



VITAMIN A

What Does Vitamin A Do?

Vitamin A helps with a variety of functions to keep our bodies healthy, such as:

- ▶ allowing your eyes adjust to the different levels of light and dark
- ▶ supporting cell growth, especially of our kidneys, lungs, heart, and other organs
- ▶ boosting the immune system to help us fight infection
- ▶ functioning as an antioxidant to help reduce cellular damage in the body

HOW MUCH VITAMIN A IS TOO MUCH?

Vitamin A is a fat-soluble vitamin, which means that when a person consumes more than the body needs, it's stored in the fat cells and liver.

When large amounts of preformed vitamin A are consumed (typically from supplements), it may result in dizziness, nausea, headaches, joint pain, coma, and even death.

High doses of beta-carotene supplements have been linked to risk of lung cancer and heart disease in those who smoke or have a history of smoking. When very large amounts of food sources of beta-carotene are eaten, the skin may develop a yellow-orange color, but this is reversible.

Always check with a health-care provider before taking any type of supplement.

How Much Vitamin A Do You Need?

The amount of vitamin A you need each day is measured in micrograms (mcg) and is frequently listed with the letters RAE following it. This stands for retinol activity equivalent. The RAE is the total amount of vitamin A the body can use (from any source).

The two most common types of vitamin A are preformed vitamin A and beta-carotene, which the body must convert into an active form of vitamin A before it can be used.

Recommended daily amounts of vitamin A:

Infants 7- to 12-months old:	500 mcg RAE
Toddlers 1- to 3-years old:	300 mcg RAE
Children 4- to 8-years-old:	400 mcg RAE
Adolescents 9- to 13-years-old:	600 mcg RAE
Males 14-years-old and older:	900 mcg RAE
Females 14-years old and older:	700 mcg RAE

For females who are pregnant or breastfeeding:

Females 14- to 18-years-old	
during pregnancy:	750 mcg RAE
while breastfeeding:	1,200 mcg RAE
Females 19-years-old and older	
during pregnancy:	770 mcg RAE
while breastfeeding:	1,300 mcg RAE

WHAT IS VITAMIN A DEFICIENCY?

Vitamin A deficiency is not common in the United States, but infants, young children, and women who are pregnant or breastfeeding may have a greater risk.

Symptoms of deficiency may result in vision problems, such as night blindness, dry and scaly skin, reduced immune function, stunted growth, diarrhea, and reproductive issues.

Tips for Getting More

Preformed vitamin A is found in products that come from animals, such as milk, beef, or eggs. Beta-carotene is found in plant-based foods, such as vegetables and fruit.

Check the list to find foods that supply vitamin A. Here are just a few suggestions to help meet your vitamin A needs with food:

- ▶ Add a side of cantaloupe at breakfast with low-fat yogurt or cottage cheese.
- ▶ Top your scrambled eggs with low-fat cheese and tomato slices.
- ▶ Pack some baby carrots for a lunch-time side.
- ▶ Use spinach as the base for your salad at dinner.

Which Foods Have Vitamin A?

Food	Amount per Serving (mcg RAE)	Food	Amount per Serving (mcg RAE)
Beef liver, pan-fried, 3 ounces	6,582	Egg, hard boiled, 1 large	75
Sweet potato, baked in skin, 1 whole	1,403	Black-eyed peas (cowpeas), boiled, 1 cup	66
Spinach, frozen, boiled, ½ cup	573	Apricots, dried, sulfured, 10 halves	63
Carrots, raw, ½ cup	459	Broccoli, boiled, ½ cup	60
Pumpkin pie, commercially prepared, 1 piece	488	Salmon, sockeye, cooked, 3 ounces	59
Ice cream, French vanilla, soft serve, 1 cup	278	Tomato juice, canned, ¾ cup	42
Cheese, ricotta, part skim, 1 cup	263	Yogurt, plain, low fat, 1 cup	32
Herring, Atlantic, pickled, 3 ounces	219	Tuna, light, canned in oil, drained solids, 3 ounces	20
Milk, fat-free (skim), with added vitamin A and vitamin D, 1 cup	149	Baked beans, canned, plain or vegetarian, 1 cup	13
Cantaloupe, raw, ½ cup	135	Summer squash, all varieties, boiled, ½ cup	10
Peppers, sweet, red, raw, ½ cup	117	Chicken, breast meat and skin, roasted, ½ breast	5
Mangos, raw, 1 whole	112	Pistachio nuts, dry-roasted, 1 ounce	4
Ready-to-eat cereal, fortified with 10% of the daily value for vitamin A, ¾ cup to 1 cup	90		

Note: Amounts are reported in micrograms of retinol activity equivalents (RAE).

Source: US Department of Agriculture, Agricultural Research Service. FoodData Central, 2019.