



Understanding Dietary Supplements

Are you among the many people who take dietary supplements?

If so, you are probably familiar with some of these names: ginkgo biloba, garlic, glucosamine, omega-3 fatty acids (fish oils), and Co-Q-10. While the benefit of some dietary supplements is well documented, for others, little scientific evidence is available. Use caution and consult your healthcare provider before taking the latest “breakthrough” supplements. Beware of false claims such as “this product will cure you” or is “totally safe.”

By law, dietary supplements are defined as products that contain an ingredient that supplements the diet. The “dietary ingredient” may be a vitamin, mineral, enzyme, amino acid, herb, or botanical. Dietary supplements come in different forms such as tablets, capsules, powders, creams, energy bars, or drinks.

Federal regulations for supplements differ from prescription and nonprescription (over-the-counter [OTC]) medications. Unlike prescription and OTC medications, supplements are not required to undergo clinical testing to establish their effectiveness and do not receive approval by the Food and Drug Administration prior to marketing. Supplement manufacturers are allowed to make general health claims such as “calcium is used for the

development of healthy bones.” All claims must be followed by “This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.”

Many people believe that because supplements are available without a prescription, they are completely safe. However, as these products are more widely used, we are learning more and more about drug interactions and side effects associated with them. Taking high doses or multiple supplements at once may put you at risk for problems. Read labels carefully as supplements with different names may contain the same ingredients, and the amounts of active ingredients may vary among different brands. Most important, let your physician and other healthcare providers know about all the supplements you are taking or are planning to take. **See page 3, “Tips for Using Supplements Safely,” for more information.**

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Commonly Used Dietary Supplements*

Supplement	Used by People with:	Possible Side Effects
Chondroitin	Osteoarthritis	Stomach pain Nausea
Cinnamon	Type 2 diabetes Gas	Liver toxicity in sensitive individuals Skin allergic reactions
Coenzyme-Q-10 (Co-Q-10, Ubiquinone)	Congestive heart failure High blood pressure Heart health after heart attack	Nausea/vomiting/diarrhea Loss of appetite Heartburn Allergic rash
Garlic (<i>Allium</i>)	High blood pressure Atherosclerosis High cholesterol	Breath and body odor Gas/bloating Heartburn/upset stomach Nausea Allergic reactions
Ginkgo Biloba	Alzheimer's disease Dementia due to stroke Age related memory impairment	Headache Dizziness Stomach upset/nausea Allergic skin reactions
Glucosamine	Osteoarthritis Joint pain Back pain	Nausea/diarrhea Heartburn Constipation
MSM (Methyl Sulfonylmethane, DMSO ₂)	Arthritis Musculoskeletal pain Joint inflammation	Nausea/diarrhea Bloating Headache Insomnia Allergic reaction
Niacin (Nicotinic acid, Vitamin B3)	High cholesterol Heart disease	Flushing/redness of face, arm, neck Burning/tingling Severe allergic reaction Liver damage Gout
Omega 3 (Fish Oil, Cod Liver Oil, EPA/ DHA)	High cholesterol High triglycerides Heart disease	"Fish burp" Heartburn/upset stomach Nausea Loose stool Rash
Red Yeast Rice (<i>Cholestin</i>)	High cholesterol	Stomach cramps/gas Heartburn Dizziness Muscle pain/cramps Liver toxicity
Resveratrol (Red Wine Extract)	High cholesterol	None known
Saw Palmetto	Enlarged prostate	Dizziness Headache Nausea/vomiting/diarrhea Constipation

Some Common Dietary Supplement Drug Interactions*

May increase bleeding risk when used with warfarin (Coumadin [®] , Jantoven [®])	May increase bleeding risk when used with aspirin or Plavix [®]	May decrease the anti-clotting benefits of warfarin (Coumadin [®] , Jantoven [®])
Chondroitin Garlic Ginkgo Biloba Glucosamine Niacin Omega-3 Oils Red Yeast Rice Resveratrol Saw Palmetto	Garlic Omega-3 Oils Red Yeast Rice Resveratrol	Coenzyme-Q-10
May enhance effects of blood pressure medications	Many drug interactions – consult doctor or pharmacist	Other
Coenzyme-Q-10 Omega-3 Oils	Ginkgo Biloba Niacin Red Yeast Rice Resveratrol Saw Palmetto	Cinnamon – may enhance liver toxicity when used with other drugs that affect liver Ginkgo Biloba – may lower glucose levels Glucosamine – may worsen asthma Red Yeast Rice – may enhance toxicity of other cholesterol medications

* **Please note:** These are not all-inclusive lists of supplements, possible side effects, or potential drug interactions. This information is not intended to override or replace consultation with a healthcare provider. Please refer to other sources and consult your healthcare provider for information regarding a particular supplement or condition. HQSI does not endorse the use of these products for any specific condition.

Tips for Using Supplements Safely

- Always tell your doctor and pharmacist about the supplements you are taking. Let them help you determine which ones may be right for you and what dose to take. Never self-diagnose or self-treat
- Ask your doctor or pharmacist about any potential drug-supplement interactions that may occur
- Do not take more than the recommended dosage
- Tell your doctor or pharmacist about any side effects you experience
- Read labels carefully – do not take two forms of the same type of supplement
- Before surgery, inform your doctor about any supplements you take
- Keep an up-to-date personal medication record (PMR)[†] that lists your prescription and nonprescription medications and supplements and show it to all your doctors, pharmacists, and other healthcare professionals

[†] See <http://www.hqsi.org> for examples of PMRs to view and download, or ask your doctor or pharmacist for help creating a list of your medications.

If you are interested in learning more about dietary supplements, please visit these websites:

FDA: Food and Drug Administration. Information on the FDA's role in monitoring supplements and legal definitions. <http://www.fda.gov/Food/DietarySupplements/ConsumerInformation/default.htm>.

NIH: National Institute of Health; Medline Plus. Trusted health information for the consumer from the government. http://www.nlm.nih.gov/medlineplus/druginfo/herb_All.html.

USP: United States Pharmacopeia. Lists websites for further information including information on USP verified dietary supplements and videos to help choose dietary supplements. <http://www.usp.org/audiences/consumers/resources.html>.

NCCAM: National Center for Complementary and Alternative Medicine. Provides basic information about specific herbs or botanicals—common names, uses, potential side effects, and resources for more information. <http://nccam.nih.gov/health/herbsataglance.htm>.

References

Medline Plus [Internet]. Bethesda (MD): A service of the U.S. National Library of Medicine and the National Institute of Health. 2009 Aug 26 [cited 2009 Oct 16]. Available from: http://www.nlm.nih.gov/medlineplus/druginfo/herb_All.html.

FDA U.S. Food and Drug Administration [Internet]. *Consumer Information on Dietary Supplements*. Silver Spring (MD): U.S. Food and Drug Administration. 2009 Jul 31 [cited 2009 Oct 16]. Available from: <http://www.fda.gov/food/dietarysupplements/consumerinformation/default.htm>.

Natural Medicines Comprehensive Database [Internet]. Stockton (CA): Therapeutic Research Faculty. 2009 Nov 11 [cited 2009 April 26]. Available from: [http://www.naturaldatabase.com/\(S\(pfc3egjebz3xuzvddztjg455\)\)/nd/Search.aspx?cs=&s=ND&pt=1@spt=1&sh=#basic](http://www.naturaldatabase.com/(S(pfc3egjebz3xuzvddztjg455))/nd/Search.aspx?cs=&s=ND&pt=1@spt=1&sh=#basic).

Lexi-Comp, Inc. [Internet] Hudson (OH): Lexi-Comp, Inc.; 2009 [cited 2009 Oct 19]. *Lexi-Natural Products*TM. Available from: <http://webstore.lexi.com/Store/Individual-Databases/Lexi-Natural-Products>.

Wolters Kluwer Health, Inc. [Internet]. c2009 [cited 2009 Oct 19]. Available from: <http://online.factsandcomparisons.com/login.aspx?url=/index.aspx&q=s>. Subscription required.



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557 Cranbury Road, Suite 21 ❖ East Brunswick, NJ 08816-5419
Phone: 732-238-5570 ❖ Fax: 732-238-7766 ❖ Website: www.hqsi.org

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