



Vitamin A

Vitamin A is a group of compounds that play an important role in vision, bone growth, reproduction, cell division, and cell differentiation (the process in which a cell becomes part of either the brain, muscle, lungs, blood or other specialized tissue). Vitamin A also helps regulate the immune system to prevent or fight off infection. Since vitamin A is a fat-soluble vitamin, its absorption is dependent upon fat absorption, and hence dietary fat consumption.

Dietary vitamin A can come from both plant and animal sources, but it is best absorbed and utilized by the body when from an animal sources. Good sources include liver, eggs, whole milk and fortified foods (i.e. skim milk and breakfast cereals). The less absorbable form is found predominantly in richly-colored fruits and vegetables, such as: carrots, mangos, papaya, spinach, sweet potatoes, broccoli, cantaloupe, apricots and kale.

Food Sources of Vitamin A

Food	Portion	Amount of Vitamin A (IU)
Beef liver	3 ounces	27,185
Chicken liver	3 ounces	12,325
Skim milk, fortified	8 ounces	500
Cheddar cheese	1 ounce	284
Whole milk	8 ounces	249
Egg substitute	¼ cup	226
Carrot juice	½ cup	22,567
Carrots, boiled	½ cup	13,418
Spinach, boiled	½ cup	11,458
Kale, boiled	½ cup	9,558
Carrots, raw	7½ inch	8,666
Cantaloupe	1 cup	5,411
Spinach, raw	1 cup	2,813
Apricots, in juice	½ cup	2,063
Apricot nectar	½ cup	1,651
Papaya, cubed	1 cup	1,532
Mango, sliced	1 cup	1,262
Prepared instant oatmeal, plain	1 cup	1,252
Peas, boiled	½ cup	1,050
Tomato juice	6 ounces	819
Peaches, canned in juice	½ cup	473
Peach	1 medium	319
Red pepper	¼" slice	313

K Gemmel • The Department of Surgery • 3/27/2007

Recommended Intakes for Vitamin A

Group	Amount
Adult Males	3,000 IU
Adult Females	2,310 IU
Pregnancy	2,565 IU
Lactation	4,300 IU

Signs and symptoms of vitamin A deficiency include: night blindness, increased vulnerability to infection (especially pneumonia), loss of appetite, and dry, scaly skin. Severe and prolonged vitamin A deficiency can cause permanent blindness.

Because both zinc and protein are responsible for moving stored vitamin A to tissues where vitamin A can be readily utilized, both zinc and protein deficiency often accompany vitamin A deficiency.

Iron deficiency can also affect vitamin A metabolism, and iron supplementation may help improve body stores of vitamin A and iron.

Excessive alcohol intake can deplete vitamin A stores, but those who abuse alcohol may have liver damage, and thus be unable to take supplemental vitamin A due to the increased risk of toxicity.

Very high doses of vitamin A, in the absence of deficiency, are not recommended due to the risk of toxicity. Long-term excessive vitamin A intake may result in: birth defects, liver abnormalities, and osteoporosis. Signs of acute toxicity are: nausea and vomiting, headache, dizziness, blurred vision and muscular uncoordination. Vitamin A supplementation should be closely monitored by your prescribing physician.