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Vitamin B12

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Vitamin B12 is a nutrient that plays an important role in our body’s production of blood cells and brain function. Without it, our body doesn’t function at its best and some symptoms can occur. Unfortunately, many studies have found that individuals who receive long-term Metformin treatment may have an increased risk for Vitamin B12 deficiency. A 2010 study in the *British Medical Journal* found that individuals with Type 2 diabetes who received Metformin for 4.3 years were 5.5 times more likely to develop a Vitamin B12 deficiency. Other studies, including ones from the *Practice Nurse Journal* and *Diabetes Care,* have shown that 20 to 30 percent of people on Metformin develop a deficiency. This does not mean that Metformin is a “bad” drug. Studies from the National Institutes of Health have shown it to be very beneficial for lowering A1C levels and preventing complications of diabetes. Unfortunately, few, if any drugs exist that do not have some sort of side effect.

Some people on Metformin may be more prone to develop a deficiency. Factors that increase the risk include:

* The use of proton pump inhibitors or H2 inhibitors, being
* Being age 65 years or older,
* Vegetarian diets,
* And diseases such as Celiac or Irritable Bowel Disease

Studies published in the *British Medical Journal* and *Practice Nurse Journal* recommend that individuals who are on long-term Metformin, especially those with risk factor(s), annually check for a Vitamin B12 deficiency, and consume extra sources of the nutrient.

Symptoms of Vitamin B12 deficiency vary but may include:

* Anemia
* Fatigue
* Weakness
* Mouth soreness
* Constipation or diarrhea
* Loss of appetite
* Memory loss, confusion, or depression
* Numbness, tingling, or loss of balance
* Permanent neurological damage.

If you have these symptoms, please consult with your physician. A deficiency of the vitamin may warrant intramuscular injections.

Fortunately, many Americans consume plenty of Vitamin B12 because the main sources are animal products including beef, clams, poultry, egg, milk, and other dairy products. Foods fortified with Vitamin B12 include cereals, soy and almond milks, meat substitutes, and breads.

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For additional questions, consult with your physician and/or registered dietitian or go to <http://www.webmd.com/diet/vitamin-b12-deficiency-directory>.