



Food and Mood – Eat Yourself Happy

Written by Jill Grunewald and published in mix magazine, December 2012



We've all heard the idiom, "You are what you eat." You also *feel* what you eat. We know that the right foods help ward off disease and help keep our bodies healthy as we age. Yet many people don't make the connection in how food can be our most powerful defense in alleviating moodiness, anxiety, depression, fatigue, and stress, and improving outlook and attitude. The right vitamins, minerals, fatty acids, and a good balance of macronutrients – carbohydrates, fat, and protein – can keep our minds functioning optimally. If your body has the nourishment it needs, your brain function will follow.

Neurotransmitters – Our Happy Brain Chemicals

Brain cells communicate with one another via chemical messengers called neurotransmitters. Our diet has a lot of say in the type and amount of neurotransmitters in our system and the right vitamins and minerals are critical to their production.

Serotonin is made from an amino acid present in carbohydrates and incites a sense of comfort, calm, alertness, and perception. It's The Big Daddy of neurotransmitters and is known as "the happy hormone" because it enhances our mood and sense of wellbeing. (But it's not technically a hormone.)

Low levels of serotonin can make us ravenous for sugar and carbohydrates (particularly refined carbs) in a misguided effort to self-medicate a nutritional imbalance and inadequate levels can make us cranky, forgetful, and depressed.

Boosting serotonin:

- B complex vitamins, the "anti-stress vitamins." Low levels can cause anxiety and depression and can affect cognitive function and memory. The synthesis of serotonin requires considerable amounts of Vitamin B₆.
- Magnesium, "the miracle mineral." It's particularly helpful for relaxing nerves and muscles and alleviating depression. According to Dr. Gary Null, author of *The Food Mood Connection*, there are case histories of rapid recovery (less than 7 days) from major depression using 125-300mg of magnesium with each meal and at bedtime. Magnesium activates the B vitamins needed for production of serotonin and can be found in nuts, seeds, sea vegetables, whole grains, avocados, beans, and dark leafy greens.
- L-Theanine, an amino acid found in green tea, known to promote feelings of relaxation. A bonus is that it doesn't cause drowsiness but will improve the quality of your sleep.
- 5-HTP, an amino acid essential to the production of serotonin and melatonin. Many use it as a natural sleep aid and it's commonly used as an antidepressant.

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Other neurotransmitters include:

- Dopamine, responsible for alertness, excitement, feelings of pleasure, and mental sharpness. Foods that help the body produce dopamine include apples, beets, blue-green algae, celery, chicken, cucumber, fish, green leafy vegetables, honey, cheese, sweet peppers, tofu, and watermelon.
- Acetylcholine needs to be increased as we approach mid-life. Ginkgo biloba and ginseng aid in acetylcholine production. Foods that help the body produce acetylcholine include egg yolk, beef liver, chicken liver, turkey liver, wheat germ, pork, lean ground beef, cod, salmon, tilapia, shrimp, soy protein, peanut butter, oat bran, pine nuts, pork, almonds, hazelnuts, macadamia nuts, broccoli, Brussels sprouts, cucumber, and zucchini.
- Noradrenaline, which is vital for motivation and drive. It can be low when magnesium and B₁₂ are low. Foods that help the body produce noradrenaline include apples, avocado, bananas, beef liver, blue-green algae, cheese, fish, most green vegetables, lean meat, nuts, grains, pineapple, poultry, and tofu.

Essential Fatty Acids

Numerous studies document the enormous benefits of Omega 3 fatty acids, which form part of every cell membrane, are vital for effective brain functioning, and have huge benefits for memory and mood. Low levels are associated with depression, pessimism, and impulsivity.

According to Gary Null, Ph.D and author of *The Food-Mood Connection*, "There is a huge amount of evidence now linking Omega-3 deficiency and depression. Around a quarter of the dry weight of our brains is made up of Omega-3s and if you're deficient, the cells in your brain malfunction and you're much more likely to become depressed."

Omega-3s are found in flaxseeds, grassfed animal products, walnuts, cod liver oil, fatty fish, and Omega-3-fortified eggs. In addition to taking supplemental Omega-3s in the form of high quality, mercury-free, third party tested fish oil, it's recommended that you get at least two servings of fatty fish per week: salmon, mackerel, or sardines.

The Role of Macronutrients

Again, carbohydrates help produce serotonin and the glucose in carbohydrates (a form of sugar) is the primary fuel source for many of the body's vital organs, including the brain. The brain is a glucose hog, and research has shown that carb-restrictive dieters tend to become depressed about two weeks into the diet, about the time their serotonin levels have dropped.

A critical distinction is the difference between simple ("rocket fuel") and complex (slow-burning) carbohydrates. Foods made with sugar and refined flour are comprised of simple carbohydrates that wreak havoc on blood sugar and mood. Complex carbohydrates, on the other hand, don't rush to the bloodstream and keep you off of the blood bungee cord. Legumes, vegetables, low-sugar fruits like berries, and true whole grains take time to digest and dole out their energy-giving slowly.

Two thirds of our brain is fat. Fats create specialized cells that help us think and feel and helps to cushion brain cells. It improves outlook in the short-term and can cut risk of Alzheimer's.

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As with carbs, there is a critical distinction – good and bad fats. We’re not talking about trans fats that you find in cheap, processed foods. Food manufacturers are required by law to put the trans fat content on food labels and this is the first place your eyes should go on a label.

Quality sources of fat include olives and olive oil, avocados, flax seeds, fish, nuts and nut butters, hormone- and antibiotic-free full fat dairy (yes, full fat, not skim), coconut oil, and coconut milk products.

The brain and its neurons are essentially made of fat, but communicate with each other via protein. Protein raises the levels of an important amino acid, tyrosine, that prompts the brain to manufacture the important chemical messengers norepinephrine, noradrenaline, and dopamine. Protein sources include meat and fish, eggs, dairy, nuts and nut butters, legumes (lentils, beans, etc.), soy products, quinoa (a seed, but often referred to as a grain), and powdered protein supplements.

The Role of Micronutrients

Some of the most important nutrients for mood are the B vitamins – Vitamin B₁ (thiamine), Vitamin B₃ (niacin), Vitamin B₅ (pantothenic acid), Vitamin B₆ (pyridoxine HCL), Vitamin B₉ (folate), and Vitamin B₁₂ (cyanocobalamin). Unhealthy levels can set us up for poor mood, anxiety, and depression. Getting our nutritional needs from food is always your first line of defense, but supplementing can have a direct effect on those oh-so-important neurotransmitters. The list of foods that contain the various B vitamins is quite lengthy, but know that some of the heavy-hitters are beans, nuts, eggs, liver, and most vegetables, especially green leafy vegetables.

There is a significant correlation between Vitamin D deficiency and depression. In northern climes (north of Texas, surprisingly), many people can feel low, irritable, and angry during winter because of the lack of sunshine. It’s a critical nutrient (Vitamin D is a hormone, actually) that is linked to almost every degenerative disease in the book.

We only receive about 10% of our Vitamin D from diet, making it nearly impossible to get what we need from food sources. So supplementation is critical. Food sources include egg yolks, fish liver oils, fatty wild fish (salmon, mackerel, tuna, herring, halibut and sardines), fortified milk and yogurt, and mushrooms (shitake mushrooms contain the highest levels of Vitamin D).

Iron deficiency has been implicated with depression, fatigue, inattention, and insomnia. Up to 80 percent of women are iron-deficient, even if the condition doesn't reach full-blown anemia. Sources of iron include red meat, egg yolks, dried fruit, beans, liver, and artichokes.

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Mood Slayers

While sound nutrition is critical for keeping our happy pistons firing, so is eliminating the rascals that can dampen our spirits.

- Poor gut health
- Lack of living food
- Eating out of season
- Consuming too much caffeine
- Not eating regularly
- Hypoglycemia – low blood sugar

Everyone likes a shortcut, right? I do. So instead of stressing about taking a microscope to all of the mood foods, I suggest simply focusing on a well-balanced diet chock full of vegetables. Add in some legumes, true whole grains, quality proteins, and moderate amounts of fruit. Cut out the junk and sugar, and you'll be well on your way to feeling like a million bucks. And a little supplementation never hurt.

Here is a targeted shortlist of mood foods. Get these in your diet regularly, and you should be a happy camper.

- Dark green leafy vegetables
- Dark orange vegetables (pumpkin, squash, etc.)
- Broth soups
- Legumes
- Citrus
- Berries
- Nuts – especially walnuts
- Salmon

With some simple changes, including adding these mood-enhancing foods to the regular mix, you'll be amazed at how groovy you feel and how quickly you will start busting out of a funk. And simply knowing you are taking care of yourself can do wonders for your mood.

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