

Brain Power: How to Protect Your Mind From Future Disease

By Michelle Vartan ; Updated May 07, 2018



Our bodies are not built to last forever. As life moves forward, signs of aging begin to show. And while we can't see how the brain is slowly impacted by time (or lifestyle), diseases like Alzheimer's and dementia have shown us that it's certainly not exempt from deterioration.

An advertisement for Wrike, a project management tool. It features the Wrike logo, the text "The Best Tool for Your Agile Projects", and a "Try Free Trial" button. In the background, there is a screenshot of the Wrike interface showing a Kanban board with columns labeled "NEW", "PENDING", and "IN PROGRESS".

Recently, science has taught us a [few new lessons about aging](#) — namely that you are not the sum total of your genes and you actually do have some control over your longevity. So while there's only so much you can do to prevent things like wrinkle damage (in other words, not much), you can put things into practice now that will strengthen your brain for years to come.

In a panel presented by [Move for Minds](#) — a partnership between Maria Shriver and Equinox Sports Club benefitting the Women's Alzheimer's Movement — brain-health experts spoke out in support of this very notion. Hosted by Shriver, the panel featured neuroscientists Lisa Mosconi, M.D., and Ruth Benca, M.D., Ph.D., fitness trainer Anja Garcia and wellness expert Kelly LeVeque sharing what we can do now to protect the future of our brains.

"There are things that every single person, male and female, can do starting today that protects your brain health," says Shriver.

Here are six "somethings" you can do today to nourish and protect your brain.



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1. Drink Higher-Quality Water

Here is an incredible fact that may give you pause: The brain is 80 percent water. Hence it's subject to dehydration. According to Dr. Lisa Mosconi, author of "[Brain Food](#)," even just a 2 percent water loss can give you neurological symptoms, such as brain fog, fatigue, dizziness and confusion. "Studies have shown that [dehydration] literally makes your brain shrink," she says. "And it happens to everybody, regardless of whether you are 20 or 90."

And there is a real science behind proper hydration for the brain. Minerals that dissolve into water — such as sodium, chloride, potassium, calcium and magnesium — form electrically charged electrolyte particles called "ions" that help to hydrate your brain. This high-mineral-content water is called "hard water," commonly found in Italy where Mosconi grew up.

"In Italy everybody drinks hard water," she says. "In the United States most people drink purified water, distilled water, club soda and seltzer, and those beverages are not the same thing as water. They don't contain the minerals and nutrients that the body, and especially the brain, really need to be hydrated."

So for those of us who aren't living in Italy, what can we drink? Water that is rich in minerals and electrolytes, Mosconi says, such as spring water and even tap water. And if you don't typically spend money on spring water, Mosconi says to think about it this way:

"I am often told that spring water is expensive, but, in reality, you can easily buy 24 5-liter bottles of Poland Spring for \$10. By comparison, a 24 pack of Coca-Cola cans is \$9. But the difference on your brain (and body) will be huge__"



2. Do Workouts That Make You Think Hard

As the old adage goes: "It's what's on the inside that counts." So even though we can't see our brain like we can see our abs, it doesn't mean we shouldn't [give it a workout](#). "People go to the gym, and they see their bodies," says Shriver. "They want their bodies to look better, make their bodies tight and fit. And we wanted to begin the discussion about how to make your brain tight and fit."

Equinox fitness trainer Anja Garcia says that a problem with U.S health care is that we view the brain and the body as two separate entities. "Growing up it was, 'Oh, you have a bodily problem or you're mentally ill,'" she says. "So with fitness we've come a long way of incorporating both physical activity and mind-body awareness."

In other words, we know that in order to move well and properly, the brain has to be activated. But we're now learning that certain exercises can up your "brain game" by challenging coordination. So instead of going mindlessly through the movements, you're banking a lifetime of brain health benefits by moving in different ways. "That helps build neuroplasticity, or the ability for the brain to continue to grow, change and learn."

So how should you be moving? "You have to think to stay on your feet or to perform a certain pattern," says Garcia. "For example, if you always do squats in your workout, a way that you can add an extra level to train the mind is to change the direction of the squat: Step out on a diagonal or change the footprint or add a reach across your body to throw off your balance."

[Dance is a great exercise too](#), says Garcia, because it challenges coordination and requires memorizing steps and routines, encouraging more of that neuroplasticity. Another great aid to brain health is [HIIT](#), or high-intensity interval training, where you engage in short but intense intervals. Not only does your brain benefit from increased blood flow and oxygen, but high-intensity workouts also "release a special protein called brain-derived neurotrophic factor (BDNF), which helps improve the function of neurons, encourages new neurons to grow and protects them from stress and cell death."

And HIIT also helps you push past what you thought you could do. “Pushing our known thresholds helps the brain change and adapt to new thresholds, thereby getting stronger.”



3. Eat Healthy Fats and Try Out Intermittent Fasting

It's not called “brain food” for nothing. In recent years we've learned that what we eat today [impacts our longevity](#) and mental health. Just as in the way we save for retirement, we need to eat for retirement too.

Kelly LeVeque, holistic nutritionist and wellness expert, advocates that if there is something we can do right now for our brains, it's eating foods that [balance blood sugar](#). “What we know from research is that elevated blood sugar and prediabetes almost double your chances for dementia and Alzheimer's — so it's really about the food.”

To help balance your blood sugar, LeVeque recommends [upping your healthy fats](#), specifically omega-3s and omega-6s, which help you to stay satiated throughout the day (versus reaching for the afternoon cookie, which can send your blood sugar through the roof). Healthy fats are also [considered to be neuroprotective](#).

Some omega-3 and omega-6 foods to start adding to your plate include Alaskan salmon, sunflower seeds or healthy oils with no trans fats (trans fats are known to [negatively impact memory function](#)). “The more processed foods that someone eats and the more poor oils that they eat, the more brain fog that they have.”

[Intermittent fasting](#) has also been shown to help ward off brain disease. The idea is that by dramatically reducing your food intake for short periods of time, there is a reduction in brain inflammation (which protects nerve cells from dysfunction) and a spike in cognition. (People who practice fasting claim to experience a sort of brain buzz.)

“If you're predisposed to Alzheimer's, one of the best things you can do is to have a little bit longer of a fast between dinner and breakfast. And start to have dinner a little bit earlier because you're going to wake up a lot more clear,” says LeVeque. “And I find this with my clients too: Not only are their hunger hormones more balanced, they wake up feeling a great amount of energy in their brains.”



4. If You Can't Sleep, Get Help

Humans spend over a third of their lives sleeping (well, at least we should be). Our brains use this time to do some “housekeeping,” meaning all of the connections that we formed during the day have to be tuned

do some housekeeping, meaning all of the connections that we formed during the day have to be turned up — such as saving certain memories and getting rid of others. Sleep is also the time that toxic substances get cleared out of the brain. That is why sleep deprivation [can have such terrible effects](#) on both brain and body health. But here comes the kicker: At least 15 percent of dementia [is directly related to sleep](#).

Dr. Ruth Benca specializes in neurobiology and says that sleep is one of the most overlooked factors that can really help our brains. And the odds in America are stacked against sleep.

“When we don’t sleep all that oxidative stress increases in the brain,” she says. “So it becomes more and more difficult in a fast-paced society where we’re all working, we’re all trying to get our exercise in. We’re trying to do all of our errands and take care of our kids. Sleep is often something that suffers.”

Women, in particular, commonly suffer from insomnia. According to Benca, they have at least a 1.5 to two times elevated risk for having sleep problems. And we’re now starting to understand that women are more susceptible to the negative effects of sleep disturbances on their brains, she says.

Meditation has been proven to help with sleep, and so do certain diets. And while it may be easiest to reach for sleeping pills, there are a number of behavioral approaches for addressing the problem. “Pretty much every major medical society in the United States and Europe has come out and said the first line of treatment for insomnia is really cognitive behavioral therapy.”

Cognitive behavioral therapy, or CBT, teaches people to use techniques [that address the mental \(or cognitive\) factors associated with insomnia](#), such as the racing mind or the worrying that can accompany sleeplessness.

There are many CBT methods, but one you could try tonight is called guided imagery. Try to imagine yourself in a story. Picture what things look, feel and sound like — try to make it as realistic as possible. This distracts your mind from “trying to go to sleep,” guiding it to settle.



5. Eat Estrogen-Promoting Foods, and Test Your Hormones Early

Research has shown that [estrogen is a strong neuroprotective hormone](#). So a decline in estrogen, which inevitably occurs in women as they age, can leave the brain in a vulnerable state and susceptible to disease. And perimenopause (known as the menopausal transition) could start in women as early as their 30s.

“What we have shown is that women have a higher Alzheimer’s risk than men. And the risk really starts to manifest itself as women prepare for menopause,” says Mosconi. “So when women are in their 40s, their brains really start to look like they are aging faster than the brains of men who are exactly the same age.”

Here’s another remarkable fact: Approximately every minute [a brain develops Alzheimer’s](#), and two-thirds of those brains belong to women. Shriver created the [Women’s Alzheimer’s Movement](#) with this message: that women’s brains are scientifically proven to be different and therefore deserve separate research. “The effect of the X chromosome, food, exercise, all of these things! I always say it’s not sexist to study it [the woman’s brain], it’s just smart because you go where the majority of the diseases are,” she says.

But some good news for women is that there are estrogen-promoting nutrients that can help prevent the onset of brain disease. “Women need more antioxidants as they get older and as they go through menopause because of what happens in their brains,” she says. “Their brains look like they are aging faster because they have more oxidated stress, so antioxidants vitamin C, vitamin E and vitamin A are very good for your brain.”

Foods that we can eat that are rich in estrogens include flaxseed, chickpeas and soybeans. Foods [rich in these antioxidants](#) include:

- Vitamin A
- carrots
- sweet potatoes
- spinach
- blueberries

- apricots
- papaya
- cantaloupe
- mangoes* Vitamin C
- citrus fruit (lemon, orange, grapefruit)
- broccoli
- Brussels sprouts
- cauliflower
- bell peppers * Vitamin E

In addition to diet, women can get tested to see if they're in or approaching menopause. A good gynecologist and/or endocrinologist can guide you through the complexity of the various exams and results. They may recommend blood tests to check your levels of follicle-stimulating hormone (FSH) and estrogen (estradiol) because your FSH levels increase while estradiol levels decrease as menopause occurs.

"Personally, I think it's good to have a baseline in our late 30s, and then test again in our early 40s to see if things have remained stable. If not, it's good to discuss options with your doctor," says Mosconi.



6. Be Mindful of Your Mind

One of the key components of brain health is giving ourselves the opportunity to unplug. Research has shown that just [12 minutes of meditation a day](#) can help ward off brain disease. And even if we don't have 12 minutes a day, mindfulness expert Light Watkins (who kicked off the panel with a group meditation) says that just calming the mind can help to "clean out your brain."

"It doesn't have to be this thing that we do in front of an altar in our yoga class," he says. "It should be something that we do in our car before going to an event where we want to be fully present. Or really [anywhere and everywhere](#) where we could use a greater capacity of mental power or perceptual acuity."

The positive health impacts of meditation are ongoing, with more and more research proving it to be one of the most powerful brain-strengthening tools. For example, long-term meditators have been shown to have better-preserved brains than those who don't meditate all. Meditation has also been shown to increase gray matter in the brain — important for learning and memory. Plus, it can even change the [structure of the brain](#), adding thickness to the cerebral cortex, which governs memory.

Steps Forward

The fact that we have some control over our brain activity, function and structure poses the question: When it comes to shaping our bodies, why wouldn't we put our brains first?

More than 5.5 million Americans have Alzheimer's disease, and that number is expected to grow. There's no cure, and treatments can only help with symptoms while the disease worsens. But scientists, experts and doctors are telling us to wake up and make effective preventative efforts now. They want us to care for our brain like it's our internal hardware — required to be occasionally shut down, tuned up and carefully preserved.

And with the right food and fitness tools and smart lifestyle decisions, we can create a brain so strong it's capable of securing our cognition until the end. Now that's something to think about.

About the Author

Michelle Vartan is the managing editor at LIVESTRONG.COM and founder and co-host of [the Stronger Women series](#) and the [Stronger podcast](#). She has a master's in broadcast journalism from the University of Southern California and has previously worked for "Today," San Francisco Magazine, Angeleno Magazine, Outside Magazine and the New York Post. She is a mission-oriented journalist, editor, host and producer living in Los Angeles. You can follow Michelle on [Twitter](#) or [Instagram](#).

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