

KAYAKING WARM UP ROUTINE

Studies have shown that upper extremity (shoulder, elbow, and wrist) injuries are the most common injuries among kayakers. While many of these injuries are trauma related, such as lacerations or contusions, there is also high prevalence of acute and chronic upper extremity injuries. Common non-traumatic injuries include sprains, strains, and tendonitis, with shoulder injuries comprising the majority of the injuries¹⁻³. In addition, low back strains are common among kayakers, highlighting the need for adequate core stretching and strengthening.

A proper warm-up should commence with aerobic exercise and include a dynamic stretching routine. Light jogging for 5 - 10 minutes will prime your body for exercise routines provided below. You may also want to complete around 5 minutes of light paddling, boat control drills, and stroke drills prior to completing the kayak based exercises provided. While a proper warm-up may not prevent all sprains, strains, and overuse injuries, it will get your body prepared for kayaking.

LAND BASED WARM UP EXERCISES:

Angled Push-up Plus:

- Using boat, tailgate, or other stable surface, start in a push up position
- To achieve core stability, draw umbilicus toward your spine
- Lower slowly (3-count) until your chest is at level of your hands
- Push up slowly (3 count) until elbows are locked
- To perform the “plus” portion, round the back between the shoulder blades and hold for 2 seconds
- Perform 2 sets of 10 repetitions

Reverse Lunge (with trunk rotation):

- Step back with right leg into lunge position
- Rotate trunk to the left and reach back and up with left arm to rotate your shoulders left
- As you maintain balance with above rotation you should feel a stretch in your right hip flexors, quadriceps, and core.
- Use heel of front foot to push up and back to return to the standing position
- Alternate legs
- Perform 5 times each side

Inverted Hamstring Stretch

- Balance on your right leg and slightly bend your right knee
- Engage your abdominal muscles (draw umbilicus in, toward your spine)
- Keeping your trunk, arms, and left leg in the same plane, lean forward until your body is parallel to the ground and you are balancing on your right leg
- You should feel stretch in right hamstrings while maintaining your balance on right foot
- Slowly return to standing and repeat on other side
- Perform 3 x 30 seconds each side

Pectoralis and Biceps Stretch:

- Extend your right arm out and slightly behind your shoulder at approximately shoulder level
- Place your right hand on a post or tree in above position
- Slowly rotate shoulders/body toward the left to gently increase stretch
- Perform 3 x 20 seconds each side

Posterior Shoulder Stretch:

- With right arm extended, reach across chest
- Using left arm, grasp right elbow or posterior upper arm and gently increase stretch by bringing right arm closer to chest
- Repeat with alternate side
- Perform 3 x 20 seconds each side

Triceps Stretch:

- Place a piece of rope in your right hand and reach your right hand behind your neck with your elbow flexed and pointed up
- Reach down behind your low back with left arm and grasp the rope
- Use lower (left) hand to pull down on paddle or towel to increase stretch of triceps
- Perform 3 x 20 seconds each side

KAYAK BASED WARM-UP EXERCISES:

Shoulder Flexion/Extension:

- Straighten both arms out in front of you
- Slowly bring right arm up above your head and left arm down by your side
- Once at the end range, bring right arm down and left arm up to end range
- Alternate back and forth for 30 seconds

Shoulder Circles:

- Straighten both arms out to the side at shoulder level
- Perform small circles forward that progressively get larger for 15 seconds
- Reverse direction and repeat for 15 seconds

Wrist Flexion/Extension with Extension Hold:

- With shoulders relaxed and elbows flexed at your side, alternate flexing (bending the hand down) and extending (bringing your hand back)
- Perform 10 repetitions back and forth
- After the last extension, use your other hand to gently pull back on the extended hand to provide an extra stretch to the wrist flexors (hold 20 seconds)

Wrist Circles:

- Same as the dynamic portion of the last exercise, but instead of flexion/extension, roll at the wrist to make small circles
- Perform each direction for 15 seconds

Paddle Pull-down

- Grab paddle with both hands above your head wider than shoulder width
- As you lower the paddle to your upper chest, focus on pinching your shoulder blades together (retraction)
- Return paddle above your head and repeat x 10 repetitions

1. Fiore DC, Houston JD. Injuries in whitewater kayaking. *Br J Sports Med*. 2001 Aug;35(4):235-41.
2. Krupnick JE, Cox RD, Summers RL. Injuries sustained during competitive white-water paddling: a survey of athletes in the 1996 Olympic trials. *Wilderness Environ Med*. 1998;9(1):14-8.
3. Schoen RG, Stano MJ. Year 2000 Whitewater Injury Survey. *Wilderness Environ Med*. 2002 Summer;13(2):119-24.
4. Kizer K. Medical aspects of white-water kayaking. *Phys Sports Med*. 1987;15:128-137.