

# Newsletter

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## Fortifying the body's foundations

### Strength training helps prevent injury and improves performance

Jenny Lee, Canwest News Service February 26, 2010

Adding a little strength training to your running and walking program will help you prevent injury and increase running efficiency.

"It's like building a strong foundation when building a house," said Surrey, B.C., certified strength and conditioning specialist, Michelle Roots of Core Conditioning.

"You need to start from the bottom. If all your stabilizer muscles are strong, you're creating a stronger foundation, which means you're going to be more efficient in your running."

Strength training will also help your body withstand the impact forces of running on hard surfaces, Roots said.

Start with just a few simple exercises. Try to do them two to three times a week on your non-long-run training days. When you're starting out, the first thing to focus on is proper form. Try to do the exercises perfectly.

Runners and walkers are prone to overuse injuries often caused by muscle imbalances. One of your goals is to even out some of those imbalances to help prevent injury and improve performance.

When out for your training runs and walks, remember to warm up your muscles before starting. Warm muscles work more efficiently.

#### **Walkers**

**Goal:** Strengthen your lower body, particularly the front and back of your thighs, to decrease strain on your ankles, knees and hips.

**Exercise:** Wall squats. Stand with your back against the wall, feet about a foot and a half away from the wall. Keeping your back flat against the wall, slide your back down the wall until your knees reach a 90-degree angle and your thighs are horizontal to the floor. Hold for three to five seconds, slide back up. Repeat.

**Goal:** Strengthen core. When you're tired or have a weak core, you tend to collapse forward, your head goes down, shoulders roll forward and the spine curves in, creating lower back pain and decreased breathing efficiency.

**Exercise:** To strengthen your core muscles, lie on your back, knees bent, feet flat on the floor. Notice the gap between your lower back and the floor. Imagine someone is pulling a string from your belly button into the floor. Squeeze your abdominal muscles until you feel your back flat against the floor and the gap has disappeared. Hold this position for five seconds. Repeat nine more times.

#### **Runners**

**Goal:** Focus on hip strength. The stronger your hips are, the more stable your pelvis will be. If your hip is unstable, your pelvis can become misaligned or unstable, which can lead to problems with your knees and ankles. Every time your foot hits the ground in a run, if your left hip isn't strong enough to hold your pelvis stable, that hip will sway outward and other body parts will need to compensate for that weakness.

A common injury among people with weak hips is iliotibial band friction syndrome. Weak hips cause strain on the IT band, which is a fibrous band that runs from the hip, down the side of the leg, to just below the knee. When this band is irritated from overuse, you may feel pain on the outside of the knee.

**Exercise:** Strengthen the gluteus medius to create hip stability. Stand facing a mirror. Raise one foot off the ground. Watch the opposite hip. You don't want it to pop or sway outward. Squeeze your butt and hip to keep the hip in. Hold five to 10 seconds. If this becomes too easy, stand on an unstable surface such as a pillow.

### **Intermediate runners**

**Goal:** Work on each side of your body independently, so each side is pulling its own weight. You might be surprised to find how your right side, for instance, might be covering for a weaker left side. Focus on increasing core strength.

**Exercise:** Try a side plank that works your shoulders, core and hips, one side at a time. Lie on your right side with your right elbow on the ground. Lift yourself up into a plank so your body is in a straight line and your weight is resting on your elbows and feet. Squeeze your abdominals and butt. Hold 20 seconds, then switch sides. If this is easy, you can balance your elbow on a ball or another unstable surface.

You could also do some one-legged squats to increase single leg strength, and lunges instead of squats so you can focus on hip and knee alignment, one leg at a time.