

### Facts About Vitamin A<sup>1</sup>

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### Why do we need vitamin A?

Vitamin A is a fat-soluble vitamin essential to our health. It helps us see normally in the dark. Vitamin A also promotes normal growth and health of body cells and keeps skin healthy.

There are animal sources (retinol) and vegetable sources (carotenoids) of vitamin A in foods. Only a few of the carotenoids in foods are converted to vitamin A in the body. Beta-carotene is the most familiar carotenoid.

Beta-carotene, like several other carotenoids, acts as an antioxidant. Antioxidants help slow or prevent cell damage. By protecting cells from damage, antioxidants may reduce risk for certain cancers and heart disease.

# What happens if we do not get enough vitamin A?

Inadequate intake of vitamin A can cause night blindness, dry, scaly skin, increased risk for infections, and poor growth.

### How much vitamin A do we need?

Recommended intakes for vitamin A are given as "Retinol Activity Equivalents (RAEs)."

Using RAEs helps account for the difference in activity between carotenoids and retinol. It takes about 12 units of

beta-carotene or 24 units of other carotenoids to make 1 unit of retinol in the body.

Table 1. Recommended daily intakes of vitamin A

Life Stage	Vitamin A (mcg/day as RAE)
Males, ages 14+	900
Females, ages 14+	700
Pregnancy	770*
Breastfeeding	1,300

mcg = micrograms

RAE = Retinol Activity Equivalents

\*Pregnant women should avoid supplemental, preformed vitamin



Figure 1. Vitamin A helps maintain healthy skin. Credits: iStockphoto

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## How can we get enough vitamin A?

We get vitamin A by eating a variety of fruits and vegetables that contain carotenoids and from dairy products fortified with vitamin A. Vitamin A also is found in liver and egg yolks.

Table 2. Food sources of vitamin A

Food	Vitamin A (RAE*)
Sweet potato, cooked, 1 medium	1,400
Spinach, frozen, boiled, ½ cup	580
Carrot, raw, ½ cup	460
Pumpkin, cooked, ½ cup	305
Cantaloupe, cubed, 1 cup	270
Milk, low fat, with vitamin A, 1 cup	140
Broccoli, cooked, 1 cup	120
Egg, cooked, 1 large	75
Cheese, cheddar, 1 ounce	75
Mango, ½ medium	55
*Retinol Activity Equivalents	



Figure 2. Carrots are an excellent source of carotenoids. Credits: iStockphoto

### What about supplements?

We don't need supplements because vitamin A is so widely available in foods and is easily stored in the body. Pregnant women especially should **avoid** taking retinol supplements. High doses during pregnancy can cause birth defects. Look

for beta-carotene as the only vitamin A source in prenatal supplements.

#### How much is too much?

Taking large doses of retinol can cause nausea, vomiting, headaches, and dry, scaly skin. More severe health problems from storing excess vitamin A in the body are liver damage, osteoporosis, and nervous system disorders. Vitamin A toxicity can kill you! **Keep your total vitamin A intake less than 3,000 µg per day from retinol.** 

### Where can i get more information?

The Family and Consumer Sciences (FCS) agent at your local UF/IFAS Extension office may have more information or nutrition classes for you to attend (find your local office at http://solutionsforyourlife.ufl.edu/map). Also, a registered dietitian (RD) can provide reliable information.

The following websites also have reliable information:

- UF/IFAS Extension—http://solutionsforyourlife.ufl.edu
- Nutrition.gov—http://nutrition.gov
- National Institutes of Health, Office of Dietary Supplements—http://ods.od.nih.gov/factsheets/vitamina.asp
- Medline Plus—http://www.nlm.nih.gov/medlineplus

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