

Niacin

Why We Need It

Niacin is a water-soluble B vitamin. Sometimes it is called vitamin B₃. We need niacin for our bodies to use the energy in carbohydrates, fats, and proteins. Niacin also is needed for DNA repair and for the normal use of calcium in the body.

Recommended Daily Intakes of Niacin

	Age	Niacin (mg/day)
Infants	birth–6 months	2
	6 months–1 year	4
Children	1–3 years	6
	4–8 years	8
Males	9–13 years	12
	14 years and over	16
Females	9–13 years	12
	14 years and over	14
	pregnant	18
	breastfeeding	17

mg = milligrams

Source: adapted from the Dietary Reference Intakes series, National Academies Press. Copyright 1997, 1998, 2000, 2001, 2002, 2004, by the National Academies of Sciences.

Sources

Niacin is found in whole grain foods such as brown rice and whole wheat bread. Niacin is one of four vitamins added to enriched grain products (e.g. enriched flour). Look for the word “niacin” in the ingredient list to see if it has been added.

INGREDIENTS: Enriched semolina (iron, thiamin mononitrate, folic acid, riboflavin, **niacin**), tomato, beet and spinach powders, ...

Other good sources of niacin are tuna and salmon, beef, peanuts, and mushrooms.

Here are some foods and the amount of niacin they contain.

Sources of Niacin

Food	Niacin (mg per serving)
tuna (in water), 3 oz	11.3
salmon, cooked, 3 oz	7
turkey, light meat, cooked, 3 oz	6
ready-to-eat cereal, 1 cup	5
beef, lean ground, cooked, 3 oz	5
peanut butter, 2 tbsp	4
mushrooms, cooked, ½ cup	3
spaghetti, enriched, cooked, 1 cup	2

mg = milligrams
oz = ounces
Tbsp = tablespoons

Did you know?

Tryptophan, one of the amino acids that make up protein, can be converted to niacin in the body. Tryptophan is found in milk and all types of meats, so these foods can be considered sources of niacin.

Ways to Retain It

Because niacin is a water-soluble vitamin, it can be lost when foods are cooked in a lot of water. However, most good sources of niacin are not typically cooked in water. Cooking doesn't affect tryptophan content.

If We Don't Get Enough

The disease *pellagra* results from niacin deficiency. Pellagra was common in the 1800s when many poor Americans ate mostly corn, molasses, and salt pork. Because niacin is found in many foods that we eat today, most people get plenty in their diets, and pellagra is now a thing of the past.

Pellagra could be called the “D” disease. It leads to **diarrhea**, **dementia** (memory disorder), **dermatitis** (skin rash), and **death**.

Supplements

Most people get plenty of niacin in their diet, so supplements usually are not needed. Most multivitamin supplements contain niacin. There is no need to take a supplement with more than 100 to 150% of the Daily Value for niacin.

High Doses

Very high doses of niacin (1,300 to 3,000 mg per day) have been used to treat high blood cholesterol levels. However, there can be side effects such as flushing of the skin, itching, nausea, and even liver damage. The suggested *maximum* niacin intake from supplements is 35 mg a day. **Do not take large amounts of niacin unless prescribed by your doctor!** Let your doctor know if you have side effects from taking niacin supplements.

For More Information

The Family and Consumer Sciences (FCS) agent at your county Extension office may have more written information and nutrition classes for you to attend. Also, your doctor, health care provider, or a registered dietitian (RD) can provide reliable information.

Reliable nutrition information may be found on the Internet at the following sites:

<http://hgic.clemson.edu>

<http://virtual.clemson.edu/groups/NIRC/>

<http://www.eatright.org>

<http://www.nutrition.gov>

<http://www.nal.usda.gov/fnic>

Sources:

1. Turner, R. Elaine. University of Florida Extension. *Facts About Niacin*. FCS8669. August 2006.

<http://edis.ifas.ufl.edu/publications.html>

2. National Academies of Sciences. National Academies Press. *Dietary Reference Intakes series*. 2004.

This information has been reviewed and adapted for use in South Carolina by Janis G. Hunter, HGIC Nutrition Specialist, and Katherine L. Cason, Professor, State Program Leader for Food Safety and Nutrition, Clemson University. (New 07/07.)

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