



**Salad-Bowl Backlash**  
The fresh appeal of platter-based presentations  
**D6**

# OFF DUTY

THE WALL STREET JOURNAL.

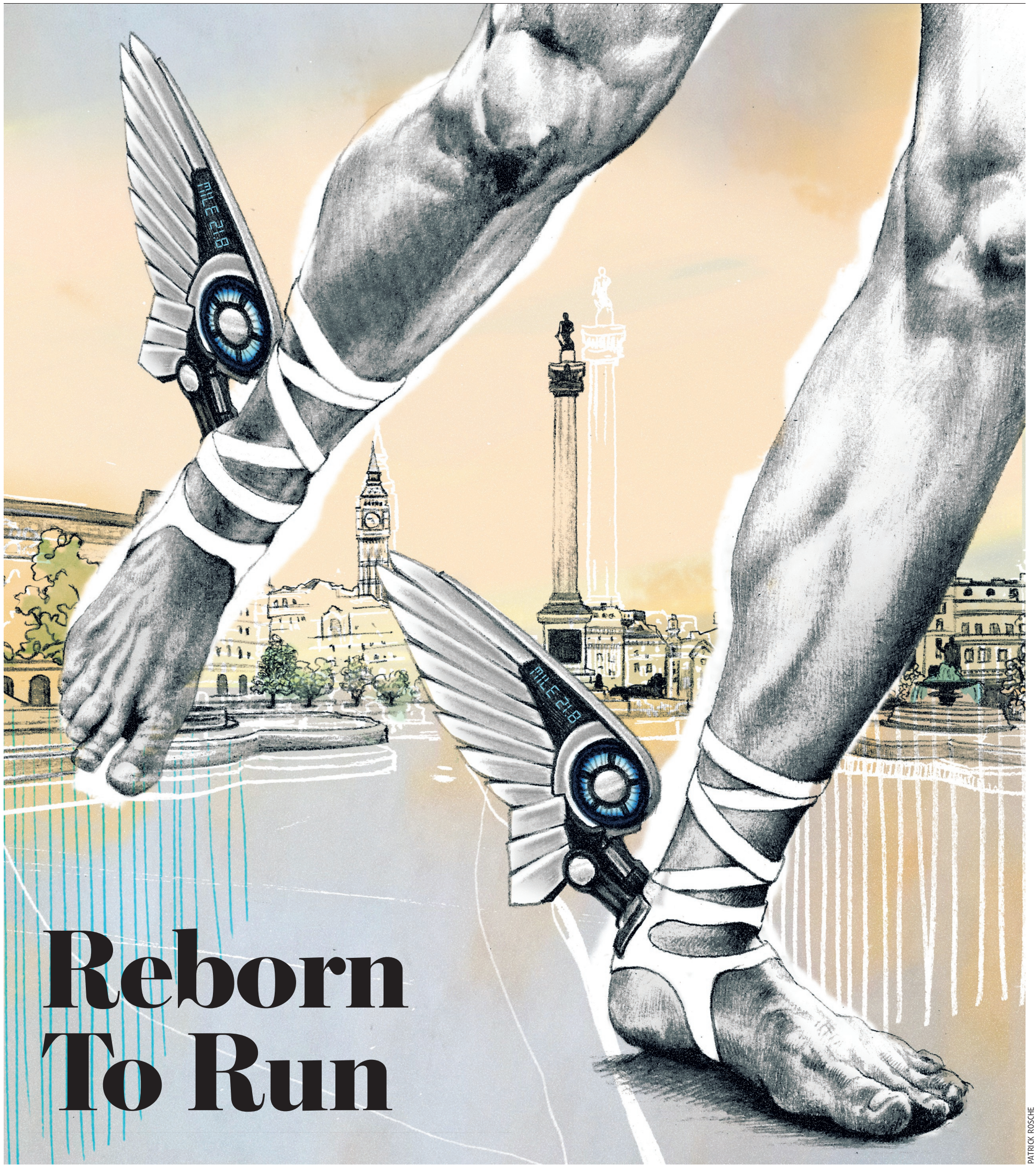
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**Time Travel**  
Dan Neil drives the first Porsche, an octogenarian from 1939  
**D10**



FASHION | FOOD | DESIGN | TRAVEL | GEAR

Saturday/Sunday, August 3 - 4, 2019 | **D1**



PATRICK ROSCHIE

## Reborn To Run

The best marathoners don't just wing it when it comes to training. They use high-tech gadgets to hack their bodies and achieve times they once thought impossible. Here's how you can too

By **ASHLEY MATEO**

**I WAS FIVE MILES** from the finish line of April's 2019 London Marathon when I started thinking about just how stupid it is to race one of these things. My legs were weak, my side was cramping and, to add insult to literal injury, it was starting to drizzle. Obsessively checking my watch every 5 seconds while counting down to the finish line (hoping it might be willing to meet me halfway), I felt stuck in slow motion—at a point when it was time to pick up the pace. Luckily, I had prepared my body for just this moment.

For average runners, signing up for a marathon is mostly about surviving to the finish—after all, the very first guy to run one barely did, dying shortly thereafter. The popularity of the challenge has grown precipitously, with the number of marathoners jumping by nearly 50% over the last decade, reaching 1.1 million finishers in 2018 according to the International Association of Athletics Federations. In the same span, average times have also

ballooned. In 1986, amateur racers typically crossed the final time stripe in 3:52:35; now that's up to 4:28:56—almost exactly the time I crossed the finish at the 2016 Boston Marathon, the first of my six 26.2-mile finishes.

But I don't run to be average. I run to push my limits, so ever since Boston I've been aiming to break the 4-hour mark—an arbitrary yet achievable goal I deem brag-worthy. "World-record racer Eliud Kipchoge can no longer complete two marathons in the span it takes me to finish one," I imagined telling people after I broke the barrier.

In my races and in my preparation leading up to London, however, my times had plateaued about 11 minutes short of that goal. Standard training protocols—run a ton, eat right, rest well, repeat—didn't seem to be enough anymore. And at 33, it's not exactly easy to become more fleet of foot. I figured I'd have to try something drastic: not just logging extra miles but hacking my body's cardiovascular and muscular systems with elite, next-level tech.

That's how, for months leading up to London, I found myself doing all kinds of odd things to unlock my fitness

potential, including lounging for 40 minutes a day, my ears popping, in a tiny, pressurized spaceship-like pod.

"There are three things that limit endurance performance," explained Brad Wilkins, Ph.D., an exercise and sports physiologist who in 2016 worked with Nike to train the world's fastest runners in a bid to break the 2-hour marathon barrier (coming up 26 seconds shy). "There's VO2 max, or the maximum amount of oxygen you can consume, which translates to the maximum amount of work your body can do; your running economy, or how much energy is required for you to run a given distance at a given speed; and your lactate threshold, the physiological intensity that you can sustain for a long period."

You can improve all three by running harder. But that's, well, hard. So I gladly decided to take a shortcut, starting by improving my VO2 max with the Krypton-like "CVAC" pod, short for Cyclic Variations in Adaptive Conditioning, which fluctuates air-pressure levels to flush post-workout waste out of your cells. "The CVAC allows your cells to ex-

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## Inside



### NOT TOO NAUTICAL

Beach-house décor calls for beachy details—but only up to a point **D8**



### RECOMMENDED READING

The elegant, eggheady Cate Blanchett on her favorite books and more **D2**



### THE STAR OF STRIPES

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Hoteliers argue that the trend for no-view rooms is a good thing. We're listening... **D4**



GEAR & GADGETS



THE HOME STRETCH A record 42,549 racers finished 2019's London Marathon on April 28, crossing the final time stripe in the shadow of Buckingham Palace.

Gadgets to Go  
The Distance

Continued from page D1  
pand and contract in the same way exercise does,” while putting little strain on the body, said Aaron Drogoszewski, co-founder of ReCOVER, Manhattan’s first sports recovery studio, where I did my podding. All I felt was akin to the sensation of taking off and landing in a jet repeatedly. Some research suggests, however, that it can improve your VO2 max by up to 5.7%. By comparison, the kind of now-illegal blood doping Lance Armstrong used to win the Tour de France yielded a 2% increase.

The CVAC also helps with recovery, “allowing the body to heal faster,” said Mr. Drogoszewski. “You become Superman not because these technologies are morphing you into something you weren’t before, but because they’re helping your body heal from the stress of exercise so you can get back to training sooner.”

It was like the sensation of taking off and landing in a jet repeatedly.

I didn’t rely entirely on the CVAC. I also employed the Hyperice Hypervolt, a drill-shaped battering ram (see “The Need For Speed,” far right) that pummels specific muscles at warp speed to release tension in a blur. Most runners overwork their hip flexors and under-utilize their much stronger glutes. But “through sustained percussion, the Hypervolt can overwhelm the neurological receptors of the hip flexors so they calm down,” allowing those butt muscles to fire back up, said Mr. Dro-

goszewski. “When the right muscles do their job, it translates to increased speed and increased endurance.”

Being stuck at your desk for eight-plus hours between training can also tighten your hips, creating pain while you run and forcing your smaller leg muscles to absorb the brutal impact. So I lived in NormaTec’s innovative pair of puffy boots that compress air around your legs to massage sore muscles and pump blood from your toes to your heart. The heart then filters out post-workout waste like lactic acid that can block blood flow, helping muscles feel and perform better, said Marc Violone, director of operations at ReCOVER. You may have seen LeBron James donning these inflated boots on Instagram.

While at ReCOVER, I tested a few of the gym’s other smart methods, including sweating in a sauna that uses infrared light, not hot air, to relieve muscle inflammation. And wrapping my body in soft stretchy Velcro bands that soothe worn-out muscles by dispensing “pulsed electro magnetic field therapy” (more prosaically known as heat and vibration).

Another crafty way to up your performance: A high-tech hydration plan. Most people who don’t consume enough water, myself included, end up chugging gallons of it in the final two days before a race, thinking they can play catch-up. But if you haven’t trained your body to manage water, you’ll saturate your system with more than you need, which can lead to hyponatremia, a condition where a deluge of water can dilute your blood’s sodium levels, and bring on nausea, headaches, confusion, fatigue and even seizures.

To fix that, I grabbed the Hidrate Spark 3.0 smart water bottle. It connects to an app that determines the right amount of water I needed based on my height, weight, age and activity level. After I filled the Hidrate, its app sent alerts to my smartwatch throughout the day when I started to

**Time Better Spent?** Other things you can do instead of running a four-hour marathon.

**Read a Classic**  
At 47,094 words, “The Great Gatsby” takes average readers just under 4 hours.

**Binge a Show**  
Despite its misleading title, you can watch all of Amazon’s “Forever” in 242 minutes.

**Scale a Mountain**  
Alex Honnold’s ropeless\* climb of Yosemite’s El Capitan took him 3 hours, 56 minutes. (\*Not recommended)

**Make a Meal**  
Julia Child’s Beef Bourguignon cooks up in 3 hours, 15 minutes, leaving some room for dessert.

**Fix Your Life**  
Tim Ferriss’s “4-Hour” book series promises to help you retire early and “become super-human.” Results may vary.

fall behind, thus eliminating the most difficult part of proper hydration: actually thinking about it. It also kept me from gulping down the final 30 ounces before bed so I didn’t ruin my sleep by springing up for impromptu training runs to the bathroom.

None of these shortcuts do much good, though, if you aren’t actually running. But instead of following a generic training app—thousands of which, like Nike Run Club, are available free in the iTunes store—you need to build your plan around a specific pace goal. “People just tell themselves ‘I want to be faster,’ but they never adjust their training,” said Mr. Wilkins. “Just defining that finish time—and the pace you have to run to reach it—can be super powerful.”

First, do a little math: To finish the race in 3:59:54, I’d have to run a 9:09-minute mile pace (or 9:05 to give myself a little wiggle room). I needed to train at that pace consistently, said Mr. Wilkins, so my body could experience the stress of it and adapt. To stay on track, I used one of Apple Watch’s latest features, Average Pace, which lets you select a specific goal and then vibrates throughout your run if you’re too far behind, or ahead.

With your pace set and your body’s systems tuned like a German sports car, you can start to log more-efficient training miles, making each one count. During the race, your muscles won’t fail you so quickly and your mind won’t wander to the endless bagel shops lining the course.

In previous marathons, I’d start to trudge through the water stations around Mile 6; in London I made it to Mile 21 before slowing to take a walking break, complain to no one about my cramps and fixate on my watch. But then my preparation took over and I dug in for those last few miles.

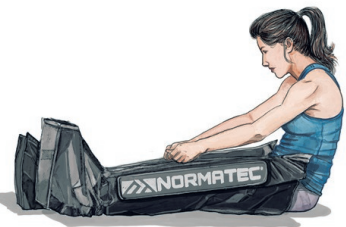
I crossed the London Marathon finish line in 3:58:22, breaking my personal best by more than 11 minutes. And you better believe I’ve been bragging about it since.

The Need for Speed

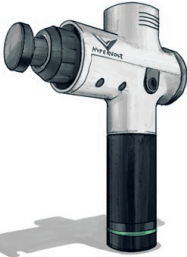
Five high-tech tools to get your body in peak marathon-running form



Equinox Precision Run classes feature **Woodway treadmills** with exclusive A.I.-fueled dashboards that help you smartly set your pace by learning your interval speeds. \$36/class, [precisionrun.com](https://precisionrun.com)



These **NormaTec Pulse 2.0** compression boots connect via Bluetooth to fitness apps like Strava, so you can track your recovery the same way you’d track your workouts. From \$1,295, [bestbuy.com](https://bestbuy.com)



Skip the massage and spring for the **Hyperice Hypervolt**. With three speeds and five interchangeable heads it eases muscles, improves range of motion and speeds recovery. \$349, [hyperice.com](https://hyperice.com)



The **Hidrate Spark 3.0** smart bottle syncs to an app that lets you track every sip while training for race day. Embedded lights glow when it’s time to take another drink. \$55, [hydratespark.com](https://hydratespark.com)



ReCOVER gym’s **CVAC pod** simulates dramatic changes in elevation to improve circulation, boost oxygen-rich red-blood cells and flush lactic acid. \$45 for a 20-minute session, [recover.nyc](https://recover.nyc)

QUANTUM LEAPS / HOW FOUR ATHLETES USE PRO-LEVEL TECH TO IMPROVE RECOVERY AND BOOST PERFORMANCE



Jonathan Toews

Center and Team Captain, Chicago Blackhawks

“At 20, your body can handle four games a week. At 30, it’s a different story. With my busy schedule I have to sleep when I can. So I constantly use NuCalm, an audio sleep system that plays binaural beats to help me get the equivalent of four hours of restorative rest in about 30 minutes. NuCalm always helps me get into a more relaxed mode so I can perform better.”



Leo Koloamatangi

Offensive Lineman, Detroit Lions

“There are major flaws in most strength and conditioning programs that can lead to burnout and injury. When I became a pro, I linked up with Sparta Science, which uses A.I. software to capture 3,000 data points detailing how I move and my weaknesses as an athlete to help build me a smarter workout regimen. After a season with Sparta I’m much more explosive on the field.”



Rob Mohr

Elite Ironman Triathlete

“For my second Ironman world championship race in 2018, I had a less-than-ideal regimen due to a busy work schedule. But training in the CVAC pod—adapting to pressure and oxygen changes like I was going from sea level to Everest and back—helped cut nearly 20 minutes off my 2016 time. It adds to the puzzle of how to race well with all the other things going on in life.”

—Edited from interviews by Ashley Mateo and Matthew Kitchen



Trevor Bauer

Starting Pitcher, Cincinnati Reds

“Two seasons ago I was trying to develop a slider that spun dead sideways. Using an Edgerronic SC1 camera cranked to 1,500 frames-per-second, I noticed the ball was staying in my hand 0.008 seconds too long. I was able to change my grip and the ball’s seam orientation in my hand to get it to slip out earlier, giving me the lateral break I was looking for.”