

N-Acetylcysteine for Depression

Background

One of the ways that stress causes depression is by injuring brain cells through *oxidation*. Oxidation also contributes to heart disease, dementia and aging. Fortunately the body has natural *antioxidants* to protect against this damage. Antioxidants are partly responsible for the health benefits of exercise and healthy diets.

N-Acetylcysteine (NAC) is the main antioxidant in the brain. It improves many mental health conditions, including:

Compulsive problems: It helps trichotillomania (compulsive hair pulling), which is notable as medications have been found to change that behavior. NAC also reduces compulsive skin picking and self cutting. It may help obsessive-compulsive disorder (OCD) as well.

Depression: It is particularly helpful in reducing low-grade, chronic depressive symptoms due to bipolar disorder. NAC's antidepressant effects often build up slowly (e.g. over 6 months), which makes it hard to tell if it's working. However, the benefits usually go away quickly (within a week) if it is stopped. NAC also helps depressive symptoms due to schizophrenia (also called negative symptoms). It is not clear if it helps other kinds of depression.

Addictions: marijuana, alcohol, nicotine, and gambling.

Memory: The studies in this area are small, but it appears to be helpful in age-related cognitive decline and Alzheimer's disease.

Other: irritability due to autism spectrum disorders. Post-traumatic stress disorder.

N-Acetylcysteine works by increasing a natural antioxidant called glutathione in the

brain. N-Acetylcysteine is well tolerated and not associated with major medical risks. The tablets may have a bad smell. If they are hard to swallow or tolerate, try the version that dissolves in water (pharmanac.com).

How to take it

The usual dose for NAC is 2,000mg daily. You can split the dose up or take it all at once. If you can only find 600mg tablets, try 3-4 per day (e.g. take 3 one day and for the next day). The dose can go as high as 3,000mg daily (that level was used for nicotine cessation).

Avoid products that come as a liquid vial (these are meant to be inhaled and are used for lung disease).

It is also available in prescription form (called Cerefolin), but this option is often more expensive and not covered by insurance. Cerefolin tablets have 600mg of NAC but also contain B12. If you take 3 Cerefolin tablets it's possible your B12 levels will go too high.

Where to purchase it

Source Naturals makes a 1,000mg size pill for a decent price on Amazon.com (40 cents a day).

It is available in the store at:
VitaminShoppe, Whole Foods, GNC

Other online options include:
www.iherb.com www.vitacost.com
www.drugstore.com www.amazon.com

A version that dissolves in water is available online at pharmanac.com.