

“Wanna Get Fast? Find the Nearest Hill!”

Walter Payton was famous for it. Jerry Rice could regularly be seen on NFL Films and ESPN bringing young receivers along with him to experience it. Even Rocky did it, to get ready to fight the Russian in his fourth movie. For years, we have seen coaches and athletes from all sports and levels incorporating uphill running into their practices and training programs, to improve their performance and demonstrate their dedication to their sport. Whether they involved the tallest mountain in the Arizona desert or the nearest hill at the local park, some of the most grueling training programs out there involve the use of running up an inclined surface. In previous years, coaches and athletes have chosen this mode of training for one simple reason: it is downright hard! Little did they know that a structured plan of uphill running and speed drills can produce tremendous improvements in speed as well! In this article, we will look at how and why this occurs and provide a sample program that athletes can use on their own hills, to take their game speed to the next level!

To understand how uphill programming can enhance speed, we must first look at how this is accomplished. We focus on three major factors to improve with training:

1. Overall sprint mechanics, in making each stride as efficient as possible
2. Strength, involving both the lower body and core musculature
3. Overall conditioning level

Sprint Mechanics:

The primary goal of every great speed program has roots in ***doing it right!*** Like any sport skill, there is a proper way to run. Most athletes, however, are never taught this and develop many poor and inefficient habits as a result. Incorporating uphill running is a great way to begin the process of reinforcing these proper sprinting skills. Optimal sprinting occurs on the balls of the feet, primarily to reduce the amount of time that the foot spends on the ground with each step (the heel should not strike the ground first!) This principle will be reinforced with uphill running, as it is physically impossible to strike your heel first when running up inclines of moderate to tall size (above approximately 20%). Additionally, a big component of optimal sprinting is stride length, which is a direct result of your knee drive with each step. Again, with hills of moderate to tall inclines, this high knee action is naturally reinforced each time you stride, as it is necessary just to progress up the hill. With repeated exposure to running on both hills and flat surfaces, these sprint skills will transfer to the flat ground all the time and make for a more efficient sprinter.

Strength in the Lower Body and Core:

While all sprinting is a combination of both strength and power, training on inclines is a great way to address the isolated strength component. Uphill running has very realistic strengthening effect, not unlike performing a squat or a lunge in the weight-room setting. The added bonus on the hill, however, is that it addresses this strength improvement in a running-specific pattern, so all of the musculature responsible for force development while sprinting (the muscles of the foot, ankle, knee, hip) is improved as one unit! Stronger legs produce faster speeds! In addition, the strength of the upper-core muscles (abdomen, sides, and low-back region) improve as well, in working to maintain proper posture while sprinting. With all progressive movements (walking, running, etc.), the arms and legs function together to actually move the body forward. While this is happening, the muscles of the midsection must contract just to keep the body upright. The high-intensity activity of uphill running has the effect of enhancing this contraction, which over time will translate into a stronger core!

Overall Conditioning:

The taller the hill, the more the body has to work against gravity. The more the body has to work against gravity, the more the muscles and cardio-vascular system are called on to produce movement. With repeated uphill training, then, this will translate into huge improvements in conditioning levels for the

athlete. Improved conditioning levels will always result in faster speeds, both for short bursts and longer sprint distances of 20+ yards.

Sample 4-Week Uphill Training Program to Enhance Speed

*All drills should be performed on a hill with a moderate to tall incline, about 25 yards long.

Warm-Up and Speed Drills

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| 1. High-Knee (in place) | 2x10 sec |
| 2. Butt-Kicks (in place) | 2x10 sec |
| 3. Two foot hops (in place) | 2x10 sec |
| 4. Power Skip (in place) – emphasize getting vertical with each jump | 2x10 sec |
| 5. High Knee (move up hill) | 2x15 yds |
| 6. Butt-Kicks (move up hill) | 2x15 yds |
| 7. Two foot hops (move up hill) | 2x15 yds |
| 8. A-Skip (move up hill) – like schoolyard skip, but emphasize high-knee action and reaction off the ground with each step | 2x15 yds |

Running Program (allow for full recovery in between each rep)

Week 1

1. 10 yd run - x2 @ 50% speed
x2 @ 75% speed
x3 @ 100% speed
2. 20 yd run – x2 @ 50% speed
x 2 @ 75% speed
x3 @ 100% speed

Week 3

1. 15 yd run - x2 @ 50% speed
x2 @ 75% speed
x4 @ 100% speed
2. 25 yd run – x2 @ 50% speed
x 2 @ 75% speed
x4 @ 100% speed

Week 2

1. 10 yd run - x2 @ 50% speed
x3 @ 75% speed
x4 @ 100% speed
2. 20 yd run – x2 @ 50% speed
x 3 @ 75% speed
x4 @ 100% speed

Week 4

1. 15 yd run - x2 @ 50% speed
x2 @ 75% speed
x6 @ 100% speed
2. 25 yd run – x2 @ 50% speed
x 2 @ 75% speed
x6 @ 100% speed