Vitamin B3

What does it do? The body uses vitamin B3 in the process of releasing energy from carbohydrates. It’s needed to form fat from carbohydrates and to process alcohol. The niacin form of vitamin B3 also regulates cholesterol, though niacinamide does not.

Vitamin B3 comes in two basic forms—niacin (also called nicotinic acid) and niacinamide (also called nicotinamide). A variation on niacin, called inositol hexaniacinate, is also available in supplements. Because it has not been linked with any of the usual niacin toxicity in scientific research, inositol hexaniacinate is sometimes prescribed by European doctors for those who need high doses of niacin.

Where is it found? The best food sources of vitamin B3 are peanuts, brewer’s yeast, fish, and meat. Some vitamin B3 is also found in whole grains.

Vitamin B3 has been used in connection with the following conditions (refer to the individual health concern for complete information):

Primary: Alcohol withdrawal support (niacinamide), High cholesterol, High triglycerides.

Secondary: Cataracts (niacinamide), High cholesterol (inositol hexaniacinate), Intermittent claudication
(niacin—inositol hexaniacinate), Osteoarthritis (niacinamide), Painful menstruation (dysmenorrhea), Raynaud’s disease (niacin—inositol hexaniacinate).

**Other:** Acne (topical niacinamide), Anxiety (niacinamide), Bursitis (niacinamide), Diabetes (niacinamide), Hypoglycemia (niacinamide), Hypothyroidism (niacin), Multiple sclerosis (niacin), Photosensitivity (niacinamide), Pregnancy and postpartum support, Tardive dyskinesia (niacin or niacinamide).

**Who is likely to be deficient?** Pellagra, the disease caused by a vitamin B3 deficiency, is rare in Western societies. Symptoms include loss of appetite, skin rash, diarrhea, mental changes, beefy tongue, and digestive and emotional disturbance.

**How much is usually taken?** In part because it is added to white flour, most people probably get enough vitamin B3 from their diets; however, 10–25 mg of the vitamin can be taken as part of a B-complex or multivitamin supplement.

**Are there any side effects or interactions?** Niacinamide is almost always safe to take, although rare liver problems have occurred at doses in excess of 1,000 mg per day. Niacin, in amounts as low as 50–100 mg, may cause flushing, headache, and stomachache in some people. Doctors sometimes prescribe very high amounts of niacin (as much as 3,000 mg per day or more) for certain health problems. These large amounts can cause liver damage, diabetes, gastritis, damage to eyes, and elevated blood
levels of uric acid (which can cause gout), and should never be taken without consulting a nutritionally oriented doctor.

Although the inositol hexaniacinate form of niacin has not been linked with side effects, the amount of research studying the safety of this form of the vitamin remains quite limited. Therefore, people taking this supplement in large amounts (several thousand milligrams per day or more) should be followed by a nutritionally oriented doctor.

Vitamin B3 works with vitamin B1 and B2 to release energy from carbohydrates. Therefore, these vitamins are often taken together in a B-complex or multiple vitamin supplement (although most B3 research uses niacin or niacinamide by itself).