Serotonin-boosting foods and fatty acids that can lift your mood

Why do we care about serotonin?

One in four Americans currently suffers from anxiety or depression, correlating directly to serotonin levels found in the body. Normal serotonin levels help with your emotional state and digestion, sleep, wound healing, sexual desire, and bone density. However, the most common issues with low serotonin levels are related to mental health.

Serotonin is a neurotransmitter known as the “happy hormone.” It is vital in managing stress, supporting mental well-being, enhancing social interactions, promoting better sleep, and improving cognitive function and emotional resilience.

And its benefits don’t stop there. In bones, serotonin regulates bone density and remodeling, with high levels linked to increased bone density and a reduction in potential risk of osteoporosis, while promoting bone formation. Serotonin also plays a role in wound healing by aiding in blood clotting through platelet release and influencing immune response and tissue repair processes.

How does it actually do all of that? It plays a crucial role in the central nervous system as it acts as a neurotransmitter. It carries messages between the nerve cells in the brain and throughout the body.

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Gut-brain axis support network

The gut-brain axis refers to the bidirectional communication between the gut (gastrointestinal tract) and the brain. It involves complex interactions between the central nervous system (CNS) and the enteric nervous system (ENS), which is often referred to as the “second brain” of the body due to its extensive network of neurons in the gut.
Serotonin plays a critical role in this communication system, serving as a messenger molecule that helps regulate various physiological processes and behaviors. The majority of serotonin in the body is found in the gut, serving multiple functions:
Changes in gut serotonin levels can have major impacts on many bodily functions. Having balanced serotonin levels in the gut helps normalize various gastrointestinal functions, including bowel movements and intestinal motility. Imbalances in gut serotonin levels have been linked to conditions like irritable bowel syndrome (IBS).

It can also affect feelings of satiety and control eating behavior, while also playing a role in the gut’s immune response, helping regulate inflammation and immune cell activity.

*The gut-brain axis is a fascinating area of research that highlights the intricate connections between various bodily systems. Serotonin’s influence on the gut and brain underscores its role as a key mediator in the body’s communication network.*

**Serotonin-boosting foods**

Okay, so now I know it can boost not only my mood, but fortify my immune system, help me regulate my hunger, positively impact my digestion and decrease inflammation, but should I take a pill? Is there a pill?

Here at Dirt to Dinner, after much research, we have included that it is always better to seek nutrients through whole foods. Not only is the supplement industry unregulated which makes it hard to know what you are taking, but most of the time, nutrients are more bioavailable for the body to use in its whole food form.

Incorporating serotonin-boosting foods into your diet is a natural and accessible way to promote emotional and physical health and the many other benefits of serotonin.

Nutrients in foods such as complex carbohydrates, vitamin B6, omega 3s, and tryptophan all work together to do just that! For instance, a meal of salmon, quinoa, and spinach with sliced bananas for dessert will work well together to produce the serotonin you need!
Tryptophan-rich foods

Tryptophan is an essential amino acid that our bodies can’t produce alone. Consuming foods high in tryptophan can increase serotonin levels in our gut and brain, as the amino acid synthesizes to become serotonin in your body.
Good news for you, most people already consume more than double the recommended amount, typically 900-1000 milligrams daily as part of their regular diets. Some tryptophan-dense foods are cod, spirulina, nuts and seeds, and legumes.

Here’s a fun fact to share…

Most people think turkey has the most tryptophan, but take a look at the chart on the left!

**Complex carbohydrates**

Consuming complex carbohydrates can also boost serotonin production. These carbohydrates increase insulin levels, which aids in the absorption of amino acids, including tryptophan, into the brain. Some excellent sources of complex carbohydrates include whole grains (like oats, quinoa, farrow, and brown rice), sweet potatoes, and legumes (including beans, lentils, and peas).
Not sure how to tell the difference between a complex carb and a simple carb? Here’s a good trick: most whole, unprocessed foods contain complex carbs. Avoid processed foods and “white” foods, which are mostly comprised of simple carbs.

When you eat a meal rich in carbohydrates from whole grains, insulin stimulates the uptake of other amino acids into cells, leaving tryptophan with relatively fewer competitors. As a result, more tryptophan can be converted into serotonin, contributing to a more balanced and positive mood.

Complex carbohydrates provide a slow and steady release of energy compared to simple carbohydrates. This sustained energy release helps stabilize blood sugar levels, preventing rapid spikes and crashes. Fluctuations in blood sugar levels can affect mood and energy levels, and stable blood sugar can reduce emotional ups and downs.

**Vitamin B6 & serotonin conversion**

Vitamin B6 helps the body convert tryptophan into serotonin. Including foods high in vitamin B6 can enhance this serotonin synthesis.

Some notable sources of vitamin B6 are fish (like tuna, salmon, and trout), poultry, and bananas. B6 is critical in allowing the body to utilize serotonin to assist with our cognitive and emotional functioning.

Curious about other B6-rich foods? Print out this handy chart and stick it on your fridge!
Omega-3 fatty acids

The relationship between omega-3 fatty acids and serotonin involves multiple interconnected mechanisms that can impact mood and emotional well-being. Omega-3 fatty acids are essential for brain health and function, particularly eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

These fatty acids are incorporated into cell membranes, influencing membrane fluidity and receptor activity. By regulating the cell membrane, omega 3s can enhance the function of serotonin receptors, making them more responsive to serotonin.

Studies suggest that omega-3 fatty acids, when consumed in sufficient amounts (at least 200mg a day), may contribute to maintaining healthy serotonin levels.

Which foods are excellent sources of omega 3s? At the top of the list are fatty fish (tuna, salmon, trout,
herring, anchovies), chia seeds, and flaxseeds.

What else can we do?

Want to boost the effects of these foods? Get good sleep. Serotonin is the first step in melatonin production, a hormone we produce that regulates sleep-wake cycles. Ensuring you are making enough serotonin can support healthy sleep patterns and improve sleep quality, leading to better overall health and productivity.

The bottom line

Incorporating foods that boost serotonin production in your diet can be a natural and effective way to enhance mood and overall well-being. Tryptophan-rich foods, complex carbohydrates, vitamin B6 sources, and foods rich in omega-3 fatty acids can all contribute to increased serotonin levels in the brain and an overall healthier you!

Hayley N. Phillip is a graduate of the University of California Santa Barbara with degrees in Sociology and Marketing. Hayley leads the Dirt to Dinner team in debunking popular fad diets, fast-nutrition, and myths about ‘quick’ dietary fixes. Hayley also researches and writes about the intersectionality of regeneration and sustainable growing methods that will safely produce enough food for future generations.

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