Gazelle Sports

DECLINE TRAINING: THE BENEFITS AND TECHNIQUES

Sprinters have used downhill training for years to improve leg turnover, but it can also be beneficial to the distance runner as well and has been incorporated into many distance training programs. Decline training not only teaches you proper downhill technique, but will also improve speed while running on the flats and can even help prevent injury and muscle soreness.

When you first begin a decline training program, it is important to start with a small dose and gradually build up. Downhill running is easy on the cardiovascular system, so it is easy to overdo the pounding on muscles, connective tissue and joints. If you train carefully, however, you can actually decrease your risk of injury because your body will adapt so that it can better handle descents. After the first couple of downhill sessions, you may notice a bit of soreness in the quadriceps; this will eventually lesson and disappear as your muscles adapt to the demands of running downhill.

Increased Leg Turnover

Downhill training will increase leg turnover which improves acceleration and speed on flat terrain. Your maximal stride rate is controlled by your neuromuscular system and downhill running teaches your nervous system to allow you to run fast. Like any other skill, this is best achieved through practice.

Improved Downhill Running Performance

Bill Rodgers was a great natural downhill runner and often left his competitors behind as he ran away on the descents. He was able to make downhills his personal weapon by improving that skill during training. Anyone can gain this edge by improving skill and confidence running downhill.

Reduce Delayed-onset Muscle Soreness (DOMS)

If you have ever run the Boston Marathon, you have experienced firsthand the impact downhill running can have on your muscles. When running hard downhill, your muscles work eccentrically to resist the force of gravity, which causes microscopic damage to the muscle fibers and surrounding connective tissue. This leads to inflammation and muscle soreness. Although you will be sore after the first few workouts, training on downhills protects your muscles from future damage and soreness. The muscles not only repair, but are also better able to handle future demands because the adaptations that occur within the muscle. A session of downhill running every two to three weeks is enough to maintain those adaptations.

Gaining an Advantage When Cresting a Hill

Runners will often work hard running to the top of a hill then back off slightly to recover. By practicing downhill running, you can gain an advantage by maintaining intensity over the top of a hill and down the other side.

Technique
The key to optimal downhill training is to allow gravity to help you flow down the hill, using minimal effort. This requires proper downhill form; you must adjust your body position forward so your body remains as close as possible to perpendicular to the hill. If you try to remain upright as you would on the flats, it will actually cause a braking effect…..a common downhill running error. As you run downhill, your leg turnover should increase as you gain speed. It is also important to prevent over striding, which will also increase the braking component of downhill running; increasing the jarring forces and slowing you down. To improve balance and stay in control, keep shoulders relaxed but allow the elbows to move out moderately from your sides.

The downhill workouts most appropriate depends on your goals and experience running downhill:

Downhill reps of 75-150 meters
Downhill reps on a gentle grass slope are a great way to learn technique and improve leg turnover while minimizing the chance of injury. This technique is often used by sprinters to improve speed. It is very important to warm up well, including a few striders on the flat before launching into these. Concentrate on correct body position and on letting your legs turnover more quickly as you gain speed. Limit yourself to three to five reps the first few sessions, particularly if you haven't done much speedwork recently.

Up and Down Intervals
Uphills and downhills can be incorporated in the same workout by doing intervals in which you run up a hill hard, than sustain the intensity over the top and down the other side. If you make these intervals two – six minutes in duration (with a one to two minute recovery jog in between), these make excellent VO2 max workouts and can replace the ones listed on your training schedule. These training sessions are time-efficient as they incorporate the benefits of several different types or workouts, and reinforce the ability to maintain effort over the top of a hill and shifting technique to pick up speed on the downhill.

Hilly Courses
Doing your regular training runs on hilly courses is an effective way to get used to running downhill without major changes to your training program. To gain the most benefit, concentrate on correct downhill running technique and increasing leg turnover as you run down the hill. Making downhill running part of your training routine allows you to gain experience so that downhill running technique becomes second nature.

Race Simulation
If you are training for the Borgess Half Marathon, your muscles need to be able to handle the 2 mile descent from the start into downtown Kalamazoo. If you are training for the Boston Marathon, you need to be able to handle the descent from Wellesley into Newton Lower Falls at 15 miles, and the plunge into Boston proper after cresting Heartbreak Hill. If you are preparing for the ING New York City Marathon, your body needs to be ready for the downhill into Manhattan at 16 miles. It is important to try to simulate the descents that you will encounter in your goals races in terms of steepness, length, and where they fall within the race.

Pfitzinger, P. 2005. "Moving Up by Going Down." *Running Times 328* (July/August): 16