First off, let's be honest; stretching probably isn't a favorite activity for most of us. We roll out of bed at 5 a.m. to row, not spend 20 minutes sprawled out on a cold, wet deck, trying to touch our toes. But then again, missing a season because of a pulled hamstring or back muscle probably doesn't make anyone's top 10 list either.

"Stretching is the single best thing athletes can do to prevent injury," says Dr. Jewell Duncan, director of the sports medicine department at the Medical College of Georgia in Augusta.

Exercise experts like to compare muscle tissue to a rubber band. Pull a rubber band from a freezer and yank on it, and you're likely to end up with two ragged pieces in your hands. But allow the rubber band to warm up first, with maybe a few gradual, gentle pulls, and the rubber band will happily return to its original shape no matter how much you jerk it.

Our muscles respond in much the same way. When we get up from a night's slumber or have spent the last nine hours behind a desk, our muscles have, in effect, been in the freezer. They are often too tight, inflexible, and ready to snap if you ask too much of them too soon. And the older we get, the more inflexible our muscles become without regular stretching.

Stretching can help prevent a season-ending muscle tear, but its benefits extend well beyond injury prevention. Regular stretching before exercise makes the muscles more flexible, enabling you to use a wider range of motion and giving you an advantage over a tight-muscled competitor. After exercise, stretching helps remove toxins, such as lactic acid, which build up during a training session. That helps minimize the morning-after soreness you might get after an intense workout.

So whether you're about to shatter the world record or just like to paddle in a wherry on the weekends, it's a good idea to spend some quality time beforehand with your major muscle groups.

Although every coach, trainer or exercise physiologist seems to have a different approach to stretching, here are some limbering basics most can agree on:

"Stretching is the single best thing athletes can do to prevent injury."

Warm it Up.

Cold muscles don't stretch too well, so it's important to raise your body's temperature through some light exercise, such as five minutes of slow jogging or rowing, or relaxed calisthenics.

Attempting to stretch a cold muscle can be inefficient at best; at worst, it can cause a muscle to tear. Ethan Reeve, head strength and conditioning coach at Ohio University in Athens, Ohio, likes to have his athletes do a few minutes of easy gymnastic tumbler before their stretch routine.

"Whatever you do, don't make your stretch your warm-up. Do something that's going to elevate your heart rate and get the blood flowing to the muscles," Reeve says.

Our Bodies, Our Sport.

"The key thing is to know your body and know what your body needs," says U.S. National Men's Sweep Coach Mike Teti.

"Some people need a lot more stretching on specific muscle groups than others who can get away with just a light overall routine."

The stretches you do should be tailored to your activity and your muscle condition.

Rowing puts the heaviest demand on the hamstrings, quadriceps, lower back and shoulders, so a rower's routine needs to include stretches that target those muscle groups. That same rower should add other stretches when she is lifting weights, running or doing some other form of cross-training, depending on which muscles are being worked.

Whatever the routine, coaches and trainers say athletes should pick one that works best for them and their specific activity, then stick with it, modifying it slightly as needed to accommodate cross-training needs and muscle tightness.

No Bouncing, Please.

Go to any gym, and you're likely to see several examples of bad stretching. Most weekend warriors don't bother to warm up, or they just swing their arms side to side and head to the basketball court. But the people who make exercise experts cringe the most are the bouncers. They are the ones who lock their knees, bend at the waist and bob up and down, as if momentum is the only force that can bring their fingers and toes together.

Like stretching a cold muscle, bouncing makes the muscle think it is about to be overstretched, which starts a physiological response designed to protect the muscle, that actually causes the affected muscle to contract. The end result is the bounced muscle group ends up tighter and more injury-prone than before the "stretching" began.

The correct way, most experts agree, is to hold a stretch steady for several seconds, release and repeat two to four times. Some coaches and trainers, though, prefer a different method that, at first, seems to go against the conventional stretching grain by having athletes contract their muscles instead of holding them in a stretch. The idea is based on the fact that every muscle in the body is paired with
another muscle — an “antagonist” — that relaxes while the other muscle contracts. By contracting one muscle group, say, the hamstrings, you stretch the antagonist, which in this case would be the quadriceps. You contract a muscle about 10 times, for two seconds each repetition, to limber the muscle’s antagonist.

The method has most recently gained attention with the 1986 publication of The Whartons’ Stretch Book, by Jim and Phil Wharton, a father-son pair of exercise experts who claim to have helped Olympic track athletes overcome and prevent injury with the stretching method.

The problem with traditional stretching, the Whartons say in their book, is a muscle that’s being stretched automatically wants to resist the stretch, tensing up to prevent what it thinks is an injury about to happen. “If you elongate a muscle too quickly or too far, it automatically and ballistically recoils to protect itself from ripping. This compensation, called ‘myotatic reflex,’ kicks in at three seconds,” write the Whartons, who say their repeated two-second stretch method beats the body’s defense mechanism. They also say their “active-isolated stretching” combines a warm-up with stretching, eliminating the need for a pre-stretch jog.

Other physicians and exercise physiologists say the Wharton method has its merits but that the traditional methods work just fine for most people. “It’s something that’s been around in one form or another for over 20 years,” says Dr. Duncan. “Some people might prefer it, but I think you’ll find most returning to the tried and true traditional stretching.”

Athletes can beat the body’s three-second tension response by just holding the stretch for at least 10 to 15 seconds, Dr. Duncan says. “The muscle relaxes after a few seconds. It’s like it’s saying ‘OK, I over-reacted. Go ahead and stretch.’”

Following are a few basic stretches coaches and exercise physiologists recommend for rowers.

As a general rule,
Hold the stretches so you feel a slight pull, but not pain.

Muscle Group: Hamstrings
- Stand with most of your weight on your right leg, then cross your left leg in front of it.
- Lean forward at the waist, bending at the hip with your back straight. It’s easier to keep your back straight if you look forward and put your hands behind your back.
- Hold for 10 to 30 seconds, keeping your legs as straight as possible. Repeat three to five times.
- Switch legs and repeat.

Muscle Group: Hamstrings and lower back
- Sit down with your legs straight in front of you and lean forward with your arms extended. Keep your legs flat on the floor.
- If your fingers can reach your toes (no fair raising your knees), try pulling your toes slightly toward you.
- Hold for 10 to 30 seconds. Repeat three to five times.

Muscle Group: Lower back
- Lie on your back and raise one knee toward your chest as far as it will go without pain. Keep the other leg straight.
- Hold for 10 to 30 seconds. Repeat three to five times.
- Repeat with the other knee.

Muscle Group: Shoulders and upper back
- Stand erect while pulling one elbow across your chest.
- Once you feel a stretch in your upper back muscles, hold for 10 to 20 seconds. Repeat three to five times.
- Repeat with the other elbow.

Muscle Group: Quadriceps
- Stand erect, grabbing one ankle. Use a wall for balance, if necessary.
- Pull the heel toward the buttocks until you feel a slight stretch in the quadriceps.
- Hold for 10 to 20 seconds. Repeat three to five times.
- Switch legs and repeat.

Muscle Group: Lower back
- Lie on your back and raise both knees toward your chest as far as they will go without pain.
- Hold for 10 to 30 seconds. Repeat three to five times.

Photographs by Wayne Partridge
Stretches demonstrated by Bob Sherrill, a member of Auburn University Crew.