

Stretching

Flexibility: Loosen Up Give us three weeks and we'll take your running to a new level.

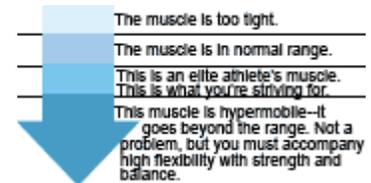
By Jim and Phil Wharton From the August 2004 issue of Runner's World

When runners take on a training program, they focus on building endurance and speed. Improving their flexibility never seems to make it into the game plan. Yet, a flexible body is more efficient, sees more gains in strength and endurance, enjoys more range of motion, is less injury-prone, recovers more quickly, and simply feels better.

As musculoskeletal therapists to pro, amateur, and Olympic athletes, we've confirmed that, by increasing flexibility, runners can enhance their performance without increasing their mileage or spending more time on the track. When one simple link--ROME (Range of Motion Exercises)--is added to the chain, the whole chain gets stronger.

Maybe you've remained tight as a lug nut because you've heard stretching is bad. True, when muscle fibers are stretched, they lose their ability to function properly and can create delayed onset muscle soreness. What we really want to do is lengthen our muscles. This fills the area with blood and oxygen, which repatterns the neurological pathways, restores muscles that have become torn, and realigns postural imbalances. That's what ROME does. Here's how: Work each muscle by contracting the muscle that is its opposite. This relaxes the isolated muscle so it can lengthen. Do the exercise gently and quickly, holding the position for no more than two seconds. Repeat 10 times.

Our program only takes 15 minutes and should be done before and after a run. Start by evaluating your current ranges of motion. Do the routine and record your "before" score for each move. After 21 days, retest yourself and note the improvement.



[1] Double-Leg pelvic tilt

Works: lower back and buttocks **Contract:** abdominals and muscles in the front of the hips and thighs **How:** Lie down on your back with both knees bent. Place your hands behind your knees. Lift your legs toward your chest. Gently assist with your hands; don't pull.



[2] Straight-Leg hamstring

Works: back of thighs **Contract:** front of thighs **How:** Lie with your nonexercising knee bent and your other leg straight. Place your foot into the loop of a stretching rope. Lift your leg as far as you can. Grasp the ends of the rope with both hands and climb up it, hand over hand, as your leg lifts.



[3] Hip Adductors

Works: inner thighs **Contract:** outer thighs, buttocks **How:** Place one foot inside the loop of a rope. Wrap it around the inside of the ankle. Lock your knee, rotate your leg inward. Extend your leg out to the side of your body, leading with your heel. Complete one set. Repeat leading with your toe.



[4] Hip Abductors

Works: outer thighs, hips **Contract:** inner thighs **How:** Place your foot into the loop of a rope. Wrap it around the outside of your ankle. Rotate the exercising leg outward and the other leg inward slightly. Lock your knee. Extend your leg across the midline of your body, leading with your heel.



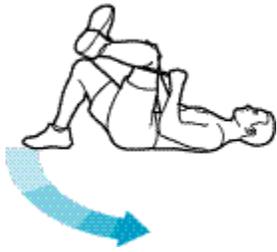
[5] Quadriceps

Works: front of the thighs **Contract:** buttocks, back of thighs **How:** Lie on your side with your knees against your chest and your head on the ground. Slide your bottom arm under the thigh of your bottom leg and place your hand around the outside of your foot. Grasp the shin of your upper leg with your upper hand. Move your upper leg back as far as you can.



[6] Gluteals

Works: lower back, hips, piriformis, buttocks **Contract:** abs, front of thighs **How:** Lie with one leg straight and the other bent. Point the toes of your nonexercising leg inward. Lift your bent knee toward the opposite shoulder. Keep your pelvis on the ground, and use your hands for a gentle assist.



[7] Hip External Rotators

Works: gluteus maximus, external rotators **Contract:** gluteus minimus, internal rotators **How:** Place your foot in a rope. Wrap the ends of the rope around the inside of your ankle. Pull the rope under your leg and grasp it with the hand that's on the same side. Rotate your thigh inward, pivoting your lower leg outward and leading with your heel.



[8] Hip Internal Rotators

Works: internal rotators **Contract:** external rotators **How:** Place your foot in a rope. Wrap the ends of the rope around the outside of your ankle. Pull it under your leg and grasp it with the hand on the opposite side. Pivot the lower part of your leg inward, leading with your heel.



[9] Trunk Extensors

Works: muscles that run from the pelvis to the base of the skull, lower back **Contract:** abs **How:** Sit with your back straight, knees bent, and toes pointed slightly up. Tuck your chin and contract your abs to pull your body forward. Grasp the sides of the lower legs to gently assist.



[10] Thoracic-lumbar rotators

Works: muscles throughout back and sides **Contract:** abs, obliques, rotators on opposite side **How:** Sit in a chair with your back straight. Lock your hands behind your head. Rotate in one direction as far as you can go. When you're loosened up: rotate, hold, and flex your trunk forward, leading toward the ground with your elbow.



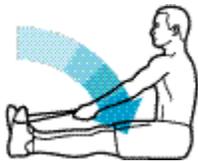
[11] **Soleus**

Works: muscles in the back of lower legs **Contract:** front of lower legs **How:** Sit on the floor with one leg straight and one leg bent. Grasp the bottom of your foot with both hands. Keeping your heel on the floor, raise the foot and bring it toward your body. If you can't reach your foot, use a rope.



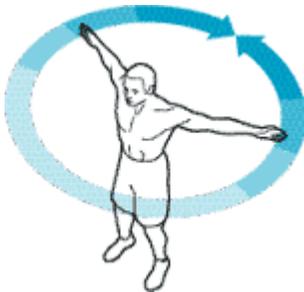
[12] **Achilles Tendon**

Works: the cord that attaches your heel to your lower leg **Contract:** front of the lower legs **How:** Sit on the floor with one leg straight and one leg bent and your heel close to your buttocks. Grasp the bottom of your foot with both hands. Raise the foot up, keeping your heel on the floor.



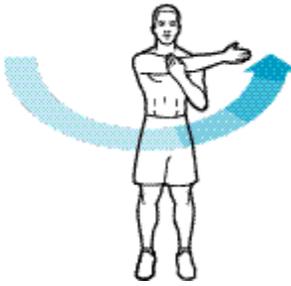
[13] **Gastrocnemius**

Works: calf muscles **Contract:** muscles in the front of the lower legs **How:** Sit on the floor with both legs straight. Loop the rope around one foot and grasp the ends of the rope with both hands. Flex your foot, aiming your toes toward your knee while keeping your knee locked.



[14] **Pectoralis Major**

Works: chest, shoulders **Contract:** backs of shoulders **How:** There are three stages. First: Arms below the belt. Second: Arms shoulder level. Third: Arms above shoulders. Straighten your arms, palms forward. Put your palms together in front of you and then swing both arms behind you. Start with the first position and progress up with each swing.



[15] Rhomboid/Rotator Cuff

Works: external shoulder rotators and rhomboid major and minor **Contract:** muscles in the shoulder **How:** Stand with feet slightly apart and arms at your sides. Lift one arm, with the elbow locked, and raise it across your chest toward the opposite side. Use the other hand to give a gentle assist. Keep your torso still and don't hike up your shoulder.

Dynamic Stretching: Dynamic stretching loosens up muscles and increases heart rate, body temperature and blood flow to help you run more efficiently. This 5-minute pre-run routine is from physiotherapist and ultra-runner Nikki Kimball.

Start slowly with small movements. Pick up speed and increase range of motion as you go. Do 10 reps on each leg.

1. Leg swings : Swing one leg out to the side, then swing it back across your body.



2. Butt Kicks : Walk forwards with an exaggerated backswing so that your heels come up to your glutes.



3. Pike Stretch : Get in a 'pike' position (hips in the air). Put your right foot behind your left ankle. With your legs straight, press the heel of the left foot down.



4. Hacky-Sack : Lift your left leg up, bending the knee so it points out. Tap the inside of your left foot with your right hand without bending forward.



5. Toy Soldier : Walk forwards, lifting your legs straight out and flexing your toes. Add a skipping motion.



6. Walking lunges : Step forwards. Lower your body by dropping your back knee towards the ground.



This piece first appeared in the May 2012 issue of Competitor magazine.

Iliotibial (IT) band syndrome—an overuse injury that often causes pain on the outside of the knee. So what do your hips have to do with your knee pain? The gluteus maximus and gluteus medius attach to your IT band, Ferber explains. When these muscles contract, they pull on the IT band and keep your hips and knees aligned. However, if these muscles aren't strong, your hips and knees can twist. This triggers the IT band to rub over underlying tissue and cause pain on the outside of your knee, he says. To fix the underlying problem, you need to strengthen your hips. That's why Ferber recommends performing these two exercises to prevent and treat IT band syndrome.

FIGHT IT BAND SYNDROME
Strengthen Your Gluteus Medius

Step 1
Secure a continuous loop resistance band to a study object, then place it around your right ankle. Stand with your left side facing the anchor point.

Step 2
Let your right leg cross in front of your left. Without changing the bend in your knee, raise your right leg out to your right side as far as you can. Pause, then slowly return to the starting position. That's 1 rep. Do 10.

FIGHT IT BAND SYNDROME
Strengthen Your Gluteus Maximus

Step 1
Secure a continuous loop resistance band to a study object, then place it around your right ankle. Stand facing the anchor point.

Step 2
Keeping your right knee straight, slowly swing it in front of you. Without changing the bend in your knee, slowly swing your right leg backward. Continue to swing your leg back and forth. Do 10 full swings.