



Nutri-Facts

Issue #17, July, 2002

In this issue: **Choosing a Vitamin/Mineral Supplement**

Contents: Agent information sheet: Vitamins, Minerals and More - Oh My!
Consumer Fact Sheet: What You Need to Know Before Buying Multivitamin Supplements
News release

Greetings all!

Americans spend more than 6 billion annually dollars on vitamin and mineral supplements. Although a simple multivitamin/mineral supplement is perfectly safe for most people, it is certainly no substitute for a healthful diet. Still, there are times where vitamin and mineral supplements are beneficial. This issue focuses on when to take vitamins and/or minerals and what consumers need to know **before** they buy such supplements. This issue includes agent information, a consumer fact sheet, and a brief news release. For those of you who use Nutri-Facts for brief programs/presentations, you may want to revisit Nutri-Facts issue #4 (Do I Need a Supplement?).

As always, I appreciate any comments/suggestions for future issues of Nutri-Facts.

Eat Well,
Jenna

Vitamins, Minerals and More - Oh My!

Each year, approximately one-third of American adults spend more than 6 billion dollars on various vitamin and mineral supplements. Reasons for using vitamins and minerals are numerous. Many people take vitamins and minerals to make up for poor eating habits. Others take vitamins and/or minerals to prevent chronic disease. Last, but not least, some people take vitamins and minerals to improve their athletic performance. For individuals who want to improve their nutrition and their health, we now have vitamin/mineral supplements with added herbs such as ginseng and ginkgo, which purport to have healthful properties.

Vitamin and Mineral Supplements: Sure Thing or Wishful Thinking?

Can vitamin and mineral supplements improve our health? That depends on many factors. Definitely there is research that suggests certain nutrients, when consumed in optimal amounts, may offer health benefits. This includes folic acid (to help prevent neural tube defects during pregnancy), calcium (to reduce the risk of developing osteoporosis), and iron (to help prevent anemia). Antioxidant vitamins E and C are thought to help prevent certain forms of cancer, but the evidence isn't conclusive to warrant recommendations to the general public. Despite the potential benefits of these supplements, a vitamin or mineral pill **is no substitute for a healthy diet**. A vitamin/mineral supplement is essentially similar to wearing your seat belt. It provides extra insurance in case of an accident but it is not a green light to drive like an idiot. In other words, one can't live off of cupcakes and potato chips, pop a multi-vitamin and be covered nutritionally.

Circumstances where vitamin and mineral supplements may be beneficial.

For most individuals, a simple multivitamin/mineral supplement (often called a "multivitamin") that provides no more than 100% of the daily values is okay to take. In fact, there are some groups of individuals who might benefit from a multivitamin. These groups include:

Women of childbearing years: the Centers for Disease Control and Prevention recommend that women who could become pregnant consume 400 micrograms of folic acid daily for the prevention of neural tube defects. Grain products (including breakfast cereals and pasta) are fortified with folic acid but research suggests that women are still consuming less than the recommended levels of this nutrient.

Women who are pregnant or lactating: Nutrient needs increase during pregnancy and lactation. Although most of these needs can be met through food alone (one exception is iron), most physicians and health care providers recommend a multivitamin to ensure the increased needs are met.

Toddlers and females of childbearing years: According to Healthy People 2010, toddlers and females of childbearing age are at an increased risk for iron deficient anemia and may benefit from a supplement. CAUTION: Too much iron can be deadly to a young child. Like all medications, vitamin/mineral supplements should be stored in a secure place.

Adults over the age of 50: As adults age, they often have a decrease in stomach acid. Stomach acid is needed to help to absorb the vitamin B₁₂. For this reason, older adults may benefit from a vitamin supplement that contains 2.4 micrograms of vitamin B₁₂. Another option is to consume cereal that has been fortified with the vitamin.

Individuals on low-calorie diets: People on diets that are less than 1200 calories would most likely benefit from a multivitamin since it is very difficult to get the recommended amounts of the nutrients on diets this low in calories.

Vegans (vegetarians who consume no animal products): Animal products are sources of several nutrients including calcium (from milk) and B₁₂ (from eggs and meat). Unless a vegan consumes non-animal products that are fortified with calcium and B₁₂, a supplement of these nutrients is probably beneficial.

People who can't or won't drink milk: Milk and other dairy products are rich sources of calcium. If an individual is unable or unwilling to consume dairy products, choosing calcium-fortified foods or a calcium supplement is most likely necessary to meet estimated needs.

Myths and Facts of Vitamin and Mineral Supplements

For all the good that a vitamin and mineral supplement can do, they cannot work miracles, no matter what some advertisements claim:

Myth: Emotional stress increases our need for vitamins and minerals. **Fact:** While it is possible that physical stress due to illness or injury may increase the need for some nutrients, special "stress" vitamins are not effective during times of emotional stress.

Myth: Vitamin supplements give us extra energy. **Fact:** Vitamins play an important role in energy metabolism but they are not a direct source of calories like carbohydrates, fats, or protein.

Myth: "Natural" vitamin supplements are absorbed more readily by the body than synthetic. **Fact:** This is not always true as is demonstrated by the vitamin folic acid. The "natural" form of folic acid is called folate and is found in foods such as legumes and dark green leafy vegetables. Our body only absorbs about half of the folate we consume. The synthetic form of this vitamin, folic acid, is found in supplement pills and fortified foods. Our body absorbs more than 90% of folic acid. On the other hand, natural forms of vitamin E are better absorbed than the synthetic version.

Myth: Smokers can protect their bodies from the harmful effects of cigarettes by taking a vitamin supplement. **Fact:** While it is true that smokers do have higher requirements for certain nutrients (such as vitamin C), a vitamin/mineral supplement will not counter the harmful effects of cigarette smoking.

Vitamin & Mineral Supplements: What Consumers Need to Know Before They Buy

Take a stroll down the supplement aisle at grocery or health food stores and it is easy to see why consumers are confused about what type of supplement to buy. Below are some tips to help consumers select a vitamin and mineral supplement that is appropriate for them. **NOTE:** Consumers who wish to take multivitamin/mineral supplements should be encouraged to check with their physician or health care provider since some nutrients can interact with medications.

(1) Choose a multivitamin/mineral supplement that contains no more than 100% of the daily value (DV) for the nutrients listed. Those that are labeled "high potency" often contain levels of nutrients that are much higher than 100% DV. The body can only absorb so much of a specific nutrient, so excessive amounts are just excreted in urine. Consuming excessive amounts of some nutrients may also lead to a toxicity or prevent the absorption of other nutrients.

(2) If possible, choose a multivitamin/mineral supplement that has at least 20% of the vitamin A in the form of beta-carotene. Beta-carotene is converted into vitamin A in amounts needed by the body; what the body doesn't need is not converted. This helps prevent getting too much vitamin A.

(3) Select a multivitamin/mineral supplement that is appropriate for one's age and gender. For example, multivitamin supplements for postmenopausal women and men generally contain less iron than those designed for women of childbearing years.

(4) The quality of a multivitamin/mineral supplement cannot be judged by price alone. Generic and store brands of multivitamins/minerals are often just as good as national brands. Also, look for the initials USP on the supplement label. USP stands for United States Pharmacopeia, a non-profit organization that establishes standards to ensure quality medications and supplements. Supplements that have the USP designation have been tested for purity, potency, and availability in the body.

(5) When it comes to vitamins and minerals, there is no need to have a constant amount in the body like one would need for some prescription medications. Leave supplements that are labeled "timed release" on the store shelves. They are usually more expensive than other supplements and are not worth the extra cost.

(6) Some multivitamin/mineral supplements have added herbs. Nutritionally, these "bonus" ingredients do not justify any added expense so leave them alone. Plus, some herbs can have serious side effects and/or interact with other medications.

For individuals who take individual nutrient supplements:

The most common minerals taken individually are calcium and iron, so we will focus on these 2 minerals.

Calcium: Vitamin D is essential for effective calcium absorption. Although we can make vitamin D from sunlight, individuals who get limited sun exposure (i.e. older adults) should consider a calcium supplement that contains vitamin D. Also, it is a good idea to divide the doses of calcium since the body may not be able to absorb large amounts at one time. For example, if a person takes 1,000 milligrams of calcium a day in the form of two 500 milligram pills, take one in the morning and one in the evening.

People often ask "what is the best type of calcium supplement?" The two most common forms are calcium carbonate (found in antacids) and calcium citrate. Calcium carbonate tends to be less expensive than calcium citrate so if money is a concern, the calcium carbonate might be a good choice. However, for the body to break down the calcium carbonate, stomach acid is needed. For individuals who don't secrete enough stomach acids between meals (i.e. older adults), take the calcium carbonate at meal time. The other option is to take calcium citrate which can be absorbed without the stomach acid. Calcium citrate, however, tends to be more expensive than calcium carbonate.

Iron: Iron is often a concern among pregnant women and women who do not consume enough iron to make up for the amounts lost during menstruation. For those who take iron (or a multivitamin/mineral with iron):

- Take it at mealtime or with a glass of vitamin-C rich juice
- Don't take the supplement with tea or coffee; compounds in these beverages can reduce the amount of iron absorbed by as much as 70%. Wait at least 1 1/2 hours after taking the supplement before consuming tea or coffee.

- It is possible that calcium can reduce the amount of iron absorbed. If a person is taking individual iron and calcium supplements, just take them at different meals. **Note:** the amount of calcium in most multivitamin/mineral supplements is probably not enough to reduce iron absorption.

Final thought....

Our body needs more than 40 different nutrients to function properly. Food is full of these nutrients and should be considered first. That is not to say that we should never consider multivitamin/mineral supplements because they **do** have their place in the diet. For individuals who might benefit from a supplement, the key is to take some time and select a supplement that meets one's needs at a reasonable price. Remember, a vitamin/mineral supplement is not a substitute for a good diet!

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What You Need to Know Before Buying Multivitamin Supplements



Our body needs more than 40 different nutrients to function properly. A balanced diet that includes a variety of foods should be your first source of these nutrients. However, there may be times when it is difficult to get the amounts of the nutrients we need through diet alone. In these cases, a multiple vitamin and mineral supplement (often called a “multivitamin”) may be beneficial:

- ✓ Women of childbearing years
- ✓ Adults over the age of 50
- ✓ Women who are pregnant or lactating
- ✓ People on low-calorie diets
- ✓ People who do not eat any animal products



Choosing a Multivitamin That is Right for You

Shopping for multivitamins can be confusing. The following tips can help you select a multivitamin that meets your needs without costing a lot of money. Before taking a multivitamin or any other dietary supplement, be sure to check with your physician, since some nutrients can interact with medications. Also, remember that a multivitamin is not a substitute for a healthful diet.

1. Read the label and choose a multivitamin that has no more than 100% of the daily value (DV) for the nutrients listed. Multivitamins that are advertised as “high potency” often have levels of nutrients that exceed 100% DV. The body can only absorb a limited amount of a nutrient; what is left over is excreted. Excessive amounts of some nutrients can be harmful, so unless recommended by a physician, leave them at the store.

2. Nutrient needs vary between women and men. In addition, older adults and pregnant and lactating women have increased nutrient needs. Choose multivitamins suited for one’s age and gender.

3. The quality of a multivitamin cannot be determined by price alone. Store brands

are often comparable to national brands and usually cost less. Look for the initials USP on the multivitamin. USP stands for United States Pharmacopeia, a non-profit organization that establishes standards to ensure quality medications and supplements. Multivitamins that have USP on the label have been tested for purity, potency, and availability in the body.

4. When it comes to multivitamins, one does not need to have a constant amount in the body. Save money and leave those labeled as “time release” on the store shelves.

5. Some multivitamins include herbs. Herbs have serious side effects or interact with other medications. Pass on these multivitamins unless recommended by a physician.



Newsrelease

Our body needs more than 40 nutrients to work properly. Food remains the best (and best tasting) source for most nutrients, but for one in three Americans a vitamin/mineral supplement is also part of the daily routine. In fact, Americans spend more than 6 billion dollars on vitamin and mineral supplements each year to improve their health, prevent disease, or even boost athletic performance. With dietary supplements being marketed in newspapers, magazines, television, and on the Internet, some people who don't take vitamins or minerals are wondering if they should jump on the supplement bandwagon.

"Vitamin and mineral supplements can be beneficial for some individuals," says Jenna Anding, Ph.D., R.D., assistant professor and Extension specialist with Texas Cooperative Extension. For example, women of childbearing years might be wise to take a folic acid supplement. "A deficiency in this B vitamin is linked to increased risks of having a child with a neural tube defect," said Anding. "Taking a supplement that has 400 micrograms of folic acid or consuming foods fortified with the vitamin can reduce that risk by as much as 50%." Also, individuals on low calorie diets (less than 1200 calories/day) might benefit from a vitamin/mineral supplement as it can be difficult to get all the nutrients needed on such a low calorie intake.

However, vitamin and mineral supplements are not an acceptable substitute for poor eating habits, cautions Anding. "There are many compounds found in foods that aren't present in most vitamin/mineral supplements, including fiber and phytochemicals. If you rely on vitamin and mineral supplements to meet your nutritional needs, you may be missing out on important nutrients."

For individuals who decide to take a combination vitamin and mineral supplement (often called a "multivitamin"), Anding recommends first talking with his/her physician. "Some nutrients interact with medications, so it is important to check with your doctor before taking any type of dietary supplement," says Anding. Once you get the green light to take a multivitamin, Anding has the following advice for choosing a multivitamin that can add nutrition to your diet without taking too much from your wallet:

- Choose a multivitamin that has no more than 100% of the daily value (DV) for the nutrients listed. This information can be found on the Supplement Facts label of multivitamin. "Our body can only use so much of a nutrient, says Anding. Whatever is left over is usually excreted in the urine. Plus, excessive amounts of some nutrients might be toxic."

- Select a multivitamin that is appropriate for one's age and gender.

- Try to pick a multivitamin that has at least 20% of the vitamin A in the form of beta carotene. This can prevent one from avoid getting too much vitamin A.

- Finally, don't rely on price to determine the quality of a multivitamin. Store brands of multivitamins are often just good as national brands - and they usually cost less money. Look for the initials USP (U.S. Pharmacopeia). Supplements that have these initials have been tested for purity, potency, and availability in the body.

To learn more about choosing multivitamins, contact _____, county Extension agent at _____ (phone number).