What are dietary supplements?

All-Natural”, “Herbal”, “One-a-day”, “Women’s Formula” – with all the claims on dietary supplements on the market, it’s hard to know what to believe and what’s best for your body. Dietary supplements include vitamins, minerals, herbs, botanicals, and amino acids used to supplement normal dietary intake. All vitamins and minerals found in supplements can also be found naturally in foods, and help regulate metabolic processes in the body.

The use of dietary supplements is becoming increasingly prevalent in the United States, with about one third of adults using a multivitamin and mineral supplement regularly. But, the question is: Is supplementation actually helpful?

Are they safe?

Dietary supplements are monitored by the FDA as a subset of food. This means that manufacturers can make claims or statements about the effect of a product on the structure or function of the body, however, cannot claim to cure, treat, prevent, mitigate, or diagnose specific diseases without FDA authorization. Be wary of claims such as “Fiber maintains bowel regularity” or “Calcium builds strong bones” – while they are monitored by the FDA, they are not clinically proven and do not specify the proper amount of supplementation, any interaction with other nutrients, or the target population.

Don’t be fooled by labels such as “natural” or “botanical.” While these products are not chemically synthesized, they can have the same adverse side effects as similar products produced in a laboratory.

Unlike prescription and over-the-counter drugs, dietary supplements do NOT have to be pre-approved for safety or effectiveness by the FDA before they hit the shelves. Furthermore, there is no standardization process required (to ensure batch-to-batch consistency), so consumers should always purchase from a reputable source. Be sure to contact your physician or pharmacist for usefulness and safety before deciding to take regular dietary supplements.

Common Supplements

Specific populations of people who eat a restricted diet, have impaired ability to absorb nutrients, or have special dietary needs should be on the lookout for

Chances are you’re not thinking about preventing heart disease at your age. However, as the quarter or semester starts to wind down and finals appear on the horizon, your stress level, tension meter, and blood pressure could be running high. Keep your cool and lower your (blood) pressure level with the DASH diet or Dietary Approaches to Stop Hypertension (High Blood Pressure) diet. Here’s a quick reference guide:

- **Rich in fruits and vegetables:** The DASH diet aims for 8-10 servings of produce each and every day. One serving is considered to be one medium piece of fruit, 1/4 cup dried fruit, 1/2 cup chopped fruits/veggies, or 1 cup leafy greens.

- **Emphasizes plant-based, whole foods:** This diet includes 6-8 daily servings of grains, preferably from whole grain sources including old-fashioned or steel cut oats, brown rice, whole wheat breads/cereals/pastas, quinoa, corn tortillas, and air-popped popcorn. One serving is generally 1/2 cup cooked grains or 1 slice. The DASH eating plan also recommends 4 to 5 weekly servings of beans, lentils, dried peas, nuts, and seeds (considered 1/2 cup beans, 1/3 cup nuts, or 2 Tbsp nut butter or seeds).

- **Includes calcium-rich skim or 1% dairy:** Try for 2-3 servings
TO SUPPLEMENT OR NOT CONTINUED...

nutrient deficiencies. Here are some supplements that can be helpful in treating those at risk for inadequate dietary intake:

- **Calcium**: prevents and treats bone loss and osteoporosis. It is especially important in women, who experience greater bone loss than men. Calcium supplementation should also be considered by those who do not eat dairy as part of their diet.

- **Iron**: iron deficiency is the #1 nutritional disorder in the world. It is essential for oxygen transport, cell growth, and cell differentiation. Supplementation can be an effective way to treat iron deficiency anemia, however, excessive amounts can be toxic.

- **Omega-3 Fatty Acids**: Some research has shown that omega-3's (sometimes sold as fish oil supplements) can help lower triglycerides and blood pressure, and may reduce the risk of cardiovascular disease. Fish is the main source of dietary omega-3's, so supplementation should be considered if fish is not consumed as part of the diet.

- **Vitamin D**: helps the body absorb calcium. Those who do not receive enough sunlight, do not consume milk (which is fortified with Vitamin D), or are vegetarian may not have adequate Vitamin D intake, and should consider supplementation.

From A to Zinc: Vitamins and Minerals Explained

Although each type of supplement depends on individual characteristics of the person taking it, here is a cheat sheet on what nutrients you might find in your multivitamin pill in addition to calcium, vitamin D, iron, and omega-3 fatty acids:

- **Folic acid or Folate**: prevents certain birth defects, and therefore is important for pregnant women. However, many foods are now supplemented with folate so most people generally have an adequate intake of this nutrient.

- **Vitamin A**: plays a role in vision, bone growth, reproduction, cell division, and cell differentiation. Vitamin A deficiency rarely occurs in the United States but excessive Vitamin A intake can lead to birth defects.

Favorite Food

Lots of people are curious about what dietitians eat when they are “off-duty.” Nothing says springtime like a basket of red, juicy strawberries! As the weather warms up so does my craving for this sweet and colorful fruit. I’ve been slicing strawberries into my cereal, on top of my pb&j sandwiches, mixed into my Greek yogurt, and enjoying them by themselves as a simple dessert. One cup of sliced strawberries contains more than 1 ½ times your daily allotment of vitamin C. Find a sweet way to sneak ‘em into your diet!

DASH the Pressure continued...

daily (1 cup milk or yogurt, 1 1/2 ounces of cheese).

- **Moderate in lean meats, poultry, fish, and oils**: Keep your lean protein intake to 6 ounces or less per day (approx 2 decks of cards worth) and limit your heart healthy fats and oils to no more than 2 to 3 teaspoons daily. Olive oil and canola are good choices.

- **Saves some room for sweets**: While the DASH diet doesn’t recommend daily treats, you can enjoy up to 5 small sweets each week. Just remember to savor them!

Following these dietary strategies in combination with lowering your sodium, or salt, intake can lower your blood pressure by 8 to 14 points in as little as two weeks!

Here are two easy ways to skip the salt shaker but still add flavor to your food:

- **Good ol’ Mrs. Dash**: a salt-free blend of herbs and spices, conveniently located in your grocer’s seasoning aisle. Replace your table’s salt shaker with Mrs. Dash and add a dash of flavor to your vegetables, side dishes, soups, and entrees.

- **Lemon and lime wedges**: Squeezing a lemon or lime wedge on your food just before eating will awaken your meal’s natural flavors.

• **Vitamin B12**: keeps nerve and blood cells healthy and aids in the absorption of iron. Deficiency is rare, but B12 is recommended as a supplement for pregnant mothers for proper neural tube development as well as for vegans since B12 is animal-derived.

• **Vitamin C**: an antioxidant that helps boost the immune system, wound healing, and iron uptake. Vitamin C deficiency is rare.

• **Vitamin K**: helps in regulating blood clotting. Most people have sufficient Vitamin K intake but dietary intake and supplementation may need adjusting with blood clotting disorders.

• **Zinc**: helps boost the immune system and is needed for proper growth during development. Most people take in adequate amounts of zinc, but vegetarians are at a higher risk of deficiency, as zinc is found in many animal products.

Should we take them?

As you can see, this is a complicated question! Supplements can have their benefits, especially if you have a unique dietary constraint, are of a specific population, or have an absorption disorder. Nearly all of these vitamins and minerals are included in a one-a-day multivitamin, which can be an easy way to ensure adequate intake. However, they can all be found naturally in foods! It’s important to keep in mind that dietary supplementation is meant to be just that, a supplement to, not a replacement for a healthy diet. The best way to stay healthy and receive adequate nutrients is to eat a wide variety of food groups and foods rich in vitamins and minerals!

If you are curious or suspect a deficiency, contact your doctor about which vitamins and minerals you should supplement with. It is important to consider dosage, interaction of supplements with other prescription or over-the-counter drugs, side effects, which form of a supplement to take, and interaction with your specific diet and lifestyle. Meeting with a dietitian can help you boost your nutrient intake naturally through dietary changes.

### WHAT ABOUT BOTANICALS?

Herbal supplements are a type of dietary supplement made from a plant or plant part for its flavor, scent, and/or therapeutic properties. Botanicals are sold either in a crude form or as partially purified or concentrated extracts as teas, liquids, tablets, or powders. Here are some of the popular botanicals you may have heard of on the market, and what they claim to do:

- **Acai**: widely marketed for weight-loss and anti-aging purposes, but there is no definitive scientific evidence to support these claims.

- **Cranberry**: promoted as preventing urinary tract infections, killing bacteria that can lead to stomach ulcers, preventing dental plaque, as well as having antioxidant and anticancer activity.

- **Echinacea**: a natural remedy for infections and inflammation.

- **Garlic**: suggested to be a powerful natural antibiotic, however consumption of large amounts in its raw form can irritate or even damage the intestinal tract.

- **Ginkgo biloba**: has been suggested as a treatment for dementia and as a memory-enhancer.

- **Ginseng**: promoted as a stress-reliever, aphrodisiac, and stimulant.

- **Green tea and green tea extracts**: contain EGCG and are used to prevent and treat a variety of cancers, improve mental alertness, aid in weight loss, lower cholesterol levels, and protect skin from sun damage.

- **St. John’s Wort**: has an antidepressant effect but should never be used with prescription antidepressants.

While many of these supplements have shown positive effects, none of them are backed by strong scientific evidence. Furthermore, some of them have possible detrimental effects when interacting with other drugs, or taken over the long-term.