MARCH 1, 2019

TrainSmarter

These Are the Healthiest Shoes To Wear, According to Scientists

Recall a time when you took a long walk on a beach. Your feet probably felt pretty tired by the end of it. "Your feet are tired because every time you press down on sand, the sand moves away from you, so your foot muscles have to work harder than on stiff surfaces," says Daniel Lieberman, chair of the Department of Human Evolutionary Biology at Harvard University. The difference between walking on shifty sand or hard cement is comparable to the difference between walking barefoot or in shoes. "When you walk in shoes, your feet are pressing against a stiff substitute for the ground that makes the muscles in the feet have to work less than if you were barefoot." While less work may seem like a good thing, it may actually leave your feet vulnerable to injury. Lieberman and other researchers have found evidence that people who predominantly walk or run in "minimal" shoes—shoes that mimic your bare feet by ditching arch support and a restrictive toe box while incorporating a very thin, flexible sole—tend to have stronger, stiffer feet than those who wear traditional shoes. Why are stronger and stiffer feet healthier? "The concern is that a weaker foot is a foot prone to problems like flat feet," Lieberman says. In flat feet, the bones forming the arch of the foot don't really arch—they lie flat on the ground. Research has linked flat feet to knee pain, cartilage damage and low-back pain. In civilizations around the world, people who are habitually barefoot or minimally shod have much lower rates of flat feet than habitually shod populations. Given all this evidence, there's a case to be made that the ideal footwear is the one you were born with—or at most a minimal shoe. But traditional shoes can be good for your feet, too. "We"—meaning human beings—"started wearing shoes for a reason," Lieberman says. "They're comfortable and they protect our feet, so there are benefits and costs." Determining the "healthiest" shoe for a given person has to take into account their age, health status, walking and running habits, and other factors. For example, some people accustomed to running in traditional shoes who quickly transition to minimal footwear may be at risk for injury, and so will those who slam their feet down when they walk. "Also, people with neuropathy who have loss of sensation in their feet—you put them in a minimal shoe, and that person will probably hurt himself or herself," he says. But there are some simple rules to follow when shopping for healthy footwear. "The two main issues with people's footwear are poor fit and heel elevation," says Hylton Menz, a podiatrist and professor of biomechanics at La Trobe University in Australia. Some of his research on older adults shows that too-short or too-narrow shoes can lead to foot deformities and increased risk for weakness and falls, as well as growths like bunions, corns and calluses. The healthiest footwear for both older and younger adults should fit well and have a low, broad heel, a thin and flexible sole, and some kind of lace, strap or Velcro to ensure the shoe stays firmly attached to the foot. Sandals and flats often fit this description, though many don't. And if you're wondering about the benefits of orthotics, the research is mixed. (If you're suffering from foot or joint problems, talk through your optimal shoe choices with your doctor.) As you might expect, high heels are problematic. "There are certainly many negative consequences of wearing high heels, especially over a longer period," says Mickey Wiedemeijer, a human movement researcher at University Medical Center Groningen in the Netherlands who has published research on walking gait and high heels. Along with causing forefoot pain, high heels can result in lordosis, an inward curving of the lower back that can lead to pain, she says. The risks associated with heels are especially great among older and heavier adults. But even if you're young and slim, Wiedemeijer recommends mixing up your shoe choices. If you insist on wearing heels, "regularly switching footwear from high heels to lower heels will prevent muscles from overstraining, and [allows] joints to load differently with a larger range of motion," she says. Even if you don't wear heels, her advice to regularly switch up your shoe styles may be prudent. "Do the same thing over and over, and you get stress injuries," Lieberman says. Wear the same style (or pair) of shoes all day every day, and you may be asking for trouble, because you're not mixing up the demands placed on your muscles, bones and joints. In short, there's evidence that time spent barefoot or sporting minimal shoes may help strengthen your feet and save you from pain and injury. Also, frequently changing up your shoe styles and leaning toward properly fitted footwear—ideally something with a low heel and a thin, flexible sole—are other good ways to keep your feet and body healthy. ***Time***

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Author of "Truth About Food" Reveals 3 Truths to End All Confusion About a Healthy Diet

Blue Zones: Tell us about your newest book, The Truth About Food, and why you wrote it.

Dr. David Katz: I wrote The Truth about Food because there's a problem with the current dialog about nutrition—whether it's morning shows, diet books, or even the scientific literature. People are fed a little bit of truth at a time, and also usually just one perspective at a time. So if someone wants to make the case for one diet, they make the case for that kind of diet. The result is unending confusion and consequently, as a culture, we've totally lost our way about diet and health. There's more than one way to eat badly and the American culture seems committed to trying them all.

BZ: How do we combat the constantly conflicting nutritional advice covered in the news and on TV?

DK: The headlines make it seem like the scientific community is confused about diet and nutrition. That's not the case.

TRUTH #1: One thing I wanted to make clear is that there is no confusion among experts.

People argue over the details but miss the big picture. Some might get differing advice from their doctor or their trainer or their friend over social media, but you shouldn't rely on one person's opinion. The world's foremost experts are in agreement. The True Health Initiative is a coalition of world-renowned and diverse experts who have come together and agreed on the simple and actionable fundamental truths about diet and health. These experts are the who's who in science and nutrition—leaders in the public health space, three former Surgeon Generals, the former Chair of Nutrition at the Harvard School of Public Health, the former director of the Cleveland Clinic, and so on. If your doctor was going to a conference to learn about nutrition science, these are the people that he or she would learn from.

BZ: What is the global consensus?

DK: There is a clear global consensus from the world's nutrition scientists and experts about the healthiest dietary pattern. This pattern, unsurprisingly, is how Blue Zones centenarians ate for most of their lives.

TRUTH #2: A diet high in plant foods (beans, vegetables, nuts, fruit, whole grains) and low in processed foods is best for health and longevity.

TRUTH #3: Over 80% of chronic disease and premature death could be prevented by following this healthy dietary pattern, getting regular physical activity, and not smoking.

BZ: That's not very clickworthy. Do you think the need for attention-grabbing headlines are to blame for all this confusion?

DK: The other thing is active deception. Some of the misleading headlines are entirely on purpose. The Big Food industry wants people to be confused about diet, and the pharmaceutical industry doesn't care that people are confused either. In my book, I've devoted whole sections to lies, damn lies, and statistics.

BZ: What is the biggest takeaway you want readers to get from the book?

DK: The book is 780 pages because I don't want to just tell the readers what I know. I want to immunize readers not just from today's fad diet, but also from tomorrow's fad diet. By showing them how to differentiate truth from lies, I'm empowering people to be able to tell what is reliable information. I also wrote it as a resource for public and professional colleagues. Until we have better nutrition education in medical schools (currently there is little to none), we need to help practitioners have the best information too.

BZ: In our Blue Zones Project communities, we focus first on changing policy so our environments support healthy behaviors. In our current foodscape, it's hard to rely on individual behavior change when willpower runs out. How can people combat the endless buffet of cheap, high-calories foods that are everywhere?

DK: I still think individuals have the power to change. Skillpower is the neglected cousin of willpower. People can master things if they have a set of skills and learn to use them. So helping people identify nutritious foods that are inexpensive and easy to make like beans and lentils are an example of giving people skills. The next step is giving them step by step guidance for learning how to make delicious dishes.

BZ: What do you think is the most dangerous nutrition myth or fad out there today?

DK: If I had to say one, then probably the keto diet. But the most dangerous nutrition myth is that the world's experts are confused about diet and health.

BZ: In our work, we always try to focus on eating for health and longevity, not for weight loss. That seems to be a distinction that even some health publications confuse often.

DK: Yes, I always say that a cocaine binge or cholera will result in rapid weight loss. Just focusing on losing weight will not yield better health. ***Blue Zones***

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TrainSmarter

Are Vitamins and Supplements a Waste of Money?

Stroll through any given drugstore and you're likely to find vitamins and supplements galore. There are tablets, fruit-flavored gummies, liquid drops and even powders that you can blend into your morning smoothie. The range of purported health benefits is even broader, running the gamut from improved memory to better heart health to an increased libido (seriously). It's no surprise, then, that more than half of Americans take a vitamin or supplement of some kind. As a whole, the global dietary supplements industry is worth an estimated $133 billion. Yes, that's billion with a B. With so many people taking vitamins, you figure those little capsules are doing something good for you, right? Nope, multiple studies and medical experts say. Over-the-counter vitamins, minerals and nutritional supplements don't provide much—if any—additional health benefits if you're already eating a well-balanced diet, says Anne Linge, R.D.N., C.D., C.D.E., a dietitian and diabetes educator at University of Washington Medical Center-Roosevelt. And if you're not, adjusting what you eat should be your first course of action rather than taking a multivitamin. "None of us was born with a supplement bottle in hand," she notes.

Vitamins themselves are essential to our bodies and contribute to growth, digestion, nerve function and a whole host of other things. The important distinction, Linge says, is how you're getting those vitamins. "Our diet should be what's supplying all of the nutrients that our body needs. That being said, we need to be eating a variety of foods. There is no one major miracle food that supplies absolutely everything." Take apples and oranges. An apple supplies nearly a quarter of your daily fiber but not much by way of vitamin C. An orange, on the other hand, provides a fair amount of fiber and almost your entire amount of daily vitamin C. Different types of fruits give us different benefits. In that same vein, seafood offers health perks that fruit doesn't have, vegetables are unique from grains and so forth. By incorporating variety into a well-rounded diet, you're able to get the nutrients you need—no vitamin-infused gummy necessary. The only exception is vitamin D. We can't get enough of the "sunshine vitamin" from the food we eat, and our bodies rely on sun exposure to make enough of it.

After reading all that, you might be wondering why you can't just take a multivitamin and call it a day. While multis do contain practically every nutrient on the planet in a convenient little pill, that doesn't mean they're as effective as eating a diverse diet. "Multivitamins can have nutrients like calcium and iron in them that don't absorb well together," Linge says. "It all takes you back to thinking about food as your best resource." Along with pairing ingredients that don't play well together, vitamin manufacturers are guilty of luring in buyers with misleading claims. Supplement companies often market their vitamins as being nutritionally complete, but if you really take a look at the labels, many times they're not even close. "That's a big problem with the gummies." Linge says. "They're missing a lot of nutrients and they don't tend to be as complete, even if they are nice and chewable and flavorful." And, no, the Food and Drug Administration doesn't review dietary supplements for their safety or effectiveness, nor does it approve claims about these supplements' purported health benefits. On the opposite end, certain supplements might say they provide 400% of your daily vitamin C, leading you to think you're getting four times the nutritional boost each day. But that's simply not the case. "Your body hits tissue saturation at some point," Linge says. "After that, you're just feeding the salmon out in the sound."

Despite all this, there are certain situations when bending the no-supplements rule makes sense if you simply can't get all the nutrients you need from your diet alone.

If you live north of Memphis—While you're ideally soaking up a few minutes of midday sun throughout the year to make enough vitamin D, that's simply not possible during winter anywhere above 35 degrees latitude, basically north of Memphis. The problem isn't just overcast skies—it's that the sun isn't able to get high enough during winter months for its UVB rays to penetrate the atmosphere. "If your shadow is longer than you are tall, you aren't making vitamin D, even if you go out and sunbathe on a sunny January day," Linge explains. There are also folks that need to avoid sun exposure for medical reasons, as well as people who spend most of the day inside and aren't able to get their daily sun allotment. In these situations, Linge says taking a vitamin D supplement year-round can help ensure you're staying topped up on the sunshine vitamin. Talk with your doctor to see how much you should take.

If you're a newborn baby—Newborn babies should get a vitamin K injection shortly after birth. This prevents something called vitamin K deficiency bleeding, a form of uncontrolled bleeding in the brain or intestines. Placenta transfer of vitamin K from mama to baby in utero is poor, and babies aren't able to get enough from breastmilk alone.

If you're a pregnant woman—It's not just newborn babies that require a little vitamin boost. Expecting moms need more folic acid, omega-3 fatty acids, iron and other nutrients than other women do to aid the healthy development of their little one. For that reason, many doctors recommend that pregnant women take a prenatal vitamin. ***Medium***

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TrainSmarter

The Latest on Antibiotic Resistance

We've all heard that antibiotic resistance—the ability of some bacteria to resist even the strongest drugs—is on the rise. In fact, it's been said that the "antibiotic era" may be coming to an end. Is antibiotic resistance truly a serious health threat? Absolutely! Every year, about two million infections from drug-resistant organisms occur in the US, and "superbugs," such as methicillin-resistant S. aureus (MRSA), are causing more serious illnesses. The list of such drug-resistant bacteria just keeps growing. The most recent threats include carbapenem-resistant Enterobacteriaceae, which lead to infections that occur primarily in hospitals, nursing homes and other health-care settings…and antibiotic-resistant gonorrhea, a sexually transmitted disease. Antibiotic-resistant infections cause at least 23,000 deaths per year in the US.

Why does antibiotic resistance continue to be such a big problem? Bacteria have an innate ability to develop resistance. And the frequent use of antibiotics—both by individual patients and by society as a whole, including agriculture—gives bacteria even more opportunities to develop resistance. When a person takes an antibiotic for an infection, the antibiotic penetrates the individual's entire body, not just at the site of infection. This puts pressure on one's normal bacteria (called the microbiome).

If you happen to be carrying a superbug in your gut or nose, on your skin or anywhere in the body, then that superbug can thrive as the antibiotic kills off your resident bacteria. So even if the antibiotic kills the original infection, you could become the source of a superbug that you could pass on to other people. This happens frequently in hospitals, where there are lots of sick people taking lots of antibiotics, but it probably also happens in our homes and workplaces. This is one of the reasons why it's so important to wash your hands frequently and thoroughly. Proper hand hygiene can prevent you from picking up superbugs and can also prevent you from spreading them if you happen to be carrying one. But we won't get a real handle on the problem until doctors change their prescribing habits and people stop demanding antibiotics when they don't need them. The Centers for Disease Control and Prevention (CDC) estimates that one-third to one-half of all antibiotic prescriptions are unnecessary or used inappropriately. How might an antibiotic be used inappropriately? The most common inappropriate use of antibiotics is for upper-respiratory-tract infections. Most of the time, these infections are caused by viruses, and antibiotics don't kill viruses. So why are people getting antibiotics for viral infections? Part of the problem is that people (including many doctors) still think that there's no harm in taking an antibiotic, so they use them "just in case." However, now we're learning that antibiotic use puts us at increased risk for all kinds of negative side effects—from drug allergic reactions to being infected by potentially deadly C. difficile, a toxin-producing bacterium that kills tens of thousands of people in the US each year. We mostly hear about antibiotic resistance as a public health threat. Are individuals personally at risk if they take antibiotics frequently? Some people—those with diabetes, women with recurring urinary tract infections (UTIs), older adults, etc.—are prone to frequent infections. The more they take antibiotics, the higher their risk of developing an antibiotic-resistant infection. But it's not just these people who are at risk. We are all at risk for superbug infections and negative side effects when we take antibiotics.

Should I ask my doctor not to prescribe antibiotics? When a doctor is giving you (or your child) an antibiotic, I think everyone should at least ask whether the medication is really needed—and if it should be taken right away or if you can wait for a few days to see if the symptoms clear up on their own. The treatment guidelines for infections tend to favor drug therapy, even when the evidence suggests that no treatment or watchful waiting might be a better choice in some cases.

Some clinicians feel pressure to prescribe antibiotics, even when the medication is not necessarily indicated, to hedge their bets and help them to have shorter visits. And some actually may prescribe unnecessary antibiotics just because they think that's what the patient wants, not what the patient needs. It's important for doctors to hear from you that you don't want an antibiotic unless it's truly necessary.

Is it true that patients who stop antibiotics early increase the risk for resistance, both for themselves and for society as a whole? The conventional wisdom is that stopping an antibiotic before a prescription is completed will give bacteria the opportunity to mutate and become resistant. But some experts aren't so sure. A British team of scientists reported that there's little real evidence to support this idea. They concluded that lengthy antibiotic treatments—including those in which prescriptions are followed to the letter—are more likely to cause resistance than prevent it. That's because each day that you are on antibiotics, you are disrupting your microbiome and potentially fueling the growth of superbugs. The disruption of your microbiome can also put you at risk for other infections. Antibiotic-related changes to vaginal bacteria, for instance, can lead to the overgrowth of fungal cells and yeast infections, while antibiotic-related changes to the gut microbiome greatly increase the risk for infection by C. difficile. The risk for these kinds of infections increases with frequent and lengthy antibiotic use.

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The Latest on Antibiotic Resistance (cont'd)

The paper from the British team, published in the prestigious BMJ, is controversial, since it goes against most of the messaging that's been promoted over the past several decades. Even the CDC website says to finish your prescription. Clearly, we need a lot more research into this, and we need to develop evidence-based messaging for the general public.

I believe that shorter antibiotic treatments might be better for some patients, depending on the type of infection, the drug being used, the patient's medical history, etc. For example, it's probably relatively low risk for someone who's being treated for a UTI to stop the antibiotics after the symptoms have resolved. It's certainly reasonable to ask your doctor if it's OK to stop the drug when your symptoms improve, even if you haven't finished the full prescription. (Important: Do not just stop taking an antibiotic on your own because you feel better.)

What else can we do to combat resistance? People get tired of hearing it, but hand hygiene is one of the most important things you can do for your health—and the health of those around you. It's particularly important when you've been in a hospital or doctor's office. Your health-care providers are constantly being exposed to drug-resistant organisms…and they don't always wash their hands. One study found that 75% of the cell phones carried by health professionals were contaminated with disease-causing germs, including MRSA.

My advice: Wash your hands with soap and water (or at a minimum, use an alcohol-based hand sanitizer) when you arrive at your doctor's office and when you leave…after being in public places…and after handling meats. And don't forget to wash your knives, cutting boards and countertops after handling meats/poultry. You don't need to go out and buy special antimicrobial soaps. These products are no better than regular soaps at getting rid of superbugs and actually may help fuel the problem when they are flushed into the environment.

Source: Cindy M. Liu, MD, PhD, MPH, associate professor in the department of environmental and occupational health and chief medical officer of the Antibiotic Resistance Action Center at the Milken Institute School of Public Health at George Washington University in Washington, DC

Reducing Belly Fat

Packing on pounds around your midsection is easy. Losing them takes a lot more work. Here's the latest evidence on what (and what not) to do.

Sitting & belly fat

The time you spend in a chair, on the sofa, or in a car may affect the size of your belly.

Scientists did MRI scans of 124 people at risk for type 2 diabetes. Each wore an accelerometer for a week. Among those who were inactive (they averaged 13 minutes a day of at least moderate-intensity exercise), each hour of sedentary time per day was linked to an extra 1.9 quarts of abdominal fat. But sedentary time wasn't linked to belly fat in people who were active (they averaged 40 minutes a day). This type of study, on its own, can't prove that sitting on the couch boosts belly fat, but it's one more reason to get out of your seat.

How to trim bad belly fat

Israeli researchers randomly assigned 278 sedentary adults (mostly men) with oversized waists or high triglycerides and low HDL ("good") cholesterol to one of two diets with equal calories—low-carb Mediterranean or low-fat—for 1½ years.

For the last year, half were also assigned to an exercise program (45 minutes of aerobic plus 15 minutes of strength training) three days a week. The low-carb Mediterranean group was told to eat more vegetables, beans, poultry, and fish instead of beef and lamb. And they were given an ounce of walnuts to eat each day. Their carb limit was 40 grams a day for two months, and up to 70 grams a day thereafter. The low-fat group was told to eat whole grains, vegetables, fruits, and beans, and to cut back on sweets and high-fat snacks. Each group was served either a low-carb Mediterranean or a low-fat lunch—the main meal of the day in Israel—at work. After 1½ years, both groups had lost about six pounds. But the exercisers lost more deep belly (visceral) fat, the worst kind, no matter which diet they ate. And waist size, triglycerides, and liver fat fell more in the low-carb Mediterranean group, whether they exercised or not.

What to do

To shrink belly fat, get off the couch! To lower triglycerides and liver fat, replace some carbs with nuts, fish, and other unsaturated fats. ***Nutrition Action***

TrainSmarter

"Good to Go" The Latest Research on Exercise Recovery

During my freshman year of college, I started going to the gym—and going hard. Three times a week, I would head to the weight room in the rec center's basement to squat, deadlift, and bench press. It was satisfying to watch the weights slowly increase. I was building muscle, and it felt great to make progress. But the exercise came with soreness and sometimes pain. It was rewarding but often unpleasant, and I began to experiment with what food to eat and which supplements to take to speed up my recovery. I bought whey protein powder to take before going to the gym and casein protein powder to take before bed. I took pre-workout supplements and purchased protein bars to make sure I got the right ratio of carbohydrates and protein within an hour of exercising. My meals were rigidly planned.

Eventually, I was going to the gym every day, occasionally multiple times. Managing my routine became an expensive, stressful, time-intensive drag on my day. The more I exercised, the more unsustainable financially and physically it became. I enjoyed it less and less. It took years for me to deprogram myself.

So reading Good to Go, a new book by FiveThirtyEight lead science writer Christie Aschwanden, was a revelation: Much of what I thought I knew about exercise and recovery wasn't just wrong, it was made up. Over the course of her book, Aschwanden demonstrates that basically everything we've heard from the exercise recovery industry—which has an estimated worth in the billions—has no scientific validity. Good to Go is a dispiriting look at the way exercise recovery has transformed from the basic act of resting into the scientifically dubious economy of supplements and products—from ice baths to Tom Brady-branded infrared pajamas (which promise on the website to return infrared energy to the wearer's body, boost localized blood flow, and increase the amount of oxygen reaching the wearer's muscles).

This is an industry where revenue trumps science every time. For anyone currently trapped in their own recovery regimen, Good to Go is a wake-up call.

Aschwanden's most pressing revelation is about just how scientifically unsound much of the recovery industry is. At vendors like GNC and the Vitamin Shoppe, bottles come emblazoned with dramatic and jargon-filled claims to entice buyers. Often, it's difficult to describe what exactly the product is supposed to do. Aschwanden describes seeing one GNC supplement that claimed to "work synergistically with the body's own mechanisms of renewal" and "increase joint comfort and healthy circulation." These claims come with a warning reminding customers that they're completely unsubstantiated by an outside source.

You don't have to look far to find these products. Currently, the top-selling recovery product on GNC's website is Jym's Post Jym Active. Its label promises that "After you've put in your last rep, your body is desperate for the ingredients that that will help it refuel, recover and, in the process, grow bigger and stronger." The supplement is apparently "research-backed" in the description, but it doesn't elaborate. While the page on Jym's website breaks down the ingredients and what they're supposed to do, it's vague. The label does, however, feature the Instagram handle and a photo of Jim Stoppani, the product's inspiration. His body, apparently, is proof enough.

Then, there's the reigning champion of recovery marketing: Gatorade. For decades, Gatorade has built a brand on the promise that its combination of electrolytes and sugar is an important part of rehydrating and recovering after a workout. A recent commercial starring Boston Celtics forward Jayson Tatum, Serena Williams, and others opens with this salvo: "You sport. We science."

This claim is technically true, but as Aschwanden illustrates, there's nothing particularly special about Gatorade. According to research cited by Aschwanden, drinking regular water and eating regular food will do all of the things Gatorade does. And Good to Go lays out how sports drink manufacturers have, for a long time, biased their studies in favor of their preferred outcomes. They'll run trials with a small number of participants or force extreme circumstances on their subjects. She refers to the findings of a team of researchers from the University of Oxford's Centre for Evidence-Based Medicine, where researchers found that "if you apply evidence-based methods, 40 years of sports drinks research does not seemingly add up to much."

Aschwanden also demonstrates that "nutrient timing," a popular theory that exercisers must eat a certain ratio of carbohydrates and protein within 45 minutes or so of the end of their workout, is a myth. According to Brad Schoenfeld, the director of the Human Performance Lab at CUNY Lehman College, the so-called "anabolic window" that undergirded the theory of nutrient timing is open for at least several hours. That wider window means that the overpriced supplements meant to be ingested immediately after a workout may be no more effective than eating a proper meal hours later.

TrainSmarter

"Good to Go" The Latest Research on Exercise Recovery

Even if the science supported the recovery industry, it's worth considering the cost of recovery, both monetary and psychological. Shakes, supplements, and pills can be prohibitively expensive: A 30-serving container of Jym's Post Jim Active costs $39.99. Even low- and no-cost recovery methods such as stretching, foam rolling routines, and ice baths can take can be an unnecessary burden. Not only does Aschwanden suggest that stretching and foam rolling doesn't actually appear to reduce soreness or instances of injury—and that ice baths might actually slow down muscle repair—but all these activities are also time-intensive. "Instead of winding down," Aschwanden summarizes, "you're essentially extending the workday." If there is a takeaway at the heart of Aschwanden's book, it's that for most of us, exercise is already intimidating and confusing enough. Instead of buying into the exercise recovery industry, Aschwanden emphasizes getting a good night's sleep or, in lieu of that, napping. Resting and relaxing are key, as is eating well. This lesson was difficult for me to learn. During and after college, I struggled to balance my exercise regimen, eventually taking a prolonged break. A few years later, when I made my way back into an exercise routine, I took it easy on myself: I avoided fitness forums and stopped worrying about optimizing my workouts. I made sure my routine was enjoyable and sustainable, and I didn't use supplements. I make sure to rest for as long as I exercised, and I relax between workouts. I listen to my body, drink water when I'm thirsty, and eat balanced meals. And I certainly don't buy anything from Tom Brady. ***Medium***

More From "Good to Go"

From sports drinks to protein powders, from compression therapy to cupping — there's a whole industry of products and services designed to help us adapt to and recover from exercise. But does any of it work? That's the question science writer Christie Aschwanden set out to answer in her new book, Good to Go: What the Athlete in All of Us Can Learn from the Strange Science of Recovery. A former high school and college athlete, Aschwanden is the lead science writer for the website fivethirtyeight and was previously a health columnist for The Washington Post. She notes that recovery wasn't given much consideration back when she was coming up. Now, however, times have changed and recovery is "something that you do — and almost with as much gusto as the workouts themselves," she says. Aschwanden's book examines the physiology behind different recovery methods and also offers an assessment of their effectiveness. Ultimately, she notes, the best form of recovery may be an old-fashioned one: listening to your own body. "The most important skill that any athlete can develop is a sense of how their body is responding to exercise," she says. "How they're responding to their workouts; how they're feeling; what it feels like for them to be recovered or underrecovered."

Interview Highlights

On sports drinks that have electrolytes

"Electrolytes" is just a scientific name for salts. These are things that we get in all of the food that we eat. ... And so, the idea is that when you're exercising, you're sort of creating these extraordinary needs, and ... so you need to replace these salts that you're sweating out. When you sweat, you do lose some salts. You lose fluids. So the idea behind sports drinks is that they're replacing those. … There are products now that will promise to find your individual sweat rate and individual salt-loss rate, but it turns out you don't need a scientist looking over your shoulder to figure out how much you need to drink, or how much salt you need after exercise. Our bodies have this really sophisticated mechanism for helping us determine this — and it's called thirst.

On the danger of overhydrating

We've been given this message for so long — and so much of it is marketing — this idea that ... you have to always be drinking and hydrate, hydrate, hydrate. But it turns out that this just isn't true. This idea and this concept that we have to be drinking even when we're not thirsty has led to this problem that can actually be deadly. It's called hyponatremia. It's also called water intoxication, but this is something where people drink too much water and they end up diluting their blood to the point where they have all sorts of issues, including your brain can swell. And it can actually be fatal. … I don't want to make anyone feel like, "Oh, my gosh, I just drank a glass of water, was I really thirsty? Like, am I going to get hyponatremia and die?" That's not what we're talking about. And we're talking about people who are drinking on the order of, like, multiple glasses of water per hour — in particular, while exercising. But really, if you're not thirsty you don't need to drink. It really is that simple. There have been multiple people now who have died in marathons from drinking too much.

TrainSmarter

More From "Good to Go" (cont'd)

And one of the things that makes this really scary is that some of the symptoms of overhydration look very similar to the things that we think of as being symptoms of dehydration. So for instance, dizziness, confusion, fatigue things like this. And so, in some cases, what's happened is you have someone who collapses at a race and they're given an IV and given more fluids, which is exactly the wrong thing at that point for them.

On the genesis of Power Bars and what to eat after a workout

Really the idea in the beginning was to create a food that would be convenient for athletes — something to eat after a workout that was easy to grab, easy on the stomach and all of that. But in the intervening years, there's been sort of this push to think that this is absolutely the necessary thing that you must eat, and that there must be some important component or some important nutrient ... that you really need. … There's nothing inherently wrong with these products — I'll just say that upfront. They tend to have pretty good nutrients and ingredients for what you need after a workout. But there's nothing particularly special about them either, except that they're convenient. ... You can have an energy bar or you could have a banana, or you could have a peanut butter and jelly sandwich — which apparently is the food of choice in the NBA. ... But the idea that you have to have something that's a packaged product just doesn't hold water.

On icing after workouts to reduce soreness

The idea behind icing is that it's a way to reduce inflammation. When you ice something, you are reducing the blood flow to that area. So basically, if your extremity gets cold, your body sort of shunts the blood into the core to try and keep you warm. During this time, when the blood flow is less to that area, you're getting less circulation of these inflammatory things that are part of the inflammatory process. The idea here is that you're going to reduce inflammation and that was, for a long time, really considered a good thing. ...

Now the thinking [in terms of icing to reduce soreness] is really changing. ... We've learned that inflammation is actually a really important part of the training response. If you are doing exercise in hopes of getting fitter, faster, stronger, you really need inflammation. You need that inflammatory process. You need your immune system bringing in these inflammatory things that are coming in to make those repairs. So the inflammation process is actually the repair process. Without it, you're not going to get the same adaptations to exercise that you would otherwise.

On the problem with taking ibuprofen before and after a workout

It's really common that athletes will take it prophylactically. So they'll take it before a workout or before a race even. One scenario where it's really popular is among ultramarathoners. So these are people that are running, say, 50 or 100 or even more miles, and they will take these drugs during the event or before.

Inflammation is your friend. If you're working out, that is how your body repairs itself.

I remember back in my high school track days, one of my teammates was popping ibuprofen before practice every day. And I know now after researching this book that that's a pretty bad idea. And there are a couple of reasons for that. The first is that again, [in terms of exercise], inflammation is your friend. If you're working out, that is how your body repairs itself. So there's actually some pretty intriguing evidence that taking ibuprofen can impair the repair process from an injury. And that refers both to the type of microinjury that you get from a hard workout — the little damage to your muscle that your body comes in and repairs, and that's what makes you stronger. But also to injuries like, say, a sprained ankle and things like this. So taking a nonsteroidal anti-inflammatory drug or taking ibuprofen can actually impede the healing process. I don't think anyone wants to do that.

At the same time, I will say, though, if you're in a lot of pain these are really good painkillers. And that's probably a good reason to take it. But you want to limit it, and ... you only want to take it when you really, really need that pain relief — and not [with] an expectation that you're going to feel pain. NPR

MARCH 1, 2019

TrainSmarter

Not Another Diet—Principle 1

This is the first in a series of articles that I found thought-provoking and a great way to approach eating.

The meal isn't over when I'm full. It's over when I hate myself.

As funny as that Louis C.K. quote is, he's revealing a deeper truth. We don't know how much to eat, not to nourish ourselves or satisfy our hunger.

It's not terribly surprising and not a personal failing. We are overfed at every turn. Some of us starting with our parents, at gatherings, certainly at restaurants, parties, our partners, you name it. We have grown accustomed to outsize portions to the point where we are no longer in touch with our own sense of hunger and fullness.

We weren't meant to be constantly suggested to eat, we evolved as animals scavenging and hunting for food. Calories were scarce and it was imperative they be consumed quickly and plentifully. Now calories are abundant and we still eat this way. You probably know this, but it's worth repeating. We live in a world unsuited to our evolutionary purpose.

In experiments done on how over consumption happens, larger plates and servings were accurate determinants of people's eating. Meaning the more we are offered, the more we eat. Our sense of fullness plays much less of a role than we think.

That's where these principles come in, they are defense to the endless cues to eat and overeat. We can't always change the world, we can develop strategies to cope with our own consumption.

'Eating to eliminate hunger' was the starting point in my own weight loss journey and I use it every time I eat out, eat a calorie dense food, or am served food by another person. It's an ideal technique for coping with any situation where I am not in charge of my own serving size.

I had an inkling my own innate sense of hunger and how much to eat to satiate that hunger were broken after years of outsized portions, and I was right. This principle is the reset button on your automatic consumption. I encourage you to use it at every meal for as long as it takes to get reacquainted with proper portion sizes and actual hunger.

The question am I still hungry (?) is a powerful tool to naturally reset your sense of fullness and to create awareness of your current consumption before it gets out of hand.

Here's how I use it: I make a note of my hunger before I order or make my food. Am I ravenous (then I grab a handful of walnuts to tamp down the hunger a bit) or just a little hungry? I prepare or order accordingly and then about a third to halfway through consumption I ask myself the same question again. Take a drink of water, put down your fork and pause.

If the answer is no, box up the rest as soon as possible. If the answer is yes, eat until the hunger is gone.

Why not to eat to fullness? It's not as accurate a measurement as a lack of hunger. Full is often, "I ate too much" and the idea is to interrupt that process repeatedly and automatically.

I give myself permission to eat whenever I feel hungry (not peckish, hungry) and you should too. It's both a way of feeling fine about stopping eating even though there is food left on your plate and a reasonable way to tune into your real hunger.

I also like this principle because it diminishes the endless, complicate dialog about 'good' and 'bad' foods. If you should so happen to order a big bowl of ramen or a cheeseburger (I'm not suggesting these are weight loss foods, I am suggesting these things happen from time to time), this is a great way to enjoy it without over consuming.

If you are not able to eat these foods without finishing every bite then they need to come off your menu for good. I'll address that in another principle.

In the meantime, focus on this one idea at every meal, am I still hungry?

Make sure it's an exploration of the self and not another judgement. It's fine to be both hungry and not hungry. I want you to better understand yourself, not find a new avenue for criticism. ***Rebecca Thomas, MEDIUM***

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Healthy Brunswick Stew

Winter's not over yet! This will be perfect for next week. Brunswick Stew always makes me think of my mama.

1 Tablespoon olive oil
1 onion, chopped
2 cloves garlic, minced
2 carrots, chopped
3/4 cup celery, chopped
2 small red skinned potatoes, chopped
2 cups frozen corn, rinsed and drained
1 cup frozen lima beans, rinsed and drained
1 28 oz can diced tomatoes
1 32 oz carton low sodium chicken broth
1 teaspoon dried parsley
1 bay leaf
2 Tablespoons worcestershire sauce
2 1/2 cups shredded chicken
1 teaspoon salt
1 teaspoon pepper
1/2 teaspoon hot sauce
fresh parsley, for garnish
hot sauce, for serving

Heat oil over medium heat in a large casserole pan/dutch oven. Add onion and garlic to the pan and sauté until fragrant and soft. Add in carrots, celery and potatoes, canned tomatoes, broth, corn, lima beans, worcestershire sauce, parsley, bay leaf, salt, pepper and hot sauce. Bring mixture to a boil, then reduce heat simmer for 30-45 minutes or until potatoes are tender. Stir occasionally. Remove bay leaf and add in shredded chicken, stir to combine and cook an additional 5 minutes or until chicken is heated through. If stew seems too thin, you can mash up some of the potatoes with a fork to create a thicker broth. If the stew is too thick, you can add more chicken broth or water, starting with 1/2 cup.

Once stew is ready to serve, place in bowls and garnish with fresh parsley. Serve with hot sauce so everyone can add as much or as little spice as they like. ***Serving Size: About 1 1/2 cups*** *eatingbirdfood.com*

Calories: 273
Sugar: 9g
Fat: 5g
Carbohydrates: 31g
Protein: 20 g