Strength Workouts for Runners

Why Lift Weights

Faster race times

Runners who lift can take 2-4% off their race time compared to if they didn't lift at all! This happens due to improved muscle performance and increased stiffness in the tendons. More stiffness means more energy return on every step.

Improved strength

Life involves more than just running, and strength training prepares you for the demands of daily life. Things like picking up your kids, moving heavy objects, or standing up from a low surface get easier with lifting weights.

Improved bone health:

Running alone is not enough to stimulate bone adaptation. The bones stop "listening" to the stress after less than a minute of running. But lifting heavy weights does have a positive effect on bone health.

Program Overview

This program contains 2 separate strengthening workouts for runners. The goal of this program is to spend as little energy as possible while still getting all the benefits of strength training. The reason for spending as little energy as possible is to not overload you during marathon training. These exercises will work on global leg strength, hip and calf strength, and introduce you to simple plyometric movements to improve your running.

Guidelines

Intensity:
The latest research on runners suggests that lifting heavier is more effective for improving running economy and race times. Lifting over 70% of your "one rep maximum" is ideal. 70% of your one rep max typically corresponds to a weight you can only lift for 10 repetitions. Finding the right weight is a bit of trial and error at first. If you can lift the weight more than 10 times, it's too light. If you can barely lift it at all, or if your form is altered due to the weight, then it's too heavy.

"Reps in the tank"
Research has shown that you do not need to lift to failure to maximize strength gains. Most sets can be performed with 2 "reps in the tank", meaning that you feel like you could have done 2 more before failure.

When to add weight:
If it starts to feel like you have 4-5 reps in the tank, add 2-5% weight to the lift. If you can complete 2 extra reps on the last 2 sets at a given weight, add 2-5% to the lift

Strength Workout 1
(See exercise descriptions on next page)

Warm up:
Bodyweight squat x20
Forward lunge x10
Double leg heel raise x20

Dumbbell Split Squat
3 sets of 5-8 reps

Side plank with hip abduction
2 sets of 15-20 reps

Single leg heel raise knee bent
3 sets of 5-10 reps

Skater hop
4 sets of 10 reps

Double leg hopping
5 sets of 10-20 reps

Strength Workout 2
(See exercise descriptions on next page)

Warm up:
Bodyweight squat x20
Forward lunge x10
Double leg heel raise x20

Dumbbell Step Up
3 sets of 5-8 reps

Single leg bridge
2 sets of 15-20 reps

Single leg heel raise knee bent
3 sets of 5-10 reps

Squat jump
4 sets of 8 reps

High knees
4 sets of 20 reps

Workout 1 Exercise Descriptions

Dumbbell Split Squat

Setup:
- Stand facing away from a bench or couch with your feet shoulder width apart. This exercise can be performed with your bodyweight, or you can hold dumbbells in each hand.

- Put one leg back on the couch/bench and the other leg forward.

- Make sure your front leg is about 3 feet in front of the couch or bench.

Movement:
- With a slight forward lean, lower your hips toward the ground.

- At the bottom of the motion, your font knee should be bent slightly more than 90 degrees.

- Then push back to the top of the motion.

Progressing/Regressing:
- <u>To make it harder:</u> Add more weight or bend your knee further through the motion.

- <u>To make it easier</u>: Use less weight, hold onto another chair or wall for balance, or go through a smaller range of motion.

Starting position   Ending position

Workout 2 Exercise Descriptions

Dumbbell Step Up

Setup:
- Stand facing a bench/chair/box with your feet shoulder width apart. This exercise can be performed with your bodyweight, or you can hold dumbbells in each hand.

- Put one leg forward onto the bench, and lean forward slightly to put pressure on the front foot.

Movement:
- With a slight forward lean, push through your front leg to straighten the knee and hip as you step up onto the bench.

- After you reach the top, slowly lower yourself back down using the same leg.

Progressing/Regressing:
- <u>To make it harder</u>: Add more weight or use a taller bench/box/chair.

- <u>To make it easier</u>: Use less weight, hold onto another chair or wall for balance, or use a smaller bench/box/chair.
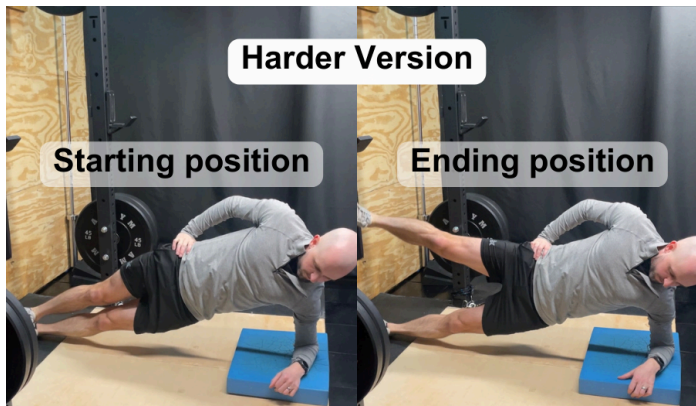

Starting position   Ending position

Side Plank With Hip Abduction

Setup and Movement:
- Lie on your side with your body in a straight line, your bottom knee bent, and your upper body resting on your elbow.

- Lift your hip off the ground so that your elbow and your knee is holding your trunk away from the ground.

- Keeping your trunk still, lift your top leg up and down with your knee straight. Keep your leg in line with your torso.

Progressing/Regressing:
- To make it harder: Add an ankle weight to the top leg, or keep your bottom leg straight instead of bent.

- To make it easier: Do fewer reps, or use your opposite arm to stabilize your body.


Easier Version — Starting position / Ending position

Harder Version — Starting position / Ending position

Single Leg Bridge

Setup and Movement:
- Lie on your back on your back with your knees bent and feet flat on the floor, hip-width apart.

- Cross one leg over the other in a figure-4 position.

- Press through the heel of your grounded foot, lifting your hips towards the ceiling.

- Hold the top position for a moment, then return to the starting position.

Progressing/Regressing:
- To make it harder: Hold a dumbbell or barbell plate on your pelvis or go through a larger range of motion.

- To make it easier: Do fewer reps, or use your arms on the ground to help stabilize the exercise.

Starting position / **Ending position**
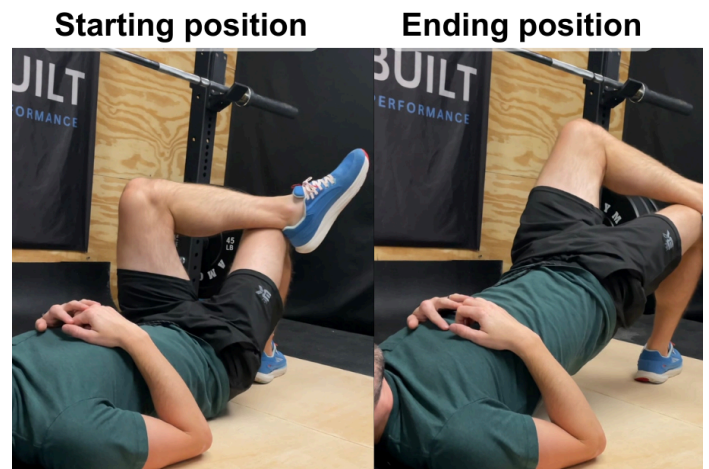
Single Leg Heel Raise Knee Bent

(This exercise is included in both workouts)

Setup and Movement:

- Stand on one leg with the ball of your foot on a step. Bend your knee slightly.

- Keeping your knee rigid, push up onto your toes, lifting your heel as high as you can.

- Try to avoid straightening your knee on the way up.

- Slowly return to the starting position and repeat.

Progressing/Regressing:

- To make it harder: Hold a dumbbell in one hand.

- To make it easier: Do the exercise from the floor instead of a step, or stand on both feet instead of just one.


Starting position   Ending position

Skater Hop

Setup and Movement:
- Start in a standing position with your feet together. Make sure you have at least 5 feet of space to jump laterally.

- Jump as far as you can, starting on one leg and landing on the other leg. Try to stick the landing.

- Reset and jump back to the starting position.

Progressing/Regressing:
- <u>To make it harder</u>: Jump further, or squat further down into the starting and landing position.

- <u>To make it easier:</u> Jump a shorter distance, or stand more upright.
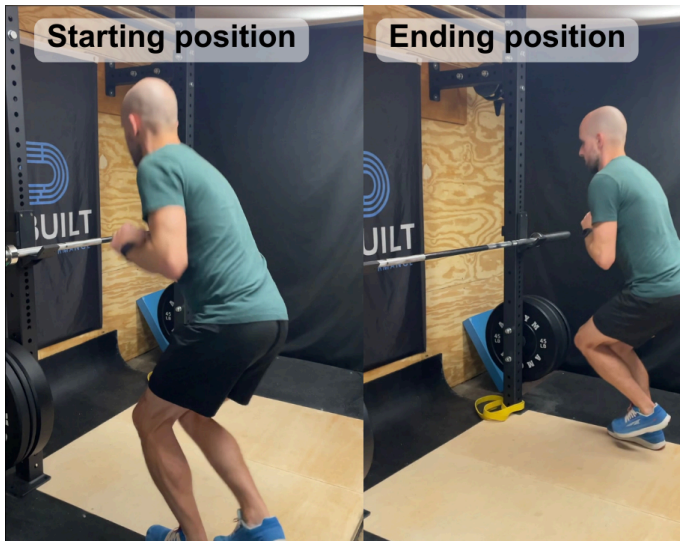
Squat Jump

Setup and Movement:
- Start by standing with your feet about shoulder width apart.

- Squat down so your thighs are parallel with the floor.

- From this squatted position, jump upwards as high as you can.

- Land softly by bending your knees as you return to the starting position.

Progressing/Regressing:
- <u>To make it harder</u>: Hold a dumbbell or kettlebell.

- <u>To make it easier:</u> Don't jump as high, or don't squat as far into the starting position.

Double Leg Hopping

Setup and Movement:
- Start in a standing position with your feet shoulder-width apart.

- With your knees slightly bent, hop upwards as high as you can. Try to use your ankles to produce the motion.

- Upon landing, try to "bounce" back up as high as you can, almost as if you are jumping rope.

Progressing/Regressing:
- <u>To make it harder</u>: Jump higher, or add more repetitions.

- <u>To make it easier:</u> Don't jump as high, or do fewer repetitions.

High Knees

Setup and Movement:
- Start in a standing position with your feet in your natural standing position.

- Lift one knee at a time as high as you can.

- Try to alternate as quickly as possible between legs.

- Land on your toes and try to spend as little time on each foot as possible while you lift the opposite leg.

Progressing/Regressing:
- This exercise shouldn't need to be made harder or easier. The goal is to improve quickness.
- If it's too hard, try reducing how high you lift your knees on each rep