



Getting you to the Finish Line: *Strength Training for Runners*

Kristy Kotecki, DPT, SCS, CSCS
Physical Therapist
Aurora Sports Health
June 11, 2021

REMINDER: Wearing masks, social distancing and washing your hands are important – even after you’re vaccinated. It’ll take time to immunize enough people to stop the virus from spreading, so mask up! To learn more, visit the Advocate Aurora Health COVID-19 Resource Center: www.aah.org/COVID-19

Do Runners Need to Strength Train to Improve?

A common belief amongst runners is that in order to be faster, you must simply run more. While following a progressive running program is important, it’s just one piece of the puzzle. Supplementing your running routine with strength training can help you get to the next level.

Resistance training has been shown to improve running capacity, endurance and efficiency while helping to reduce injuries. How will this make a difference? By adding resistance training to your workout regimen, it will:

- Take longer for muscles to fatigue – giving you more endurance,
- Allow for a more efficient stride, and
- Allow your muscles to fire faster, resulting in quicker runs.

Strength Train at Home:

The following 15-minute body-weight strength routine can be easily incorporated into your training plan from the convenience of your home. As with any exercise, movements should be challenging with the last one or two reps feeling difficult, but able to be accomplished without deviations in form or technique. These exercises should not cause joint or muscle pain. If you have questions regarding technique or you do experience pain, reach out to your local physical therapist or athletic trainer.

Circuit:

- Complete each of the five exercises for one circuit; repeat the circuit two to three times.
- Rest two minutes between each circuit; you can use the rest period between circuits to stretch.
- Repeat the full routine two to three times per week

1) *Split squat:*

- 8-10x each leg
- Do not allow your knee to collapse inward.

- Keep your core tight; don't allow your upper chest to drop forward or slouch.
- Gently lean your trunk forward to enhance gluteal activation.
- Raise your back foot by placing it on a three to five inch elevated surface, trying to keep weight primarily on front foot. A surface of any type in your home will work.



2) *Side plank*

- 30-second
- Modification
- Keep back



lift hips up from the ground.
et.

3) *Single-leg bridge:*

- 15x each leg
- Tighten abdominal and gluteal muscles before lifting.
- If this is your first time, check your abdominal tightness and perform the exercise with one leg. Aim to feel the glutes and hamstrings doing most of the work.



4) *Prone*

- 15 repetitions
- Use a stability ball if available; lie down with the stability ball under your stomach to support your body.
- If a stability ball is not available, hinge from the waist with knees slightly bent, buttocks pushed back (as pictured).
- Reach your arms far from your body so that your elbows remain straight.
- Hold for one second in the extended reach position. You should feel the work in the glutes and hamstrings. If you feel it in your back, recheck your abdominal tightness. If you continue to feel your back working, stop this exercise.
- Return to starting position and repeat.



5) *Heel raise:*

- 20x each leg, holding for one second at the top position.
- Stand by counter for balance, as needed.
- If you are unable to complete 20 reps on a single leg, perform with both legs.



If running is causing you pain, Aurora Sports Health offers Free Injury Evaluations. Easy to schedule, go to aurora.org/FreeInjuryEval or use your phone to scan the QR code.

###

References:

Balsalobre-Fernández C, Santos-Concejero J, Grivas GV. (2016, August). Effects of Strength Training on Running Economy in Highly Trained Runners: A Systematic Review With Meta-Analysis of Controlled Trials. *J Strength Cond Res.*, 30(8):2361-8. doi:10.1519/JSC.0000000000001316

Beattie K, Kenny IC, Lyons M, Carson BP. (2014, June). The effect of strength training on performance in endurance athletes. *Sports Med.*, 44(6):845-865. doi:10.1007/s40279-014-0157-y



Giovanelli N, Taboga P, Rejc E, Lazzer S. (2017, August). Effects of strength, explosive and plyometric training on energy cost of running in ultra-endurance athletes. *Eur J Sport Sci.*, 17(7):805-813. doi: 10.1080/17461391.2017.1305454

###