Fast Abs

By Alyssa Shaffer

A generation ago, you'd be hard-pressed to find elite runners paying attention to their abs. Today, it's practically mandatory. "Our coaches drill the importance of core conditioning into our heads," Says world champion hurdler Lolo Jones. "We're at it all the time." That's because scientists and coaches now know that you can't run your best without a strong core, the muscles in your abdominals, lower back, and glutes. They provide stability, power, and endurance that runners need for powering up hills, sprinting to the finish, and maintaining efficient form mile after mile. "When your core is strong, everything else will follow," says Greg McMillan, a running coach in Flagstaff, Arizona, who has worked with scores of elite and recreational runners. It's the foundation for all of your movement, no matter what level of running you're doing.

The key is to train your core like a specialist. Experts have mapped out precisely how the movements of running draw on the strength and stability of the glutes, obliques, and ab muscles that lie deep beneath the six-pack. They've learned how essential it is for runners to engage these muscles to finish fast, reduce pain, and hang tough on long runs. Best of all, they've tailored workouts to help them do that.

All runners – from those rehabbing injuries to elite gunning for PRs-can benefit from this detailed approach. "When all the muscles involved in running are supported, and the muscles in the hips and trunk work together you don't get as many injuries and can enjoy running more," says Phil Wharton, a musculoskeletal therapist and co-owner of Wharton Performance Group in New York and the Wharton Health Experience in Flagstaff.

Quality core work isn't easy. But it doesn't require more than 15 minutes a few times a week-an investment that will pay dividends on the road. Just ask Lolo Jones. Even in the off-season, she's working her core three times a week so that when she races, she'll have the stamina to retain her status as America's top hurdler. "When my core strength is at its peak," says Jones, "I can run more efficiently and maintain the extra edge

Here's How Your Core Works For You On The Road

Speed. As you enter your stride or quicken the rate of your leg and foot turnover when you're trying to pick up your pace, the lower abs-including the transverses and rectus abdominis- and lower back are called into action. The stronger and more stable these muscles are, the more force and speed you can generate as you push off the ground.

Uphills. The glutes and lower abs support the pelvis, which connects to the leg muscles needed to get uphill. If the core is strong, the legs will have a stable plane to push fro, for a more powerful ascent. When you swing your leg forward, the hip-flexor muscles, such as the rectus femoris, pull on the pelvis. As you push off the ground, the glutes and hamstrings are engaged.

Downhills. When you're flying down a slope, you need strong gluteal muscles to help absorb the impact and counter the momentum of the forward motion. As fun as it may be to zoom down, without the core strength to control your movement, your quads and knee joints bear the extra pounding of your body weight, which can lead to fatigue, pain, and even injury.

Endurance. As you're nearing the end of a race, a solid core helps you maintain proper form and run efficiently, even through fatigue. With strong lower abs and lower-back muscles, such as the erector spinae, it's easier to stay upright. If your core is weak, you may end up shuffling, slouching, and putting too much stress on your hips, knees, and shins.

Lateral Movement. Whenever you have to suddenly move to the side-to turn the corner on a track, dodge a pothole, or navigate undulating terrain-the obliques provide stability and help keep you upright. If your core is weak, then you may end up leaning into the movement, which can put excess weight and strain on the joints in your legs and feet.