

What you put in your mouth makes a difference to your MIND & MOOD

Reprint from Esperanza Magazine, Fall 2013

Carol used to be best friends with the vending machine at her workplace. When she began to feel overwhelmed and anxious, she'd give in to the siren call of something sweet.

"It did not matter what kind of food it was—cookies, candies—as long as it had chocolate," says Carol, 51, a licensed clinical social worker in New Jersey.

Despite our best intentions, it's hard to resist the easily available comfort of our particular junk food weakness, whether chocolate, ice cream, potato chips, or fast food—anything that offers a heaping helping of fat, sugar, or salt.

There are a number of reasons to crave junk food, including hormones and lifestyle, but the most common is stress.

When you are stressed, your body produces more of a hormone called cortisol. Its job is to increase sugar in the blood to help fight or flee from an attack. But extra cortisol also blocks the release of the hormones leptin and insulin, and that ends up increasing hunger. Thus stress drives your desire for quick-energy foods such as sweets, super-value meals and soda.

Quite apart from contributing to weight gain and raising your risk for a range of physical ills, when you sate your stress with junk food you also are polluting your brain.

"These empty-calorie, high-fat foods can trigger inflammation that can harm brain cells and lead to poor mental health," says Bonnie J. Kaplan, PhD, of the departments of pediatrics and community health sciences at the University of Calgary.

Studies in Britain, Spain, Australia and Finland have found an association between eating junk food—including commercial baked goods (cakes, doughnuts, etc.) and fast food (hamburgers, hot dogs, pizza)—and developing depression. Even relatively moderate consumption of such foods appears to affect mental health, the Spanish researchers concluded.

Plus, Kaplan adds, when you fill up on those toxic empty-calorie foods, you may skip foods that provide important nutrients your brain requires for optimal well-being.

Breaking the junk food habit can feel like a Herculean task, especially for people who are more sensitive to stress and anxiety. The winning strategy is not just to cut out the bad stuff, but also to replace it with foods that can improve brain health.

The old switcheroo

Your first step: Identify when those junk food urges strike and sub in better food choices. Jamie, 36, used to crave diet cola when stress on the job was getting to her.

"The worse my day was, the more I drank," says Jamie, communications manager for a city in British Columbia.

The jolt of sweetener and caffeine gave her the feel-good energy she needed when her mood slipped. Like clockwork, though, the effect would wear off, to be followed by an inevitable crash.

...toxic empty-calorie foods [may be replacing] important nutrients your brain requires for optimal well being.

“But then I would crave more sugar and caffeine to get the boost again and the entire roller-coaster would repeat,” says Jamie, who was diagnosed with depression 20 years ago.

Jamie broke her workday soda habit by switching to green tea and eating fruit to satisfy the need for something sweet. Fruit was also Carol’s go-to solution after her doctor gave her some direction on how to break the crave-and-crash pattern.

Instead of fighting her sweet tooth, Carol switched out processed treats for bananas, apples, oranges, dried apricots, and prunes.

“I always had them with me so I was not tempted to run to the vending machine, and it was not long before I began to feel calmer throughout the day,” she says. “And now when I do get stressed, it does not have the same impact. Before, my mood would dip way down and I felt more tired. Now I am in more control.”

Planning ahead is a vital part of taming junk-food urges. Along with her afternoon snacks, Carol makes sure to pack a healthy lunch. For dinner, she has her meal plan written out like a menu and waiting for her at home.

“When it’s written out I feel committed to make it,” she says. “Otherwise, I might just give in and order a pizza.”

Eat your veggies

Pruning out the junk is only the start. The next step is adding more foods to your regular diet that science has shown can improve mental health. Generally speaking, the kind of diet that guards against heart disease, reduces your risk of diabetes, and improves overall health will make your brain feel better, too.

So ask yourself: Are you eating enough fruits and vegetables?

In a study of 2,000 middle-aged men in Finland over 13 years, participants who ate more fruits and vegetables reported fewer depressive symptoms. One reason may be increased intake of folate, a B vitamin that’s plentiful in leafy green vegetables, citrus fruits, and legumes like lentils and black beans.

Plus, the B vitamins (notably folate, B6 and B12) appear to lower levels of the amino acid homocysteine in the blood. That’s good because high levels of homocysteine are associated with cardiovascular problems like high blood pressure and heart attacks. And anything that improves blood flow improves delivery of oxygen and nutrients to the brain.

The science on B vitamins and heart health is still unclear, however, so the American Heart Association advises taking in B vitamins through food sources rather than supplements.

(Many cereal, bread and pasta products in North America are enriched with folic acid, a synthetic form of folate. That’s all to the good—especially if you’re choosing whole-grain versions over “white.” In addition to having more fiber and nutrients, whole-grain foods release their glucose energy at a steadier pace and thus reduce the likelihood of a mood crash.)

...blueberries improved short-term memory and learning capacity in animal tests.

The produce aisle also provides phytochemicals, naturally occurring compounds that generally are associated with the bright colors of vegetables and fruits. As a group, phytochemicals enhance the immune system, strengthen cell functions, and protect against cancer.

And plant foods are generally rich in antioxidants—phytochemicals, vitamins and minerals that essentially act as rust removers, scrubbing destructive free radicals from the body. There's some evidence that because of the brain's extremely active chemical processes and high fat content, it's especially vulnerable to the cell-harming activities of free radicals.

Some familiar examples of antioxidants: lycopene (abundant in cooked tomatoes), beta-carotene (carrots, winter squash and dark leafy greens), and vitamins C and E.

We are the champions

Despite the book and magazine articles touting so-called "superfoods," there's no single item that guarantees physical and mental health. The real benefits come from a varied diet that's rich in plant foods, whole grains, legumes and lean protein sources—and that limits or eliminates fatty meats and processed foods.

However, there are a few powerhouse items it can't hurt to eat more of. For example:

Blueberries Celebrated as the champion of antioxidant fruits, blueberries improved short-term memory and learning capacity in animal tests. Anthocyanin, the compound that gives the berries their deep color, has beneficial anti-inflammatory properties. Blueberries are also an excellent source of vitamin C and vitamin A.

Although they're relatively expensive, especially in the off-season, you get a lot of bang for your buck—and frozen blueberries work well in smoothies and in (whole-grain) baked goods if you dust the icy globes with flour first.

Runners-up: Strawberries, red grapes and cranberries.

Spinach This dark leafy green comes up trumps for iron (when combined with vitamin C-rich foods, as in spinach salad with strawberries), beta-carotene, lutein (an antioxidant important for eye health), folate, vitamin A, and vitamin K (important in bone health and blood clotting). To a lesser degree, you also get potassium, zinc, and other B vitamins.

For a simple side dish, sauté sliced garlic in olive oil for a few minutes, then slowly add rinsed spinach and toss gently in the pan (tongs work well) until wilted and warm.

Runners-up: Collard greens and kale.

Lentils A half-cup of lentils provides close to the recommended daily requirement for folate—and it's pretty easy to open a can of low-sodium lentil soup. Lentils are a good source of iron, especially when combined with vitamin C-rich foods like dark leafy greens, and relatively rich in calcium, potassium, zinc and other important trace minerals. Plus, they're a good protein source when eaten with brown rice or whole-wheat bread.

Runners-up: Black beans, kidney beans.

Salmon This lean protein source really multitasks. Along with vital omega-3 fatty acids, it has more vitamin B12 per serving than red meat and a fine amount of B6, too. It's among the richest food sources of vitamin D and is considered a good source of calcium, especially canned salmon. Unfortunately, it's the pricey wild-caught salmon that packs the real nutritional punch.

For a quick entrée, spritz a salmon fillet with olive oil and lemon juice, salt lightly, then bake at 400 degrees for 8 to 10 minutes.

Runners-up: Tuna (fresh or canned) and sardines (which make a great snack on whole-grain crackers).

Club Med

As far as overall diet goes, the classic food patterns of the Mediterranean region appear to have benefits for both mood and mental fitness.

The Mediterranean diet matches most of the standard healthy-eating advice. It's light on meat, dairy, and alcohol and heavy on fresh fruits and vegetables, legumes, nuts, grains, fish and olive oil, a "healthy" fat.

One study, published online in the *Journal of Neurology, Neurosurgery & Psychiatry* in May 2013, tracked older adults who followed either a version of the Mediterranean diet or a low-fat diet for more than six years. While the study's focus was on preventing heart disease, it turned out the Mediterranean diet groups did significantly better on cognitive tests covering memory, language and organization.

An earlier four-year study of 10,094 healthy individuals found that people who kept closest to the traditional Mediterranean diet were a third less likely to develop depression.

...the Mediterranean diet groups did significantly better on cognitive tests covering memory, language and organization.

At the time, researchers also noted that components of the diet may fight inflammation, improve blood vessel function, reduce risk for heart disease and repair oxygen-related cell damage.

Plus, almost all the staples in the Mediterranean diet seem to increase levels of something called brain-derived neurotrophic factor (BDNF), a protein responsible for many brain functions. BDNF plays an important role in learning and memory, and it appears that low levels of BDNF co-exist with low moods.

Just gobbling a handful of almonds isn't a cure-all, says Gary Wenk, Ph.D., professor of psychology, neuroscience, and molecular virology, immunology, and medical genetics at The Ohio State University.

"It has to be the combos that are staples in the Med diet working together," he says.

Still, you don't need to suddenly convert your kitchen to a Mediterranean sanctuary or immediately eliminate all meat. As with any behavioral change, look for ways to incorporate new habits little by little.

For example, no matter where you're starting from, commit to having one additional serving of a fruit and vegetable each day. Then pick one day a week to experiment with a meatless entrée, such as a stir-fry over brown rice or a hearty soup that combines vegetables with a grain or beans.

Jamie has woven many elements of the Mediterranean diet into her meals: more fish at dinner, topping sandwiches with sliced avocados, and using olive and flax oils instead of fatty salad dressing.

"It has been a long process," says Jamie, whose longtime depression has eased tremendously. "But I always kept reminding myself that I am worth it to get better. And my switch in diet made all the difference."

Deciphering the Mediterranean Diet

There's no single "magic" food in the traditional diet of the Mediterranean region, but as a whole, this pattern of eating provides a host of compounds that have been linked to good health.

The prominent role of fruits and vegetables means you're getting plenty of phytochemicals (carotenoids, flavonoids, phenols and other natural compounds), anti-oxidants, vitamins and minerals that contribute to optimum functioning of your brain and body.

Legumes (kidney beans, lentils, split peas, etc.) provide lots of protein, fiber, complex carbohydrates—the kind that release energy slowly, as whole grains do—folate (a B vitamin), and often antioxidants.

Olive oil is considered a monounsaturated fat, the "good kind" (versus saturated fats found in most meats, butter, and other dairy products). Nuts, avocados and flax seed also contain "healthy fat."

Olive oil and canola oil, another monounsaturated fat, also contain omega-3 fatty acids. Omega-3s play a vital role in brain function, improve blood flow, and, in the form of fish oil supplements, appear to ease depressive symptoms.

The body doesn't produce omega-3 on its own. Walnuts, flax seed and fish itself—especially fatty fish like salmon, tuna, and sardines—are good dietary sources of omega-3.

If you choose to consume alcohol, one small glass of dry red wine with your meal adds more heart-healthy flavonoids.

About the author: [Matthew Solan](#)

[Has 5 Articles](#)



Matthew Solan is a health writer in St. Petersburg, Florida (matthewsolan.com). —*Follow him on Twitter @matthewsolan.*