

Harmful Supplements

Instructions: Use this job aid as a resource of vitamins, minerals, and herbal supplements that are potentially harmful when taken in large doses by infants, children, and pregnant or breastfeeding women. This information should not be given directly to a participant or be used as a handout.

Vitamins and Minerals

- **Vitamin A** - teratogenic effects have been reported with maternal intake as low as 20,000 IU to 25,000 IU per day. Pregnant women should not exceed intakes of 10,000 IU of preformed vitamin A daily. Because beta-carotene does not cause the same teratogenic effects as preformed vitamin A, most prenatal vitamins contain beta-carotene in order to avoid potential intoxication.
- **Vitamin D** - the tolerable upper intake level for infants is 1,000 IU/day (5 times the DRI) and is 2,000 IU/day for children and adults. Vitamin D supplements for children are available, by prescription, in liquid form.
- **Vitamin C** - while high doses of vitamin C are not particularly dangerous, it can cause gastrointestinal disturbance and diarrhea.
- **Niacin** - high doses can be toxic to the liver. Under a physician's care, Niacin is sometimes prescribed as treatment for high cholesterol.
- **Iron** - while it is very rare for adults to consciously take too much iron, it is a serious concern for children. Children may take iron tablets, thinking that they are candy, with fatal results. According to U.S. Poison Control Centers, iron overdose is the number one cause of pediatric poisoning deaths in the United States. Fatalities have been reported with doses from 3 to 10 grams.
- **Fluoride** - mild fluorosis, a discoloration or mottling of the teeth, can occur with daily intakes of 0.1 mg/kg. Parents should be encouraged to use non-fluoridated toothpaste for their children until they are able to spit out the toothpaste after brushing. Physicians may prescribe fluoride supplements to children over 6 months of age if they do not have a fluoridated water supply.
- **Selenium** - there is a very narrow margin of safety between desired levels and toxic levels of selenium. In the last 5 years, selenium has become a popular antioxidant dietary supplement; because of this, the risk for toxicity is high. Signs of toxicity include skin and nail changes, tooth decay, and neurological problems.

Herbal Supplements

- **Comfrey** - used topically as a poultice to aid in wound healing, and taken internally as a tea to soothe the stomach. Ingestion of this herb can result in liver damage.
- **Dong Quai** - used for menstrual cramps, it relaxes the uterus and should not be taken during pregnancy.
- **Echinacea** - used as an immune system stimulant, it should not be taken during pregnancy, when the immune system is suppressed. People take this when they have a cold or the flu - If taken more than 8 consecutive weeks, may be toxic to the liver.

- **Fenugreek** - used to increase milk supply in breastfeeding women, it may stimulate the uterus and should not be taken during pregnancy.
- **Feverfew** - used to regulate menstrual flow, it should not be taken while pregnant or breastfeeding. Also prevents migraine headaches. MAY CAUSE MISCARRIAGE.
- **Kava** - taken for relaxation and as a sleep aid, it has been associated with liver damage.
- **Licorice** - used as a treatment for coughs and colds. Excessive amounts can cause headache, lethargy, high blood pressure, cardiac problems, excessive potassium secretion, and sodium and water retention. Infants and children should not consume licorice. Anise oil, frequently used in lieu of licorice for its similar flavor, is safe.
- **Ma Huang (Ephedra)** - a central nervous system stimulant, it is taken for weight loss, to improve athletic performance, or to increase energy. Large doses have resulted in cardiac problems-- as minor as heart palpitations to more serious complications such as heart attack.
- **Sassafras** - promoted as a stimulant, antispasmodic, a treatment for skin diseases, etc., it is a known carcinogen in rats and mice. The FDA has prohibited its use as a flavoring or food additive, but it is still marketed as a dietary supplement.
- **Senna** - taken internally in the form of a tea, capsules/tablets, or a syrup, it is used as a laxative. Because it is a potent cathartic agent, chronic use can result in excessive potassium loss and dehydration.

Remember that pregnant or breastfeeding women should consult their physicians before taking supplements. Also, parents should consult a physician before giving any supplements to their children. The FDA posts all warnings and safety information for dietary supplements on its web site.