



INFORMATION  
YOU NEED ABOUT:  
WELLNESS

# THE GUIDE



**HEAD** PAGE 50

**BODY** PAGE 56

**HEART** PAGE 54

**LIFE** PAGE 58

**LIVER** PAGE 60

**STOMACH** PAGE 48

## All Systems Go

Changing your life—really changing it—demands an aggressive strategy. If you're going to beat stress, eat like an athlete, maintain an adventure-ready body, and live longer and better, you need to play to win. Here's your game plan.



## LIFE

# The Age of Adventure

Longevity guru Dan Buettner has a plan to add 12 years to your life. But is it worth it if you have to give up what you love most? BY STEPHANIE PEARSON

The longevity king is bonking. We're seven miles into a ten-mile Rollerblading circumnavigation of Minneapolis's urban lake chain when he pulls off to sprawl on a park bench. A diehard Minnesotan, Dan Buettner, 49, author of the bestselling *The Blue Zones: Lessons for Living Longer from the People Who've Lived the Longest*, is crazy for the low-impact, joint-friendly sport and couldn't care less that, outside of Paris, it's gone the way of the mullet. It's a different longevity rule—slowing down to deal with stress—that Buettner is struggling with this morning. After a furiously paced 20 hours of work, which began yesterday at 7 A.M. and ended this morning at 3 A.M., he's feeling the burn.

Last night, Buettner hosted a dinner party celebrating the Vitality Project, in which he's applying the nine lessons in *The Blue Zones* to the residents of Albert Lea, a former meat-packing town 90 minutes south of Minneapolis. Funded by the United Health Foundation and AARP, the program's ambitious goal is to add a collective 10,000 years of life expectancy to its 18,000 residents.

"Everybody has to sit by someone they don't know!" Buettner proclaimed at dinner. As the sun set over Lake of the Isles in front of his house, a dozen or so guests—including the project's co-director, Brian Wansink, a Cornell professor and the author of *Mindless Eating: Why We Eat More Than We Think*; Hollywood director Rob Perez, in town to film his comedy *Nobody*; and Horst Rechelbacher, the Austrian founder of

Aveda—dined on seafood and a heaping platter of roasted vegetables accompanied by cannonau, a Sardinian red wine with triple the age-fighting antioxidants of other varietals. Then Buettner brought out the Patrón Silver.

"After last night's tequila, you could just lick my arm and suck a lime," Buettner jokes. "I may be a conduit for what the longest-lived people do, but I'm not the emblem. Don't necessarily do as I do; do as I say!"

What Buettner says can be boiled down to nine main prescriptives he and a team of researchers culled from a six-year project in the four places in the world—Loma Linda, California; Okinawa, Japan; Sardinia, Italy; and Costa Rica's Nicoya Peninsula—where the population hits age 100 at an impressively high and healthy rate. These "Power 9," as he's dubbed them in familiar self-help jargon, are as follows: (1) Move naturally. (2) Eat until you're 80 percent full. (3) Base your diet on whole grains, beans, garden vegetables, and nuts, while avoiding meats and processed foods. (4) Drink red wine in moderation. (5) Have a *plan de vida*, or purpose. (6) Participate in a spiritual community. (7) Make family a priority. (8) Surround yourself with people who have similar values. (9) Take time to relieve stress.

While most of the individual prescriptives in *The Blue Zones* might seem intuitive, the book's surprising thesis is what has made it a bestseller. For years, conventional wisdom held that longevity was mostly a result of genetic luck; if your parents passed away in their



sixties, you probably weren't going to be blowing out candles at age 90, either. *Oh, well, pass the butter!* But Buettner's book argues that we have a lot more control over our life span than we once thought.

"Genes dictate as little as 10 percent of our life expectancy," he says. "The populations I've studied live longer because of lifestyle." In fact, according to Buettner, if the average American practiced the Power 9 for most of his life, he could live an additional 12 healthy years.

Since his book debuted in 2008, Buettner has become America's go-to longevity guy, a regular on shows from *Good Morning America* to *Oprah* to *Dr. Oz*, and a guru to a generation of rapidly aging boomers. But if you're thinking that

most of what Buettner advises doesn't apply until you turn 50, he's here to correct you.

"We age exponentially," he warns. "The technical definition of aging is a buildup of molecular and cell damage. When your cells reproduce every eight years, the damage doubles." Do the math and you'll find that a 35-year-old has almost four times as much damage as a 20-year-old.

Making choices in your twenties and thirties, in other words, is just as important as it is when you hit your golden years. The question is, what exactly do you have to give up?

FOR STARTERS, Buettner advises you take a hard look at some of your favorite sports. Most blue-zone centenarians

## Myth: Immunity

DAILY VITAMIN C SUPPLEMENTS BOOST YOUR IMMUNE SYSTEM. Actually, the Institute of Medicine recommends just 90 milligrams of Vitamin C a day for men and 75 milligrams for women, and most health professionals say you can get that from natural sources like citrus and raw red bell peppers. Vitamin C, a.k.a. ascorbic acid, was made famous as an illness preventative in the sixties by Nobel laureate Linus Pauling, who reportedly took 12,000-milligram megadoses. But Vitamin C is water-soluble, meaning the legendary chemist was peeing out most of that. There is research suggesting that taking larger doses at the onset of a bug might shorten the length and severity of your sickness, which is why popular elixirs like Emergen-C and Airborne boast 500- to 1,500-milligram blasts of Vitamin C. Just know that you're buying in to disputed science: Airborne paid \$23 million to settle a 2008 class-action lawsuit challenging the product's claim that it prevents colds. —J.L.S.



From far left, Buettner and centenarians from Costa Rica and Okinawa

have led active lives, but exercise was a natural part of their day, like walking the hills as a shepherd or growing their own food in a garden. If those kinds of activities represent the middle of the spectrum, here in America we tend to focus on the opposing extremes, either spending too much time on the couch or abusing our knees running on asphalt. Skiing, running, playing contact sports, or participating in any other high-impact activity at an age when you're starting to see diminishing returns on your athletic efforts—right around 40—can wreak havoc on your body. These jarring sports can cause chronic inflammation, warns Buettner, a condition associated with every major age-related disease.

"If you keep up your extreme athleticism," Buettner says, "you'll be running up an incline that's getting steeper every year. I can't think of a centenarian who engaged in extreme sports for any given time over the course of his or her life."

To Buettner, there are no downsides to swapping your body-battering routine for a more sustainable one. "Rather than focusing on reliving your

youthful glory," he says, "focus on teaching the next generation how to climb."

Or expand your definition of "extreme." "Get really good at yoga," says Buettner. "Flexibility and joint health are essential as we get older."

"Get really good at yoga"? On this point, Buettner has provided a good model for Type A athletes to follow. The fit, six-two author earned his chops in his twenties and thirties as a world-class endurance athlete. In 1986–87, Buettner cycled from Alaska to Argentina. In 1990, he and his brother Steve cycled around the world, from their hometown of St. Paul, Minnesota, and back, via Europe and the Soviet Union. Then, in 1992, they set out again, this time going from Tunisia to South Africa. Buettner would eventually ride across six continents, earning three Guinness world records for endurance cycling. Starting in 1995, he spent a decade traveling the world with a host of experts, founding "Quests," a string of expeditions to solve scientific mysteries, harnessing the Internet to combine exploration with virtual classroom education. (In 2000 and 2001,

I worked as the team science writer for two Quests.)

But while he was in Okinawa, in 2000, Buettner became fascinated by the habits of centenarians he'd met. He went back in 2003 to pursue more longevity research, resulting in an award-winning 2005 cover story in *National Geographic*.

"I segued from extreme adventure to extreme other things," he says. "I've done 21 pretty hardcore expeditions, but I did a ten-day silent vipassana meditation retreat that was as hard as anything I've ever done."

Save for a few occasional vices, like tequila and black Twizzlers, Buettner's diet is relatively stringent, too. He starts the day with a fruit smoothie and organic whole-grain bread, takes vitamin C and fish oil, and makes sure he bares his chest in the sun as often as he can for a dose of vitamin D. (Scientists now say that 10 to 15 minutes of sun exposure without sunblock twice a week helps reduce rates of cancer, depression, and chronic pain.) For lunch and dinner, he eats beans, tofu, broccoli, seaweed, and anything leafy. "I don't buy meat for my house, but if it's served

elsewhere, I'll eat it," he says. And for a snack, nuts. Always nuts (almonds, pistachios, peanuts—any kind of nut will do).

Self-graded on his own Power 9, Buettner's report card looks like this: Move naturally, A+; eat until 80 percent full, B+; eat plant-based foods, B+; drink red wine in moderation, A+; have a purpose, A; participate in a spiritual community, B-; make family a priority, B+; surround yourself with the right people: A; downshift to relieve stress: B-.

As his stress-relief grade suggests, Buettner struggles with slowing down. He's trying to stay put to spend more time with his three kids, the youngest of whom has cerebral palsy. But there are distractions. Between new research, media engagements, meeting with editors, and networking, Buettner spends between five and 15 days a month on the road. "I'm not striving to get A's in everything," he says. "It's a mistake to impose hard rules on people. I don't walk around and say to myself, 'I'll live two days longer if I don't do this shot of tequila.' I don't have an overwhelming desire to live longer, but the Vitality Project



## WELLNESS

has been by far the most rewarding thing I've ever done."

INDEED, the changes Buettner and his makeover team instituted in Albert Lea have been transformative. For the statistically average American town—where 38 percent of the residents are overweight and 24.5 percent are obese—the Vitality Project volunteers organized 700 of the 4,217 participants into walking groups called *moais*, a term Buettner picked up in Japan that, loosely translated, means “a group of lifelong friends.” Those residents collectively walked more than 75 million steps. Additionally, volunteers completed a seven-mile path around Fountain Lake and planted 46 community gardens. The average participant lost three pounds, and health-care costs among city workers are down 48 percent from last year. Impressed, officials from 18 cities across the country, including Lincoln, Nebraska, and Nashville, Tennessee, are in talks with Buettner about turning their cities into blue zones.

At the start of the Vitality Project, in May, every participant answered questions in a scientifically formulated survey called the Vitality Compass, which spits out the person's projected date of expiration based on his or her lifestyle habits. In October, everyone took the test again. The average gain in life expectancy was 3.1 years.

No one would argue with the results the blue-zone tenets have had, but if there's a knock against Buettner, it's that he sometimes deals more in generalities than in hard data backed by rigorous scientific method. His methodology for *The Blue Zones* involved plenty of research, and the book is filled with evidence that backs his Power 9 findings. But Buettner isn't a scientist.

“There's nothing Dan is arguing that's wrong,” says Robert

## LIVER

### License to Swill

Turns out moderate drinking might not be preventive medicine after all. But that doesn't mean it's not good for you. BY WILL PALMER

Last June, a *New York Times* story reported on a growing debate over the long-held assumption that drinking alcohol in moderation—one or two drinks a day for men, closer to one for women—is good for you. The problem, say some scientists, is that studies showing such benefits as reduced risk of heart disease, diabetes, and dementia may simply demonstrate that people with healthy lifestyles tend to drink in moderation rather than not at all. There are only two areas of agreement. First, heavy drinking is bad for you—think obesity, liver disease, and cancers. Second, any heart-health benefits of moderate drinking, which include the promotion of good cholesterol, only really apply after age 45, when heart disease becomes a risk.

The occasional glass of wine or beer “isn't going to help anyone train,” says Carmichael. “But keeping their lifestyles enjoyable leads to long-term performance gains.”

So what does this mean for outdoor athletes, who've made après-adventure drinks as big a habit as morning coffee? Probably very little.

The reality is, we don't drink to fend off heart attacks. We drink because we enjoy it. Having a couple of cold ones with friends after a day on the mountain is a part of what gets us excited about coming back for more tomorrow. Which is why most coaches and sports nutritionists allow that moderate drinking can be part of an active and healthy lifestyle. “It

can be one of the social aspects of being an athlete,” offers Chris Carmichael, longtime coach of beer-loving Lance Armstrong. The trick is to pay the same close attention to your liquor as your pre-race meals.

Even elite athletes can benefit from the occasional drink. “Training involves a lot of physical and mental demands,” says Carmichael. The occasional glass of wine or beer “isn't going to help anyone train, but keeping their lifestyles enjoyable leads to long-term performance gains.”

To which we say, Salud!

### Race for the Cure

Does exercise remedy a hangover? Yes—and no.

#### Case Study No. 1:

SUBJECT: *Outside* editor Chris Keyes

SCENARIO: The morning after “roughly” five G&T's at senior executive editor Michael Roberts's wedding in Connecticut

SOLUTION: A five-mile road run  
RESULT: “The hardest part was getting my running shoes on. But three hours later, I looked fine for a visit to my in-laws.”

#### Case Study No. 2:

SUBJECT: Senior executive editor Michael Roberts

SCENARIO: The morning after “red wine and mucho tequila” at a wedding in New Mexico

SOLUTION: A five-mile trail run, following Keyes's suggestion  
RESULT: “Ouch! I hate Chris. I felt even worse.”

#### Analysis:

Hangovers are poorly understood, but the two main causes seem to be dehydration and excess acetaldehyde—a toxic leftover after your liver breaks down alcohol. Electrolyte-rich fluids can help offset the first problem, but no amount of exercise can accelerate your body's enzyme-powered cleanup after a bender. You can't “sweat it out.”

And yet, some light cardio can make you *feel* better. According to Pete McCall, an exercise physiologist with the American Council on Exercise, this might be due to increases

in dopamine, which alleviates pain, and adrenaline. Others suggest the simple emotional lift of being active. “It's part of my personal recovery protocol,” says Walter DeNino, a triathlon coach and president of Trismarter.com. “If an athlete gets relief from it, they should do it.” (But stay off your bike: Coordination can be affected for hours after you've sobered up.)

So why did a run help Keyes and not Roberts? Most likely because Keyes was better hydrated. But he also helped himself by avoiding darker liquors; whiskey, brandy, tequila, and red wine have higher levels of congeners, by-products of fermentation that can exacerbate hangovers. Says Roberts: “Whatever.” —JUSTIN NYBERG





## WELLNESS

Kane, director of the University of Minnesota's Center on Aging and a longtime consultant for *The Blue Zones*. "But he's more willing to say something should be done than I am, because I have a higher standard of empiricisms. For example, Dan pushes eating nuts. It's probably a much more complicated story than eating nuts. That's like saying if I wear Brett Favre's T-shirt I'll be a good quarterback."

The same could be said about his views on exercise. His theories don't always allow for gray areas. For example, Buettner's opinion on high-impact sports doesn't explain men like George Hirsch. The 75-year-old chairman of the board of the New York Road Runners recently ran the 2009 Chicago Marathon in 3:58:42. A month later he ran the New York City Marathon in 4:06:14.

"Scientists do need to have a higher level of empiricisms," Buettner says, "but they also told us that we should eschew butter for margarine. Now we find out that margarine has toxic trans fats. Science is not infallible. The beginning and end of my expertise is this: what



"Genes dictate as little as 10 percent of our life expectancy," says Buettner.

the world's longest-lived people do and suggestions on how to apply those principles to the lives of people."

NOW THAT Buettner has given us a road map for living to 100, he's turned his attention to another elusive human condition: happiness. His next book, *Thrive: How to Live Like the World's Happiest People*, comes out next fall. To research *Thrive*, he's applied the same technique he did

## Myth: Age

OLDER ATHLETES NEED MORE RECOVERY TIME

For years, coaches have devised training plans that presume we all need more downtime between intense workouts as we age. But while older athletes do face physiological limitations—a lower VO<sub>2</sub> max, for one—many guys in their forties and fifties can bounce back from a hard day just as quickly and completely as young guns with full heads of hair. Jim Rutberg, of Carmichael Training Systems, says this is because age is just one determinant of physical capacity, and it's frequently offset by lifestyle habits like earlier bedtimes, smarter nutrition, and fewer Red Bull—and—vodka. "Older athletes tend to be more stable and less stressed," he says. "When it comes to performance, age is less a factor than what's going on in the rest of your life."

—JUSTIN NYBERG

conclusion: "There's an inverse relationship between happiness and overaccomplishment."

That's interesting coming from an ambitious man who rates himself a nine on the happiness scale.

"If I had to boil happiness down to one key," Buettner tells me as we sit down to a post-Rollerblade dinner at a Thai restaurant a few blocks from his house, "it would be to surround yourself with the right people. Friends have a long-term, measurable, demonstrable impact on us. Are the ten people you spend most of your time with grateful? Are they trusting and trustworthy? Do they nudge you

**"IF YOU KEEP UP YOUR EXTREME ATHLETICISM," BUETTNER SAYS, "YOU'LL BE RUNNING UP AN INCLINE THAT'S GETTING STEEPER EVERY YEAR. I CAN'T THINK OF A CENTENARIAN WHO ENGAGED IN EXTREME SPORTS FOR ANY GIVEN TIME OVER THE COURSE OF HIS OR HER LIFE."**

with *The Blue Zones*, partnering with *National Geographic* and other researchers to identify the happiest places in the world, then studying the characteristics of the residents there to give readers prescriptive lessons on their behaviors.

A cynic could accuse Buettner of simply tapping into another American obsession to expand his franchise, but Buettner says he's been interested in happiness since the early eighties, when he interviewed George Plimpton for a story about Ernest Hemingway for *The Minnesota Daily*. In the story, Buettner pondered whether Hemingway, who'd had four wives and blew his brains out at age 61, was ever happy. His

toward physical activity? Do they make you laugh?"

If your friends don't have these qualities, Buettner advises you to be aware that they're having a toxic effect on you.

If Buettner has formulated a Power 9 for happiness, he doesn't divulge it this evening. Which is good, because I'm still floundering with his first Power 9. Right after I stick a forkful of delicious green-curry walleye in my mouth, Buettner motions for the hovering waiter to take my plate away. Apparently, he's noticed that I'm 80 percent full. **o**

CONTRIBUTING EDITOR STEPHANIE PEARSON HAS A B+ AVERAGE FOR THE POWER 9 OF LONGEVITY.