

Health Notes by Evelyn Ames

Interactions of Foods and Medications (What you eat may interfere with drug absorption and metabolism)

Recent news articles (e.g., *Wall Street Journal* and *Consumer Reports on Health*) are highlighting the importance of protecting oneself from medication mistakes at home and in the doctor's office, hospital, and pharmacy. Errors may happen because of drug name similarity (e.g., Zantac vs. Zyrtec), look-a-like labels, incorrect phoned-in drug orders, and poor physician penmanship. Also, errors can happen when a drug interacts with particular foods or other medications (prescription and over-the-counter). Patient responsibilities include asking the doctor, pharmacist or other medical care provider how to take the medication (e.g., time of day, with or without food, and which foods to avoid). One suggested reason for the increase in adverse drug effects is due to people taking high doses of nutrient and herbal supplements along with their medications.

The Food and Drug Administration (<http://www.fda.gov/forconsumers/consumerupdates/ucm096386>) reports that "Consequences of drug interactions with food and beverages may include delayed, decreased, or enhanced absorption of a medication. Food can affect the bioavailability (the degree and rate at which a drug is absorbed into someone's system), metabolism, and excretion of certain medications."

"Americans increasingly view the food they eat as medicine to help lower cholesterol, reduce high blood pressure and control blood sugar. But as with prescribed drugs, the health-improving qualities of foods such as olive oil, nuts and fruit can interact with other medications, causing possible problems" (*Wall Street Journal Online*, June 22, 2010). Do note that a small amount of olive oil on pasta or in salad dressings generally does not pose any overdose problem.

According to the WSJ article, "Grapefruit is one of the most extensively studied foods for its impact on medication. Compounds in the fruit can increase the potency of statins and other medications to potentially dangerous levels by inhibiting cytochrome P450, a family of enzymes that break down the drug. Research indicates that drinking just one eight-ounce cup of grapefruit juice a day increases the strength of the drug." Recent studies are suggesting "that other fruits, including pomegranates, oranges (especially those from Seville), cranberries, grapes and black mulberries, could have a similar, although less robust, effect on statins in the body" (WSJ, June 22, 2010).

Some examples of drug interactions with food and beverages are found at the above listed FDA web site:

- **Alcohol:** can increase or decrease the effect of many drugs. It is best to check with physician and pharmacist about drinking alcohol.
- **Grapefruit juice:** "often mentioned as a product that can interact negatively with drugs, but the actual number of drugs the juice can interact with is less well-known. Grapefruit juice shouldn't be taken with certain blood pressure-lowering drugs or cyclosporine for the prevention of organ transplant rejection.... The juice can also interact to cause higher blood levels of the anti-anxiety medicine Buspar (buspirone); the anti-malaria drugs Quinerva or Quinite (quinine); and Halcion (triazolam), a medication used to treat insomnia."
- **Licorice:** "for someone taking Lanoxin (digoxin), some forms of licorice may increase the risk for Lanoxin toxicity. Lanoxin is used to treat congestive heart failure and abnormal heart rhythms. Licorice may also reduce the effects of blood pressure drugs or diuretic (urine-producing) drugs, including Hydrodiuril (hydrochlorothiazide) and Aldactone (spironolactone)."
- **Chocolate:** "MAO inhibitors are just one category of drugs that shouldn't be consumed with excessive amounts of chocolate. The caffeine in chocolate can also interact with stimulant drugs such as Ritalin (methylphenidate), increasing their effect, or by decreasing the effect of sedative-hypnotics such as Ambien (zolpidem)."

FDA examples of drug interactions with dietary supplements:

- **St. John's Wort (*Hypericum perforatum*):** an inducer of liver enzymes, it can reduce the concentration of medications in the blood. It can reduce the blood level Lanoxin, the cholesterol-lowering drugs Mevacor and Altacor (lovastatin), and the erectile dysfunction drug Viagra (sildenafil).

- **Vitamin E:** vitamin E with Coumadin (blood-thinning medication) can increase anti-clotting activity and may cause an increased risk of bleeding.
- **Ginseng:** interferes with the bleeding effects of Coumadin; enhances bleeding effects of heparin, aspirin, and nonsteroidal anti-inflammatory drugs such as ibuprofen, naproxen, and ketoprofen. Combining ginseng with MAO inhibitors such as Nardil or Parnate may cause headache, trouble sleeping, nervousness, and hyperactivity.
- **Ginkgo Biloba:** high doses could decrease effectiveness of anticonvulsant therapy in patients taking Tegretol, Equetro or Carbatrol (carbamazepine), and Depakote (valproic acid).to control seizures.

Some key questions to ask your doctor and pharmacist: How and when do I take this drug? Are there beverages, foods, activities, or medicine (including OTC) I should avoid? Will the new prescription interfere with the drugs I am now taking? What are possible side effects? To check your medication interaction online, consider this site from health line: <http://www.healthline.com/druginteractions>

To obtain detailed information about drug—drug interactions, check out this FDA web source:

<http://www.fda.gov/downloads/Drugs/ResourcesForYou/UCM163355.pdf> Two other sites to visits include the FDA Resources for Consumers <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/default.htm>

and the National Consumers League

<http://www.nclnet.org/health/106-prescription-drugs/234-ncls-medication-adherence-campaign>