

Injuries: the bane of an athlete's life!

In part two of his article, MIKE SEARLE explains how to rehabilitate after an injury.

Rehabilitating the Injury

For the purpose of this feature, it is assumed that the injury is not severe (i.e.: requiring surgery) and is a typical injury that a runner might experience, such as a hamstring strain. To help the healing process, the following protocols should be followed:

Stage 1

When injured, the faster you can initiate treatment the better. The acronym PRICE, which stands for Protection, Rest, Ice, Compression and Elevation, is the best form of initial treatment for a soft tissue injury.

P = Protection – the injured limb should be immobilised and protected from further trauma.

R = Rest the injured muscle

I = Apply Ice to the area to reduce swelling and inflammation (e.g.: wrap a pack of frozen peas in a tea-towel and follow the '5 minutes on, 10 minutes off' protocol).

C = Compress your home-made ice pack around the injured muscle.

E = Elevate the injured limb as much as possible to further reduce blood flow to the area.

Stage 2

During the repair stage, a sports therapist can really make a difference to the healing process by prescribing rehabilitation exercises and employing techniques that will promote healing and maintain the condition of the muscle, including:

Massage

As the hamstring muscle rebuilds, sports massage will help drain excess fluid from the injury site, flush waste products away, align the repairing muscle fibres and increase the pliability of the muscle.



Stretching

Developmental stretching will correct any muscle shortening that has resulted from immobilisation and will also help align the individual muscle fibres in the direction of normal movement.

Assisted Movement

If there is excessive discomfort during self-movement, the therapist can aid mobility retention by passively moving the injured limb, which avoids putting the injured area under further stress, which might occur if the runner made the movement independently.

Isometric Training

When a muscle contracts without causing limb movement, the contraction is termed isometric. This type of training can be employed to maintain the condition of the injured muscle without adding movement, which could exacerbate the injury. An example of an isometric exercise for a hamstring strain would be to stand with your back, heels and hamstring pressed against a wall and try to press your leg further against the wall. No actual leg movement occurs (which could be too advanced at this stage of recovery) but the hamstring muscle has to work to maintain force against the wall. Isometric exercises will help minimise muscle wastage during the repair stage.

Cardiovascular (CV) Training

Alternative CV work should be employed to maintain CV condition. The type of training should be considered carefully to ensure that there is no risk of re-injuring the affected muscle. In the case of a hamstring strain, front crawl swimming while using a Pullbuoy float to prevent leg kicking would provide a good heart and lungs workout, whilst also protecting the injury.

Stage 3

During the remodelling stage, all the techniques from the repair stage can be employed, together with increasingly more challenging training as the injury heals, including:

Mobility Training

A gradual return to self-movement can be introduced, with the patient facilitating their own movements instead of with the therapist's assistance.

Strength Training

Advancing from the isometric phase, the injured muscle can now be further strengthened using resistance bands or light weights, under a programme of training that works the muscle across its full range of movement to ensure a return to complete functionality.

Sports Specific Training

At this stage, the runner is close to returning to full activity and a graduated return to previous levels of volume and intensity can be initiated.



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Rehabilitation Techniques

The primary problem with rehabilitation is that it can be tedious and boring. Because of the necessity to use repetitive exercises, it is vital that all prescribed training incorporates as much variety and fun as possible so that the incentive to continue with the programme is maintained. Inventing innovative rehabilitation games will help ensure that the exercises are continued throughout the programme and a creative and later competitive approach should always be employed.

For example; to improve ankle mobility it is important to repeatedly put the ankle through its full range of movement. Picking up a selection of small balls that have been randomly scattered on the floor with your foot is a far more interesting and stimulating activity than moving your ankle from side to side 200 times a day.

Full training should only commence once all elements of the rehabilitation process have been completed to a minimum of pre-injury levels of strength, flexibility, mobility and CV conditioning. Once a full return to training has been achieved, as well as modifying the training from the situation that triggered the injury, it is important to continue with the conditioning work (e.g.: flexibility, strength etc), in order that the injury does not reoccur.

A Thing of the Past

Following injury, if a carefully structured and administered rehabilitation programme is employed, not only should you return to previous exercise levels more rapidly, you should also be stronger so that the familiar scenario becomes a dim and distant memory.