

## SAMPLE HERBAL AND DIETARY REPLACEMENTS CURRENTLY ON THE MARKET

NAME OF HERB	COMMON USES	POSSIBLE SIDE EFFECTS OR DRUG INTERACTIONS
Echinacea	Boosts the immune system and helps fight colds and flu; aids wound healing.	May cause inflammation of the liver if used with certain other medications such as anabolic steroids, methotrexate or others.
Ephedra (also called Ma-Huang)	Used in many over-the-counter diet aids as an appetite suppressant; also for asthma or bronchitis.	May interact with certain antidepressant medications or certain high-blood pressure medicines to cause dangerous elevations in blood pressure or heart rate. Could cause death in certain individuals.
Feverfew	Used to ward off migraine headaches and for arthritis, rheumatic disease and allergies.	May increase bleeding, especially in patients already taking certain anticoagulating medications.
GBL, BD and GHB	Bodybuilding, weight loss aid and sleep aid.	These are abbreviations for illegally distributed, unapproved drugs (not supplements) that may cause death, seizures or unconsciousness.
Garlic	For lowering cholesterol, triglyceride levels and blood pressure.	May increase bleeding, especially in patients already taking certain anticoagulating medications. May decrease effectiveness of certain AIDS-fighting drugs, e.g., saquinavir.
Ginger	For reducing nausea, vomiting and vertigo.	May increase bleeding, especially in patients already taking certain anticoagulating medications.
Ginkgo (also called ginkgo biloba)	For increasing blood circulation and oxygenation and for improving memory and mental alertness.	May increase bleeding, especially in patients already taking certain anticoagulating medications.
Ginseng	Increases physical stamina and mental concentration.	May increase bleeding, especially in patients already taking certain anticoagulating medications. May see increased heart rate or high blood pressure. May cause bleeding in women after menopause.
Goldenseal	Used as a mild laxative and also reduces inflammation.	May worsen swelling and/or high blood pressure.
Kava-kava	For nervousness, anxiety or restlessness; also a muscle relaxant.	May increase the effects of certain antiseizure medications and/or prolong the effects of certain anesthetics. May cause serious liver injury. May worsen the symptoms of Parkinson's disease. Can enhance the effects of alcohol. May increase the risk of suicide for people with certain types of depressions.
Licorice	For treating stomach ulcers.	Certain licorice compounds may cause high blood pressure, swelling or electrolyte imbalances.
Saw palmetto	For enlarged prostate and urinary inflammations.	May see effects with other hormone therapies.
St. John's wort	For mild to moderate depression or anxiety and sleep disorders.	May decrease effectiveness of all currently marketed HIV protease inhibitors and nonnucleoside reverse transcriptase inhibitors (powerful AIDS-fighting drugs). May possibly prolong effects of anesthesia (not proven). May unknowingly decrease levels of digoxin, a powerful heart medication.
Valerian	Mild sedative or sleep-aid; also a muscle relaxant.	May increase the effects of certain antiseizure medications or prolong the effects of certain anesthetic agents.
Vitamin E	Used to prevent stroke and blood clots in the lungs. Also used to slow the aging process and for protection against environmental pollution. Possible Side Effects or Drug Interactions	May increase bleeding, especially in patients already taking certain anticoagulating medications. May affect thyroid gland function in otherwise healthy individuals. In doses higher than 400 IU per day, may cause problems with increased blood pressure in people who already have high blood pressure.

### What are herbs?

Herbs include flowering plants, shrubs, trees, moss, fern, algae, seaweed or fungus. In most cultures, including Western culture, herbs are used not only as a part of the treatment of disease, but also in the enhancement of life, physically, emotionally and spiritually. Plant parts, including flowers, fruits, leaves, twigs, bark, roots or seeds, are all considered usable.

### What are dietary supplements?

By definition, a dietary supplement is a product taken by mouth and intended to supplement the diet. These products may include: vitamins, minerals, herbs or other botanicals, amino acids and substances such as enzymes, organ tissues, glandulars and metabolites.

### Are they medicines?

The term “drug” comes from the ancient word for “root.” Until the 1930s, medical schools taught that plant drugs were the primary medicines available. In general, since that time, patented pharmaceuticals (prescription or over-the-counter medications) have replaced the herbs or “roots,” which were either found too weak or unsafe. Like drugs or foods, medicinal plants (herbs) and dietary products (vitamins, minerals, amino acids) have many actions in the body.

### Are such products safe?

Sometimes, even if you take an herb or supplement for one certain reason, there can be other unintended reactions. Natural doesn’t necessarily mean safe. Herbal and dietary products have chemical properties just as manufactured drugs do. Like anything that we ingest (eat) or apply (like a salve), there can be side effects. One of the major problems with many of the products on the market today is that the amount and the purity of their active ingredients vary so greatly from product to product. In many cases, you do not always know how much of the natural substance you are really getting in each dose or if other ingredients have been added. Another problem is determining how much of each active ingredient is really safe, particularly over long-term use. There are even case reports of contaminated herbs causing death. Also, herbals and supplements can interact negatively with anesthesia so it is important you tell your anesthesiologist which herbs and supplements you take prior to surgery.

### Does the federal government make sure that herbs and other dietary supplements are safe?

The government regulates herbal medicines in the same way that it regulates food and nutritional supplements, but herbs and other dietary supplements do not undergo the same strict research requirements as prescription drugs or over-the-counter medications (like aspirin). Whole plants cannot be patented (meaning that no one manufacturer has exclusive rights to an herb) and therefore, nonpharmaceutical companies that produce herbal products or dietary supplements are not obligated to do the same safety research that the Food and Drug Administration (FDA) requires for prescriptions or over-the-counter medications. If the FDA has reason to suspect that an herb or dietary supplement is unsafe, then the agency may require it be removed from the market. By law, however, the FDA cannot require testing of all herbal medicines and other dietary supplements before they are put on the shelf.

### In what types of preparations are herbal medicines available?

Herbs are available in many forms, depending on the type of plant and its use. Some plants are best used fresh, but they are highly perishable. Dried, chopped or whole herbs can be steeped as teas (infusions) or simmered over low heat (decoctions). Some fresh and/or dried herbs are preserved in alcohol to vinegar extracts (acettracts), syrups, glycerites (in vegetable glycerine) or miels (in honey). Freeze-dried or herbal bulk, tablet, capsule, paste or concentrate (4-6 times regular strength). Other ways to administer herbs may be by suppositories, creams, gels, liniments, oils, compresses, steams, aromatics (oils) or baths.

### Do I need to tell my doctor about all of the herbal products and other supplements that I take?

Yes. It is absolutely essential that you tell your doctor about any treatments that you are using. These include the use of herbal medicines, vitamins, nutritional supplements or any other prescribed or over-the-counter drugs. Many of the popular herbal products on the market can cause harmful side effects or interact with other medicines you may receive during a procedure.

### Could herbal medicines and other dietary supplements affect my anesthesia if I need surgery?

Yes. Certain herbal medicines may prolong the effects of anesthesia. Others may increase the risks of bleeding or raise blood pressure. Talk to your doctor about any herbal or dietary supplements you are currently taking.

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# What You Should Know About Herbal and Dietary Supplement Use and Anesthesia

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