



Your Personal Blue Zone

Your Personal Blue Zone

Putting the Blue Zones Lessons to Work in Your Life

YOU'VE JUST READ STORIES ABOUT THE remarkable people of the world's Blue Zones. You've taken the time to get to know them and perhaps feel inspired by their experiences. Maybe you've noticed that the world's longevity all-stars not only live longer, they also tend to live better. They have strong connections with their family and friends. They're active. They wake up in the morning knowing that they have a purpose, and the world, in turn, reacts to them in a way that propels them along. An overwhelming majority of them still enjoy life. And there's not a grump in the bunch. But what does all this mean for you?

If you live the average American lifestyle, you may never reach your potential maximum lifespan. You might even

fall short by as much as a decade. But what if you could follow a simple program that could help you feel younger, lose weight, maximize your mental sharpness, and keep your body working as long as possible? Indeed, what if you could get back that extra decade of healthy life that you may unknowingly be squandering?

This chapter presents the “Power Nine”—the lessons from the Blue Zones, a cross-cultural distillation of the world’s best practices in health and longevity. While these practices are only associated with longevity and don’t necessarily increase it, by adopting them you’ll be adopting healthy habits that should stack the deck in your favor.

FIRST STEPS

Start down the road to longevity

To begin, go to the Blue Zones website at www.bluezones.com. There, you’ll find the the Vitality Compass™, a tool that asks you 33 questions and, based on your answers, calculates 1) your potential life expectancy at your current age, 2) your healthy life expectancy—the number of good years you can expect to live, 3) the number of extra years you’re likely to gain if you optimize your lifestyle, and 4) a customized list of suggestions to help you with that plan. Completing the Vitality Compass™ is the first step to figuring out where you are on your personal longevity journey.

The second step is to create a pro-longevity environment—your own personal Blue Zone—in your home. The goal will be to make positive behaviors convenient and, in some cases, unavoidable. Our strategies will put you in the

way of pro-longevity practices so that if you make the effort now, you won’t have to think about it later. We’ll recommend nine deceptively simple but powerful things you can do today to create a lasting Blue Zone in your own life. They’re designed to reinforce the lessons you’ve learned in this book without your having to keep track of anything.

The Power Nine covers the following life domains: What to *do* to optimize your lifestyle for a longer, healthier life; how to *think*; how to *eat*; and how to build *social relationships* that support your good habits. These lessons are patterned after the lifestyles of Blue Zones centenarians but modified to fit the Western lifestyle.

Research shows that if you dedicate yourself to a new practice for as little as five weeks, the practice is more likely to become a habit. (Another school of thought, called Relapse Prevention, suggests that for indulgent or addictive behaviors—overeating, gambling, drug use—the first three months of the initial change in behavior are crucial. If you make it past those first 12 weeks, your chances of relapse are greatly reduced.) So there’s probably a time frame for behaviors to become habitual that ranges from 5 to 12 weeks.

Dr. Leslie Lytle of the University of Minnesota, a registered dietitian with a Ph.D. in health behavior, says that all of the habits we’re recommending are relatively easy to adopt once you commit to making them work. She offers this advice to help you succeed: Pick the low-hanging fruit. All nine lessons offer the chance to gain more good years, so pick the ones that are easiest to do first. For example, try something you may have been successful at doing in the past. If you could do it then, focusing on it now might

be easier. Another tip: Don't try more than three secrets at a time. If you work on all nine once, you'll be more likely to fail. Start with three that have the best chance of success, and then gradually add more as a pattern of success emerges. Lytle also recommends that you enlist a friend or family member in your program. If you hold each other accountable to a 12-week goal, you'll have a greater chance of succeeding. Remember to reward yourself, she says. Don't focus on your slip-ups; behavior change is hard at first. Focus on your small victories and celebrate them!

At first blush, this à la carte approach may seem too easy to work. But it reflects what current research tells us about effective long-term behavioral change. We're not proposing a timed program in this book because many people find it difficult to follow a highly prescriptive plan. Our lives are busy and often complicated, and a rigid plan with weekly goals may be too difficult to follow.

Early successes help keep us motivated, while early failure can make anything too difficult. If a nine-week program demands that you do something as simple as walk ten minutes a day during the first week, but you know you have trouble walking or you live in a neighborhood where you don't feel comfortable, you may not be able to succeed at that small change, and the whole plan may fall by the wayside. Even if we are committed to change, failing early can lead to discouragement and quitting.

Our approach allows you to pick and choose among the strategies that most appeal to you from the start. We emphasize changing your environment to help shape good habits. See where you can make small changes that will

help create your Blue Zone. It's much easier to maintain healthy habits if your environment is set up for them.

LESSON ONE: MOVE NATURALLY

Be active without having to think about it

Longevity all-stars don't run marathons or compete in triathlons; they don't transform themselves into weekend warriors on Saturday morning. Instead, they engage in regular, low-intensity physical activity, often as part of a daily work routine. Male centenarians in Sardinia's Blue Zone worked most of their lives as shepherds, a profession that involved miles of hiking every day. Okinawans garden for hours each day, growing food for their tables. Adventists take nature walks. These are the kinds of activities longevity experts have in mind when they talk about exercising for the long haul. "The data suggests that a moderate level of exercise that is sustained is quite helpful," says Dr. Robert Kane.

An ideal routine, which you should discuss with your doctor, would include a combination of aerobic, balancing, and muscle-strengthening activities. Dr. Robert Butler recommends exercising the core muscle groups at least twice a week. Balance is also important since falls are a common cause of injuries and death among seniors (in the U.S.A., about one in three adults over age 65 falls each year). Just practicing standing on one foot during the day (maybe when brushing your teeth) would be a small step toward improving your balance.

Yoga, when done properly, will help increase balance. It also strengthens all muscle groups, increases flexibility, is

good for your joints, and can lessen lower back pain. It may also provide the same kind of social support and spiritual centering that religions do.

In all longevity cultures, regular, low-intensity activity satisfies all of the above, while going easy on the knees and hips. Dr. Kane says the name of the game here is sustaining the effort. “You’ve got to be a miler, not a sprinter. You can’t say, ‘This year I’m really going to exercise like hell, and I can take it easy next year because I’ve done my exercise.’” The overall goal is to get into the habit of doing at least 30 minutes (ideally at least 60 minutes) of exercise at least five times a week. It doesn’t have to be all at once, although that seems to be better.

LESSON ONE STRATEGIES

To get moving in your Blue Zone, try some of these tips.

Inconvenience yourself.

By making life a little tougher, you can easily add more activity to your days. Little things, like getting up to change the channel or taking the stairs, can add up to a more active lifestyle. Get rid of as many of the following as possible: TV remote control, garage door opener, electric can opener, electric blender, snow blower, and power lawn mower. Be ready to use as many of these as possible: bicycle, comfortable walking shoes, rake, broom, snow shovel.

Have fun. Keep moving.

Make a list of physical activities you enjoy. Rather than exercising for the sake of exercising, make your lifestyle active. Ride a bicycle instead of driving. Walk to the store. At work, take a walking break instead of a coffee and donut break. Build activity into your routine and lifestyle. Do what you enjoy. Forget the gym if you don’t like it—you’re not likely to go there if it’s a chore. Don’t force yourself to do things you dislike.

Walk.

This is the one activity that all successful centenarians did—and do—almost daily. It’s free, easier on the joints than running, always accessible, invites company, and if you’re walking briskly, may have the same cardiovascular benefits as running. After a hard day, a walk can relieve stress; after a meal, it can aid digestion.

Make a date.

Getting out and about can be more fun with other people. Make a list of people to walk with; combining walking and socializing may be the best strategy for setting yourself up for the habit. Knowing someone else is counting on you may motivate you to keep a walking date. A good place to start is to think, whose company do I enjoy? Who do I like to spend time with? Who has about the same level of physical ability?

Plant a garden.

Working in a garden requires frequent, low-intensity, full-range-of-motion activity. You dig to plant, bend to weed, and carry to harvest. Gardening can relieve stress. And you emerge from the season with fresh vegetables—a Blue Zones trifecta!

Enroll in a yoga class.

Be sure to practice it at least twice weekly.

LESSON TWO: HARA HACHI BU

Painlessly cut calories by 20 percent

If you’re ever lucky enough to eat with Okinawan elders, you’ll invariably hear them intone this Confucian-inspired adage before eating: hara hachi bu—a reminder to stop eating when their stomachs are 80 percent full. Even today, their average daily intake is only about 1,900 calories (Sardinians traditionally ate a similarly lean diet of about 2,000 calories a day).

Dr. Craig Willcox postulates that this simple but powerful practice may amount to a painless version of caloric restriction—a strategy that has been shown to prolong life in laboratory animals and has been associated with better heart health in humans. Some of the benefits of cutting calories may lie in reduced cellular damage from free radicals. But there's another happy by-product: You lose weight. Losing just 10 percent of one's body weight helps to lower blood pressure and cholesterol, which reduces the risk of heart disease. But how do we achieve this? Most of us don't live on a Japanese archipelago or surrounded by thousand-year-old cultural norms.

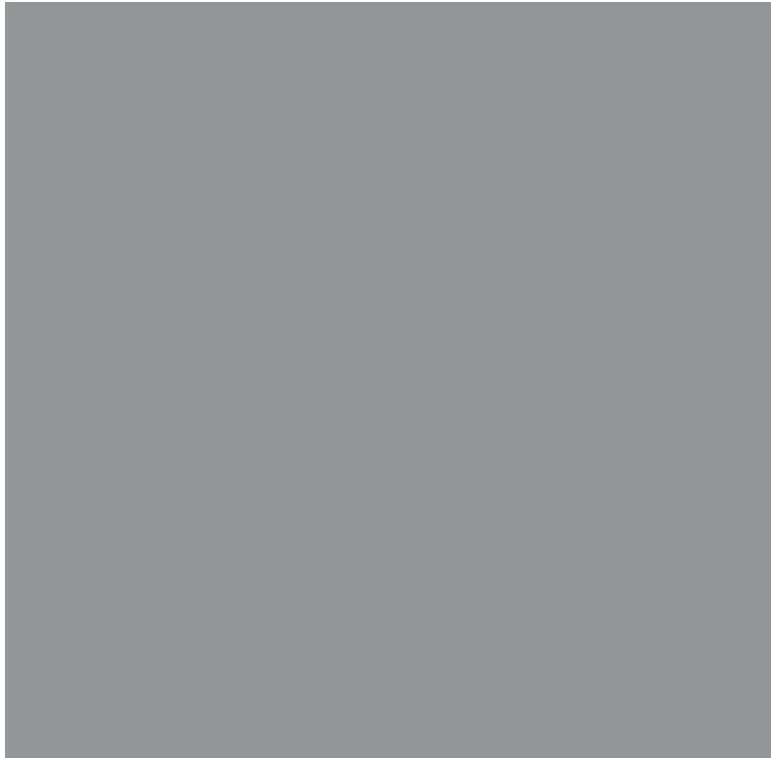
Our traditional solution for an expanding waistline is to start a diet. None of the centenarians we met were ever on a diet, and none of them were ever obese. “No diet yet studied works for most people,” says University of Minnesota's Dr. Bob Jeffery. “You can get a diet to work for about 6 months, and then about 90 percent of all dieters run out of gas.” Even the best programs are effective in the long run for only a small percentage of participants.

A secret to eating right for the long run is emulating the environment and habits of the world's longest-lived people. Dr. Brian Wansink, author of *Mindless Eating*, is conducting perhaps the most innovative research on what makes us eat the way we do. As Okinawan elders instinctively know, the amount of food we eat is less a function of feeling full and more a matter of what's around us. We overeat because of circumstances—friends, family, packages, plates, names, numbers, labels, lights, colors, candles, shapes, smells, distractions, cupboards, and containers.

In one of Wansink's experiments, he invited a group of people to view a tape and gave each one either a one-pound bag of M&Ms or a half-pound bag of M&Ms to eat as they pleased. After the video, he asked both groups to return their uneaten portions of candy. Those given a one-pound bag ate an average of 137 M&Ms, while those given a half-pound bag ate only 71. We typically consume more from big packages. Wansink's lab examined 47 products in this experiment, and the same thing happened over and over. He also found that the size of the plates and glasses we use has a profound impact on how much we consume. About three-quarters of what we eat is served on plates, bowls, or in glasses. Wansink's experiments showed that people drink 25 percent to 30 percent more if they drink from a short, wide glass rather than from a tall, narrow one, and 31 percent more if they eat from a 34-ounce bowl compared to a 17-ounce one.

While most Americans keep eating until their stomachs feel full, Okinawans stop as soon as they no longer feel hungry. “There's a significant calorie gap between when an American says, ‘I'm full’ and an Okinawan says, ‘I'm no longer hungry,’” explains Wansink. “We gain weight insidiously, not stuffing ourselves, but eating a little bit too much each day—mindlessly.”

Most of us have a caloric “set point” of sorts, a level of calories we can consume each day without gaining weight. We tend to gain weight by eating just slightly beyond the caloric set point week after week. For most of us, the solution is to eat enough so that we're no longer hungry, but not so much that we're full. Wansink asserts that we can



Okinawans, like this 88-year-old fisherman, often remind themselves not to overeat.

eat about 20 percent more or 20 percent less without really being aware of it. And that 20 percent swing is the difference between losing weight and gaining it.

Food volume is only one part of the equation. The other is calories. A typical fast-food meal of a large hamburger, large fries, and a large soft drink contains nearly 1,500 calories. Craig and Bradley Willcox estimate that the average Okinawan meal has one-fifth the caloric density. In other words, a hamburger with fries and a heaping plate of Okinawan stir-fried tofu and greens may have the

same volume, but the Okinawan meal will have one-fifth the calories.

Most people are terrible at estimating how many calories they've eaten today, yesterday, or last week, Wansink cautions. Caloric content of food is typically underestimated by about 20 percent. The larger the meal, the worse the underestimation. In one of his studies, Wansink had people estimate how many calories were in a meal. It actually contained about 1,800 calories, but the average person's guess was around 1,000 calories. The trick to maintaining a healthy weight is to eat foods with low caloric density. If we look at our food and think it will fill us, it probably will. As Wansink writes, volume trumps calories.

LESSON TWO STRATEGIES

To help follow the 80 percent rule in your Blue Zone, try the following tips.

Serve and store.

People who serve themselves at the counter, then put the food away before taking their plate to the table, eat about 14 percent less than when they take smaller amounts and go back for seconds and thirds. Learn to recognize when you have enough on your plate to fill your stomach 80 percent.

Make food look bigger.

People who eat a quarter-pound hamburger that has been made to look like a half-pounder with lettuce, tomatoes, and onions feel equally full after eating. Students who drank a smoothie whipped to twice the volume with the same calories ate less for lunch 30 minutes later, and reported feeling fuller.

Use small vessels.

Drop your dinner plates and big glasses off at a charity, and buy smaller plates and tall, narrow glasses. You're likely to eat significantly less without even thinking about it.

Make snacking a hassle.

Avoid tempting foods. Put candy bowls, cookie jars, and other temptations out of sight. Hide them in the cupboard or pantry. Wrap tempting leftovers in an opaque container.

Buy smaller packages.

When given large packages of spaghetti, sauce, and meat, Wansink's subjects consumed 23 percent more (about 150 calories) than when they were given medium packages.

Give yourself a daily reminder.

The bathroom scale can be a simple yet powerful reminder not to overeat. Put the scale in your way so you can't avoid a daily weigh-in. In fact, weighing yourself is one of the most surefire ways to reduce your weight and keep it off in the long run. One study that followed 3,026 women who were trying to lose weight and keep it off found that after 2 years, women who weighed themselves daily lost an average of 12 pounds. Women who never weighed in actually gained an average of 5 pounds. In other words, at the end of 2 years, women who weighed themselves every day were (on average) about 17 pounds lighter than the women who never weighed themselves.

Eat more slowly.

Eating faster usually results in eating more. Slowing down allows time to sense and react to cues telling us we're no longer hungry.

Focus on food.

A guaranteed way to eat mindlessly is to do so while watching your favorite show on TV or while emailing a friend at the computer. If you're going to eat, just eat. You'll eat more slowly, consume less, and savor your food more.

Have a seat.

Many of us eat on the run, in the car, standing in front of the refrigerator, or while walking to our next meeting. This means we don't notice what we're eating or how fast we're eating it. Making a habit of eating only while sitting down—eating purposefully—better enables us to appreciate the tastes and textures of our food. We'll eat more slowly and feel more nourished when we're through.

Eat early.

In the Blue Zones, the biggest meal of the day is typically eaten during the first half of the day. Nicoyans, Okinawans, and Sardinians eat their biggest meal at midday, while Adventists consume many of their calories for breakfast. All Blue Zone residents eat their smallest meal of the day in late afternoon or early evening. Some Adventists believe that if you eat a big breakfast with the right ingredients (whole grains, fruits, milk, nut butter), you'll fuel your body for most of the day and have fewer cravings for sugary or fatty foods.

LESSON THREE: PLANT SLANT*Avoid meat and processed foods*

Most centenarians in Nicoya, Sardinia, and Okinawa never had the chance to develop the habit of eating processed foods, soda pop, or salty snacks. For much of their lives, they ate small portions of unprocessed foods. They avoided meat—or more accurately, didn't have access to it—except on rare occasions. Traditional Sardinians, Nicoyans, and Okinawans ate what they produced in their gardens, supplemented by staples: durum wheat (Sardinia), sweet potato (Okinawa), or maize (Nicoya). Strict Adventists avoid meat entirely. They take their dietary cues directly from Genesis 1:29 . . .

Then God said, "Behold, I have given you every plant yielding seed that is on the surface of all the earth, and every tree which has fruit yielding seed; it shall be food for you."

Indeed, scientists analyzed six different studies of thousands of vegetarians and found that those that restrict meat

are associated with living longer. Some people worry that a plant-based diet may not provide enough protein and iron. The fact is, says Dr. Leslie Lytle, that those of us over 19 years of age need only 0.8 grams of protein for every kilogram (2.2 pounds) of our weight, which for most of us would amount to only 50 to 80 grams (1.8 to 2.8 ounces) of protein daily.

“Our bodies can’t store protein,” she says. “Extra protein gets converted to calories, and if not needed for activity or to maintain our bodies, it eventually becomes fat. While we don’t need a lot of protein in our diets, we should eat some protein at every meal. Protein helps us feel fuller, and helps us avoid the peaks and valleys in our blood sugar levels that make us feel hungry.” Similarly, most of us (except premenopausal women) can get plenty of iron from fortified grains. Too much iron can actually be bad for us because it may play a role in generating oxygen-free radicals.

Beans, whole grains, and garden vegetables are the cornerstones of all these longevity diets. Sardinian shepherds take semolina flatbread into the pastures with them. Nicoyans eat corn tortillas at every meal. And whole grain is part of the Adventist diet. Whole grains deliver fiber, antioxidants, potential anti-cancer agents (insoluble fiber), cholesterol reducers, and clot blockers, plus essential minerals. Beans (legumes) also provide a cornerstone to Blue Zone meals. Diets rich in legumes are associated with fewer heart attacks and less colon cancer. Legumes are a good dietary source of healthy flavonoids and fiber (which can reduce the risk of heart attack) and are also an excellent nonanimal source of protein.

Tofu (bean curd), a daily feature in the Okinawan diet, has been compared to bread in France or potatoes in Eastern Europe, the difference being that while one cannot live by bread or potatoes alone, tofu is an almost uniquely perfect food: low in calories, high in protein, rich in minerals, devoid of cholesterol, eco-friendly, and complete in the amino acids necessary for human sustenance. An excellent source of protein without the side effects of meat, tofu contains a compound, phytoestrogen, which may provide heart-protective properties to women. In addition, phytoestrogen seems to modestly lower cholesterol and promote healthy blood vessels.

All of which is not to say that people who live a long time don’t eat meat: Festive meals in Sardinia include lots of meat. Okinawans slaughter pigs during lunar New Year festivals. And Nicoyans raise family pigs as well. But meat is typically eaten only a few times a month. And most warnings concern red meat or processed meat like bacon. Both Dr. Robert Kane and Dr. Robert Butler say that when establishing a diet, it’s important to balance calories between complex carbohydrates, fats, and proteins, minimizing trans fats, saturated fats, and salt.

“The key is taking in what you need and avoiding the extremes,” explains Dr. Kane. “You could go to a nonanimal diet, but an awful lot of vegetarians take in more cholesterol through cheeses and milk and various products than they ever would take in eating meat at a modest level.” Oddly, pork was common to three of the four Blue Zones diets. But it was not eaten regularly. Nuts are perhaps the most impressive of all “longevity foods.” Recent findings from a

large study of Seventh-day Adventists show that those who ate nuts at least five times a week had a rate of heart disease that was half that of those who rarely ate nuts. A health claim about nuts is among the first qualified claims permitted by the Food and Drug Administration. In 2003, the FDA allowed a “qualified health claim” that read: “Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.”

Studies have indicated that nuts may help protect the heart by reducing total blood cholesterol levels. In a large, ongoing population study from Harvard University’s School of Public Health, people who often ate nuts had lower risks of coronary heart disease than those who rarely or never ate nuts. The Adventist Health Study (AHS) showed that the person who ate nuts at least five times per week, two ounces per serving, lived on average about two years longer than those who didn’t eat nuts.

“We don’t know if there’s something magical in nuts or if it’s that people who are eating nuts are not eating junk food. But the positive effect is clear from the data,” says Dr. Gary Fraser, director of the AHS study. One explanation might be that nuts are rich in monounsaturated fat and soluble fiber, both of which tend to lower LDL cholesterol, he says. They are also relatively good sources of vitamin E and other possibly heart-protective nutrients. The best nuts are almonds, peanuts, pecans, pistachios, hazelnuts, walnuts, and some pine nuts. Brazil nuts, cashews, and macadamias have a little more saturated fat and are less desirable. But all nuts are good.

LESSON THREE STRATEGIES

Try these tips to incorporate more plants in your diet.

Eat four to six vegetable servings daily.

Blue Zone diets always include at least two vegetables at each meal.

Limit intake of meat.

The centenarians in the Blue Zones consume limited quantities of meat. To emulate their diet, try to limit serving meat to twice weekly, and serve no portion larger than a deck of cards.

Showcase fruits and vegetables.

Put a beautiful fruit bowl in the middle of your kitchen table. At the bottom of it, leave a note that reads “Fill Me.” Instead of hiding vegetables in the refrigerator compartment that says “Produce,” put them front and center on shelves where you can see them.

Lead with beans.

Beans are a cornerstone of each of the Blue Zone diets. Make beans—or tofu—the centerpiece of lunches and dinners.

Eat nuts every day.

The Adventist Health Study shows that it doesn’t matter what kind of nuts you eat to help extend your life expectancy. Caution: A 1-ounce serving of nuts typically ranges from 165 to 200 calories, so 2 ounces could be almost 400 calories.

Stock up.

Keep nuts available in your home, ideally in packages of two ounces or less. (You might want to store them in the refrigerator to keep oils fresh.) Or keep a can of nuts in the office for an afternoon snack, which may help avoid snacking right before dinner.

LESSON FOUR: GRAPES OF LIFE

Drink red wine (in moderation)

Epidemiological studies seem to show that people who have a daily drink per day of beer, wine, or spirits may accrue



Sardinians share a toast with glasses of Cannonau, a locally produced red wine that has higher concentrations of polyphenols.

some health benefits. But the secrets of the Blue Zones suggest that consistency and moderation are key. In Okinawa, it's a daily glass of sake with friends. In Sardinia, it's a glass of dark red wine with each meal and whenever friends meet.

A daily drink or two has been associated with lower rates of heart disease, but alcohol use has also been shown to increase the risk of breast cancer, for instance. It does appear to reduce stress and the damaging effects of chronic inflammation. What's more, having a glass of wine with a meal creates an "event," and thus makes it more likely you'll eat more slowly.

Red wine offers an extra bonus in that it contains artery-scrubbing polyphenols that may help fight arteriosclerosis. For an extra antioxidant bump, choose a Sardinian Cannonau. Beware, however, of the toxic effects of alcohol on

the liver, brain, and other organs—along with increased risk of accidents—when daily consumption exceeds a glass or two. In that case, the risks of drinking can outweigh any health benefits. A friend recently asked me if he could save up all week and drink 14 glasses of wine on Saturday night. The answer is no.

LESSON FOUR STRATEGIES

Introduce a glass of wine into a daily routine.

Buy a case of high-quality red wine.

The Sardinians quaff Cannonau in their Blue Zone. This variety might be hard to find in parts of the United States, but any dark red wine should do.

Treat yourself to a "Happy Hour."

Set up yours to include a glass of wine, nuts as an appetizer, and a gathering of friends or time with a spouse.

Take it easy.

A serving or two per day of red wine is the most you need to drink to take advantage of its health benefits. Overdoing it negates any benefits you might enjoy, so drink in moderation.

LESSON FIVE: PURPOSE NOW

Take time to see the big picture

Okinawans call it *ikigai*, and Nicoyans call it *plan de vida*, but in both cultures the phrase essentially translates to "why I wake up in the morning." The strong sense of purpose possessed by older Okinawans may act as a buffer against stress and help reduce their chances of suffering from Alzheimer's disease, arthritis, and stroke.

Dr. Robert Butler and collaborators led an NIH-funded study that looked at the correlation between having a sense of purpose and longevity. His 11-year study followed highly functioning people between the ages of 65 and 92 and found that individuals who expressed a clear goal in life—something to get up for in the morning, something that made a difference—lived longer and were sharper than those who did not. It was also reported that immediately following December 31, 1999, demographers saw a spike in deaths among elders. These older people, in other words, may have willed themselves to stay alive into the new millennium.

A sense of purpose may come from something as simple as seeing that children or grandchildren grow up well. Purpose can come from a job or a hobby, especially if you can immerse yourself completely in it. Claremont University psychologist Dr. Mihály Csíkszentmihályi best describes this feeling in his book, *Flow: The Psychology of Optimal Experience*. He defines flow as a Zen-like state of total oneness with the activity at hand in which you feel fully immersed in what you're doing. It's characterized by a sense of freedom, enjoyment, fulfillment, and skill, and while you're in it, temporal concerns (time, food, ego/self, etc.) are typically ignored. If you can identify the activity that gives you this sense of flow and make it the focus of your job or hobby, it can also become your sense of purpose.

A new activity can give you purpose as well. Learning a musical instrument or a new language gives you a double bonus, since both have been shown to help keep your brain sharper longer. “Exercising your brain is important,” says Dr. Thomas Perls of Boston University Medical School.

“Doing things that are novel and complex. Once you get good at them, and they are no longer novel, then you move on to something else. So you're kind of doing strength training for the brain, and that has been shown to decrease your rate of memory loss, and maybe even decrease the rate at which one might develop Alzheimer's disease.”

LESSON FIVE STRATEGIES

To realize your purpose, try the following tips.

Craft a personal mission statement.

If you don't have a sense of purpose, how do you find it? Articulating your personal mission statement can be a good start. Begin by answering this question in a single, memorable sentence: Why do you get up in the morning? Consider what you're passionate about, how you enjoy using your talents, and what is truly important to you.

Find a partner.

Find someone to whom you can communicate your life purpose, along with a plan for realizing it. It can be a friend, a family member, a spouse, a colleague—as long as it's someone who can help you honestly assess your plan and your successes.

Learn something new.

Take up a musical instrument or learn a new language. Both activities are among the most powerful things you can do to preserve your mental sharpness.

LESSON SIX: DOWN SHIFT

Take time to relieve stress

Sardinians pour into the streets at 5 p.m., while Nicoyans take a break every afternoon to rest and socialize with friends. Remember Ushi and her moai? They gather every

evening before supper to socialize. People who've made it to 100 seem to exude a sense of sublime serenity. Part of it is that their bodies naturally slow down as they have aged, but they're also wise enough to know that many of life's most precious moments pass us by if we're lurching blindly toward some goal. I remember watching Gozei Shinzato pause to watch a brilliant thunderstorm as she washed her breakfast dishes in Okinawa, and Sardinian shepherd Tonino Tola stop to take a long look over the emerald green plateaus below. He'd seen that same sweeping view for almost 80 years, yet still took time every day to appreciate it.

For Adventists, the Saturday Sabbath means many things. One is that the Sabbath can be a powerful stress reliever. From sunset Friday to sunset Saturday, Adventists create a "sanctuary in time" during which they focus on God, their families, and nature. They don't work. Kids don't play organized sports or do homework. Instead families do things together, such as hiking, that bring them together and make them feel closer to God. For the Adventists, it's a time to put the rest of the week in perspective and to lessen the din and confusion of everyday life.

The result seems to be a greater sense of well-being. But how does slowing down help you live longer? The answer may have something to do with chronic inflammation. Inflammation is the body's reaction to stress. That stress can come in the form of an injury, an infection, or anxiety. Small amounts of stress can be good—for fighting off disease, helping us heal, or preparing us for a traumatic event. But when we chronically trigger inflammation, our bodies can turn on themselves. Italian endocrinologist Dr. Claudio

Franceschi has developed a widely accepted theory on the relationship between chronic inflammation and aging. Over time, he believes, the negative effects of inflammation build up to create conditions in the body that may promote age-related diseases such as Alzheimer's disease, atherosclerosis, diabetes, and cardiovascular disease. Slowing life's pace may help keep the chronic inflammation in check, and theoretically, the related disease at bay.

Apart from such health benefits, this Blue Zone lesson does much to add richness to life. Slowing down ties together so many of the other lessons—eating right, appreciating friends, finding time for spirituality, making family a priority, creating things that bring purpose. I remember sitting one cloudy afternoon with Raffaella Monne in the Sardinian village of Arzana. Outliving most of her children, this woman had enjoyed a full life; at age 107, she stayed in her home for much of the day, venturing out to a nearby plaza some afternoons. Though she could only muster a whisper, her loving, serene demeanor attracted people. Children would make a point of visiting her on their way home from school.

The day we met, Raffaella sat peeling an apple as I peppered her with dozens of questions about her diet, level of physical exercise, the relationship to her family, and so forth. Her answers were laconic and unrevealing. Finally, exasperated, I asked her if after 107 years she had any advice for younger people. She looked up at me, eyes flashing. "Yes," she shot back. "Life is short. Don't run so fast you miss it."

Once again, though, we're confronted by an environmental catch-22. In the Western world, accomplishment, status, and material wealth are highly revered and require most of our

time. Americans employed full time work on average 43 hours a week and take the shortest paid vacations in the industrialized world. Then when they do take time off, according to one source, 20 percent of them stay in touch with the office. We generally hold working and being productive in high regard; being busy often wins us esteem. Few cultural institutions exist to encourage us to slow down, unwind, and de-stress.

Finding time for our spiritual side can create a space to slow down, and practices like yoga and meditation can also give the mind a respite. Steve Hagen, who was ordained in the Soto Zen school of Buddhism and who wrote *Buddhism, Plain and Simple*, regards meditation as a cornerstone of slowing down. “Meditation provides us a mechanism to step out of the self-focus and find true freedom.”

Regular meditation can allow us to slow down our minds, ridding them of the incessant chatter in our heads. It focuses concentration and allows us to see the world as it really is, instead of how we imagine it to be. It sets up our day and helps us to realize that rushing, worrying, and the urgency we give to so many things in our lives really aren't so important. With that realization, all other strategies for slowing down come much easier.

LESSON SIX STRATEGIES

Use these tips to find a quiet space to slow down in your Blue Zone.

Reduce the noise.

Minimizing time spent with television, radio, and the Internet can help reduce the amount of aural clutter in your life. Rid your home of as many TVs and radios as possible, or limit them to just one

room. Most electronic entertainment just feeds mind chatter and works counter to the notion of slowing down.

Be early.

Plan to arrive 15 minutes early to every appointment. This one practice minimizes the stress that arises from traffic, getting lost, or underestimating travel time. It allows you to slow down and focus before a meeting or event.

Meditate.

Create a space in your home that is quiet, not too hot and not too cold, not too dark and not too light. Furnish the space with a meditation cushion or chair. Establish a regular meditation schedule, and try to meditate every day no matter what (but also not stressing out if you fail to do so). Start with 10 minutes a day, and try to work up to 30 minutes a day. Try to meditate with others occasionally.

LESSON SEVEN: BELONG

Participate in a spiritual community

Healthy centenarians everywhere have faith. The Sardinians and Nicoyans are mostly Catholic. Okinawans have a blended religion that stresses ancestor worship. Loma Linda centenarians are Seventh-day Adventists. All belong to strong religious communities. The simple act of worship is one of those subtly powerful habits that seems to improve your chances of having more good years. It doesn't matter if you are Muslim, Christian, Jewish, Buddhist, or Hindu.

Studies have shown that attending religious services—even as infrequently as once a month—may make a difference in how long a person lives. A recent study in the *Journal of Health and Social Behavior* followed 3,617 people for seven and half years and found that those who attended

religious services at least once a month reduced their risk of death by about a third. As a group, the attendees had a longer life expectancy, with an impact about as great as that of moderate physical activity.

The NIH-funded Adventist Health Study had similar findings. It followed more than 34,000 people over a period of 12 years, and found that those who went to church services frequently were 20 percent less likely to die at any age. It appears that people who pay attention to their spiritual side have lower rates of cardiovascular disease, depression, stress, and suicide, and their immune systems seem to work better.

Put generally, the faithful are healthier and happier. What's the rationale? In his book *Diet, Life Expectancy and Chronic Disease: Studies of Seventh-day Adventists and Other Vegetarians*, Dr. Gary Fraser cited several reasons to support this claim. People who attend church are less likely to engage in harmful behaviors and more likely to take on healthful behaviors. They were physically more active, less likely to smoke, do drugs, or drink and drive. People who attend church have a forced schedule of self-reflection, decompression, and stress-relieving meditation, either through regular prayer or from sitting quietly during religious services.

Belonging to a religious community can foster larger and denser social networks. People who attend services may have higher self-esteem and self worth because religion encourages positive expectations, which in turn can actually improve health. When individuals undertake and successfully act in ways prescribed by their roles, their self-concept and sense of well-being are reinforced. To a certain extent, adherence to a religion allows them to relinquish the stresses of everyday



Seventh-day Adventists worship at the University Church in Loma Linda, California.

life to a higher power. A code of behavior is clearly laid out before them. If you follow it, you have the peace of mind that you're engaging in "right living." If today goes well, perhaps you deserve it. If today goes poorly, it's out of your hands.

LESSON SEVEN STRATEGIES

To strengthen the spiritual dimension of your Blue Zone, try these tactics.

Be more involved.

If you already belong to a religious community, take a more active role in the organization. The longevity-enhancing effect may be a function of how you attend rather than the fact that you just attend. Getting involved in activities like singing in the choir or volunteering might enhance well-being and possibly reduce mortality.

Explore a new tradition.

If you don't have a particular religious faith, commit to trying a new faith community. If you don't subscribe to any specific denomination, or if you haven't found a positive religious experience, you may want to explore a belief that is not based on strict dogma. Unitarian Universalism, for example, is open to anyone who believes in the inherent worth and dignity of every person and in the acceptance and encouragement of each individual's own spiritual journey. Buddhism is another tradition to consider if you are looking for a religious community. There is also the American Ethical Union, which describes itself as a "humanistic religious and educational movement." The Union was inspired by the ideal that the supreme aim in life is to create a more humane society. Members join together in ethical societies to assist one another in developing moral ideas.

Just go.

Schedule an hour a week for the next eight weeks to attend religious services. Don't think about it. Just go, and do so with an open mind. Studies show that people who get involved with the service (singing hymns, participating in prayers or liturgy, volunteering) may find their well-being enhanced.

LESSON EIGHT: LOVED ONES FIRST

Make family a priority

The most successful centenarians we met in the Blue Zones put their families first. They tended to marry, have children,

and build their lives around that core. Their lives were imbued with familial duty, ritual, and a certain emphasis on togetherness. This finding was especially true in Sardinia, where residents still possess a zeal for family. I asked the owner of one Sardinian vineyard who was caring for his infirm mother if it wouldn't be easier to put her in a home. He wagged his finger at me, "I wouldn't even think of such a thing. It would dishonor my family."

Tonino Tola, the Sardinian shepherd, had a great passion for work, but told us, "Everything I do is for my family." In Nicoya, families tend to live in clusters. All 99 inhabitants of one village were descended from the same 85-year-old man. They still meet for meals at a family-owned mountaintop restaurant, and the patriarch's grandchildren still visit him daily to help him tidy up or just to play a game of checkers.

The Okinawan sense of family even transcends this life. Okinawans over 70 still begin the day by honoring their ancestors' memories. Gravesites are often furnished with picnic tables so that family members can celebrate Sunday meals with deceased relatives.

How does this contribute to longevity? By the time centenarians become centenarians, their lifelong devotion has produced returns: their children reciprocate their love and care. Their children check up on their parents, and in three of the four Blue Zones, the younger generation welcomes the older generation into their homes. Studies have shown that elders who live with their children are less susceptible to disease, eat healthier diets, have lower levels of stress, and have a much lower incidence of serious accidents. The

MacArthur Study of Successful Aging, which followed 1,189 people between the ages of 70 and 79 for more than 7 years, showed that elders who lived with their families had much sharper mental and social skills.

“Families represent the highest degree of social network,” says Dr. Butler. “Parents that give you a sense of reality, of how to behave healthwise, offer a sense of goals and purpose, and then if you become ill, or problems emerge, that basic support of family becomes incredibly important.” Much of life is making investments, he says. You make investments when you go to school and you get educated in a particular field. Investing in our children when they are young helps assure they’ll invest in us when we’re old. The payoff? Seniors who live with their families stay sharper longer than those who live alone or in a nursing home.

America is trending in the opposite direction. In many busy families with working parents and active kids, family time can become rare as everyone’s schedules become more and more packed with things to do. Shared meals and activities can drop off the daily routine, making time together difficult to come by.

How do you buck the trend? Gail Hartman, a licensed psychologist, believes the key is for all generations of a family to make a point of spending time together. “Successful families make a point of eating at least one meal a day together, taking annual vacations, and spending family time. Everything does not need to stop. Kids can be doing homework, and parents can be preparing dinner, but the point is that there is a ‘we-ness’ to the family.”

LESSON EIGHT STRATEGIES

These tips can help you create your family’s Blue Zone.

Get closer.

Consider living in a smaller house to create an environment of togetherness. A large, spread-out house makes it easier for family members to segment themselves from the group. It’s easier for families to bond and spend time together in a smaller home. If you live in a large home, establish one room where family members gather daily.

Establish rituals.

Children thrive on rituals; they enjoy repetition. Make one family meal a day sacred. Establish a tradition for a family vacation. Have dinner with Grandma every Tuesday night. Make a point to purposefully celebrate holidays.

Create a family shrine.

In Okinawan homes, the ancestor shrine is always displayed in the best room in the house. It showcases pictures of deceased loved ones and their important possessions. It serves as a constant reminder that we’re not islands in times but connected to something bigger. We can pick a wall to display pictures of our parents and children, or take annual family pictures and display them in progression.

Put family first.

Invest time and energy in your children, your spouse, and your parents. Play with your children, nurture your marriage, and honor your parents.

LESSON NINE: RIGHT TRIBE

Be surrounded by those who share Blue Zone values

This is perhaps the most powerful thing you can do to change your lifestyle for the better. For residents of the Blue Zones it comes naturally. Seventh-day Adventists make a point of associating with one another (a practice reinforced by their religious practices and observation of the Sabbath on Saturdays). Sardinians have been isolated geographically

in the Nuoro highlands for 2,000 years. As a result, members of these longevity cultures work and socialize with one another, and this reinforces the prescribed behaviors of their cultures. It's much easier to adopt good habits when everyone around you is already practicing them.

Social connectedness is ingrained into the world's Blue Zones. Okinawans have moais, groups of people who stick together their whole lives. Originally created out of financial necessity, moais have endured as mutual support networks. Similarly, Sardinians finish their day in the local bar where they meet with friends. The annual grape harvest and village festivals require the whole community to pitch in.

Professor Lisa Berkman of Harvard University has investigated social connectedness and longevity. In one study, she looked at the impact of marital status, ties with friends and relatives, club membership, and level of volunteerism on how well older people aged. Over a nine-year period, she found that those with the most social connectedness lived longer. Higher social connectedness led to greater longevity. Those with the least social connectedness were between two and three times more likely to die during the nine-year period of the study than those with the most social connectedness. The type of social connectedness was not important in relation to longevity—as long as there was connection. Even a lack of a spouse or significant other could be compensated for by other forms of connection.

A recent article in the *New England Journal of Medicine* showed just how powerful an immediate social network can be. Looking at a community of 12,067 people over a period of 32 years, researchers found that subjects were more likely

to become obese when their friends became obese. In the case of close mutual friends, if one became obese, the odds of the other becoming obese nearly tripled. It seemed the same effect occurred with weight loss.

“I think a superior social support network is one of the reasons that women live longer than men,” says Dr. Robert Butler. “They have better and stronger systems of support than men, they're much more engaged with and helpful to each other, more willing and able to express feelings, including grief and anger, and other aspects of intimacy.”

LESSON NINE STRATEGIES

Try these tips to build up the inner circle of your Blue Zone.

Identify your inner circle.

Know the people who reinforce the right habits, people who understand or live by Blue Zone secrets. Go through your address book or your contact list of friends. Think about which ones support healthy habits and challenge you mentally, and which ones you can truly rely on in case of need. Put a big “BZ” by their names. Ideally, family members are the first names on that list.

Be likable.

Of the centenarians interviewed, there wasn't a grump in the bunch. Dr. Nobuyoshi Hirose, one of Japan's preeminent longevity experts, had a similar observation. Some people are born popular, and people are naturally drawn to them. Likable old people are more likely to have a social network, frequent visitors, and de facto caregivers. They seem to experience less stress and live purposeful lives.

Create time together.

Spend at least 30 minutes a day with members of your inner circle. Establish a regular time to meet or share a meal together. Take a daily walk. Building a strong friendship requires some effort, but it is an investment that can pay back handsomely in added years.



Fumiyasu Yamakawa, 84, finds his ikigai, or purpose, in his daily exercises.

THE CHOICE IS UP TO US

I'd like to end this book with a tribute. The very first centenarian I met was a 112-year-old Seventh-day Adventist named Lydia Newton. At the time, she was one of the 35 oldest people on the planet. I traveled to the outskirts of Sedona, Arizona, to talk to her in the triple-wide mobile home that she shared with her 91-year-old daughter, Margarite. When I walked into the living room, Lydia was wearing a dress with embroidered lilies that she had sewn herself 70 years earlier.

"Now, what kind of dirt are they spreading about me?" she said by way of greeting and chuckled. I spent two days with her, asking her questions about her lifestyle (she started her day with buttermilk, oatmeal, and quiet prayer), listening to stories (she recounted a 107-year-old memory of a bull goring her father, including a description of the "crimson" blood staining his cotton shirt), and watching her as she carried out her everyday life. She and Margarite were best friends; they could sit and talk and find each other's company completely entertaining.

When I left, I asked if I could hug her. She said of course. As I bent down, nearing her face, I could see her veins through parchment-paper-thin skin. I embraced her, feeling the birdlike bones of her back, and felt the universal warmth of life within her embrace. It felt like hugging a delicate child.

"The way you live," I told her, "I'd be surprised if you don't make the Guinness World Records for the oldest person who ever lived."

"Oh, go on," she said with a wave of supreme indifference.

A few months into writing this book, I got a call from Margarite. Her mother had died. Lydia had peacefully dozed off and never woke up. She was the first of three centenarian friends I met while writing this book who died before I finished it. None of them wanted to die, but they didn't fear it either. They'd all mastered the art of life and accepted the inevitability of its end.

To me, they offered a lesson about decline. I know that our bones will soften and our arteries will harden. Our hearing will dull and our vision will fade. We'll slow down. And, finally, our bodies will fail altogether, and we'll die. How this decline unfolds is up to us. The calculus of aging offers us two options: We can live a shorter life with more years of disability, or we can live the longest possible life with the fewest bad years.

As my centenarian friends showed me, the choice is largely up to us.