

# Nutritional Deficiencies That May Cause Depression

Nutrition plays a major role in our ability to regulate psychological and emotional well-being and deficiencies in key vitamins and minerals can compromise optimal brain functioning and increase levels of stress, anxiety and depression. We can however address the most common nutritional deficiencies by incorporating specific foods and supplements into our diets.

## Omega -3 Fatty Acids

Omega -3 Fatty Acids are essential for healthy brain cell functioning and reduction in inflammation. You need to consume a lot of fish — salmon, tuna, halibut — or flaxseeds and walnuts to be at an optimal level. These essential minerals reduce inflammation and play a critical role in brain function, especially memory and mood. The body can't make them, so you need to either eat them or take supplements.

## Vitamin D

Vitamin D plays a significant role in our serotonin activity, serotonin is the key neurotransmitters involved with mood, sleep, appetite and digestion. In the NT we have great access to sunlight, a major source of Vitamin D. Vitamin D is actually more like a hormone and an extraordinary one at that. Staying out of the sun due to fear of its harmful effects can have repercussions due to the vital need in our body for this vitamin.

According to Mark Hyman, MD, bestselling author of The Ultra Mind Solution, vitamin D deficiency is a major epidemic that is just getting recognised. This deficiency has been linked to depression, dementia, and autism. In other States levels can drop off during the winter months, since sunlight is the richest source. Dr. Hyman believes that we should ideally be getting 5,000 to 10,000 IU (international units or 125-250 µg /day) a day. However, the Australian National Health and Medical Research Council (NHMRC), recommends most healthy adults get only between 5-15 µg daily.

Sun protection is recommended when the UV Index is 3 or above, or when spending extended periods of time outdoors. Sunscreen should be incorporated into your daily morning routine on these days ([www.cancer.org.au](http://www.cancer.org.au))

Dr Steven Lin notes Vitamin D creates a need for Vitamin K2 in the body.  
As a guide, you should take 45mcg of Vitamin K2 per 1000 IU of Vitamin D3  
(<https://www.drstevenlin.com/how-to-choose-the-right-vitamin-k2-supplement>)

## Magnesium

Magnesium deficiency is common (cite). Our lifestyles can decrease our levels: excess alcohol, salt, coffee, sugar, phosphoric acid (in soda), chronic stress, antibiotics. Magnesium is sometimes referred to as the stress antidote, the “most powerful relaxation mineral that exists,” according to Hyman. It is found in seaweed, greens, and beans. The NHMRC recommends a daily intake of about 400 to 420 milligrams (mg) of magnesium for adult men and 310 to 320 mg for adult women.

## Vitamin B Complex

B vitamins like vitamin B-6 and vitamin B-12 can provide some incredible health benefits, including reduced stroke risk and healthy skin and nails. On the other hand, a vitamin B deficiency may impact your mental health. More than a quarter of severely depressed older women were deficient in B-12, according to one 2009 study (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2781043/>).

The best sources of vitamin B-6 are poultry, seafood, bananas, and leafy green vegetables. For vitamin B-6, the NHMRC recommends a daily intake of 1.3-1.7 mg for adult men, and 1.3-1.5 mg for adult women. Vitamin B-12 is found in animal foods (meat, fish, poultry, eggs, and milk) and shellfish, such as mussels, and crab.

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## Folate

People with a low folate level have only a 7 percent response to treatment with antidepressants. Those with high folate levels have a response of 44 percent, according to Hyman. That is why many psychiatrists are now prescribing a folate called Deplin to treat depression and improve the effectiveness of an antidepressant. Your daily recommended folate intake depends on your gender, whether you're pregnant or breastfeeding, and age. However, most adults need at least 400 µg daily. You can also get your daily folate requirements by consuming foods high in folate, including dark leafy greens, beans and legumes, and citrus fruits and juices.

## Amino Acids

Amino acids — the building blocks of protein — help your brain properly function. A deficiency in amino acids may cause you to feel sluggish, foggy, unfocused, and depressed. Good sources of amino acids include beef, eggs, fish, beans, seeds, and nuts.

## Iron

Iron deficiency is pretty common in women. About 20 percent of women, and 50 percent of pregnant women are deficient (cite). Only three percent of men are iron deficient. The most common form of anemia — an insufficient number of red blood cells — is caused by iron deficiency. Its symptoms are similar to depression: fatigue, irritability, brain fog. Most adults should consume male 8, female 8 to 18 mg of iron daily, depending on age, gender, and diet, according to the NHMRC. Good sources of iron include red meat, fish, and poultry. If you really want to get more red blood cells, eat liver.

## Zinc

Zinc is used by more enzymes (and we have over 300) than any other mineral. It is crucial to many of our systems. It activates our digestive enzymes so that we can break down our food, and works to prevent food allergies (which, in turn, averts depression in some people, since some of our mood disruptions are triggered by food allergies). It also helps our DNA to repair and produce proteins. Finally, zinc helps control inflammation and boosts our immune system. The NHMRC recommends a daily intake of zinc for adult men of 15mg and women 8 mg.

## Iodine

Iodine deficiency can be a big problem because iodine is critical for the thyroid to work as it should, and the thyroid affects more than you think: your energy, metabolism, body temperature, growth, immune function, and brain performance (concentration, memory, and more). When it's not functioning properly, you can feel very depressed, among other things. You can get iodine by using an iodine-enriched salt, or by eating dried seaweed, and fish. The daily recommend amount of iodine for most adults is about 150 µg daily.

## Selenium

Like iodine, selenium is important for good thyroid function. It assists the conversion of inactive thyroid hormone T4 to the active thyroid hormone, T3. It also helps one of our important antioxidants (glutathione peroxidase) keep polyunsaturated acids in our cell membranes from getting oxidized (rancid). Most adults need about 70 for men and 60 for women mcg of selenium daily. The best food source of selenium is Brazil nuts.

You should talk to your doctor before taking any supplements, especially if you're on prescription medications.

The information provided is for education purposes only. Always consult a qualified medical specialist/dietician/naturopath to assist in assessing your nutritional requirements.