

Cancer and Supplements

Overview

Dietary supplements include vitamins, minerals, herbals and botanicals, amino acids, enzymes, and many other products. Dietary supplements are a multi-billion-dollar business in the United States and are marketed to the public as a safe and effective method to maintaining good health and preventing disease. It is important to note, however, that unlike drugs, dietary supplements are not regulated by the FDA. Manufacturers are not required to test new ingredients or supplements in clinical trials, which would help find risks and potential interactions with drugs or other substances. Rather, supplements are considered safe until proven otherwise, meaning they are only found unsafe after they have posed a significant health risk.

Cancer patients, survivors, and those trying to prevent recurrence are especially vulnerable to unwarranted health claims. According to one survey published in 2008 in the *Journal of Clinical Oncology*, 64% to 81% of cancer survivors reported using a vitamin or mineral supplement. This is higher than the 50% of US adults who take supplements. While some supplements are safe and accurately labeled, many others contain substances that are not listed on their labels and have been found to contain harmful drugs. Prior to taking a supplement consult a registered dietitian to assist you in researching and deciding on which supplement is best for you.

The Risks of Taking Dietary Supplements

Because dietary supplements are not required to be tested in clinical trials prior to being sold, it is hard to predict specific side effects that may occur. Many supplements have health claims such as “supports the immune system”, “protective against cancer”, or even “significant scientific agreement”, however, these have not been approved and are not regulated by the FDA. People often make the mistake of assuming that because supplements are sold over the counter, they are completely safe to take, even in high doses. The truth is that large doses of certain vitamins and minerals can be dangerous and even toxic. For example, too much vitamin C can interfere with the body’s ability to absorb copper, too much phosphorous can inhibit calcium absorption, and because vitamins A, D, and K cannot be excreted, they can reach a level of toxicity (hypervitaminosis) and result in heart failure, liver damage, and bone disease.

The risks and side effects of supplements can be especially risky for people getting cancer treatment. Side effects of supplements can be exacerbated by radiation, chemotherapy, or can have adverse reactions with certain medications. Drug interactions can be extremely severe as certain supplements can block or speed up the body’s ability to absorb prescription drugs. This can cause a person to have too much or too little of the prescribed drug in their bloodstream which can result in life threatening complications. It is often recommended that cancer patients avoid taking dietary supplements until cancer treatment is over to prevent potential complications.



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Speak with your Healthcare Provider

When it comes to supplement use and cancer, there are no clear-cut answers. Work with your healthcare provider to obtain answers or referrals to other professionals who can assist you. If you are unable to answer the following questions do not begin taking the supplement.

1. What are the potential health benefits of this dietary supplement?
2. What potential interactions can it have with my treatment therapy?
3. Does this product have any safety risks?
4. What is the proper dose to take?
5. How, when, and how long should I take it?

Keep in Mind

- Don't decide to take a dietary supplement without consulting your health care provider first.
- Be aware that not all websites and media outlets are reliable. In order to properly determine the risks and benefits of dietary supplements, you should refer to organizations and publications that cite evidence based on scientific research.
- Be skeptical of sources that make grand claims or vague references to "scientific proof" and keep in mind that supplement manufacturers have a financial interest in promoting their products.
- Avoid products that claim to treat a wide variety of unrelated illnesses as they are most likely fraudulent and may contain harmful substances.
- No matter what the claim, no supplement is intended to treat, diagnose, cure, or relieve the effects of any disease.
- Reputable manufacturers will provide contact information on the label or packaging of their products so you can contact them with any questions or concerns.
- Try to avoid mixtures of different supplements. The more ingredients, the greater the chances of harmful side effects.
- If you decide to take a supplement, only start one product at a time and take note if you have any reactions. Report any side effects to your doctor.
- Supplement overdoses can be deadly so make sure to follow the dosage limits listed on the label.

Resources

Below is a list of reputable online sources for information on supplements:

- **Office of Dietary Supplements (ODS):** <http://ods.od.nih.gov>
ODS, a division of the National Institutes of Health, provides fact sheets on individual vitamins, minerals, and other dietary supplements. ODS also offers guidelines on evaluating information obtained from internet sources.
- **National Center of Complementary and Alternative Medicine (NCCAM):** <http://nccam.nih.gov/health>
As part of the National Institutes of Health, NCCAM is the Federal Government's lead agency for scientific research on the diverse medical and healthcare systems, practices and products that are not considered part of conventional medicine. This agency also provides fact sheets on individual vitamins, minerals, and other dietary supplements.



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- **National Cancer Institute (NCI):** www.cancer.gov
NCI is the Federal Government's principal agency for cancer research and training and is a part of the National Institutes of Health. NCI also provides fact sheets on individual vitamins, minerals, and other dietary supplements.
- **Medline Plus, National Library of Medicine:**
www.nlm.nih.gov/medlineplus/druginfo/herb_All.html
Medline Plus, the library for the National Institutes of Health, provides information on branded and generic products. It also incorporates valuable comments from the Natural Medicine Comprehensive Database.

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