

## HERBS AND DRUGS: THEY DON'T ALWAYS MIX

Some herbs and pharmaceuticals can interact when taken together -- possibly increasing or decreasing each other's effects or potency. Here are some potential interactions you need to know about:

**Herbs: Feverfew, garlic, ginger, ginkgo biloba, ginseng.** *Possible Interaction:* Increased bleeding when taken with blood-thinning drugs such as aspirin and warfarin (Coumadin, Panwarfin).

**Herb: Kava Kava.** *Possible Interaction:* Increased sedation when taken with long or short-acting benzodiazepines such as alprazolam (Xanax), diazepam (Valium), and lorazepam (Ativan).

**Herb: St. John's Wort.**

*Possible Interaction:* Increased sedation when taken with serotonin reuptake (SSRI) inhibiting drugs, such as fluoxetine (Prozac) and paroxetine (Paxil).

*Possible Interaction:* Increased sun sensitivity when taken with drugs that increase sun sensitivity such as Tretinoin (Renova, Retin-A) and the antibiotics doxycycline and tetracycline.

*Possible Interaction:* Prolonged effects of anesthesia and narcotics (such as codeine and morphine) when taken with anesthesia used during and after surgery.

**Herb: Valerian.** *Possible Interaction:* Increased sedation when taken with Barbiturates, such as pentobarbital (Nembutal), and secobarbital (Seconal) and long- or short-acting benzodiazepines such as those listed for kava kava.

**Herb: Ginseng, gotu kola.** *Possible Interaction:* Increased lowering of blood sugar when taken with hypoglycemic drugs, such as glipizide (Glucotrol), glyburide (DiaBeta Micronase), and metformin (Glucophage).

**Herb: Ginseng, St. John's Wort.** *Possible Interaction:* Increased blood pressure and heart rate when taken with Monoamine oxidase inhibiting (MAOI) antidepressants, such as phenelzine (Nardil) and tranylcypromine (Parnate).

**Herb: Echinacea.** *Possible Interaction:* Increased suppression of the immune system when taken with Immune-system-suppressing drugs, such as azathioprine (Imuran), prednisolone (Hydeltrasol), and prednisone (Deltasone).

**Herb: Licorice root.** *Possible Interaction:* Increased potassium loss when taken with thiazide diuretics (Diuril and Enduron).

**Herb: Cayenne (capsicum).** *Possible Interaction:* Interference with the function of some antidepressants when taken with Monoamine oxidase inhibiting (MAOI) antidepressants such as phenelzine (Nardil) and tranylcypromine (Parnate).

**SUPPLEMENTS TO DISCONTINUE BEFORE SURGERY**

St. John's Wort, Yohimbe, Melatonin  
(Increase anesthesia effect)

Ginkgo, Ginger, Garlic, Cayenne, Bilberry, Feverfew, Vitamin E, Fish Oil, and Eicosapentaenoic Acid.

Possibly: Agrimony, Alfalfa, Angelica, Aniseed, Celery, Chamomile, Clove, Devil's Claw, Fenugreek, Goldenseal, Hawthorne, Horse Chestnut, Licorice, Meadowsweet, Mistletoe, Papaya, Poplar, Prickly Ash, Sage, Tonka Bean, Wintergreen, and Yarrow (Increase bleeding)

Ginseng  
(Increases blood pressure and heart rate)

Echinacea  
(Impacts liver with anesthesia)

Aloe Vera pills  
(Lowers potassium levels – potential for irregular heart beat)

PC-SPES: for prostate  
(Risk of deep venous thrombosis)

Ephedra, MaHuang, Kava Kava  
(Stimulates heart and nervous system)

Also must discontinue weight loss supplements including Phentermine (Adipex-P, Fastin, Ionamin), Metabolife, Desoxyn, Didrex, Meridia, Tenuate at least 6 WEEKS BEFORE SURGERY.

Okay to take Vitamin C (1000 mg), multivitamin, Calcium, Magnesium, Zinc, and less than a total of 400IU per day of Vitamin E.

## HERBAL AND DIETARY SUPPLEMENTS

*From the American Society for Aesthetic Plastic Surgery*

For many people, the words “natural,” “herbal,” or “alternative medicine” conjure up images of safety and purity. Products that are available over-the-counter without a doctor’s prescription are often believed to be free of any risks. Unfortunately, this perception is inaccurate and may create a false sense of security for consumers who purchase these products – and there are a lot of them. An estimated 60 million people in the United States use herbal remedies, and the herbal / dietary supplement market represents a growing multi-billion dollar industry.

Botanics (products made from plant life such as roots, barks or herbs), as well as vitamin and mineral supplements and conventional over-the-counter medications, are chemically active substances that can have powerful effects on the body. The origins of many modern-day pharmaceutical medications can be traced back to plants. Willow bark, for example, was used over 1,000 years ago to reduce fever and pain. The active ingredient in willow bark, salicin, is a pharmacologic predecessor of a class of drugs called salicylates, one form of which is aspirin. Digitalis, a genus of perennial flowering plants, is a source for cardiac medications such as digoxin.

Like pharmaceutical medications, herbal remedies and dietary supplements often have the potential to cause side effects and interact with other prescription medications. There are a growing number of alarming anecdotal reports from doctors’ offices and medical centers around the country, some of which have been filed with the Food and Drug Administration’s (FDA) MedWatch program. Reported adverse events range from insomnia and headache to heart attack and death.

Included in a 1993 FDA statement before the Senate Committee on Labor and Human Resources are the herbal ingredients chaparral, comfrey, and ephedra (Ma Huang), Vitamins A, B6, niacin, and L-tryptophan (an amino acid), all of which are listed as having possible health hazards. A more recent FDA statement warns consumers against using dietary supplements labeled “plantain” because the product may contain components of the plant *Digitalis lanata*, which can cause fatal heart reactions.

**Lack of FDA regulation:** Unlike prescription or over-the-counter medications, dietary supplements are exempt from the FDA’s scrutiny for safety and effectiveness. (For the FDA to be able to remove a supplement from the market, it must prove that it is unsafe and, in most cases, this process occurs only after numerous adverse events are reported.) The Federal Trade Commission (FTC) has issued new guidelines for advertising of dietary supplements but creative labeling can be misleading.

With the integrity of the product left to the discretion of manufacturers, quality control is highly variable. The amount of active ingredient in each pill or capsule may not be standardized, which means it may vary from batch-to-batch delivering unknown dosages. In some cases, tests have shown the specified ingredient to be missing from the product altogether. There are also reports of herbal products being contaminated with substances such as fungicides or lead.

Probably of greatest importance is that manufacturers are not required to understand the way in which herbal and dietary supplements work or what their side effects are before distributing the products in the marketplace. Moreover, the product may contain other active substances whose mechanisms of action are also unknown. This lack of scientific understanding creates the potential for significant risks, especially to those who are having surgery. Unpredictable interactions may occur with medications and anesthesia, and supplements on their own may interfere with the normal mechanism for blood clotting, causing bleeding that is prolonged or difficult to control.

**Medications and plastic surgery:** Prior to surgery, plastic surgeons inquire about health histories and may advise their patients to temporarily discontinue certain prescriptions and over-the-counter medications, as well as certain vitamins. Among them are aspirin, nonsteroidal anti-inflammatory medications (e.g.: ibuprofen), and Vitamin E, which can cause excessive bleeding. Medications categorized as monoamine oxidase (MAO) inhibitors (e.g.: the antidepressants Nardil or Parnate) are contraindicated because of their interaction with certain narcotics. If given with the frequently used pain medication Demerol (meperidine), seizures, coma, and death may occur. If given with substances such as dopamine or epinephrine, a hypertensive crisis may result.

When patients do not disclose their use of herbal or other dietary supplements along with the other medications they are taking, because they believe these supplements “don’t count,” unexpected drug interactions may occur. For example, St. John’s Wort, an herb with purported effects on mood and sleep disorders, may behave like an MAO inhibitor. Gingko Biloba, which comes from the Chinese maidenhair tree and is commonly claimed to enhance memory, has anticoagulation effects that are more potent than Vitamin E. Melatonin, used to induce sleep, is believed to compound the effect of the anesthesia being administered, and Echinacea, used to stimulate the immune system, has been reported to cause liver damage and blood pressure abnormalities when used with general anesthesia. Dietary supplements do count!

Some plastic surgeons advocate the use of Arnica (from the flower Arnica Montana) and Bromelain (an enzyme found in pineapples) to decrease post-operative bruising and swelling. These supplements may be prescribed for the day of surgery and several days after. However, there is no consensus on the benefits of such treatment, and these supplements should be taken only under the guidance of one’s surgeon.

Patients are advised against self-medicating in general and should disclose to their surgeon any substance they are taking. This includes vitamins, minerals, herbal or other dietary supplements, as well as all prescription and nonprescription medications. In most cases the potentially harmful substance should be discontinued 1 to 2 weeks before and after surgery to prevent complications.

Dietary supplements should be taken with caution and only after being fully researched. Potential health benefits may not outweigh the risks, and a physician’s advice should be obtained before taking supplements.

*The American Society for Aesthetic Plastic Surgery (ASAPS) is an organization devoted to education and research in aesthetic (cosmetic) plastic surgery. Its members are plastic surgeons certified by the American Board of Plastic Surgery.*