Common knowledge tells us that we will live a long life if we eat a healthy diet, exercise regularly, keep our stress levels low, and don’t overwork ourselves. But in practice, this doesn’t always hold true. We’ve all known people who defied “healthy” principles, yet outlived others who ate their broccoli and jogged three miles every day.

How can we explain this? Is it simply a matter of genetic predisposition? Or are there other factors that are less obvious but still very powerful?

To learn more about aging and longevity, The Mind Health Report talked to Leslie Martin, Ph.D., a psychology professor at La Sierra University in Riverside, Calif. Martin is one of two researchers who analyzed an 80-year study of 1,500 male and female subjects to learn about aging and longevity.


The Longevity Project began when the boys and girls were around 10 years old and continued through the rest of the subjects’ lives. (A few are still alive.) According to Martin, too many people believe that our genes predetermine our life spans, when, in fact, they play only a minor role.

When it comes to living a longer and better life, it’s never too late to make changes, and there’s no need to follow a rigid to-do list.

“There are a lot of pathways to a long and healthy life,” Martin says.

Most importantly, it helps to understand the most common myths that the landmark study discovered and dispelled.

**MYTH 1: Only the Good Die Young**

In recent years, we’ve learned that maintaining social connections can enrich a person’s physical health. The Longevity Project also found that being in touch with friends and family and actively participating in groups can actually extend life.

But there’s another important discovery: Giving help to others is particularly beneficial — to the giver.

For example, you’re likely to live longer by participating in a book club. However, if you do something to actively help others, such as
volunteering with a library campaign to end illiteracy or giving underprivileged children more access to books, your odds of a longer life increase to an even greater degree.

Along with helping, other traits we think of as “good” include being thoughtful, treating others decently, not being careless, and taking good care of ourselves. All of these contribute to a longer life.

### MYTH 2: Cheerful People Live Longer

Martin and her colleagues were surprised to discover that day-to-day optimism actually can be a liability. Other, short-term studies had prompted researchers to believe that cheerful children would live longer.

However, examining 80 years of data showed that optimists can throw caution to the wind and take unnecessary risks, from driving too fast and eating too many doughnuts to ignoring a need to get a flu shot or wear seat belts.

“All of those little things, over a lifetime, actually add up to a substantial risk,” Martin says.

In contrast, some pessimism or a lack of cheerfulness can cause people to take more sensible precautions, and it did not correlate with shorter life spans.

Cheerfulness can be particularly beneficial in a crisis situation. When recovering from surgery or an illness, for example, optimistic individuals tend to put more effort into following treatment protocols that may be difficult or uncomfortable.

In those cases, pessimism could be discouraging, lowering the odds of success. But neither are rose-colored glasses aren’t the best prescription for everyday life.

### MYTH 3: Worry Leads to Early Death

Worry can be detrimental in extreme cases, in which it is constant, overriding, and needless. But productive or constructive worry also exists, and it contributes to a longer life.

In the positive sense, worry means weighing the consequences of decisions and actions, looking at the possible downside as well as the upside. In the case of an investment decision, for example, it would include a realistic look at risks as well as...
benefits, although it doesn’t mean always opting for “safest,” lowest-return option.

“Needless worry about things that are highly unlikely to happen, or worrying about things over which we have no control, can be counterproductive,” Martin says. “But productive worry prompts people to take precautions in regard to their health, for example.”

In the Longevity Project, the top 25 percent of worriers actually lived longer — though worry did not rule their lives. Among men (but not women) whose spouses died, those who scored low on the worry scale were 50 percent more likely to die, too, within a few years.

This could be because women traditionally are the caregivers who remind men to eat healthier meals or get medical check-ups. Men who rarely worry may be less likely to take over such caregiving tasks for themselves.

**MYTH 4: Married People Live Longer**

Being happily married bodes well for a long life. But what few people know is that being stably single is almost as good, particularly for women. This may be due to the fact that women tend to have closer relationships with family and friends.

Divorce shortens life somewhat, but it impacts men and women in different ways. Although it is certainly disruptive for both, men are affected more adversely if they don’t remarry, because a wife is often their only close confidant.

Women, on the other hand, live almost as long, regardless of whether they remarry, probably because of their stronger friendships with other women and family members.

**MYTH 5: Hard Work and Stress Will Kill You**

In fact, workaholics may live longer. In the study, some of the people who worked the hardest and the longest hours — and had jobs they were happy with — lived longest. However, Martin says, “If you’re in a job that you detest, working hard won’t help you.”

A longer life comes from hard work in activities that are at least somewhat meaningful and, ideally, involve something that a person is passionate about. In such a context, stress associated with striving to accomplish goals does not appear to be harmful — and may be beneficial.

People who had a clear sense of what they wanted to accomplish, and worked diligently toward their chosen goal, were not only more successful and stable but also lived longer, research showed. They also tended to feel a greater sense of

**You Can Improve Personality Traits**

Each of us has a unique personality that defines us — but that doesn’t mean there’s no room for improvement. “What we’ve recognized more and more over the last couple of decades is that personalities are not set in stone,” says Martin. “Changes can be made.”

To succeed, Martin recommends taking small, realistic steps. For example, if you want to be more responsible or to do things in a more planned, organized way, start by doing something simple.

If you’ve never backed up the hard drive on your computer but know you should, start doing a regular backup to keep your information safe. This type of action will set you on a more responsible course in other areas of your life as well.

However, don’t try to make a lot of changes at once, as that might prove too overwhelming. It’s better to make one change, get used to it, and then take on another.

It’s also helpful to associate with people who do or promote the types of actions you are trying to develop into habits.

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Leslie Martin, Ph.D., is a psychology professor and former department chairwoman at La Sierra University in Riverside, Calif., research psychologist at the University of California, Riverside, and adjunct professor in the Department of Psychology at Loma Linda University in California. She became a key researcher in the 80-year longevity study in 1991 at UC Riverside and is the co-author of a popular book describing the research results: *The Longevity Project: Surprising Discoveries for Health and Long Life from the Landmark Eight-Decade Study.*
The human brain is the single most magnificent system ever created. But this miraculous organ also can be quite fragile. My first glimpse into the fragility of the human brain came with my brother Robby, who suffers a pervasive developmental disorder with profound mental retardation, seizure disorder, and mood disorder. With such a wide range of difficulties, Robby struggled to process, conform, and understand.

Yet with all of his difficulties, my brother Robby’s life illustrates the brilliance of the human brain. When he was young, medical experts encouraged my parents to institutionalize Robby, as the philosophy at the time was that nothing much could be done, and he would not develop very much.

But today, Robby lives in a community living home, works for a paycheck, has taken a train from Pittsburgh to Chicago to watch a Cubs game, has ridden a large roller coaster, and even enjoyed a cruise.

What can we learn from this? The brain is shaped by environmental input across our life spans, and the proper circumstances can help us develop.

This process, called neural plasticity, refers to a brain that is dynamic, malleable, and constantly reorganizing. The key is to know how environmental input shapes the structure and function of the brain, and to identify the stimuli that can maximize the brain’s health.

Defining the ‘Brain Health Lifestyle’

Research shows that enriched environments that include socialization, physical activity, mental stimulation, good nutrition, and spirituality can be beneficial to the structure and function of the brain. Consider some of the following behaviors and activities to nurture a “brain health lifestyle.”

1. Socialization. When we engage with others, we tap into new learning and develop a deeper sense of connection. This is both novel and complex.
   - Develop a list of friends and increase family interaction
   - Give your time and talent to a new group
   - Develop hobbies
   - Don’t retire if it will lead to isolation and passivity

2. Physical Activity. Every time your heart beats, nearly 25 percent of the blood goes directly to your brain. To facilitate this blood flow:
   - Walk at least six miles a week
   - Engage in some form of aerobic exercise three times a week
   - Learn to garden or knit
   - Dance more often, including ballroom dance

3. Mental Stimulation. Processing stimuli that are novel and complex engages your cerebral cortex, giving you a better chance of developing brain reserve, which offers a delaying defense against neurodegenerative diseases. Here are some ways to engage your cortex:
   - Learn parts of a second and third language
   - Read and write on a daily basis
   - Play a musical instrument
   - Engage in a physical activity while you are involved in a cognitive task

4. Nutrition. Your brain is composed of nearly 60 percent fat, which propels information rapidly across neural pathways. To help maintain a healthy brain:
   - Increase your consumption of omega-3 fatty acids found in salmon, herring, tuna, and sardines
   - Eat 8 ounces of fish a week
   - Reduce your intake of saturated fats and refrain from eating fried and fast foods
   - Eat five servings of fruits and vegetables daily

5. Spirituality. It is important to learn practical steps to reduce stress in our lives. To achieve this:
   - Learn breathing exercises to slow down your mind and body
   - Pray or meditate daily
   - Sleep enough to remain rested throughout the day
   - Give yourself 30 minutes of “me” time every day

Dr. Paul Nussbaum is a licensed clinical neuropsychologist, adjunct professor of Neuropsychology at the University of Pittsburgh School of Medicine, and an leader in the area of “brain health lifestyle.” His books include Save Your Brain and Your Brain Health Lifestyle: Application to the School, Library, Corporate Setting, and Home. Dr. Nussbaum presented his views on brain health at the United Nations and National Press Club. He also consults with many companies and organizations to help implement a brain health culture. His website is www.paulnussbaum.com.
satisfaction by mid-life, and felt they were making the most of their talents and living up to their potential.

For anyone who hasn’t already achieved this type of job satisfaction, it’s always possible to identify and pursue new directions that are meaningful, or find ways to make a current occupation align more closely with personal ideals or goals.

Or, if that seems impossible, you can rekindle old interests or passions — in careers, hobbies, or volunteer work.

**MYTH 6:**

**Religious Services Extend Life**

The Longevity Project did not examine the impact of prayer or faith itself, but it did track how often people attended religious services — and found little correlation between the number or frequency of services attended and length of life. However, the research did find that people who were religious lived longer.

“What was driving that benefit was the social engagement,” Martin says. This included participation in activities that related directly to being a member of a religious congregation and, indirectly, greater participation in other community activities.

Statistically, the life-extending benefits of participation in religion accrued in two ways:

1. Through greater involvement in church projects, which built social ties
2. To an even greater degree, through contributing to outreach programs such as feeding the hungry, providing opportunities for underprivileged children, or assisting people who are ill

**MYTH 7:**

**You Must Do Vigorous Exercise**

Physical activity must be done consistently to help extend life. But if you try to do things you dislike or find boring, you’re not likely to stick with them. This is especially true when people try to force themselves to join health clubs or adopt programs that seem unappealing.

In the study, even those who were athletes in their youth didn’t experience significant, lasting benefits if they became sedentary later in life. “What you’re doing at age 60 is more important than what you were doing at age 20,” Martin says.

It makes more sense to pursue your own interests, even if those interests do not include particularly vigorous activities. For example, any hobby that involves being up and moving around — such as woodworking in your den or garage, gardening, playing golf, or taking a walk, alone or with friends — helps you live longer.

On the other hand, if you’ve always wanted to learn how to lift weights, try it (with your doctor’s approval). Or, if you like playing tennis, swimming, dancing, or hiking, these activities are very beneficial.

The most important thing is not to underestimate the value of less-vigorous hobbies; pursue the activities that you find most interesting throughout your life. These activities may change over time, or you may find new outlets, but your personal preferences always should determine what you do.

**MYTH 8:**

**Being Loved Will Keep You Healthy**

Feeling that one is loved and cared for by family or friends is certainly not detrimental to your health — but it doesn’t actually have much impact on how long you live. What does matter is how much you interact with others, how much you care for them, and, most importantly, how much you contribute to their well-being.

If your children or other family members are estranged, it won’t shorten your life if you have strong relationships with others, stay in touch with and help them, according to the study. With family and friends, those who offer love and care live longer than those who only receive.
Top 10 Drugs Linked to Violence

A study that evaluated adverse events resulting from 484 prescription drugs pinpointed 31 that were associated most often with increased risk of violence. About half the reports of violence as a side effect came from health professionals, and 38 percent were from consumers. The rest were reported in clinical trials, by lawyers, or by unknown sources. Reports included 387 homicides and 404 physical assaults.

In the study, published in *PLoS ONE*, researchers at the Institute for Safe Medication Practices in Alexandria, Va.; Harvard Medical School; and Wake Forest University in Winston-Salem, N.C., analyzed adverse events reported to the Food and Drug Administration from 2004 to 2009.

The top 10 drugs associated with violence, with the proportional increase in risk for violence for each, were:

- Varenicline (Chantix) for smoking cessation: 18 times
- Fluoxetine (Prozac) for depression: 10.9 times
- Paroxetine (Paxil) for depression: 10.3 times
- Amphetamines (various) for ADHD: 9.6 times
- Mefoquine (Lariam) for malaria: 9.5 times
- Atomoxetine (Strattera) for ADHD: 9 times
- Triazolam (Halcion) for insomnia: 8.7 times
- Fluvoxamine (Luvox) for depression: 8.4 times
- Venlafaxine (Effexor) for depression: 8.3 times
- Desvenlafaxine (Pristiq) for depression: 7.9 times

Is Your Doctor Raising Your BP?

A study of more than 8,000 people with resistant hypertension — a blood pressure that remains elevated despite use of medications — verified normal levels in everyday life but soaring ones in a doctor’s office in more than one-third of the cases, according to a report in *Hypertension: Journal of the American Heart Association*. The phenomenon often is called “white coat” hypertension.

Researchers in Spain used ambulatory monitoring, during which patients wear a small device that records blood pressure at frequent intervals around the clock. They compared these readings with those taken in doctors’ offices and found that 42 percent of women and 34 percent of men had “white-coat” hypertension.

Stressed Employees Take More Sick Days

On-the-job stress that comes from conflicts with co-workers or superiors makes it more likely that employees will get sick. And two people who are equally ill don’t necessarily take off the same amount of time.

What’s more, in the case of a minor ailment, employees who expect the next day to be particularly stressful are more likely to take a sick day, while their less-stressed colleagues may come to work.

These findings come from Swedish researchers who interviewed more than 400 people in six different workplaces, including healthcare workers, office staff, and people in the manufacturing industry, within a few days of their taking sick leave.

The study was published in BioMed Central’s journal *BMC Public Health*.

Exercise Reduces Marijuana Cravings

Marijuana addiction is increasing among all age groups in the United States, but researchers at Vanderbilt University Medical Center in Nashville, Tenn., have found that physical exercise reduces use of the drug — even among people who don’t want to stop.

In a study of eight women and four men, cravings and use of marijuana were cut in half after 30-minute daily treadmill sessions five days a week for two weeks. Cravings started to decrease noticeably after the first five days, despite the fact that study participants had no desire to lessen their use of the drug.

On average, those in the study initially smoked nearly six joints a day and dropped to less than three joints a day while doing the exercise program.

“Back in the 1960s and ’70s, people used to say that cannabis is not particularly unhealthy,” said Peter Martin, M.D., study coauthor and director of the Vanderbilt Addiction Center. “Well, there have been data coming out over the last five years that have demonstrated pretty conclusively that cannabis smoking may be a predisposing factor for developing psychosis.”

Among young marijuana smokers, panic attacks are a common side effect.

The study, published in *PLoS ONE*, noted that, in 2009, nearly 17 million Americans age 12 or older reported using marijuana during the previous month.
MYTH 9:
Retire Early

“You’re working yourself to death. You should retire and relax.” Such advice may be well-intended, but following it can shorten your life. It all depends on how an individual views his or her work.

Retirement may be a relief to people who find their job or career boring or unpleasant. However, people who care about their work are more likely to work themselves to a longer life, according to the Longevity Project.

When work is driven by genuine goals or is simply enjoyable, retiring at an arbitrary age probably will be counterproductive. “It removes a sense of purpose from people’s lives, and they can become alienated from colleagues because it’s harder to see each other frequently,” Martin says.

Sometimes retirement is dictated by an employer for arbitrary or economic reasons, and people who are forced to retire are surprised to find a void in their life. These situations actually shorten life span, according to the study.

MYTH 10:
Only Boring Lives Are Long

There’s an old saying: “You can live to be 100 if you give up all the things that make you want to live to be 100.” Martin counters that 80 years of research indicate that is not the case.

“The things that characterize our longest-living study participants are things you would want to enjoy until the age of 100,” Martin says.

These things include following your own passions and interests, doing work that is rewarding in multiple ways, enjoying the company of good friends, traveling to interesting places, and pursuing the leisure activities that bring you the most joy — not boring at all.

The notion that there is a single, fixed program that everyone must follow to achieve long life is perhaps the biggest myth of all.

The quality of a life is just as important as its length, and the same qualities that make a life longer also make it better.

“Find what works for you and what matches your style and preferences,” suggests Martin, “And make small, lasting changes, without stressing too much about getting it all right.”

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Test Your Social Support Network

Strong and active social ties contribute to a longer and healthier life. Take this test to rank your social support network, and then work to improve weak points.

1. In the past month, outside work, how often have you participated in group meetings or activities?
   - 0
   - 1
   - 2
   - 3
   - 4+

2. Of your friends, how many could you definitely call on for help if you needed it?
   - 0
   - 1
   - 2
   - 3
   - 4+

3. How many relatives do you see or hear from at least once per month?
   - 0
   - 1
   - 2
   - 3
   - 4+

4. How many people in your life accept you totally, just as you are?
   - 0
   - 1
   - 2
   - 3
   - 4+

5. In the past month, how often have friends or relatives made you feel loved and cared for?
   - 0
   - 1
   - 2
   - 3
   - 4+

6. How many people can you count on to help you feel better when you are down in the dumps?
   - 0
   - 1
   - 2
   - 3
   - 4+

7. In the past month, how often have others talked to you about important decisions they need to make?
   - 0
   - 1
   - 2
   - 3
   - 4+

8. In the past week, how often have you helped others (beyond your partner or children) with tasks they needed to do?
   - 0
   - 1
   - 2
   - 3
   - 4+

9. How many people, including your children, parents, friends and neighbors, rely on you to do something important for them every day?
   - 0
   - 1
   - 2
   - 3
   - 4+

Total Score: ________________

A score of 25 or more indicates a strong social support network. The least important element is whether you feel loved and cared for, measured by questions 4 through 6. These are the most important areas to maintain or improve:

Questions 1 through 3 measure the size of your social network.
Questions 7 through 9 assess how much you help and provide support for others.

SOURCE: Based on one of several tests in The Longevity Project.
Can you tell me if cell phone use damages the brain?
— George, Wichita, Kan.

Dr. Naidenko responds: From the research so far, the results are not conclusive. Cell phones emit radiofrequency (RF) radiation. This is different from the type of radiation that is emitted by nuclear energy plants, which is known to damage DNA. But that doesn’t mean RF radiation is harmless.

Earlier research, conducted outside the United States, did not find a risk of brain tumor for short-term cell phone use. Notably, in these studies participants used cell phones far less frequently than is common today.

However, the same studies did find an increased risk of brain tumors among people who used cell phones for 10 or more years. In the U.S., we haven’t seen an upsurge in such tumors, but these can take 20 or 30 years to reach a detectable stage.

An Israeli study found a 50 percent higher incidence of salivary gland tumors.

Cell phones emit most of their radiation when you’re talking, rather than listening, texting, or downloading online data. You can reduce risk by using an earpiece or speakerphone and always keeping the phone away from your body, in a bag or briefcase instead of a pocket. A summary of studies, a safety guide, and a comparison of levels of radiation emitted by different phones are available at www.ewg.org/cellphone-radiation.

Dr. Olga Naidenko, Ph.D., is a senior scientist with the Environmental Working Group, a nonprofit research, educational, and advocacy organization based in Washington, D.C. She studies the effects of environmental pollutants and cell phone radiation on human health.

My thinking has been foggy and I often get headaches and stomach upset. Could these be symptoms of gluten intolerance?
— Esme, Tustin, Calif.

Dr. Fasano responds: Your symptoms could stem from sensitivity to gluten, which is naturally present in most grains. Such sensitivity can trigger abdominal pain, fatigue, headaches, “brain fog,” or tingling of the extremities — and it can have negative effects on some schizophrenic patients and autistic children.

Before eliminating gluten from your diet, I suggest getting tested for celiac disease, wheat allergy, and different types of reaction to gluten, which is found in some grains, beer, condiments such as soy sauce, and many other packaged foods.

In patients afflicted with celiac disease, the autoimmune form of gluten reaction, even a tiny bit of gluten can produce a severe reaction and damage the digestive system. Celiac disease can be treated only by strict adherence to a gluten-free diet for life.

If you test negative for both celiac disease and wheat allergy, then — and only then — eliminate gluten and see how you feel. Otherwise, it’s impossible to get an accurate result from tests for celiac disease and wheat allergy.

In gluten-sensitive people, eliminating offending foods usually brings relief in a matter of days, but the degree of intolerance varies. For example, one bite of bread might not produce symptoms, but two or more will, so it’s important to find individual limits. In some cases, the intolerance disappears over time, and it doesn’t damage the digestive system.

Alessio Fasano, M.D., is a professor of pediatrics, medicine, and physiology at the University of Maryland School of Medicine in Baltimore and director of the university’s Center for Celiac Research. He is one of the world’s leading researchers in the field of gluten-related disorders, which include celiac disease.