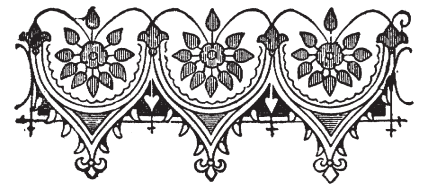


# Health & Wellness



## Dietary Supplements



Dr. Kate Thomsen and Silky

The dietary supplement industry has been growing rapidly. In 2016 the global dietary supplements market was valued at 133.1 billion dollars. In the US, retail sales of vitamin and nutritional supplements just reached 37 billion dollars according to the National Institutes of Health. This is up from 28 billion in 2010. With this kind of money to be made, you can be sure there are companies that cut corners, companies that over-hype their products, and much controversy about value.

71% of American adults take dietary supplements – the most popular being a multivitamin. But a 2013 Annals of Internal Medicine editorial cited several multivitamin studies showing no clear beneficial effect on prevention of cardiovascular disease or cognitive impairment. This review was widely reported in the news and many people stopped taking their multivitamins – for a short while. The paper was countered with compelling studies showing the benefits of vitamins for the above and other conditions. Some people remain unsure and confused but 85% of the American public surveyed have confidence in the safety, quality and effectiveness of dietary supplements.

So what are dietary supplements? Why do we take them? And are they effective? In 1994, The US Congress defined a dietary supplement as a product that:

- is intended to supplement the diet
- contains one or more dietary ingredients (including vitamins, minerals, herbs or other botanicals, amino acids, and other substances) or their constituents
- is intended to be taken by mouth as a pill, capsule,

- tablet, or liquid, and
- is labeled on the front panel as being a dietary supplement.

The FDA reports that there are more than 29,000 different nutritional supplements on the market today. No wonder you're confused in the aisles of the health food store!!! In February 2017, ConsumerLab.com released a survey of 9,505 people who used dietary supplements. The most popular supplements included (in order of popularity): Vitamin D, fish oil, CoQ10, probiotics and multivitamins. This list was followed by: B vitamins, magnesium, curcumin/turmeric, Vitamin C, calcium, melatonin, protein and nutrition powders and drinks, digestive enzymes, joint supplements, green tea, and zinc.

People take dietary supplements for many reasons. I prescribe them in my office when clinically indicated. In functional medicine there are histories, symptoms and lab tests that can indicate the need for digestive enzymes, micronutrients like B vitamins or Vitamin C, and anti-inflammatories like curcumin. Targeting the specific need for dietary supplements can increase benefit by reducing symptoms, improving clinical prevention outcomes and avoiding further expensive health care costs.

Some people take supplements to help them get adequate amounts of essential nutrients. In our fast paced lifestyle, I hear many of my patients tell me they skip breakfast (and not purposely because of an Intermittent Fasting plan) or they grab a granola bar to be a meal replacement. Personally, I like to make a protein smoothie in the morning, and while it is quick to prepare, it is jam packed with protein, essential oils, phytonutrients, vitamins and minerals from both whole foods and supplements. A nutritious variety of foods should be supplying us with the majority of our dietary needs. Dietary supplements can fill in gaps due to: poor digestion and absorption, genetic or lifestyle based increased requirements, and less than optimal food sources (Even if you are eating whole food, they may be lacking nutrients because they are "old",


or grown in depleted soils.)

In such a rapidly growing industry, how does one assure the quality of a dietary supplement? Unlike pharmaceutical drugs, dietary supplements do not require review or approval by the FDA to enter the marketplace. However the company is responsible for selling products that are safe. Supplements are regulated by the FDA under the 1994 Dietary Supplement Health and Education Act (DSHEA). These regulations include testing of raw materials and finished products and other Good Manufacturing Practices. You should look for a GMP (Good Manufacturing Practices) seal on the supplement or the website. GMPs are aimed at assuring the identity, purity, strength, and composition of their products. For example, The FDA expects that products should contain the amount of active ingredient they claim and be free of contaminants like bacteria, pesticides and heavy metals like lead and mercury. High quality supplement companies will spend resources to get other independent quality assurance testing. Other seals of approval you may see include: U.S. Pharmacopeia, ConsumerLab.com, and NSF International.

The supplement label must have a Supplement Facts panel listing the contents, amount of active ingredients per serving, and non-dietary ingredients (fillers, binders, sweeteners, flavors, artificial coloring). These will be listed by weight in descending order of quantity. The label should also indicate what the supplement is used for. This is called a claim. According to the 1994 DSHEA there are 3 types of claims the company can make: a health claim (that an ingredient has been shown in the literature to benefit a condition), a nutrient content claim (the amount of nutrient in the product), or a structure/function claim (how the supplement may affect the organs or systems of the body). All dietary supplement labels must include the famous disclaimer, "This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease." This is to differentiate supplements from pharma-

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- Be sure to check the serving size (eg: 2 capsules contain...) when calculating the dosage you are looking for
- Some companies print "expiration dates", some print "manufactured on" dates. An unopened dietary supplement is generally good for 2 years from date of manufacture but less (1 year) for oils (fish oil, evening primrose oil ...) and probiotics
- Be sure the form of the supplement is highly bioavailable if you want it to be absorbed into your blood (eg, Curcumin BCM 95), or poorly absorbed if you want it to stay in your intestines for laxative effects (eg, magnesium oxide). The form matters!!!
- Check with your health care provider if you take supplements and you are scheduled to have any type of surgical procedure. Some supplements will increase bleeding.
- Check with your health care provider if you take supplements and you will be going for a blood test. Taking high dose biotin can interfere with blood test results including thyroid results
- Check with your health care provider if you take supplements and want to become pregnant
- Check with your health care provider if you take supplements and you also take pharmaceutical medications. They can interact or counteract each other.
- Keep good records of what supplements you take with the specific name, brand, dose, dosing schedule and reason for taking it. A good resource for this is "My Medicine Record" found in the [www.fda.gov](http://www.fda.gov) website
- Use the NIH Office of Dietary Supplements as a resource for basic information: [ods.od.nih.gov](http://ods.od.nih.gov)



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ceutical medications.

There have been reports of adverse reactions from dietary supplements. One report from the CDC and FDA claimed 23,000 emergency department visits annually due to complications from dietary supplements with 2,154 of these requiring hospitalization. This pales in comparison to the adverse reaction incidence from pharmaceutical medications which result in 700,000 emergency department visits and 100,000 hospitalizations. In 2000, the Institute of Medicine reported 7,000 deaths annually from adverse drug reactions. In my mind dietary supplements are far safer, and when targeted for the right reason and the right dose, are definitely my first line of treatment. I place a high value on quality and have visited many manufacturing facilities. There are extraordinary companies out there with extraordinary products – but

there are also many poor quality products and lots of hype. The dietary supplement industry has come a long way – but to maximally benefit, you should find an expert to guide you.

**Dr. Kate Thomsen's office for holistic health care is located in Pennington, NJ. She is trained in Family Medicine, and Board Certified in Integrative Medicine, and is an Institute for Functional Medicine Certified Practitioner. She has been practicing Functional Medicine for 20 years. For more information see [www.drkatethomsen.com](http://www.drkatethomsen.com) or call the office at 609-818-9700.**