural position.

When you are behind the wheel of your car adjust your seat to keep your body aligned while driving. Set your seat close enough to the pedals so your pelvis is in neutral. Be able to rest your back against the seat and still sit up straight. Your seat should not incline more than 10 degrees. Adjust your headrest so you can sit with the back of your head resting on it. This will position your head over your spine and allow your neck muscles to relax. If you work extended hours on a computer make a point to ask your employer to provide a consultant who can position you correctly at your workstation. Taking the time to care for your body position during the day will carry over into your technique in a positive way.