

CROSS TRAINING

Over the past few years runners of all abilities have discovered the many benefits of cross-training as a means to enhance their conditioning and running performance, in addition to preventing injury.

THE term 'cross-training' refers to a training routine that incorporates different forms of exercise than do not involve running. While it is necessary for a runner to train specifically for their sport, cross-training is a beneficial training method for maintaining a high level of overall fitness.

Cross-training was primarily developed as a method of injury rehabilitation and is now also used as a key technique in injury prevention. When a runner sustains an injury in the legs or feet that keeps them from running, other activities can be substituted so the athlete can maintain their aerobic and muscular conditioning.

Cross-training is extremely helpful in reducing the risk of injury that often results from the repetitive strain associated with running. It limits or varies the stress that occurs on specific muscle groups because there are different activities performed. Cycling or swimming for example use muscles in slightly different ways and therefore aid in the prevention of injuries. For instance, an individual may include cycling and swimming in their training regime to improve their overall aerobic capacity and increase muscle strength, while reducing the chance of an overuse injury. In addition, cross-training is a great way to develop a new set of skills and reduce boredom that creeps in after months of the same exercise routines.

Not only does cross-training enhance your cardiovascular system, strengthen muscles, bones and joints, but it also helps to reduce body fat and improve flexibility, balance and coordination. After months of the same movements your body becomes extremely efficient at performing those movements, and while that is great for competition, it limits the amount of overall fitness you possess and reduces the conditioning you get while training. Rather than continuing to improve, you simply maintain a certain level of fitness.

Many runners aren't sure which alternative forms of exercise are best for their running. Listed below are some of the types of cross-training that can be performed to help improve performance or maintain fitness when recovering from an injury.

CYCLING

Scientifically, cycling has proven to be the number one form of cross-training exercise to benefit running. As a repetitive-motion activity in which the legs do all the work, it develops a form of fitness that is highly transferable to running. Studies and research suggest that cycling can improve 10km race times by as much as 9% as well as boost VO2max values by up to 15%.

Not only does cross-training enhance your cardiovascular system, strengthen muscles, bones and joints, but it also helps to reduce body fat and improve flexibility, balance and coordination

Cycling exercises related muscle groups such as the quadriceps and shins, both of which don't develop as rapidly as the calf muscles and hamstrings. It also strengthens the connective tissue of the knee, hip, and ankle regions, thus reducing the risk of injury. After a stressful run, cycling is useful in loosening those fatigued leg muscles.

Cycling is a non-impact activity, so it can serve runners well as a recovery or rehabilitation workout. It allows runners to achieve goals such as heightened workout intensities, improved leanness and greater strength.



POOL RUNNING

Also called deep-water running, pool running is the most 'running-specific' form of endurance based cross training. It involves more or less the same action as land running but with greater resistance and virtually no impact. This fact puts it at the top of the list for many injured runners.

The major plus of pool running is the fact that fitness levels are able to be maintained. In a recent study, deep-water runners who abstained entirely from regular running for six weeks were able to perfectly preserve their racing ability. This is because an individual's normal training load and intensity can be performed in deep-water running sessions.

Pool running can be performed with a wide variety of injuries and is most commonly used for individuals suffering from any lower leg injury. Runners who have used pool running for extended periods for rehabilitation find making the adjustment back to land running is surprisingly easy. However, there are

some slight side-effects from pool running, such as a minor loss in timing, though this returns quickly as your body readjusts to the impact involved in conventional running.

Some might consider it a strange and boring activity, but slipping into a life preserver and running in the water can actually help your performance, especially if your injury prevents you from running on firm surfaces. Deep-water running actually mimics real running more closely than cycling, but the tediousness of spending time in the pool often leads to runners selecting other forms of cross-training for supplementary workouts.

ELLIPTICAL TRAINER

These machines provide a great total-body cardiovascular workout. Their oval-like (ellipse) motion provides the user with the feel of classic cross-country skiing, stair climbing, and walking, all in combination. The elliptical trainer can be programmed to operate in either a forward or backward motion, providing a low-impact workout for all the major muscles of the legs. The backward motion emphasises the gluteal muscles (buttocks). A great upper body workout can be achieved by utilising the two poles located on each side of the machine, in conjunction with the leg motion.

An elliptical trainer offers a method of

continues next page ...

by LENNON WICKS



continued from previous page ...

cross-training that provides cardiovascular activity that is more similar to jogging than pool running, however, there is a key difference. While elliptical training involves no impact, it is a form of weight-bearing activity. Thus, pool running is a better choice for runners who have injuries that make it impossible or inadvisable to perform any weight-bearing exercise, but elliptical training is better for helping maintain your body's impact-absorbing capacity.

Studies have shown that as little as six weeks of resistance training can significantly reduce or completely relieve many common running related injuries

Additionally, water is considered a healing medium and provides a therapeutic effect for all muscle groups. Swimming as a form of cross-training is recommended to runners who have

serious injuries that make it inadvisable or impossible to perform leg-reliant activities, or simply those who enjoy it more than other forms of endurance cross-training exercises. Runners without injuries would do best to choose a different activity for cross-training workouts.

RESISTANCE TRAINING

This form of cross-training involves the use of bands, tubes, weights and weight machines as resistance to create strength, power and endurance gains within the body. By strengthening muscles, bones and con-



nective tissue, resistance training not only helps to prevent injury but also acts to reduce the severity of injuries when they do occur. Studies have shown that as little as six weeks of resistance training can significantly reduce or completely relieve many common running related injuries, most particularly kneecap pain or 'runner's knee'. Also, resistance training performed in a circuit type manner can provide a decent cardiovascular workout that helps to maintain aerobic fitness.

In addition to injury prevention, resistance training improves performance. Many scientific papers have linked resistance training with a 4% improvement in running economy, reduced heart rates while running and improved race times at distances ranging from 5km through to marathon. By improving running economy, a runner should be able to run faster over the same distance due to a decrease in oxygen consumption. Improved running economy also increases a runner's time to exhaustion.

In Summary

Cross-training programs are most effective when they are tailored to meet the needs and interests of the individual. By no means are the exercises listed in this article the only forms of cross-training methods available to runners.

To receive the maximum benefit while minimizing your chances of incurring injury, it is also very important that you perform these activities utilizing proper technique. Before commencing your workout it would best to seek the advice of an experienced user, coach or a certified fitness instructor.

R4YL

In the next issue of R4YL we will examine varied training sessions that you can easily include into your training regime or use when recovering from injury.

100% TECHNOLOGY



SmoothRide

Mizuno Technology allows the smoothest step transition available today.



WAVE INSPIRE

SmoothRide Engineering™ is designed to minimize the rapid acceleration and deceleration of the foot through the phases of the running gait cycle by reducing shock vibration and increasing flexibility. This allows Mizuno to create running footwear that provides an extremely comfortable running experience through an even, smooth ride.

Resulting in maximum enjoyment and performance while running.

ANOTHER INSPIRATION FROM MIZUNO



Available at leading sport & running outlets



SERIOUS PERFORMANCE