



## Are You Low In B12?

*"A few of the many symptoms of a B12 deficiency are fatigue, depression and brain fog."*

Fatigue, depression and brain fog are just a few of the many symptoms of a B12 deficiency. And who couldn't use a little more mental clarity? B12 is needed for every single cell in our body.

My thanks to Dr. David Brownstein for his book, [B12 for Health](#), which inspired much of this material.

Let's consider some of the factors needed for absorption of B12 and then why B12 is so critical for the body. B12 is a large molecule and is difficult to absorb. The process starts in the mouth with thorough chewing of your food. Adequate hydrochloric acid in the stomach is



needed to absorb B12. B12 absorbed in the lumen of the small intestine is then transferred via liver circulation where it is transported through the body.

Are you someone that inhales their food? Perhaps you take medication to reduce stomach acid. The pH of the stomach chyme should be

effective enough to kill the bacteria on our food, turn on other digestive enzymes and aid in the absorption of B12. Inadequate levels of HCL will disrupt the absorption of B12. That means reflux medications will inhibit this process. Currently reflux medicines are the "2nd most prescribed" class of drugs.

Next we add the "over the counter's" like Tagamet, Pepcid, Zantac or anything that reduces the secretion of HCL; even Maalox impedes B12 absorption.

Metformin, the first line therapy for diabetes is also linked to B12 deficiency. It is estimated that 50-80% of the world's population has the bacteria H-Pylori. H-Pylori have been linked to atrophic gastritis which is further linked to B12 deficiency. Other factors that impede B12 absorption are pernicious anemia, bariatric surgery, IBS as well as other GI disorders.

In terms of symptoms, B12 deficiency affects the peripheral nerves and in later stages the spinal cord. It's an important component for healthy myelin, our protective nerve covering. So, a B12 deficiency can create tingling and numbness in the extremities, difficulty maintaining balance and coordination, abnormalities of gait, muscle weakness, tremors, age related hearing loss, spasticity and symptoms mimicking MS or Parkinson's disease. Just as disturbing are the mental symptoms of irritability, depression or mania, paranoia, loss of concentration, memory loss, or dementia. Your clinician offers a range of testing to see if you are low in



B12, but if you have symptoms of a B12 deficiency, Dr. Brownstein says a clinical trial is merited. 80% of his patients feel better on B12.

B12 is not always well absorbed via the stomach and as such should be supplemented with a product that will yield good oral sublingual absorption. B12-2000 Lozenges is a flavored lozenge that

contains 2000 mcg of Hydroxocobalamin, 800 mcg of folate and 2.0 mg of B6 in the P-5-P form. The key to this therapy, however, is to allow the tablet to dissolve slowly in the mouth. B12-2000 Lozenges are safe and so tasty that the tendency is to chew them like candy.

Research shows that for most people, sublingual supplementation can be effective, especially if you are already supplementing with HCL. Some patients may need B12 injections so follow up as your clinician monitors your progress.

If you suspect you might be low in B12, or maybe you've been low in the past and you are experiencing symptoms again, contact your wellness professional, talk to them about B12 and ask about B12-2000 Lozenges.