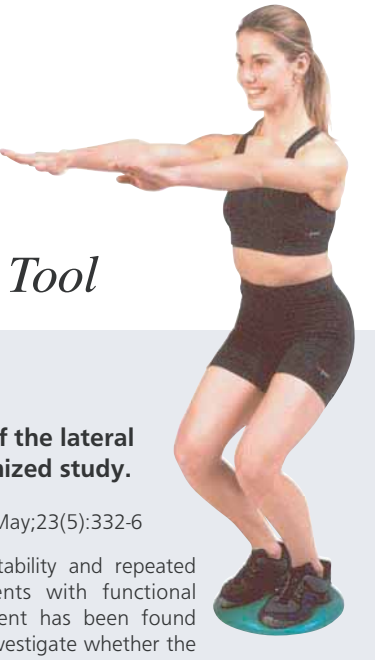
duraDISC

The duraDISC system

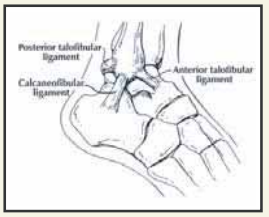
A Versatile Rehabilition & Proprioception Training Tool



THE PROBLEM

The Sprained Ankle

Sprained ankles occur frequently in all sports. Sprains may occur in any ligament in the ankle, but most sprains involve the lateral ligament complex- that is, the group of ligaments on the outside of the ankle. These ligaments are named for their location and the bones to which they are attached:



a) the anterior talofibular ligament (front), b) the posterior talofibular ligament (back), and c) the calcaneofibular ligament (middle). (See illustration.) Sprains of the lateral ligament complex are produced by forced inversion and flexion movements of the ankle. Ankle sprains are graded as 1, 2, or 3, depending on the extent of the injury.

Grade 1 sprains are very mild, involving stretching of the ligaments or, perhaps, small partial tears, usually of the anterior talofibular ligament. Treatment consists of rest, the use of ice, compressive bandages, and elevation of the ankle, and early active use with the ankle bandaged, taped, or in a specialized splint.

Grade 2 sprains are complete tears of the anterior talofibular ligament and the calcaneofibular ligament but involve only mild stress to the posterior talofibular ligament. In addition to the measures mentioned above, treatment consists of providing support with tape, an inflatable splint, or a cast for 3 to 6 weeks, followed by rehabilitation of the ankle and lower leg muscles to improve ankle stability.

Grade 3 sprains involve complete rupture of all the ligaments of the lateral complex. Treatment of these serious sprains of the lateral ligaments is somewhat controversial. Because the injury results in gross instability, surgical repair may be necessary for some patients. Whatever treatment the physician chooses, complete restoration of muscle strength through physical therapy and rehabilitation is essential to avoid another sprain in the same ankle.

Residual weakness is common after any ankle sprain and can cause swelling and discomfort Ankle stability can be improved over the long term by achilles stretching and other exercises to strengthen leg and ankle muscles.

THE RESEARCH

Wobble board training after partial sprains of the lateral ligaments of the ankle: a prospective randomized study.

Wester, Jespersen et al; J Orthop Sports Phys Ther 1996 May;23(5):332-6

Ankle sprains are often complicated by functional instability and repeated sprains. Rehabilitation with wobble boards in patients with functional instability has been tested, and significant improvement has been found compared to no training. The aim of this study was to investigate whether the number of patients with residual symptoms following ankle sprains could be reduced by training on a wobble board during 12-week recovery period. In addition, the influence of training in the time course reduction of edema was investigated. We performed a prospective study including 61 patients, all active in sports for more than 2 hours a week with primary ankle sprains. The effect of a 12-week training program with wobble board was compared with no training. Forty eight patients completed the study. In the follow-up period (mean X = 230 days), we found significantly fewer recurrent sprains, and significantly fewer patients in the training group had functional instability of the ankle compared with the no training group.

There were no differences in the two groups in the time which elapsed before patients were painless at walking, during running, or at sports. Volumetric measurements revealed no difference in the speed of reduction of haematoma and edema of the ankle and foot between the two groups. We conclude that training on a wobble board early after primary stage 2 ankle sprains is effective in reducing residual symptoms.

THE SOLUTION

Delivering the therapeutic benefits of exercise platforms costing as much , the DuraDisc System provides active and reactive rehabilitation for the lower kinetic chain. Use the DuraDisc System to improve proprioception and balance, increase range of motion and strengthen the lower kinetic chain. The DuraDisc System is appropriate for use in therapy as well as active training.

When used at home, the DuraDisc System is excellent as part of an ongoing conditioning program.

The DuraDisc System is an exercise system which offers a wide variety of possibilities. The DuraDisc System can effectively strengthen the total lower extremity. Not only this, it can also be utilized for shoulder and elbow rehabilitation, and strengthening. You have many options available, to rehabilitate acute injuries, or to promote strength and range of motion during all phases of injury recovery.

Not only this, the DuraDisc System also makes an ideal choice for people who want to strengthen, tone and help prevent sports injuries associated with ankles, hips, knees and shoulders.

Whether you're a doctor, physical therapist, athletic trainer, coach or home exerciser, the DuraDisc System has something to offer you. The DuraDisc System may be the best investment you'll ever make. It offers new alternatives never before available for strengthening ankles, knees, hips and shoulders.

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