VITAMIN B12

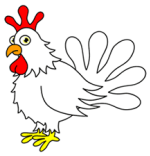
Vitamin B12 is a water-soluble vitamin. Water-soluble vitamins dissolve in water. After the body uses these vitamins, leftover amounts leave the body through the urine. The body can store vitamin B12 for years in the liver. Vitamin B12 is required for proper red blood cell formation, neurological function, and DNA synthesis. Vitamin B12 does not occur naturally in plants. Non-animal sources of vitamin B12 vary in their amount of B12. They are not thought to be reliable sources of the vitamin. You can only get it from animal sources. If you are mainly eating vegetables, you are at risk of becoming deficient.

Most people should be able to get enough vitamin B12 from their diet. However, some people, particularly older adults, those with pernicious anaemia and those with reduced levels of stomach acidity or intestinal disorders have difficulty absorbing vitamin B12, both from dietary sources and in supplements. As a result, vitamin B12 deficiency is common, affecting between 1.5% and 15% of the general population. In many of these cases, the cause of the vitamin B12 deficiency is unknown. Individuals who have trouble absorbing vitamin B12 from foods, as well as vegetarians who consume no animal foods, might benefit from vitamin B12-fortified foods, oral vitamin B12 supplements, or vitamin B12 injections.

Pernicious anemia is an autoimmune disease that affects the gastric mucosa and results in gastric atrophy. This type of anaemia is NOT caused by lack of iron. This leads to the destruction of cells, and failure to produce intrinsic factor, resulting in vitamin B12 malabsorption. If pernicious anemia is left untreated, it causes vitamin B12 deficiency, leading to megaloblastic anemia and neurological disorders, even in the presence of adequate dietary intake of vitamin B12.

Sources of Vitamin B12:

Vitamin B12 is naturally found in animal products, including fish, meat, poultry, eggs, milk, and milk products. Vitamin B12 is generally not present in plant foods. Clams, beef liver, milk, yoghurt, eggs and chicken are all really good sources of Vitamin B12. The body absorbs animal sources of vitamin B12 much better than plant sources.



Vitamin B12 Deficiency:

In most cases of Vitamin B12 deficiency, the cause is unknown. Deficiency can be caused by a lack of vitamin B12 in the diet, pernicious anaemia or the body not absorbing the vitamin from your gut because of problems in your gastrointestinal tract. There are groups of people who are more likely to experience vitamin B12 deficiency. Older people are more likely to develop problems in their gastrointestinal tract, which makes it difficult to absorb vitamin B12. It is estimated that 10-5% of people over the age of 60 have a vitamin B12 deficiency. Adults who have pernicious anaemia (an autoimmune disease and not merely caused by a lack of iron) are also at risk of vitamin B12 deficiency. Individuals

with pernicious anemia cannot properly absorb vitamin B12 in the gastrointestinal tract. Individuals with stomach and small intestine disorders, such as celiac disease and Crohn's disease, may be unable to absorb enough vitamin B12 from food to maintain healthy body stores. Sometimes severe infection with Helicobacter Pylori can result in decreased absorption of vitamin B12. If you have any gastrointestinal symptoms, and you have vitamin B12 deficiency, you should talk to your doctor about the possibility of a malabsorptive gastrointestinal disease. Strict vegetarians and vegans are at greater risk of developing vitamin B12 deficiency because natural food sources of vitamin B12 are limited to animal foods.

Folic acid and vitamin B1.

Large amounts of folic acid can mask the damaging effects of vitamin B12 deficiency by correcting the megaloblastic anemia caused by vitamin B12 deficiency without correcting the neurological damage that also occurs. Moreover, preliminary evidence suggests that high serum folate levels might not only mask vitamin B12 deficiency, but could also exacerbate the anemia and worsen the cognitive symptoms associated with vitamin B12 deficiency. Permanent nerve damage can occur if vitamin B12 deficiency is not treated. For these reasons, folic acid intake from fortified food and supplements should not exceed 1,000 mcg daily in healthy adults.

Symptoms of vitamin B12 Deficiency:

1. Neurological changes, such as numbness and tingling in the hands and feet,
2. fatigue,
3. weakness,
4. constipation,
5. loss of appetite,
6. weight loss.
7. Megoblastic anaemia (a type of anaemia)
8. difficulty maintaining balance,
9. depression,
10. confusion,
11. dementia and poor memory, and
12. soreness of the mouth or tongue.
13. Infants:
    a. Failure to thrive
    b. Movement disorders
    c. Developmental delays
    d. Megaloblastic anaemia

What to do if you are deficient in vitamin B12:

If you are deficient in vitamin B12, your treatment will depend on the cause. If you are deficient because you are not getting enough vitamin B12 in your diet, then it's important to add more foods that are high in vitamin B12 to your diet, such as clam. You should always try to get enough vitamins and minerals from your diet, before you take supplements. However, if you are vitamin B12 deficient because of a problem with absorption in your gut, then you will need to take supplements. In this case, some people will need to have injections, since this method bypasses the potential problems to absorption in your gut. However, high doses of oral vitamin B12 may also be effective. Overall, an individual patient's ability to absorb vitamin B12 is the most important factor in determining whether vitamin B12 should be administered orally or via injection. In most countries, the practice of using intramuscular vitamin B12 to treat vitamin B12 deficiency has remained unchanged. Once you have enough vitamin B12, your symptoms will go away. You might need to keep taking supplements though, depending on what your doctor says, otherwise you will risk becoming deficient again.

If it is not known why you have vitamin B12 deficiency, you should talk to your doctor about the best treatment options. It might be that you will have to experiment with what is best for you. You could try increasing your dietary vitamin B12 intake, and taking supplements until the symptoms disappear. Then you could decrease the supplements. The best thing to do is to talk to your doctor.