

## What is Vitamin B12?

Vitamin B-12 (cobalamin) is naturally found in animal foods and is often added to other foods and supplements. It plays a vital role in red blood cell formation, cell metabolism, nerve function and the production of DNA.

Food Sources

- Fish, Shellfish
- Liver
- Red meat
- Eggs
- Poultry
- Dairy products such as milk, cheese, and yogurt
- Fortified nutritional yeast
- Fortified breakfast cereals
- Enriched soy or rice milk

## Vitamin B12 Deficiency

Vitamin B12 Deficiency is not very common but does occur more frequently in specific populations. People who follow a vegetarian or vegan diet may experience deficiency as plant foods are not a source of Vitamin B12. Inadequate absorption can also lead to deficiency. Vitamin B12, when consumed from animal products, is bound to protein and must be released before it can be absorbed. The stomach acids aid in this process and deficiency can occur when these acids are deficient. This is commonly seen in older adults with digestive tract conditions and patients taking acid-suppressing medications. There are also other autoimmune diseases and medications that can affect Vitamin B12 absorption.

# **Drug-Induced Vitamin B12 Depletion**

- Proton-pump inhibitors (esomeprazole, lansoprazole, omeprazole, pantoprazole) these medications that are
   often prescribed for acid reflux and peptic ulcers
- H2 antagonists (cimetidine, ranitidine, famotidine) these over-the-counter medications are often used for
  heartburn and acid reflux
- Oral contraceptive pill some studies have shown women taking oral contraceptives may experience a suppression of their B12 levels
- Oral hypoglycemics (metformin) Long-term use of metformin, a drug commonly prescribed for type 2 diabetes, is associated with vitamin B12 deficiency

#### Signs and Symptoms of Vitamin B12 Deficiency

- anemia
- fatigue
- muscle weakness
- intestinal problems
- nerve damage
- mood disturbances

# What do I do if I am on these medications and/or experiencing these symptoms?

Doctors and Pharmacists can order a simple lab test to find your Vitamin B12 level. Although certain medications may decrease your levels of B12, they may not be clinically significant, meaning they have not dropped low enough for there to be any symptoms or concerns. It is, however, essential to keep an eye on your levels and supplement if necessary. Vitamin B12 supplements are commonly available as tablets, sublingual tablets and injections.

Talk to your Dispensaries Pharmacist today if you have any questions or need help choosing a quality supplement that is the most appropriate for you!