

# Vitamins and Nutritional Supplements

## What Do I Need to Know?

Vitamins and nutritional supplements include a very wide range of vitamins, minerals, and chemicals meant to add to the nutrients that people get through their diet.

### What Are Vitamins and Supplements?

There are over 90 000 different supplements on the market. Some are derived from natural sources such as fish oil; however, many are created in a laboratory.

### Do I Need to Take a Vitamin or Supplement?

For most people, the answer is no. Vitamins and supplements often advertise health benefits, such as improved thinking, better heart health, and a stronger immune system. For years, doctors have recommended certain supplements such as fish oil and multivitamins. However, these claims have not been supported by evidence from medical research.

### Are Vitamins and Supplements Safe?

Most basic vitamins and minerals are presumed to be safe to take at the recommended doses. However, bad reactions to supplements are possible. An estimated 23 000 emergency department visits every year are directly related to taking nutritional supplements. These visits often result from toxic ingredients in some supplements such as heavy metals, steroids, and stimulants. Bad reactions can also happen owing to an overdose of a certain ingredient or because children accidentally take the supplement. Be honest with your physician about any supplements you are considering taking. Dispose of any old vitamins and supplements that are not being used.

### Who Makes Sure That Vitamins and Supplements Are Effective and Safe?

The US Food and Drug Administration (FDA) oversees the vitamin and dietary supplement industry. In contrast to prescribed drugs, vitamins and supplements are assumed to be safe without any testing. The lack of requirement to show safety and effectiveness and the huge number of supplements on the market means that effective regulation is impossible.

### Is a Balanced Diet Better Than a Supplement?

A balanced diet of fruits, vegetables, whole grains, some cheeses, fish, poultry, or lean meats provides all needed vitamins and nutrients. Evidence suggests that our body is better at absorbing

#### Things to know about nutritional supplements

Supplements can contain ingredients that are toxic and may cause harmful reactions with medications or other supplements.

Supplements are weakly regulated and undergo little or no government testing for safety or effectiveness.

A balanced diet provides all the vitamins and nutrients needed for good health.

#### When to consider taking a supplement

You are or are planning to become pregnant

You have osteoporosis and are not able to get enough vitamin D and calcium in your diet

You have a measured B<sub>12</sub> deficiency

You have a gastrointestinal condition(s) or have had bariatric surgery



Talk to your physician about any supplements you are taking or considering.

#### FOR MORE INFORMATION

NIH Office of Dietary Supplements

<http://www.ods.od.nih.gov>

nutrients from food than from supplements. Whole foods also provide the amounts and ratios of nutrients that our body can most efficiently use. Evidence shows that people who eat a balanced diet have positive health benefits, and these benefits are not found in supplements. Vitamins and supplements cannot make up for a less-than-healthy diet.

### But I Am Vegetarian/Vegan/Gluten-Free/Paleo/etc.

#### Do I Need a Supplement?

Most likely the answer is no. Vegetarian and other special diets generally provide adequate nutrients and vitamins without needing supplementation. Vegans are at increased risk for Vitamin B<sub>12</sub> deficiency, but many vegan specialty foods, such as almond milk, are fortified with B<sub>12</sub> to help ensure adequate daily intake. Sometimes a supplement may be recommended. Speak with your physician or a dietitian to discuss what makes the most sense for you.

**Author:** Michael Incze, MD, MEd

**Published Online:** January 7, 2019. doi:10.1001/jamainternmed.2018.5880

**Conflict of Interest Disclosures:** None reported.

**Section Editor:** Michael Incze, MD, MEd

The JAMA Internal Medicine Patient Page is a public service of *JAMA Internal Medicine*. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, *JAMA Internal Medicine* suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call (312) 464-0776.