Herbalism, the study and use of plants for medical treatment and preventive purposes, is a practice that goes back to ancient times. Herbal medicine has been studied and practiced in all cultures of the world and herbal lore has been passed down from generation to generation. Today, consumers in the United States alone spend over 14 billion dollars annually on dietary supplements, which include herbs, vitamin and mineral supplements and amino acids. Roughly half of all Americans take some kind of dietary supplement. However, most people take supplements without knowing what effects these products may have on their health, and how these products may interact with their prescription medications.

**How Can Dietary Supplements be Dangerous?**

Although dietary supplements are readily available in grocery, drug, and health food stores, information about potential problems is not readily available. Most people, including physicians, only learn about problems from anecdotal information. Since 1994, dietary supplements in the U.S. have been regulated as food products, not drugs, and are therefore not subject to the same strict pre-approval processes as medications are. Herbal products may be sold without pre-market clearance by the U.S. Government Food and Drug Administration (FDA) and without any evaluation about their safety and/or effectiveness. Unlike prescription drugs, dietary supplements must be proven to be harmful before they can be removed from the market. This has prompted the past director of the FDA to request that Congress change the law so manufacturers of dietary supplements would have to ensure the safety of their products. Unfortunately, few physicians have training in the field of herbal medicine, and the government has no central database of information for physicians and consumers. Little controlled research has been done to alert physicians, pharmacists, and the general public about the dangers of taking some of the dietary supplements and drug interactions. Although prescription medication packages warn against some possible interactions, the makers of dietary supplements are not required to list them on their package labels.

**What About Labeling Information on Dietary Supplements?**

There are currently over 200 plant products on the market. However, they are not required to have their ingredients analyzed before being marketed and there is no regulatory system in place to ensure the accuracy of the labels. Random studies by scientists, consumer groups, and newspapers have shown that many brands of herbs and vitamins do not contain the amounts of the active ingredient indicated on their labels. In the absence of government regulation, some industry groups are beginning to test products and publish their findings for consumer use. However, in the meantime, consumers should research the products they plan to use by relying on available resources and the increasing knowledge of pharmacists and physicians.

**How Can We Avoid Drug Interactions?**

One way to avoid potentially dangerous drug interactions is to inform your physician about all dietary supplements that you are taking. Some physicians, when inquiring about a patient's history, do not ask about supplements and patients are usually unwilling to mention them because they feel the physician may disapprove. The common belief is that herbal products are natural, therefore harmless, and are not considered to be drugs. Studies have shown that although one third to one half of patients surveyed used some type of alternative medicine, more than half of them failed to tell their physicians about it. The National Academy of Sciences recently reported that possible tens of thousands of deaths annually could be attributed to the side effects of mixing drugs. It is important to understand that the physician-patient relationship can be the key to avoiding potentially harmful, even fatal interactions between certain health conditions or prescription drugs, and dietary supplements. Your physician and pharmacist should be informed about all dietary supplements or alternative therapies you are using, no matter how harmless you may feel they are.
What Are the Dangers of Some Dietary Supplements?

The FDA has issued a healthcare warning that 5 herbal products used to treat diabetes actually contain prescription drugs that can interact with other diabetes therapies. The products to be avoided are:

- Diabetes Hypoglucose Capsules
- Pearl Hypoglycemic Capsules
- Tongyi Tang Diabetes Angel Pearl Hypoglycemic Capsules
- Tongyi Tang Diabetes Angel Hypoglycemic Capsules
- Zhen Qi Capsules

The FDA has issued a Public Health Advisory to physicians warning that St. John’s wort, a popular herbal supplement, interferes with essential medications prescribed for HIV/AIDS patients, and organ transplant recipients. According to a FDA report, St. John’s wort decreases the strength of virus-fighting prescription drugs necessary for HIV/AIDS patients, and also decreases the benefits of anti-rejection medication for organ transplant patients. In addition, St. John’s wort, which is used for depression, may interact with prescription medications used to treat other diseases such as heart disease, seizures, depression, and certain cancers. It has also been found to decrease the effectiveness of birth control pills. If used for depression, St. John’s wort should not be taken with other standard antidepressant medications because of the danger of severe side effects. At this time, St. John’s wort is not a proven therapy for clinical depression, but more studies are currently being done on this popular supplement.

Some herbs have been linked to certain cancers and other diseases. Borage, coltsfoot, comfrey, life root, and sassafras are potentially carcinogenic (cancer-causing). Ma huang, licorice, pennyroyal, germander and chaparral may contribute to a variety of serious medical problems. A Chinese herb, Aristolochia fangchi, (marketed under several different names) has been linked to kidney failure and cancer. The Food and Drug Administration has banned the importation of this herb, but it may still be found in a large number of herbal supplements, many of which can be ordered on the internet. To see the FDA’s warning letter and a list of the products that may contain Aristolochia or Aristolochic acid, visit the FDA’s website (www.fda.gov) by clicking on “what’s new” and then “dietary supplements”.

Several herbs act as anticoagulants, or blood thinners. They should not be taken together, and should never be taken with the prescription drug Warfarin because of the danger of bleeding. Some of these herbs include: ginkgo biloba, garlic, gensing, dong quai, willow, and red clover.

Pregnancy and lactation are other conditions that require caution regarding dietary supplements. Information on safety is limited but there are some herbs that are not advised for use during this time. The following herbs should be avoided during pregnancy: aloe, black cohosh, buckthorn, cascara sagrada, chamomile, chaste berry tree, dong quai, feverfew, goldenseal, garlic and ginger supplements, gotu kola, guggul, horehound, horseradish (fresh), kava kava, licorice, ma huang, pennyroyal, rue, sage, senna, St. John’s wort, stinging nettle, tansy, wormwood, yarrow.

Many herbal ingredients are secreted in breast milk and transmitted from mother to baby when breastfeeding. Herbs to avoid while breastfeeding include aloe, black cohosh, buckthorn, cascada sagrada, kava kava, ma huang, sage, senna, wintergreen.

Women who are pregnant or planning a pregnancy should discuss the use of any dietary supplement with their physicians and consider prenatal vitamins (with folic acid) instead.

Dietary supplement companies are aggressively targeting children and their parents as consumers for their products. An article in the Washington Post (6/18/2000) reports a recent survey showing that almost 20% of parents are now giving their children herbal and nutritional supplements, usually without the knowledge of the child’s physician. Because these supplements are untested and unregulated, pediatricians are concerned about the effect these products may have on young children. The FDA and the Poison Control Centers have reported hundreds of cases of bad experiences, adverse reactions and side effects, and even fatalities involving children and the use of dietary supplements. The medical community discourages their use for children, and this subject should be discussed with the child's physician.
Non-herbal dietary supplements also have potential risks and side effects. We have heard for a long time about the possible dangers of taking excessively large doses of vitamins and minerals. A new report from the Institute of Medicine warns that taking certain vitamins and other supplements in large doses can do more harm than good and that most benefits are unproven. In this report, in addition to the recommended daily amounts of supplements, maximum daily doses of certain supplements have been established. (SEE CHART) However, it is advisable to discuss these amounts with your physician before assuming that these doses would be safe or beneficial for you.

Although many herbs and dietary supplements may be harmless and even helpful to some people with certain medical conditions, we need to be aware of the dangers of some herbs and their interactions with each other and with prescription medications. Because of the lack of controlled research, labeling laws, quality control, and government regulation of dietary supplements, consumers need to be wary of what they are buying and should research information about the safe use of these products.

Two internet sites, www.fda.gov (Food and Drug Administration), and www.healthfinder.gov provide good resources for information. Your pharmacist is also a good resource for information on drugs and interactions. In addition, the FDA now offers a website with tips for consumers who buy health products online. For more information, go to: www.fda.gov/oc/buyonline. For your safety, you may want to discuss dietary supplements with your physician and pharmacist and always provide information about all herbal products, vitamins, and drugs that you are currently using.

This information is provided for educational purposes only and is not a substitute for sound medical judgement. If you have any questions or concerns, you should discuss them with your physician.