A vast majority of injuries in rowers are overuse in nature. In addition to improper technique, ramping up your training too much too soon and poor conditioning underlie these overuse injuries. In rowers, knee and back pain, shoulder and elbow tendonitis, and rib injuries are common. Rowing is a complex exercise involving your whole body in a seated position. This seated, flexed position can put compressive loads on a rower’s lumbar spine of up to 5,000 Newtons! Along with shearing and rotational forces, a rower’s body is at great risk for injury if not trained and conditioned properly. Follow the exercise guidelines below for a comprehensive training program that incorporates injury prevention principles across every joint in the rower’s body. In addition to ERG training, this conditioning program should be done 3 times per week for at least 6 weeks prior to the rowing season. Good luck and have fun!

1) **Shoulder Retraction**: Lie face down on a ball or a bench with weights in your hands. Lift your arms up with elbows bent, squeezing your shoulder blades in towards your spine. Repeat 2 sets of 15 reps.

2) **Shoulder Abductions**: Lie face down as in previous exercise. Lift arms straight out to the side with your hands rotated slightly up towards the ceiling. Squeeze your shoulder blades in towards your spine. Repeat 2 sets of 15 reps.

3) **Shoulder Extensions**: Lie as in previous exercise. Lift arms straight back, with your palms facing inwards. Squeeze your shoulder blades together. Lower back down and repeat, 2 sets of 15 reps.

4) **Prone Scaption**: Lie as in previous exercise. Lift your arms up at an angle overhead, so that you look like a “Y” from above. Lower back down and repeat, 2 sets of 15 reps.
5) **Standing Scaption**: Begin with weights in your hands. Lift your arms to chest height, at a slight angle. Lower back down and repeat, 2 sets of 15 reps.

6) **Forearm Exercise**: Stand with weights in your hands, arms in front of you, just below chest height. Begin with your wrists down. Lift them all the way up, then lower back down slowly. Repeat 2 sets of 15 reps.

7) **Internal Rotation**: Begin at a pulley system or use an exercise band anchored in a doorway. Hold your arm out to the side, elbow bent, at 90 degree angles. Rotate the arm forward. Repeat 2 sets of 15 reps on each arm.

8) **Diagonal Extension**: Begin at a pulley system or use an exercise band anchored in a doorway. Hold your arm overhead and at an angle. Bring in forward and down towards your opposite hip. Return to start position, repeat 2 sets of 15 reps on each arm.

9) **External Rotation**: Begin at a pulley system or use an elastic band. Hold your arm with elbow bent at 90 degrees as shown. Rotate your arm back. Return to start position, repeat 2 sets of 15 reps on each arm.

10) **Diagonal Flexion**: Using a pulley system or elastic band, begin with your arm at your opposite hip. Lift your arm diagonally across and overhead, finishing with your thumb pointed back. Return to start position, repeat 2 sets of 15 reps on each arm.
11) **Shoulder Stabilization**: Begin in a push up position, hands underneath your shoulders. Alternate tapping one shoulder with the opposite arm, repeat. Perform 15 taps on each arm for 2 sets.

![Shoulder Stabilization](image1.jpg)

12) **Push Up Plus**: Perform a push up. At the top of the motion, press your back up to the ceiling by separating your shoulder blades as much as you can. Lower back down, repeat 2 sets of 15 reps.

![Push Up Plus](image2.jpg)

13) **Core Stabilization 2**: Begin lying on your back with your hips and knees bent at ninety degree angles. Extend both legs out straight at the same time. Keep your stomach muscles strong and your back in neutral position. Return to start position, repeat 2 sets of 15 reps.

![Core Stabilization 2](image3.jpg)

14) **Unilateral Bridges**: Begin lying on your back with one knee bent, foot flat, the other straight in the air. Lift your hips off the floor. Lower back down, repeat, 2 sets of 20 on each leg.

![Unilateral Bridges](image4.jpg)

15) **Plank Stabilization**: Begin lying on your stomach. Lift your whole body up, supported by your forearms and toes. Lift your right leg and left arm straight out. Lower back down and repeat with left leg and right arm. Repeat 10 reaches on each side.

![Plank Stabilization](image5.jpg)
16) **Sideplanks:** Begin lying on your side. Lift your whole body up, supported by your forearm and the outside edge of your bottom foot. Hold for 30 seconds, repeat 2 on each side.

![Sideplank Image](image)

17) **Abdominal Training:** Sit with your legs out in front of you, holding onto a medicine ball. Keeping your back arched in a neutral position and your shoulders back, chin tucked, press the ball in front of you. Return to start position and repeat, 3 sets of 20.

![Abdominal Training Image](image)

18) **Oblique Training:** Sit with your legs out in front of you and your back in neutral, with medicine ball, as in previous exercise. Rotate your trunk from side to side, 10 times each, for 3 sets.

19) **Dead Lifts:** Begin standing with 5# weights in your hands. Keep your knees slightly bend, your stomach muscles tight and your back flat. Let your arms and trunk come forward, keeping your chest lifted. Lift back up and repeat 2 sets of 15 reps.

![Dead Lift Image](image)
20) **Squats with Overhead Press**: Begin standing with weights in your hands. Squat down while reaching overhead. Return to start position and repeat: 3 sets of 15 reps.

21) **Hip Dips**: Hold 5# weights in each hand. Standing on one leg only with your knee slightly bent, lean your trunk forward while extending your back leg. Keep your stomach tight, your back flat and chest lifted. Repeat 2 sets of 15 on each leg.

22) **Squats with Chest Press**: Begin holding onto a medicine ball. Squat down and press the ball away from you. Return to start position and repeat: 3 sets of 15 reps.

23) **Lunges**: Begin holding onto a medicine ball at your waist. Take a large step forward, bend both your knees and lower yourself to the floor. Lift back up, step back together and repeat, 2 sets of 15 reps with each leg leading.

24) **Hamstring Burners**: Begin kneeling with a teammate holding your ankles. Keep your stomach tight and your back flat. With your hands behind your head, move your trunk forward then back again. You should feel a burn in your hamstrings. Repeat 2 sets of 15 reps.
25) **Hip Stretch:** Kneel with one leg bent in front. Shift your hips forward and reach your arm up overhead. You should feel a stretch in the front of your rear thigh. Hold 30 seconds, on each leg.

26) **Hamstring Stretch:** Lie on your back with one leg straight up, holding behind the knee with your hands. Hold 30 seconds, repeat each leg.

27) **Press Ups:** Lie on your stomach, hands underneath your shoulders. Lift your trunk up while keeping your hips flat and relaxed. Lower back down and repeat: 1 set of 15.

28) **Chest Stretch:** Stand at a wall or doorway with your arm out to the side. Rotate your body away, hold for 30 seconds, repeat 2 on each side.

29) **Shoulder Stretch:** Cross your arm in front of you and support it with your other hand, as shown. Hold for 30 seconds, repeat 2 on each arm.