



BY ASHLEY MATEO

Can You Replace Some Running With Elliptical Training?



IF YOU'VE EVER followed a race training plan, you know it's not just about running; it's about running strategically. That's why nearly every training plan includes easy runs, long runs, speedwork on the track, tempo runs on the road, recovery runs—it's enough running to fill at least five or six days a week, and it can eventually do

a number on your body.

The reason training plans call for so much running is the rule of specificity: "Whatever you want to get good at, you have to do that type of activity to a high degree," explains Ian Klein, a specialist in exercise physiology, cross-training, and injury prevention at Ohio University.

Translation: To be a better runner, you have to run more. Each specific running workout has a purpose—from developing fast-twitch muscle fibers for speed to building your endurance to helping your tendons, ligaments, joints, and bones adapt to the stress of running—which is why it's important to include all of them in a training plan.

That said, there's a little flexibility when it comes to the recovery run. The low-intensity recovery run, which is generally done at less than 70 percent of your maximum heart rate, is crucial for maintaining the base of your aerobic fitness and developing oxygen efficiency in the muscles, says Klein. But if you're injury-prone, dealing with small niggles or joint pain, or even just approaching burnout, it's one workout that you can take off the road or treadmill and complete on another piece of equipment: the elliptical.

How is using the elliptical different from running?

The elliptical was literally invented to mimic the motions of running without nearly the same kind of impact forces that are caused by running—so you're going to get a more running-specific cross-training workout than you would by training on a bike or swimming in a pool. But "running" on the elliptical decreases the weight-bearing and muscle-pounding that running produces because it is a much lower-impact exercise," says Todd Buckingham, Ph.D., an exercise physiologist at Mary Free Bed Sports Rehabilitation Performance Lab in Grand Rapids, Michigan.

What the elliptical does is "take out the eccentric contraction, that moment when you land and prevent your body from collapsing," says Klein. That is an integral part of running, so you do need that training; but if you get too much of it, he adds, your muscles can fatigue and break down under all that stress, which can lead to injury.

The elliptical also cuts out the push-off phase of the gait cycle because your feet never leave the pedals. That's not necessarily a bad thing, says Juan Delgado, B.C.S., director of Sports Science at the NY Sports Science Lab on Staten Island, New York. When running, the tibialis anterior muscles (which are responsible for dorsiflexion of the feet) are almost never under maximum tension—which makes them more susceptible to overuse and makes you more prone to shin splints and stress reactions, Delgado says. But



DRINK UP, LEAN UP

Being a health and nutrition correspondent means that companies frequently send me their products, and ask for my stamp of approval. Most of the time I dive into research, give the product a try, and send the company honest feedback about what they'll need to change before I'll recommend it. Plus my hectic job and my determination to stay fit means I'm always hunting for a quick and nutritious way to fill up on nutrients my body needs. So I can confidently say, "I've tried it all!"

Last Tuesday work was especially hectic, but I'd booked with my \$200 an hour personal trainer, Tony, a triathlon winning, organic-to-the-bone fitness guy with a ten mile long track record of whipping the "who's who" into shape in record time, so I had to go. He noticed that my set count was down and playfully asked, "Feeling a little tired today?" as he handed me a bottle from his gym bag. After one sip I figured that there was no way this could be healthy because the creamy chocolate flavor was just too delicious. Still, he'd never risk his reputation.

With more than a healthy dose of scepticism I decided to investigate this shake he'd called INVIGOR8.

Turns out, it's a full meal replacement shake, which stunned me because virtually every other

shake I'd researched had tasted chalky, clumpy and packed with hidden "no-nos" like cheap protein, tons of artificial ingredients, not to mention harmful synthetic dyes, additives, sugars, preservatives, and hormones. And even though INVIGOR8's full meal replacement shake cost more than many of the shakes I've tried, it was about half the price of my favorite salad, and the nutrition profile looked second to none.

Wanting to know more, I reached out to a few of the people who were talking about it on trustworthy fitness forums. By the next morning three people got back to me saying,

"As a trainer I love Invigor8. It's definitely helped me to have more all-day energy, plus build the kind of lean sculpted muscle that burns more fat."

"Yes, I'll recommend it, it tastes great, and I really like how it keeps me feeling full for hours."

"I'm a marathon runner and a friend recommended it to me. Drinking it has become a part of my regular training routine, because my time has improved, my energy is up, and I'm thinking more clearly than ever before."

I decided to take my investigation one step further by researching the development of INVIGOR8. I was pleasantly surprised to find out that the

company went to great lengths to keep INVIGOR8 free of harmful ingredients.

The makers of INVIGOR8 were determined to make the first natural, non-GMO nutritional shake & green superfood. The result is a meal replacement shake that contains 100% grass-fed whey that has a superior nutrient profile to the grain-fed whey found in most shakes, metabolism boosting raw coconut oil, hormone free colostrum to promote a healthy immune system, Omega 3, 6, 9-rich chia and flaxseeds, superfood greens like kale, spinach, broccoli, alfalfa, and chlorella, and clinically tested cognitive enhancers for improved mood and brain function. The company even went a step further by including a balance of pre and probiotics for optimal digestive health, uptake, and regularity and digestive enzymes so your body absorbs the high-caliber nutrition you get from INVIGOR8.

As a whole-foods nutritionist with a thriving practice I understand the importance of filling my body with the best Mother Nature has to offer. I have always been reluctant to try new products because I was never sure of the impact they would have on my energy, and weight. INVIGOR8 is different, not only because it's delicious, but because it helps me to maintain the energy I need to run my busy practice, while helping me to stay fit and toned. Considering all of the shakes I've tried, I can honestly say that the results I've experienced from INVIGOR8 are nothing short of amazing.

A company spokesperson confirmed an exclusive offer for Runner's World's readers: if you order this month, you'll receive \$10 off your first order by using promo code **"RUN10"** at checkout. You can order INVIGOR8 today at Invigor8.com or by calling 1-800-958-3392.

when you're maintaining constant contact with the elliptical pedal, "these muscles will have better isokinetic and isometric contractions, and can reach maximum tension while becoming stronger without the impact of the lift-off/heel strike motion," he says.

Plus, the elliptical is more of a complete workout, equally recruiting the upper and lower body with its pendulum motion. "By using your body weight as resistance, it becomes an excellent way to prepare your body for the rigors of regular running, since the muscles engaged in running can become stronger and more accustomed to carrying your body weight without the impact of hitting the floor constantly, reducing your injury risk," says Delgado.

● How can you use the elliptical to benefit your training?

Because the elliptical is a low-impact activity, it will feel easier than a run of similar intensity. "To combat this, use the elliptical for one and a half to two times the duration of your run," says Buckingham. For example, a 30-minute run would be equivalent to a 45-minute to one-hour elliptical session.

Subbing in elliptical sessions on recovery days can be especially helpful for runners who have a tough time actually sticking to a recovery pace (or less than 70 percent of your maximum heart rate). It's actually pretty hard to get your heart rate up on the elliptical (without maxing out resistance), which means you'll actually stay in the easy, low-intensity zone you need to be in to get the benefits of that workout.

Because using the elliptical can improve bloodflow to the muscles without causing the muscle fiber damage that running does, it could actually help speed the recovery time between hard running sessions and allow you to complete your hard running days at a higher intensity, says Buckingham. "And if hard days are performed at a higher intensity, performance gains will be greater."

That's why you should always do your key workouts—speed runs, tempo runs, and race-pace runs—as running efforts, says Klein. No matter how closely the elliptical was designed to mimic running, anybody who has ever stepped on a machine knows it's not a perfect substitute. Consider it a valuable tool in your arsenal, especially on days you need to slow it down or get a little extra recovery, but not as a replacement for running. 🏃

BUILD OUT YOUR HOME GYM WITH AN ELLIPTICAL

Like most home fitness equipment, ellipticals range from basic models to gym-quality machines. As with treadmills, to some extent you get what you pay for. Although you can get a good workout from lower-priced models with fewer settings, having more options will keep your workout interesting and challenging.

The top machines offer a broad range of adjustable resistance—often with 20+ levels. They also include more adjustability, including auto-controlled incline height and stride length.

Although some models cost as little as \$200, they tend to break down more quickly. A higher-quality elliptical will provide a quieter, smoother ride. Just be sure to consider your space and budget when shopping. Also make sure to check out the warranty before buying—mechanical issues can strike even the higher-end models.—Caitlin Giddings

1 / Bowflex M9 Max Trainer / \$1,999 A hybrid stair climber and an elliptical machine in one.

2 / Schwinn 470 Elliptical Machine / \$999 A smooth and solid machine that syncs with popular apps.

3 / NordicTrack SE7i / \$1,299 The console of this machine folds up for easier storage.

4 / ProForm Carbon HIIT H7 / \$1,403 Get a hardcore HIIT workout on this surprisingly compact machine.



Courtesy Nautilus (M9 and 470); Courtesy NordicTrack (SE7i); Courtesy ProForm (H7)



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BY RUNNER'S WORLD+ COACH JESS MOVOLD

How to Get Back to a Marathon Mentality



IT WAS HOUR 36 of our 37-hour-and-25-minute run from Santa Monica, California, to the Welcome to Las Vegas sign. I was participating in The Speed Project's relay event, and my team had 309 grueling miles behind us and approximately 11 to go.

I felt physically and mentally beat up, and I wasn't sure what more I had left to give. I managed to sleep a total of 75 minutes, sliced up into a few quick naps, and according to my gadgets, my recovery was deeply in the red at 6 percent. How could I possibly keep charging forward?

In moments like this, you have to dig deep. And while The Speed Project and a marathon are very different experiences in theory, the required discipline, mental strength, and physical readiness are the same. Here are three tactics I learned from my experience that I'll use for upcoming marathons. Give them a try for your next 26.2.

● Reframe your thinking

Committing to a marathon is not something to take lightly—it's a major milestone in running and should be respected as such. In terms of honoring that commitment, your training carries even more weight than showing up for race day does. It's important to reframe your thinking when it comes to getting your training runs in, so that the real question you have each day is not *if* you'll get the training done, but rather *when* you'll get the training done.

When things get difficult in a workout or you hit a rough mile on race day, quiet the mental chatter and stay calm. Swirling thoughts and fast-paced thinking takes more energy than you might realize, especially when track repeats feel impossible, a hill workout seems too daunting, an aggressive tempo sounds unfathomable, or you're in the home stretch of a race. This is why relaxing your mind is something you should practice daily. You can do this by focusing on your breathing or repeating a mantra (my personal favorite is "the only way out



is through"). Ultimately, this will lead to a more positive and confident mind-set when approaching areas of challenge in your training and on race day.

● Don't allow yourself to give up during workouts

Like all humans, I have countless moments when I crave comfort. This can translate into cutting reps short during speedwork, stopping mid-tempo, or shaving off mileage during a long run. But as soon as I eliminated the option to stop during an effort, my training and performance greatly improved.

How do you do this? The key to overcoming challenging moments, whether you're doing a training run or you're in the middle of a race, is developing the mental strength and fortitude to be able to adjust, adapt, and continue. This requires learning about yourself and putting your ego to the side. If you're in the middle of your speedwork and the pace feels unsustainable, adjust it and keep going. Use this as an opportunity to grow and improve. Like anything, this takes practice. As you learn to adapt and adjust during your training, you will continue to build discipline and consistency.

● Lean into the crowd and fellow runners

With no designated course during the 300 miles of The Speed Project, I was shocked to see any competitors or spectators at all. When the only footsteps you hear for miles are your own, and then you faintly start to hear the sound of someone else's, an electric feeling of excitement mixed with fear jolts down your spine. These are the moments you can't train for but are opportunities to push yourself beyond your limits and redefine your capabilities. Lean into the competition on race day. Think of your fellow racers as a reason to push forward during moments you feel like stopping, tap into them for teamwork and encouragement. And soak up the excitement, energy, and support pouring out to you from the spectators.

Every race you tackle is another step toward becoming the runner and the person you ultimately want to be. It's in our hardest training and darkest moments that we inch closer to achieving our greatest goals and wildest dreams. Let's keep going, team! We got this! See you at the start line. 🏃‍♀️

FOR ACCESS TO STRENGTH WORKOUTS FROM COACH JESS, JOIN RUNNER'S WORLD+ AT [RUNNERSWORLD.COM/JOINPLUS](https://runnersworld.com/joinplus).