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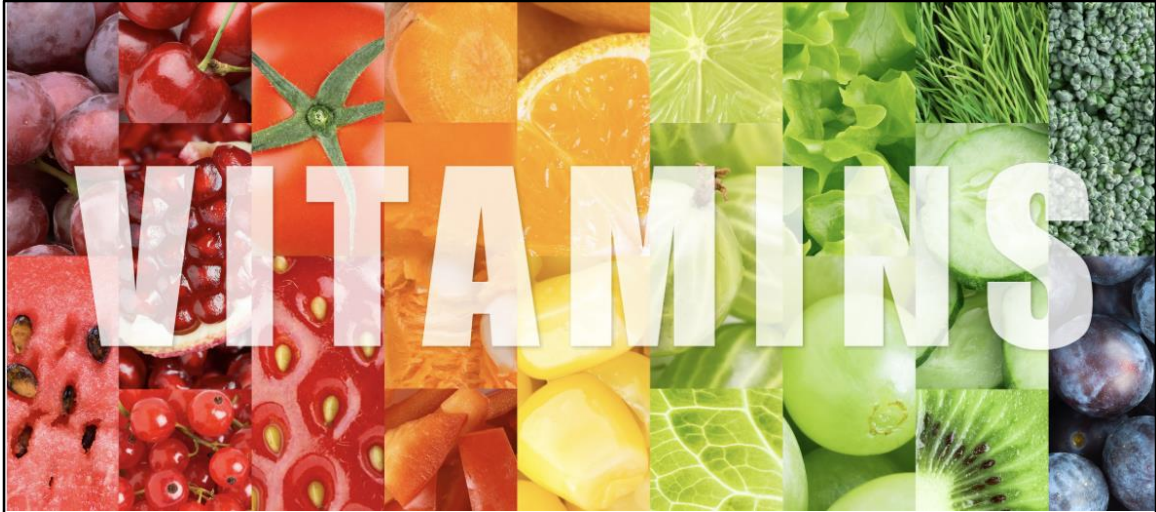
Food As Medicine

Capstone/Unit 4 Assignment

Professor Ted Eaves

August 13, 2020





- Standard American diet
- Rates 11 out of 100
- 57% from processed foods

“The **standard American diet** reportedly rates 11 out of 100. According to the U.S. Department of Agriculture estimates, 32 percent of our calories comes from animal **foods**, 57 percent from processed plant **foods**, and only 11 percent from whole grains, beans, fruits, vegetables, and nuts (Standard American Diet, n.d.)” With concerning statistics, the health among our culture has room for improvement. A day of convivence, where fast food is a common meal for many.

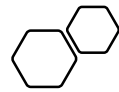
Inflammation in the body has a significant impact on the acceleration of illness and disease. “The typical American diet is heavy in nutrient-poor processed foods, refined grains, and added sugars—all linked to inflammation and chronic disease. Yet even if you eat a healthy, well-balanced diet, you may still fall short of needed nutrients. That's a consequence of aging. "As we get older, our ability to absorb nutrients from food decreases. Also, our energy needs aren't the same, and we tend to eat less," explains Dr. Howard Sesso, an epidemiologist at Harvard-affiliated Brigham and Women's Hospital (Publishing, H., n.d.)”



The famous quote by Hippocrates, still rings true today, “Let **food** be thy **medicine**, and let **medicine** be thy **food**.” “Experts suggest that food offers three primary benefits over supplements: Greater nutrition from the complexity of foods, essential fiber to manage constipation and help prevent certain diseases, and protective substances like “phytochemicals” that occur naturally and can help prevent cancer, heart disease, diabetes and others. Many natural foods are also high in antioxidants (Food vs. Supplements: What's the verdict?, 2016).”



- Dietary Supplements
- Too much of a good thing
- Supplements are expensive



While our culture would like all health problems to be solved in pill-form, too much of certain nutrients can be harmful to the body. 'For example, you can get too much of a particular nutrient without realizing it. "Extra vitamin A supplements can lead to dangerous, toxic levels if taken too frequently," notes Dr. Clifford Lo, an associate professor of nutrition at the Harvard School of Public Health."

"Dietary supplements may interact with your medications or pose risks if you have certain medical problems or are going to have surgery (Using Dietary Supplements Wisely, n.d.).

In America, 77% report consuming supplements with the number one being a multivitamin, and collectively spend \$12.8 billion out-of-pocket on natural product supplements per year (Americans Spend \$30 Billion a Year Out-of-Pocket on Complementary Health Approaches, n.d.).



- D Vitamins
- B Vitamins
- Multivitamin

Supplements are processed and not meant to replace whole foods. However, There are some instances where a supplement is needed, “even if you eat a healthy, well-balanced diet, you may still fall short of needed nutrients. That's a consequence of aging. "As we get older, our ability to absorb nutrients from food decreases. Also, our energy needs aren't the same, and we tend to eat less," explains Dr. Howard Sesso, an epidemiologist at Harvard-affiliated Brigham and Women's Hospital (Publishing, H., n.d.).”

"Look for a multivitamin with D and B vitamins (especially folate), iron, magnesium, and calcium," says Dr. Sesso, "and go for a well-known brand that's been around for a long time and is likely well tested. (Publishing, H., n.d.).”

- Plant-based nutrition
- Fiber is your friend
- Fiber recommendations



A plant-based diet is not an all-or-nothing program, but a way of life that is tailored to each individual. OMRF immunologist Eliza Chakravarty, M.D., “The trace elements that are part of natural foods aren’t contained in supplements,” she said. “They simply can’t replicate the wide array of benefits and nutrients of real foods and the fiber and other vitamins they contain (Food vs. Supplements, 2016).

The American Heart Association (AHA) recommends 25-30 grams (or 14 grams per 1,000 calories) of dietary fiber per day, from a variety of sources—not supplements. Americans average 15 grams (UCSF Health, 2019). Fiber can be found in whole foods, whole grains, fruits, vegetables, legumes and beans. Fiber helps to maintain a healthy body, even cure some lifestyle diseases such as obesity, Type II Diabetes, and heart disease. Fiber is an essential plant-based nutrient.



- Eat the rainbow
- Most Americans do not eat fruits or veggies
- National diet crisis

Eating the rainbow provides a vibrant, healthy visual and encourages variety in the diet, full of phytonutrients (the medicinal properties in whole foods), vitamins, minerals and antioxidants. “A 2010 report from the National Cancer Institute on the status of the American diet found that three out of four Americans don’t eat a single piece of [fruit](#) in a given day, and nearly nine out of ten don’t reach the minimum recommended daily intake of [vegetables](#). On a weekly basis, 96 percent of Americans don’t reach the minimum for greens or beans (three servings a week for adults), 98 percent don’t reach the minimum for orange vegetables (two servings a week), and 99 percent don’t reach the minimum for whole [grains](#) (about three to four ounces a day). “In conclusion,” the researchers wrote, “nearly the entire U.S. population consumes a diet that is not on par with recommendations. These findings add another piece to the rather disturbing picture that is emerging of a nation’s diet in crisis (Standard American Diet, n.d.).”



- Go for color
- Phytochemicals
- Variety is key

“Phytochemical-Filled Produce

Go for color! Bright, colorful food is meant to please the eye and whet the appetite. Those colors translate to phytochemicals or the medical properties of food. “These substances occur naturally only in plants and may provide health benefits beyond those that essential nutrients provide. Color, such as what makes a blueberry so blue, can indicate some of these substances, which are thought to work synergistically with vitamins, minerals, and fiber (all present in fruits and vegetables) in whole foods to promote good health and lower disease risk.”

The darker the color, the higher concentration of phytonutrients, such as blue and purple. Examples include: Eggplant (especially the skin), blueberries, blackberries, prunes, plums, pomegranates and may help to fight off certain cancers.

The color green comes from chlorophyll found in broccoli, cabbage, bok choy, Brussels sprouts, “cruciferous veggies such as broccoli and cabbage contain the phytochemicals indoles and isothiocyanates, which may have anticancer properties. “Green vegetables are excellent sources of vitamin K, folic acid, potassium, as well as carotenoids and omega-3 fatty acids,” adds Kasik-Miller. “Folic acid is needed to prevent neural tube defects during pregnancy, and vitamin K is essential in blood clot

formation. Diets high in potassium are associated with lowering blood pressure, and there is an inverse relationship between cruciferous vegetables and cancer, especially colon and bladder cancers.” “In addition, sulforaphane, a phytochemical present in cruciferous vegetables, was found to detoxify cancer-causing chemicals before they do damage to the body,” says Tsang.

Yellow/Green contain lutein, great for eye-health. Go for avocados, kiwi's, spinach, even pistachios.

Red fruits and vegetables are loaded with lycopene, such as tomatoes and can also help reduce the risk of some cancers and protect against heart attacks. “The benefits of eating produce are not dependent on eating raw foods. In fact, cooking enhances the activity of some phytochemicals, such as lycopene. Obtaining optimal benefit from the nutrients in food, especially produce, depends on proper selection, storage, and cooking of the produce.” Cooked tomato sauces are associated with greater health benefits compared with the uncooked version because the heating process allows all carotenoids, including lycopene, to be more easily absorbed by the body. “In addition to vitamin C and folate, red fruits and vegetables are also sources of flavonoids, which reduce inflammation and have antioxidant properties. Cranberries, another red fruit [whose color is due to anthocyanins, not lycopene], are also a good source of tannins, which prevent bacteria from attaching to cells,” says Kasik-Miller of more reasons to relish red.’ Other examples are watermelon, pink grapefruit, guava, and cranberries.

Yellow/Orange are full of antioxidants. “These foods are commonly considered the eyesight foods because they contain vitamin A. Beta-carotene, which can be converted into vitamin A, is a component of these foods as well. In addition, they may have high levels of vitamin C, and some contain omega-3 fatty acids,” says Kasik-Miller. Since eyesight is dependent on the presence of vitamin A, Kasik-Miller notes that it is considered the “vision vitamin.” “Other [phyto]chemicals typically found in yellow/orange fruits and vegetables protect our eyes from cataracts and have anti-inflammatory properties. They also help with blood sugar regulation,” she adds. Tsang notes that the beta-carotenes in some orange fruits and vegetables may also play a part in preventing cancer, particularly of the lung, esophagus, and stomach. “They may also reduce the risk of heart disease and improve immune function,” she says. **Examples:** Carrots, mangos, cantaloupe, winter squash, sweet potatoes, pumpkins, apricots (Color Me Healthy - Eating for a Rainbow of Benefits, n.d.)”



Educational Resources:

[Oh She Glows Vegan Recipes](#)

[Plant-Based Recipes](#)

Resources:

Americans Spend \$30 Billion a Year Out-of-Pocket on Complementary Health Approaches. (n.d.). Retrieved August 14, 2020, from <https://www.nccih.nih.gov/research/research-results/americans-spend-30-billion--year-out-of-pocket-on-complementary-health-approaches>

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