The use of natural products and dietary supplements is widespread in the U.S. These products can be purchased in health stores, pharmacies, and on the Internet. A survey of more than 3,000 individuals age 75 and older reported that approximately two-thirds used multivitamins, about half used various types of minerals, and a quarter used non-vitamin/non-mineral dietary supplements. The most commonly used products -- ginseng, garlic, St. John’s wort, or Echinacea -- were used by approximately 10 percent. Studies show that patients seldom inform their physicians regarding their use of these products, and physicians seldom ask their patients.

Are natural products safe?
The simplest and most direct answer to this question is no. It is, however, common to assume that products from nature are safe, while those developed by chemists at pharmaceutical companies are dangerous. It is not clear from where this viewpoint comes. A number of natural products have been found to be dangerous and have been banned in some countries. For example, traditional Chinese herbs containing the plant aristolochia and kava-kava can sometimes cause fatal liver damage.

The list of very poisonous plants is also very long.

Belladonna  Henbane
Castor Bean  Marijuana
Dogbane  Poison Hemlock
Ergot  Poison Ivy
Foxglove  Tobacco

To this list can be added the poisonous mushrooms Amanita and Helvella.

Some natural health products or dietary supplements may interact with prescription medications. For example, the popular St. John’s wort may cause a loss of therapeutic effect with important medications used for heart disease, depression, seizures, and certain cancers, or to prevent transplant rejection or pregnancy.

Although many medications are synthetic, a large number are derived from natural products, including morphine, digitalis (digoxin), and cell toxins used in the treatment of cancer.

In summary, it is a misperception that all substances from nature are safe.
Chapter 10 - Are “natural” products safe?

Digitalis
Is it known what natural products contain?

There are two uncertainties. First, the amount of the natural product within a tablet or capsule varies tremendously, from very large amounts to nothing at all. This is a result of not requiring manufacturers of natural products to comply with pharmaceutical GMP regulations (Chapter 57). This situation should change when new GMP regulations for natural health products and dietary supplements are fully implemented in 2010.

A more serious problem is that undeclared drugs may be added to these products. Common additions are sildenafil (Viagra) and other medications approved for erectile dysfunction (impotence). An analysis of 34 natural products promoted for weight loss uncovered 27 substances classified as medications, half of which were judged as potentially harmful to their users.

Many products also contain mercury, lead, or cadmium. Cases of serious lead poisoning have been reported following use of Ayurvedic products from India, with an analysis of 14 such products showing 13 that contained lead. The explanation given was that some schools of traditional Indian medicine believe that an imbalance among metals in the human body can cause diseases. Thus, the metals were added to correct this imbalance.

Thirteen Chinese herbal products promoted for cough, fever and gastrointestinal problems turned out to be contaminated by harmful bacteria, obviously an improper way to treat cough and fever.

ConsumerLab.com (www.consumerlab.com) is a private company that tests dietary supplements and natural products and has found significant variation between what is listed on the label and what is actually in the bottle.

Key messages

- The use of natural health products is widespread.
- These products undergo inadequate safety or quality testing, or none at all.
- There is a public misperception that natural health products are safe.
- It is not uncommon for unknown medications and toxic metals to be added to dietary supplements and natural health products.