

**Editorial**

# Role of Different Foods in Relieving Depression

Mohsin Masud Jan

Editor

Pakistan, among the other developing countries, has a higher prevalence rate of depression because of the current social adversities. There is, thus, a great need for systematic studies on prevalence of depression.

Depression has been recognized as a major public health problem evidenced by its ranking of fourth position among the global burden of diseases. Many believe it will occupy second position by the year 2020. 340 million people above the age of 18 suffer from depressive disorders that contribute to a high suicide rate.<sup>1</sup>

450 million people in the world suffer from a mental or behavioral disorder. W.H.O. (World Health Organization) global burden of diseases, 2001, states that 33% of the years lived with disability (YLD) are due to neuropsychiatric disorders, unipolar depressive disorders alone lead to 12–13% of years lived with disability and rank as the third leading contributor to the global burden of diseases<sup>2</sup>.

Depressive disorders were estimated to be the leading cause of disability in the world in 1990, accounting for 10.7% of total YLD. These disorders are the 4th leading cause of total DALYs (3.7% total disability adjusted life years)<sup>3</sup>. Estimated global deaths due to unipolar depressive disorders was 12,044, with 5462 male and 6582 female (2004)<sup>4</sup>. A large study conducted by WHO in fourteen countries showed 24% primary care attenders worldwide received an ICD-10 psychiatric diagnosis, the most common of which was ‘current depressive episode’<sup>5</sup>.

Under the big tent of depression there are many shades of gray. Depression can be mild or severe. It can be short-lived or chronic. Special circumstances, like the birth of a baby or the changing of the seasons, can trigger depressive symptoms.

Understanding the type of depression a person is experiencing helps doctors determine treatment. And for people who are diagnosed with depression, having information about their specific disorder can be helpful. Here’s what you should know about the different types of depression. If you suspect you or a loved one has one of these, get evaluated by a mental health professional. They can help you figure out a diagnosis – and the best course of treatment.

**Major depressive disorder:** This very common type of depression is also known as major depression or clinical depression. Under diagnostic criteria, people must have at least five symptoms persisting for two weeks or longer to be diagnosed with major depressive disorder. Those symptoms can include feelings of sadness, emptiness, worthlessness, hopelessness, and guilt; loss

of energy, appetite, or interest in enjoyable activities; changes in sleep habits; and thoughts of death and suicide. Most cases are highly treatable.

**Subsyndromal depression:** A person who has depressive symptoms but doesn’t quite check all the boxes for a diagnosis of major depression may be deemed “subsyndromal.” May be three or four symptoms, not five, or may be depressed for a week, not two.

**Bipolar depression:** Wide swings in mood and energy, from elation to hopelessness, are the signature of bipolar depression, also called bipolar disorder or manic-depressive illness. To be diagnosed with this form of depression, a person must have experienced at least one bout of mania.

**Disruptive mood dysregulation disorder:** Screaming and temper tantrums can be features of disruptive mood dysregulation disorder (DMDD), a type of depression diagnosed in children who struggle with regulating their emotions. Other symptoms include an irritable or angry mood most of the day nearly every day and trouble getting along in school, at home, or with their peers.<sup>6</sup>

**Postpartum (or perinatal) depression:** The birth of a baby brings enormous joy but can sometimes lead to postpartum depression (PPD), a type that affects one in four women and one in eight men. In women, postpartum depression is likely triggered by shifts in hormones, fatigue, and other factors. In men, it’s environmental, brought on by shifting roles and lifestyle changes that come with parenting.

**Psychotic depression:** People with psychotic depression have severe depression accompanied by psychosis, which is defined as losing touch with reality. Symptoms of psychosis typically include hallucinations (seeing or hearing things that aren’t really there) and delusions (false beliefs about what’s happening).

**Treatment-resistant depression:** Sometimes people with major depressive disorder don’t readily respond to treatment. Even after trying one antidepressant and then another their depression stubbornly hangs on.

**Seasonal affective disorder (SAD):** Seasonal affective disorder (SAD) is a recurring type of depression that usually strikes in the fall or winter. Along with a change in mood, SAD sufferers tend to have low energy. They may overeat, oversleep, crave carbs, gain weight, or withdraw from social interaction.

**Foods that Help Relieve Depression:** A well-balanced diet of fruits, vegetables, lean meats, and whole grains contributes to your mental health as much as your physical health. Likewise, foods high in sugar,

processed foods, and fatty foods are detrimental to your mental and physical well-being.

Modern psychiatry often treats mental health conditions with prescription medication. However, medication alone does not address the nutritional deficiencies that often play a part in mental and mood disorders.<sup>7</sup>

According to the best available evidence, nutritional counseling may help fight depression. A healthy diet may relieve symptoms of depression with fewer side effects than medications.<sup>8</sup>

While vitamin supplementation can help manage some of these deficiencies, research shows that getting essential nutrients from whole foods may be even more effective than taking supplements.<sup>9</sup>

**Leafy Greens:** Some of the best leafy greens for depression relief include spinach, kale, lettuce, and collard greens.

Leafy greens are chock full of antioxidants, which can be instrumental in reversing damage caused by free radicals. Free radicals are naturally occurring molecules in our bodies that have been linked to cell and DNA damage, chronic health problems, and aging.

In particular, free radicals can have a significant impact on brain health.

This may be why consuming antioxidant-rich foods may help improve symptoms of major depressive disorder. Well-known antioxidants include beta-carotene, vitamin C, and vitamin E.

Some of the most antioxidant-rich foods include Carrots, Pumpkin, Berries (such as blueberries and strawberries), Peppers, Sunflower seeds, Almonds, Hazelnuts, Peanuts, Leafy greens.

**Fatty Fish:** Studies show that omega-3 fatty acids are critical for brain function, including mood regulation. Fish like salmon, small mackerel, and sardines are excellent sources of those omega-3s.<sup>10</sup>

A lack of the omega-3 fatty acid docosahexaenoic acid (DHA) has been linked to reduced production of the neurotransmitters serotonin and dopamine. Deficiency of necessary lipids in the brain is also linked to incidents of anxiety, depression, aggression, and other psychiatric conditions.

Always choose low mercury fish like the ones mentioned above, as opposed to larger fish that contain more mercury (such as tuna).

Despite diet and health trends that focus on eliminating fat, it is apparent that healthy fats are necessary for optimal brain and body function.

Other good sources of omega-3 fatty acids include Walnuts, Raw olive oil, Flaxseed, Chia seeds, Hemp and seeds.

**Avocado:** Another monounsaturated fat, oleic acid, is necessary for proper brain function and can prevent cognitive decline as we age. Some studies suggest that this healthy fat may be particularly helpful in preventing depression in women.

Other oleic acid-rich foods include Olives, Cheese, Eggs and Milk.

**Allium Vegetables:** Allium vegetables such as garlic and onions have antidepressant effects. These vegetables are anti-inflammatory and have been associated with a reduced risk of cancer and several other health benefits.

The full list of allium vegetables includes Garlic, Onions, Leeks, Chives and Shallots.

Allium vegetables appear to improve gastrointestinal health, promoting both mental and overall wellness.

**Whole Grains & Other High-Folate Foods:** Whole grains are packed with folate (vitamin B9, aka folic acid) and other B vitamins. Folate deficiency has been associated with a higher risk of depression.

Folate also helps regulate levels of homocysteine, a biochemical linked with depression, when present in excess amounts. Homocysteine can inhibit the production of serotonin, dopamine, and other important neurotransmitters.

Keep in mind that people with sensitivity to gluten and wheat will still want to avoid grains containing gluten, even if they are minimally processed or whole grains. Gluten-containing grains can cause inflammation in some people and lead to symptoms of depression.

Gluten-free, folate-rich foods include Tomatoes, Asparagus, Brussel sprouts and Fresh fruits.

**Beans:** Fiber-rich beans improve gut health and reduce inflammation. Fiber also helps regulate blood sugar levels, which may affect instances of depression.

Beans are also rich in healthy carbohydrates, which may be linked to increased serotonin. This may be why people crave carbs when under stress. Note that not all carbs are created equal. Refined carbohydrates have been shown to increase depression.

When choosing your carbs, it's best to stick to fiber-rich, unrefined options. The best carb-rich foods for people struggling with depression include whole grains, Legumes (beans), Chia seeds, Flax seeds, Berries, Avocado, Broccoli.

**Shellfish:** Shellfish are a great source of selenium. According to some studies, selenium may help with mood and anxiety. Higher selenium levels correlate with decreased experiences of depression, anxiety, and exhaustion.

Selenium-rich foods include Brazil nuts, Tuna, Halibut, Sardines, Shrimp and Whole grain.

**Lean Beef:** Although typically linked to muscular health, higher protein intake has also been linked to reduced symptoms of depression. Some studies suggest that protein is critical for overall brain health.

Animal proteins also tend to be high in vitamin B12. B vitamins, in general, are necessary for brain function and memory. Like vitamin B9 (folate), vitamin B12 has specifically been shown to help relieve symptoms of depression. This may be linked to the functionality of vitamin B12 in DNA synthesis and energy production in the body, but researchers are still unsure.<sup>11-12</sup>

We always recommend choosing grass-fed and organic meats, eggs, and dairy over conventionally farmed options, as the nutrient breakdown can differ greatly.

Good sources of protein to support mental health include Lean beef, Poultry (such as turkey, chicken, and duck), Fish (such as tuna, salmon, and tilapia), Beans and legumes (such as soybeans, black beans, kidney beans, peas, and lentils), Eggs and Dairy (such as yogurt, milk, and cheese)

**Foods Rich in Vitamin D:** Vitamin D deficiency has also been linked to depression. The link may be due to the function of vitamin D in the endocrine and immune systems.

The best source of vitamin D is moderate sun exposure, putting those with less sun exposure at risk for deficiency. To get more vitamin D, stand outside in direct sunlight for 10-20 minutes each day, preferably before applying sunscreen.

**How do you get someone to eat when they are depressed?** 10-20 minutes of direct sun exposure may help improve someone's mood enough to attempt eating.

**Can depression make you not enjoy food?** Depression can take the joy out of eating. For someone who is depressed, start with small bites of a food without too much flavor, like fiber-rich whole grain bread. It's also a good idea to set an alarm reminder to eat every 4 hours.

Vitamin D deficiency can be rectified by adding these whole foods to your diet like oily fish (such as salmon, sardines, and mackerel), cod liver oil, Oysters, egg yolks, fortified milk and Mushrooms

## REFERENCES

- Desjarlais R. World Health Report. World Health Organization, Geneva. 2001.
- W.H.O. Mental Health, 2006. [http://who.int/mental\\_health/en/](http://who.int/mental_health/en/) Date accessed: 20/1/2006.
- Ustun TB, Ayuso-Mates JL, Chatterji S, Murray CJC. Global burden of depressive disorders in the year 2000. *Brit J Psychiatr* 2004;184:386-392.
- Ustun TB, Ayuso-Mates JL, Chatterji S, Murray CJC. Global burden of disease 2000 Study: World deaths related to neuropsychiatric conditions by gender and cause for year 2000. *Brit J Psychiatr* 2004;184(5):386.
- Sartorius N. Globalization and mental disorders. *Br J Psychiatr* 2004;184:10-20: p: 8.
- Wolfe AR, Ogbonna EM, Lim S, Li Y, Zhang J. Dietary linoleic and oleic fatty acids in relation to severe depressed mood: 10 years follow-up of a national cohort. *Progress in Neuro-Psychopharmacol Biological Psychiatr* 2009;33(6):972-977.
- Owen L, Corfe B. The role of diet and nutrition on mental health and wellbeing. *Proceedings of the Nutrition Society* 2017;76(4):425-426.
- Rao TS, Asha MR, Ramesh BN, Rao KJ. Understanding nutrition, depression and mental illnesses. *Ind J Psychiatr* 2008;50(2):77.
- Lichtenstein AH, Russell RM. Essential nutrients: Food or supplements? Where should the emphasis be? *JAMA* 2005;294(3):351-358.
- McNamara RK, Carlson SE. Role of omega-3 fatty acids in brain development and function: potential implications for the pathogenesis and prevention of psychopathology. *Prostaglandins, Leukotrienes and Essential Fatty Acids* 2006;75(4-5):329-349.
- Syed EU, Wasay M, Awan S. Vitamin B12 supplementation in treating major depressive disorder: a randomized controlled trial. *Open Neurol J* 2013;7:44.
- Coppen A, Bolander-Gouaille C. Treatment of depression: time to consider folic acid and vitamin B12. *J Psychopharmacol* 2005;19(1):59-65.