

WANT TO RUN FASTER, STRONGER, AND HEALTHIER?



Erin Carson leads runner Hannah Shell through a series of glute exercises and hip stretches in North Boulder Park in Boulder, Colorado.



IT'S TIME TO WORK YOUR BUTT!

By Kiera Carter

Photography by Matt Nager



Carson designs strength-training programs for triathletes, runners, and cyclists.

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STRONG GLUTES ARE THE KEY TO STRONG RUNNING.

That's because this muscle group—composed of the gluteus maximus, medius, and minimus—is the biggest in the body, and it's not there for vanity. The glutes keep us standing upright, separating us humans from our hunched-over primate ancestors, and they power the body forward and uphill, says Greg Grosicki, PhD, an assistant professor of kinesiology at Georgia Southern

University. In short, these muscles can help you run, and super fast.

Research shows that runners can go harder when their backsides are built up. The glutes of pro sprinters were 45 percent larger than those of a sub-elite group, according to a small *Medicine & Science in Sports & Exercise* study.

The glutes are also crucial to injury prevention. "Any weakness in the glutes will propagate further down the kinetic chain and manifest itself as runner's knee or Achilles tendinitis," Grosicki says. The glutes keep the pelvis neutral—as in, not ahead of your torso and not popped out behind you. So, without strong gluteal muscles, you'll have improper pelvic positioning, which leads to improper foot placement, Grosicki says, meaning you'll land either too far forward or too far back. Do this hundreds of times over the course of a run, and congratulations, you've got yourself an injury.

Now, the tricky part. Sitting for hours on end tightens your hip flexors, which makes it harder to activate your glutes when you need them most—on a run and during your strength workouts. (Lower back pain during a run or squat is a sign the glutes aren't doing their job well.) This means a truly effective glutes-targeting strategy is a well-rounded one. Yes, it needs to strengthen your backside with relevant lower-body exercises, but it should also make it easier to recruit those muscles in the first place.

That's exactly what the moves on the next pages are designed to do. Incorporate them into your workout routine to amp up your glutes for maximum running power.

TEST FOR WEAK GLUTES

See how your glutes are showing up to the starting line with this quick single-leg bridge test from Tony Ambler-Wright, master instructor at the National Academy of Sports Medicine.

Lying on the floor with your arms across your chest, place your feet flat on the floor with knees bent. Extend your left leg straight ahead, parallel with the right thigh, and raise your butt off the floor. "There should be an imaginary line connecting your knee, hip, and shoulder," Ambler-Wright says. If your left hip drops or you can't hold for 30 seconds, you definitely need to strengthen up. Test the right side, too. "You should feel it in your glutes, not your quads or hamstrings."

Even if you succeed, it's not a free pass. A strong butt will help you run faster and avoid injury.

HOW TO BUILD POWERFUL GLUTES

"Strength-training for runners is all about maximizing reward and minimizing risk," says Erin Carson, CSCS, founder of the online training group ECFIT Performance Strength, which offers strength-training for endurance athletes. That means swapping out classics like the back squat—which compresses the spine, Carson says—for glutes-activating moves that also improve stability and better reflect the motion of running. Do the exercises here twice a week, focusing on endurance in one workout (2 to 3 sets of 15 reps, at a weight that feels hard by rep 14), and strength in the other (3 to 4 sets of 4 to 6 reps, at a weight that feels hard by the end), and master the motions without weight before adding load.



HEX BAR DEADLIFT

Step inside the center of the hex bar, feet about hip-width apart. Bend at the waist and knees to grab the handles. Stand up in one motion, squeezing glutes at the top. Slowly lower back to the ground.



BULGARIAN SPLIT SQUAT

Stand with a mid-shin-height step or bench behind you (to make it harder, use a higher platform). Holding a kettlebell at your chest, place your right foot on the bench so you feel slight tension in your rear quad, hips facing straight ahead. Raise the kettlebell above your head, and bend your left knee to 90 degrees so your right knee is almost touching the floor, and push back up to stand, only using your right foot for balance. Switch sides after each set.

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STEP-UP

Standing in front of a bench with weights in hands by your sides, step onto the bench with your right foot, driving your left thigh toward your torso, knee bent at a 90-degree angle. Slowly and in control, return to start. Repeat with the left foot, alternating sides.





IRONMAN world champion Mirinda Carfrae—who, fun fact, has never had an injury sideline her training—in part credits mobility for her success. “I don’t need extra muscle, I need the muscle that I have to work,” she says. Enter: mobility, or how much a joint can move without restriction. If you want your glutes to fire, you need mobile hips. “Tightness in the front inhibits function on the back,” says Carson, who trains Carfrae. “Your quads switch on and take over.” Do these mobility moves before a strength session or run.

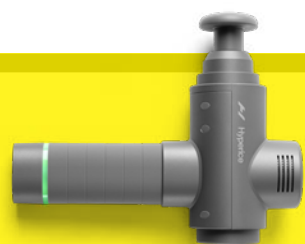


Shell trains inside Carson's RallySport studio in Boulder.



MULTIPLANAR LUNGE SEQUENCE

Lunge following an imaginary clock and hit each time of the day with the landing leg: left leg hitting 12:00 through 7:00; right leg hitting 12:00 through 5:00. (You’ll need to open your hips as you move back—that’s okay.) Do 2 sets of 3 lunges in each position.



Carfrae uses a massage gun, the Hypervolt 2, to promote recovery, especially on the lower body and glutes. “I use it a couple times a week for 15 minutes,” she says. (\$299, [hyperice.com](https://www.hyperice.com))



90-90

Sitting on the floor with feet on the ground, arms holding up your torso behind you, move both knees to the left, laying them to the side to create a 90-degree angle with both knees. Repeat on the right. Do 20 total, 10 on each side.



PAIN IN YOUR BUTT?

“Piriformis syndrome often feels like a deep aching pain in the back of the glutes,” says Cameron Yuen, DPT, CSCS, a senior physical therapist at BESPOKE Treatments in New York City.

How it happens: The sciatic nerve, which runs from your lower back down to your feet, forms a cross with the piriformis muscle in your buttock, so when the latter is irritated—say, from overtraining—it compresses the nerve, creating a pain in the butt in the most literal sense. You’ll feel it when you sit or bend your hip, Yuen says.

What to do: Perform movements that reduce compression on the nerve (like sciatic flossing) and strengthen (like glute bridges) so the piriformis doesn’t get overworked, Yuen says. Visit runnersworld.com/piriformis to see how you can perform these stretches, and see a physical therapist for a diagnosis to rule out any back issues.

“Lifting Helped Me Love Running Again”



“I loved running half marathons, but around mile 9, I’d feel excruciating pain around my knee and hip. When it sidelined me for the Broad Street 10-Miler—a race I was really excited about—I knew it was time to see a professional. My PT told me that I had IT-band syndrome because my glutes were weak. I committed to strength-training two or three times a week—deadlifts, squats—and took time off running. My first run back was amazing. I felt so fast! And happy! I did the Broad Street Run three years in a row, and my time improved because I didn’t need to stop to shake things out. Strength-training gave running back to me...and made it more fun.”
—Maria Sylvester Terry, 31, New Orleans

Getty Images (Carfrae); Courtesy Hyperice (Hypervolt); Malaina Ricks/Courtesy Maria Sylvester Terry