

Shoulder Injury in Rowers and Yachtsmen

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A summary of the stages of injury and reconditioning

Severe muscle injuries require evaluation and treatment by an orthopedic surgeon or similarly trained professional, with referral to a physiotherapist, chiropractor, acupuncturist or rehabilitation specialist. However, most muscle injuries, including shoulder injuries are never seen by a physician. Provided pain and restriction of movement are at minimal levels, there is much that injured athletes can do for themselves.

Let's look at muscle injury in general and then examine an injury which often occurs in rowers and yachts.

Muscle injuries can occur in many different parts of the muscle structure. About 40 per cent of muscle injuries tear within its body or fleshy part. Another 40 per cent of tears occur at the junction of the muscle and tendon. Muscle may also tear away from either its bone origin or insertion.

Muscle tears or pulls, medically termed strains, are categorised as Grades I, II and III. In a Grade I strain, less than 10 per cent of the muscle fibres are torn and an experienced medical practitioner can not feel a defect. Grade II strains involve 10-50 per cent of the muscle fibres and can usually be felt by a practitioner. Grade III strains are extensive tears or complete ruptures with a large palpable depression in the muscle; contraction of the muscle is difficult or impossible. Grade III and many Grade II strains require expert evaluation and treatment.

Several factors increase the chance of strain. Previous injuries that haven't been properly or completely rehabilitated are a major factor. Another, is a previously injured muscle which healed with contracted scar tissue which limits normal muscle excursion, or its ability to extend

of power that place added stress on muscles. These factors as well predispose one to muscle strains.

Rowing injury and rehabilitation

We can illustrate the stages of rehabilitation with the example of a rower with a mild strain of the shoulder.

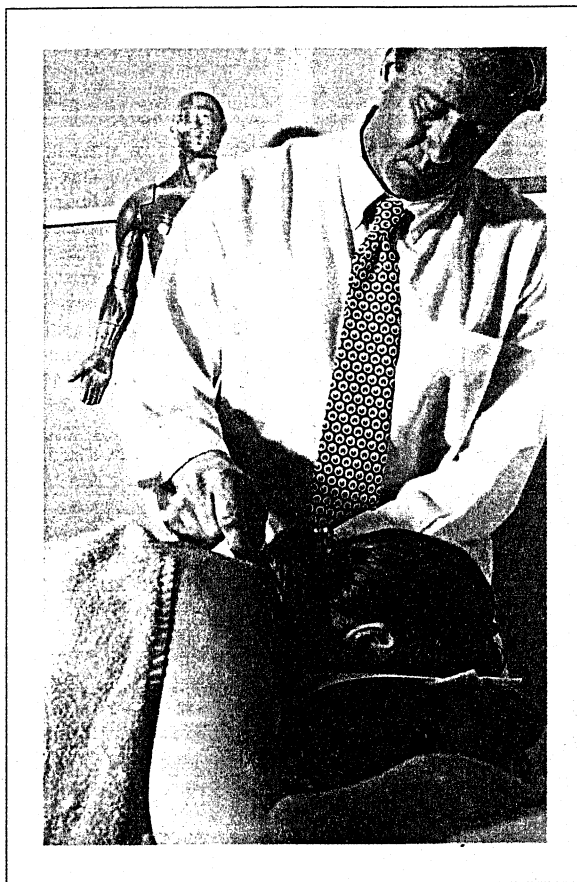
Three primary ranges of motion are involved in rowing, shoulder extension, horizontal shoulder extension and scapular adduction. Shoulder extension involves the lower pectoralis major, the lower latissimus dorsi and the teres major muscles with help from the posterior deltoid. In this motion, your elbows move from in front of your body down and back until they are behind your trunk.

When your palms are facing downward as in rowing sculls, at the beginning of your rowing motion, the posterior deltoid, the teres minor and the infraspinatus muscles are involved in horizontal shoulder joint extension. Your arms travel on a horizontal plane from in front of your body, to the sides and behind your trunk.

In the shoulder girdle, the middle trapezius and rhomboid muscles are involved in scapular adduction or retraction in which your shoulder blades slide toward one another.

These three ranges of motions are important not only in rowing, but in gymnastics, tennis, racquetball and badminton.

After a strain in any of these muscles, the first stage of treatment is rest and ice.



and contract. In addition, unusual tightness in the muscle which limits motion increases the likelihood of strain. Failure to warm up or stretch properly is another common reason. Finally, muscle fatigue from over-exertion or over-exposure to cold temperatures can reduce the capacity of muscles to bear the sudden bursts

