

10 nutrients that can lift your spirits

Correction: An earlier version of the story misstated the recommended daily allowance of folate for adults. The amount is 400 micrograms, not 400 milligrams. This version has been corrected.

By Maya Dangerfield and [greatist.com](#). January 14, 2014

If you want some pep in your step or a dash of good cheer, look no further than the grocery store's shelves. Not only are foods rich in vitamins, minerals and fatty acids healthful, but studies show they can also increase happiness, lessen symptoms of [depression](#) and [quell anxiety](#).

[How can foods improve our moods?](#) It all comes down to the brain. A healthy cognitive system is essential to regulating mood, and certain nutrients have a profound impact on maintaining normal brain function. Researchers have studied the association between foods and the brain and identified 10 nutrients that can combat depression and boost mood: calcium, chromium, folate, iron, magnesium, omega-3 fatty acids, Vitamin B6, Vitamin B12, Vitamin D and zinc. Try foods containing these nutrients for a midday pick-me-up, to promote long-term happiness or to ward off the nagging worry that you forgot to lock the front door. (You did remember, right?)

Calcium

[The most abundant mineral in the body](#), calcium plays an important role in maintaining strong bones and healthy blood vessels, and in reducing the risk of Type 2 diabetes. Low levels of calcium may play a role in [premenstrual-syndrome-related depression in particular](#). (Sorry, guys, we couldn't find data on whether calcium can also regulate mood fluctuations in men.) Calcium deficiency affects more women than men, so women should take special care to meet the daily requirements.

How eating it helps: Found in a [variety of sources](#) (nondairy included), calcium is often paired with Vitamin D to help regulate mood fluctuations attributed to PMS. Since estrogen plays a large role in calcium production, calcium consumption may improve [PMS-related depression](#).

About the units used below: Mg (milligram) is the typical unit of measurement for nutrients, and 1,000 mg equals 1 gram. Mcg is the abbreviation for microgram, and 1,000 mcg equals 1 mg.)

[Recommended Daily Allowance, or R DA:](#) 1,000 mg per day for adults

[Food sources of calcium](#) :

- [Collard greens](#), frozen (1 cup): 357 mg
- [Ricotta](#), part skim ($1/2$ cup): 308 mg
- [Yogurt, plain/low fat](#) ($3/4$ cup): 310 mg
- [Milk, low-fat](#) (1 cup): 305 mg
- [Kale](#), frozen (1 cup): 179 mg

Chromium

A trace mineral found in small amounts in the body, [chromium](#) helps [metabolize food](#) . A lack of chromium hurts the body's ability to [regulate insulin](#) (the hormone that regulates sugar) and may lead to [diabetes-related complications](#) such as vision loss and high blood pressure.

How eating it helps: [Chromium plays an important role](#) in increasing the brain's level of serotonin, norepinephrine and melatonin, which help regulate emotion and mood. Because chromium works directly with the brain's mood regulators, it's been found to be an effective [treatment for depression](#).

[RDA:](#) 25 mcg per day for women; 35 mcg per day for men

[Food sources of chromium](#) :

- [Broccoli](#) ($1/2$ cup): 11 mcg

- Grape juice (1 cup): 8 mcg
- Whole-wheat English muffin (1 piece): 4 mcg
- Potatoes, mashed (1 cup): 3 mcg
- Turkey breast ($\frac{1}{3}$ cup): 2 mcg

Folate

[Folate](#) (also known as B9 or folic acid) helps the body create new cells and supports serotonin regulation. Serotonin [passes messages](#) between nerve cells and helps the brain manage a variety of functions, from determining mood to regulating social behavior. Folate deficiency [can cause](#) fatigue in addition to lowering levels of serotonin.

How eating it helps: A pair of power nutrients, [folate and B12, are often paired](#) together to treat depression. By itself, Folate has the added benefit of [boosting the efficiency](#) of antidepressants.

[RDA](#): 400 mcg per day for adults

[Food sources of folate](#) :

- [Spinach](#) ($\frac{1}{2}$ cup): 131 mcg
- [Black-eyed peas](#) ($\frac{1}{2}$ cup): 105 mcg
- [Asparagus](#) (4 spears): 89 mcg
- [Brussels sprouts](#) ($\frac{1}{2}$ cup): 78 mcg
- [Avocado](#) ($\frac{1}{2}$ cup): 59 mcg

Iron

Iron [plays an important role in the body](#), from transporting oxygen to supporting energy levels and aiding muscle strength. Low levels of iron can lead to [feelings of fatigue and depression](#). Iron deficiency appears more frequently in women than men, especially [women of childbearing age](#).

How eating helps: Consuming enough iron will help prevent [iron anemia](#) (not enough iron), a condition that commonly affects women more than men. Keeping enough iron in the body is important, as the fatigue, apathy and mood change [associated with iron deficiency](#) can often lead to depression.

[RDA](#): 18 mg per day for women; 8 mg per day for men

[Food sources of iron](#) :

● [Fortified oatmeal](#), instant (1 package): 11 mg

● [Soybeans](#) (1 cup): 8.8 mg

● [Lentils](#) (1 cup): 6.6 mg

● [Beef Ribeye](#) (5-oz. fillet): 3.8 mg

● [Turkey, dark meat](#) ($\frac{1}{3}$ cup): 2.0 mg

Magnesium

Magnesium is a mineral that [plays over 300 roles](#) in maintaining and protecting the body's health. Deficiency [can cause](#) irritability, fatigue, mental confusion and predisposition to stress.

How eating it helps: [Magnesium](#) plays a large role in the development of serotonin, which is a major contributor to feelings of happiness. Due to magnesium's ability to help regulate emotions, it's a [common element in homeopathic remedies](#) for balancing mood.

[RDA](#): 310 mg per day for women; 400 mg per day for men

[Food sources of magnesium](#) :

● [Almonds](#) ($\frac{1}{8}$ cup): 79 mg

● [Spinach](#) ($\frac{1}{2}$ cup): 78 mg

● [Cashews](#) ($\frac{1}{8}$ cup): 74 mg

● [Peanuts](#) (1 / 4 cup): 63 mg

● [Edamame](#) (1 / 2 cup): 50 mg

Omega-3s

[Omega-3 is an essential fatty acid](#) that plays an important role in brain health and contributes up to 18 percent of the brain's weight. The body [does not naturally produce omega-3](#), so it needs to be consumed from outside sources. Deficiency [symptoms](#) include fatigue, mood swings, memory decline and depression.

How eating it helps: Studies show a correlation between consumption of fish with high levels of omega-3 fatty acids and a [decreased risk](#) of depression and suicide. Whether eating fish or snacking on chia seeds, increasing your intake of omega-3 fatty acids [may help](#) combat depression.

RDA: There is no established RDA for omega-3s, but the [American Heart Association suggests](#) eating a variety of fish (trout, herring and salmon) at least twice a week. For vegetarians, there are also plenty of non-meat sources of omega-3s.

Food [sources of omega-3](#) :

● [Chia seeds](#) (1 / 8 cup): 4,915 mg

● [Atlantic salmon](#) (1 / 2 fillet): 3,982 mg

● [Chinese broccoli](#) (1 cup): 227 mg

● [Atlantic herring](#) (5-oz. fillet): 3,171 mg

● [Spinach](#) (1 cup): 381 mg

Vitamin B6

Vitamin B6 helps the production of [neurotransmitters](#) (which send messages from the brain to the rest of the body). [Deficiency](#) in B6 can cause short-term anemia; long-term effects include a weakened immune system, confusion and depression.

How eating it helps: [Consuming Vitamin B6](#) is essential for regulating brain function, which influences our emotions. In addition to regulating healthy moods, Vitamin B6 is also an effective method for [treating premenstrual depression](#).

[RDA](#): 1.3 mg per day for adults

[Food sources of B6:](#)

● [Chickpeas, canned](#) (1 cup): 1.1 mg

● [Yellowfin tuna](#) ($\frac{1}{3}$ cup): 0.9 mg

● [Salmon](#) (3-oz. fillet): 1 mg

● [Chicken breast](#), skinless and boneless (1 piece): 0.5 mg

● [Fortified breakfast cereals](#) ($\frac{3}{4}$ cup): 0.5 mg

Vitamin B12

[B12 is an essential element](#) that aids in the creation of red blood cells and nerves. [Low levels of B12](#) can cause short-term fatigue, slowed reasoning and paranoia, and are [associated with depression](#). Vitamin B-12 is [found naturally](#) in meats, eggs and animal byproducts, which means that vegetarians and vegans have an increased risk of developing a deficiency.

How eating it helps: Because moods depend largely on signals from the brain, B12 plays an important role in regulating depression: Consuming enough Vitamin B12 allows the body to synthesize a group of nutrients [critical for](#) normal neurological function.

[RDA](#): 2.4 mcg per day for adults

[Food sources of B12:](#)

- [Rainbow trout \(1 fillet\)](#): 9 mcg
- [Sockeye salmon \(3-oz. fillet\)](#): 17.6 mcg
- [Swiss cheese \(1 / 8 cup\)](#): 4.4 mcg
- [Mozzarella cheese \(1 / 8 cup\)](#): 3.0 mcg
- [Tuna, in water \(3.5-oz. can\)](#): 2.5 mcg

Vitamin D

[Vitamin D](#) helps regulate cell growth, plays an important role in maintaining the immune system and (when paired with calcium) protects bones. Studies show that low levels of Vitamin D are [associated with](#) depressive symptoms in both [men](#) and women. Most often, [lowered levels of Vitamin D](#) are the result of indoor lifestyles, limited sun exposure and inadequate intake of Vitamin-D-rich foods.

How eating it helps: If you're feeling blue, increasing Vitamin D could help ward off depression. Consuming the mood-regulating vitamin is important, especially during the wintertime when [light from the sun](#) (a natural producer of Vitamin D) is limited.

RDA: 600 IU per day for adults ages 15 to 60. (IU, or international unit, is a type of measurement typically reserved for vitamins A, C, D and E.)

Food sources of Vitamin D:

● [Cod liver oil](#) (1 tablespoon): 1,360 IU

● [Salmon](#) (3-oz. fillet): 646 IU

● [Swordfish](#) ($\frac{1}{3}$ cup): 566 IU

● [Chanterelle mushrooms](#) (1 cup): 114 IU

● [Milk](#) (1 cup): 115-124 IU

Zinc

Zinc is found in almost every cell and [plays an important role](#) in supporting a healthy immune system and helping the body protect the [gut from damage](#). Low levels of zinc in the diet can lead to [a variety of ailments](#), including a weakened immune system, loss of appetite, anemia, hair loss and depression. [Vegetarians need](#) as much as 50 percent more zinc than non-vegetarians due to the body's lower absorption rate of plant-based zinc.

How eating it helps: Studies have identified zinc as an important factor in decreasing depressive symptoms, as the vitamin can improve the response of antidepressants while reducing the side effects of antidepressant medication. A [lack of zinc](#) can trigger depressive behaviors, so load up on zinc-rich foods to balance your mood.

[RDA](#): 11 mg per day for men; 8 mg per day for women

[Food sources of zinc:](#)

● [Roasted pumpkin seeds](#) (1 cup): 9.5 mg

● [Cashews, dry roasted](#) (1 cup): 7.67 mg

● [King Alaska crab](#) (1 leg): 10.2 mg

● [Pork loin](#) (6-7 oz.): 3.5 mg

● [Swiss cheese](#) ($\frac{1}{8}$ cup): 1.2 mg

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