

Always consult your physician before beginning any exercise program. The information and advice published or made available through the Orthopaedic and Neurosurgery Specialists, PC is not intended to replace the services of a physician or physical therapist. This general information is not intended to diagnose any medical condition. If you experience any pain or difficulty with these exercises, stop and consult your healthcare provider.

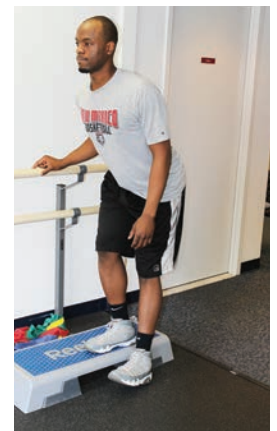
Running is one of the best ways to gain cardiovascular fitness, to burn calories, and to manage stress. In 2013, over 19,000,000 runners participated in and finished a road race in America. The Half Marathon is the fastest growing race among runners, while the 5K is still the most popular. With this runner's boom, health care practices are seeing a dramatic increase in running related injuries. Most injuries in runners are due to overuse, improper training and simply

doing too much too soon. It is a common misconception that all you have to do to be an efficient runner is to run. However, research has proved otherwise. A comprehensive core and leg conditioning program like the one below has been shown to reduce the risk of pain and overuse injuries that many runners complain of. If you are thinking about becoming a runner, or already run but want to remain injury free, follow the guidelines below.

- 1) **Heel Raises:** Stand with your heels hanging off a step. Pick up your left foot. Standing on your right leg only, lift your heel all the way up, then back down slowly. Repeat 3 sets of 15 reps on each leg.



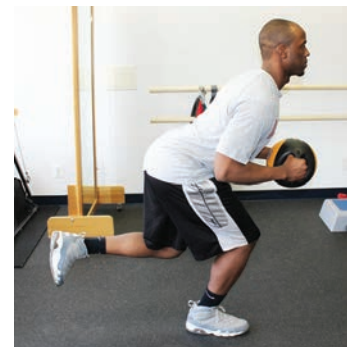
- 2) **Lateral Squats:** Stand with one foot sideways on edge of step. Sit your hips back, bend your knee and squat down. Raise back up, repeat, 2 sets of 15 on each leg.



- 3) **Hip Dips:** Hold 5# weights in each hand. Standing on one leg only with your knee slightly bent, lean your trunk forward while extending your back leg. Keep your stomach tight, your back flat and chest lifted. Repeat 2 sets of 15 on each leg.



- 4) **Single Leg Squat:** Stand holding a medicine ball. Squat down on one leg, keeping your hips back and your knee in line with your toes, try not to lean your trunk or let your knee fall inward. Repeat 2 sets of 15 reps on each leg.



- 5) **Lunges:** Begin holding onto a medicine ball at your waist. Take a large step forward, bend both your knees and lower yourself to the floor. Lift back up, step back together and repeat, 2 sets of 15 reps with each leg leading.



- 6) **Lateral Lunges:** Begin with a medicine ball at your waist. Take a large step to the side, sit your hips back and squat down, keeping the opposite leg straight. Lift back up, step together and repeat, 2 sets with each leg leading.



7) **Core Stabilization:**

Begin lying down with arms overhead, hips and knees at a 90 degree angle off the floor, and stomach muscles engaged, low back in neutral position. Extend one leg out straight, then the other, without touching the floor. Repeat 20 reps on each leg, 2 sets.



8) **Unilateral Bridges:** Begin lying on your back with one knee bent, foot flat, the other straight in the air. Lift your hips off the floor. Lower back down, repeat, 2 sets of 20 on each leg.



9) **Planks with Hip Extension:** Begin lying on your stomach. Lift your body up, stomach tight and back flat, supported by your forearms and toes. Lift one leg up, then the other, alternating. Repeat 2 sets of 20 each.



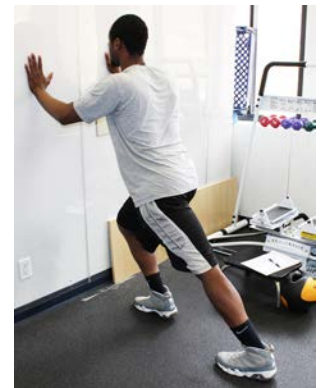
10) **Sideplanks:** Begin lying on your side. Lift your whole body up, supported by your forearm and the outside edge of your bottom foot. Hold for 30 seconds, repeat 2 on each side.



11) **Thigh Stretch:** Begin standing, hold your heel to your buttock. Hold for 30 seconds on each leg.



12) **Calf Stretch:** Stand facing a wall. Place on leg straight back with toes pointed ahead. You should feel a stretch in the back of the lower leg. Hold for 30 seconds, repeat on each side.



13) **Hip Stretch:** Kneel with one leg bent in front. Shift your hips forward and reach your arm up overhead. You should feel a stretch in the front of your rear thigh. Hold 30 seconds, on each leg.



14) **Groin Stretch:** Squat down and reach one leg straight out to the side. Hold for 30 seconds, each leg.



15) **Hamstring Stretch:** Lie on your back with one leg straight up, holding behind the knee with your hands. Hold 30 seconds, repeat each leg.



16) **Press Ups:** Lie on your stomach, hands underneath your shoulders. Lift your trunk up while keeping your hips flat and relaxed. Lower back down and repeat: 1 set of 15.

