Injury Prevention Series

Rowing

Boston Children's Hospital
Orthopedic Center

bostonchildrens.org/sportsmed
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Common rowing injuries

Backs, ribs, wrists and legs

Great for the legs, back, core and arms, rowing offers a true "total body workout." Through proper training, rowers become finely conditioned athletes: strong, coordinated and aerobically fit. The sport provides opportunities for young athletes to meet individual goals, as well as the chance to be a part of a pair or a four- or eight-person team, where everyone pulls together toward a common goal.

Although rowing is considered a low-impact sport, the physical demands placed on athletes may cause injuries. Because the rowing stroke is a continuous repeated cycle, overuse injuries, such as strains, sprains and fatigue, may occur. Pains along the lower back and ribs are most common. Fortunately, rowing injuries may be reduced through proper technique, adequate stretching, strengthening exercises and sufficient rest and recovery periods.

Rower Safety

Common accidents, serious injuries

Rib stress fractures Pain along the rib may indicate a rib stress fracture. These injuries may be caused by high-intensity training and racing. Upper-back and core strengthening, along with proper recovery time after workouts, are recommended injury-prevention techniques.

Low back pain Rowers often complain of back spasms, trouble bending forward or pain in the lower back and buttocks while sitting. It is important to have back pain evaluated to determine if it is simply a muscle strain or a more serious issue, such as a vertebral disc problem. Rest and flexibility exercises may make the pain go away. Proper back strengthening and core stabilizing exercises help to prevent more serious injuries.

Iliotibial band (ITB) friction syndrome

Repetitive exercise may cause tightness in the band of tissue on the outside of the leg called the ITB. Rowers experience inflammation and localized pain at the outside of their hip or knee. ITB stretching, rest and anti-inflammatories may help.

Knee pain Regular rowing workouts may cause pain around the kneecap (called patellofemoral syndrome). Rowers with knee pain may feel a clicking sensation while rowing or have trouble going up and down stairs, as their kneecap (patella) doesn't run smoothly against the leg (femur). Stretching and strengthening to correct muscle imbalance around the knee can improve alignment and movement. In addition, rest and anti-inflammatory medications, such as ibuprofen and naproxen sodium, may help.

Forearm and wrist pain

A tight grip on the oar and too much wrist flexion and extension during the rowing stroke can lead to wrist and forearm irritation. Modifying technique, wearing a wrist splint at night, rest, ice and anti-inflammatory medications are the typical treatments.

How can you prevent rowing injuries?

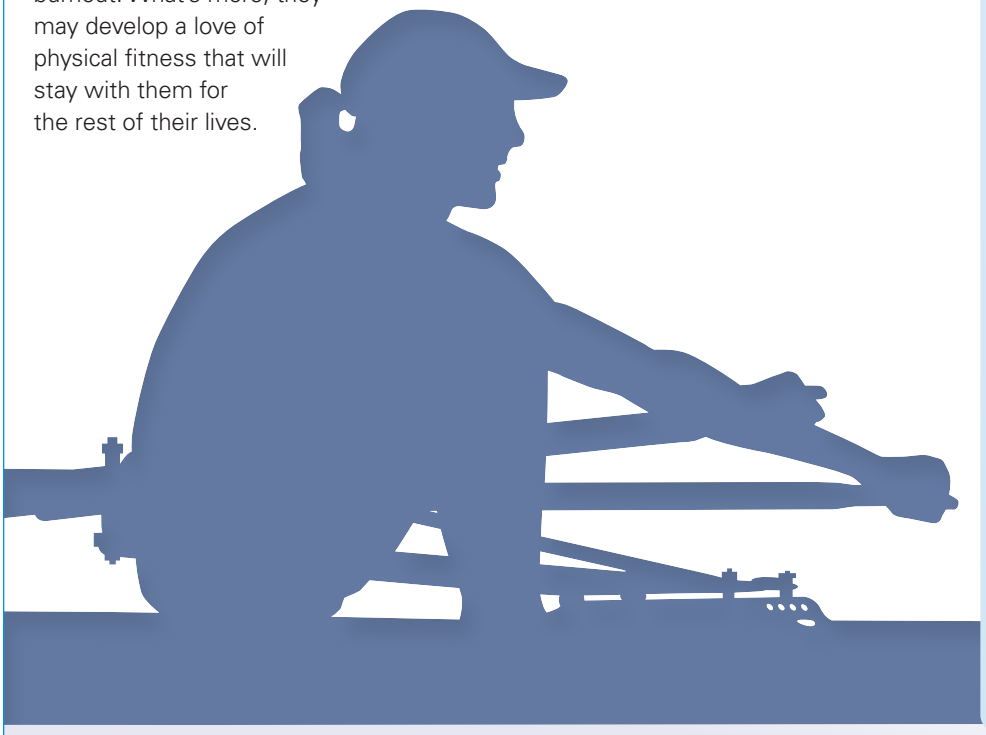
Row, row, row too much?

Rowers are known for their competitive nature and total dedication to their sport. Too much training, however, can lead to overuse injuries like strains, sprains and fatigue. In many cases, overuse injuries arise because athletes specialize in one sport at an early age and play it year-round. Too much repetition of movement may cause soreness and pain. Excessive training may cause minor overuse injuries, leading to more serious, major chronic injuries.

Young rowers are advised to get plenty of rest between races and practices. Take a day or two off each week, and take a few weeks away from rowing. Also, play other sports. Just rowing may put too much strain on the muscles needed to row. Even elite athletes cross-train and ease up on rowing in the "off-season" (late summer). Mix it up with swimming, cycling, soccer…something new!

In addition, young athletes may experience emotional problems by playing the same sport all the time. Did you know that about 70 percent of young athletes give up on youth sports by age 13? Pressure from parents, coaches and others often become too much for the child to take. Sports stop being fun, and the benefits of physical fitness and team togetherness get lost.

By taking steps to prevent overuse injuries, young athletes can avoid physical problems, and they can continue to enjoy sports, free of excessive pressure and burnout. What's more, they may develop a love of physical fitness that will stay with them for the rest of their lives.



Weigh Enough!

Competitive rowing is divided into weight categories. Open weight competitions put no weight restrictions on rowers, but lightweight competitors must stay below certain weights to take part. (In general, 126-pound boat average with a 130-pound maximum weight for women and a 155-pound boat average with a 160-pound maximum for men.)

Although the weight categories make it possible for a broader range of rowers to take part, the need to "make weight" may cause health problems, both physical and mental.

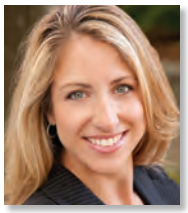
Coaches, trainers and parents should closely monitor the weight loss or weight gain methods of rowers, and potential lightweights should be realistic about their weight category goals. Not eating properly or eating too little may hurt performance and lead to serious health issues. Rapid weight fluctuations before races can be life-threatening.

These issues may affect all rowers, but they are most often detected in young female athletes. A focus on training too much or on being too thin may lead young women to take extreme measures in diet and exercise. Taken together, these problems may even lead to the "female athletic triad."

Decreased energy When athletes try crash diets, binge eating, purging or excessive exercise, they may not be getting proper nutrition or calories to cover their daily needs.

Menstrual dysfunction Hormonal changes that stop menstrual periods (amenorrhea) may be caused by poor nutrition, low calorie intake, excessive exercise, stress or low body fat levels.

Poor bone health When female athletes don't have their periods, the body's bone-building process is disrupted, making bones more likely to break and increasing the risk of premature osteoporosis (low bone density).



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This piece is part of an informational series on sports injury prevention produced by the Orthopedic Center/Sports Medicine Division at Boston Children's Hospital. For materials on preventing injuries in other sports, call 617-355-3501 or visit bostonchildrens.org/sportsmed.

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