

DEPRESSION

Magnesium
Deficiency damages NMDA (N-methyl-D-aspartate) receptors in the brain, which regulate mood; Well-documented anti-depressant effects.^{1,2,3,4}

Zinc
Improves efficacy of antidepressant drugs; Particularly useful for treatment resistant patients; Regulates neurotransmitters.^{33,34,35,36}

Serine
Regulates brain chemistry; Involved in NMDA receptor function; Acts as a neurotransmitter; Low levels correlate with severity of depression.^{31,32}

Antioxidants
Oxidative stress in the brain alters neurotransmitter function; Antioxidants protect our brain, which is very sensitive to oxidation; Several antioxidants – Vitamins A, C and E, Lipoic Acid, CoQ10, Glutathione and Cysteine – play a key role in prevention and treatment of depression.^{28,29,30}

Biotin
Part of the B-vitamin complex, biotin deficiency has induced depression in animal and human studies.^{26,27}

Selenium
Integral part of regulatory proteins (selenoproteins) in the brain; Supplementation trials are promising; May alleviate postpartum depression.^{5,6}

Chromium
Elevates serotonin (feel-good neurotransmitter) levels in the brain; May be particularly effective on eating symptoms of depression such as carbohydrate craving and increased appetite, due to its effect on blood sugar regulation.^{37,38,39}

Folate
Building block for many “feel-good” neurotransmitters such as serotonin, dopamine and norepinephrine; Low folate causes poor response to antidepressant meds; The lower the folate, the more severe the depression.^{7,8,9,10}

Vitamin B12
Depression may be a manifestation of B12 deficiency; Repletion of B12 to adequate levels can improve treatment response; B12 deficiency common in psychiatric disorders.^{11,12,13}

Vitamin B6
Cofactor for serotonin and dopamine production (feel good chemicals); Studies indicate that low levels may predispose people to depression.^{14,15,16}

Vitamin B2
Low B2 has been implicated in depression due to its role in methylation reactions in the brain.^{17,18}

Vitamin D
Clinical trials suggest increasing blood levels of vitamin D, which is actually a hormone precursor, may improve symptoms of depression.^{19,20,21}

Inositol
Influences signaling pathways in the brain; Particularly effective in SSRI (selective serotonin reuptake inhibitor) sensitive disorders.^{24,25}

Carnitine
Increases serotonin and noradrenaline which lift mood; In trials, carnitine alleviates depression with few, if any, side effects.^{22,23}