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Can niacin lower your cholesterol?

Q: Is niacin effective in lowering cholesterol? What's the daily dosage?

A: On average, niacin can lower LDL ("bad") cholesterol levels by 10-25 percent. The statins and other lipid-lowering drugs can do better, but niacin outshines them all for lowering triglyceride levels and raising HDL ("good") cholesterol levels.

Niacin is the granddaddy of cholesterol-lowering drugs. It was the first medication to lower cholesterol levels (1955), the first to reduce heart attacks (1984) and the first to lower long-term mortality rates (1986). But since 1987, when the first statin drug - lovastatin (Mevacor) - was marketed in the U.S., niacin has fallen into disuse. The reason is that niacin is harder to take and may produce unpleasant side effects.

The many niacin preparations fall into two categories, crystalline and controlled release. Crystalline niacin is quickly absorbed and rapidly metabolized, so it's usually taken two to three times a day, ideally at the end of a meal (but not with hot foods or beverages). Typical doses range from 250 milligrams twice a day to 500 milligrams three times a day. Many people experience itching, flushing and headaches, particularly as the dose is slowly increased. This side effect can be minimized by taking an 81-milligram aspirin tablet 30 to 60 minutes before taking niacin.

Controlled-release preparations are less likely to produce flushing and itching; however, they are somewhat more likely to produce liver inflammation, raise blood sugar levels in diabetics and trigger gout by raising uric acid levels. Other potential side effects of any niacin preparation include fatigue, blurred vision, nausea, peptic ulcers and erectile dysfunction.

Niacin is a natural substance - in fact, it's vitamin B3. Like other vitamins, it's required to keep the metabolism working right. But the recommended daily allowance for B3 is only 18 milligrams a day.

Brands vary in their actual content and potency. If you use an over-the-counter preparation, look for one that's USP approved, and once you find a brand and dose that works for you, stick with it. In general, intermediate-release forms are better tolerated than immediate-release preparations.

There's one FDA-approved prescription brand of niacin: Niaspan (intermediate release). It's more expensive than over-the-counter niacin but is usually covered by prescription drug insurance plans.

Many people turn to niacin because they want to treat themselves. Even though you can get all the niacin you want without a prescription, you should always coordinate treatment with a doctor.

Niacin is a vitamin, but in the doses that improve cholesterol, it's a powerful drug that must always be used prudently.

Today's Medicine Cabinet was written by Harvey B. Simon, M.D., associate professor of medicine at Harvard Medical School. For additional consumer health information, visit health.harvard.edu.