Harrison's Principles of Internal Medicine, 14th Edition

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14th Edition - page 2147, Chapter 341 (Disorders of Lipoprotein Metabolism)
Note that niacin Improves life span.

Niacin The mechanism of action of niacin is not fully understood, but it appears to inhibit the secretion of lipoproteins containing apo B100 from the liver. Niacin decreases both total and LDL cholesterol approximately 15 to 25%, reduces VLDL levels by 25 to 35%, and raises HDL cholesterol levels by as much as 15 to 25%. Thus, niacin exerts favorable changes on the three major lipoproteins (VLDL, LDL, and HDL). Efficacy of monotherapy was confirmed in a long- term secondary prevention trial in which niacin significantly reduced the incidence of myocardial infarction. An even longer-term follow-up of that study (15 years total) showed an 11% decrease in all-cause mortality among patients randomized to niacin. Because of its ability to reduce VLDL synthesis, niacin is also a first-line drug for treatment of hypertriglyceridemia.

Niacin is safe, having been in use for almost 30 years, but unpleasant side effects, including cutaneous flushing with or without pruritus, may limit patient acceptability. The cutaneous symptoms tend to subside after several weeks and may be minimized by initiating therapy at low doses or by administering aspirin 30 min before the niacin dose. Less common adverse effects include elevation of liver enzymes, gastrointestinal distress, impaired glucose tolerance, and elevated serum uric acid levels, with or without gouty arthritis. Liver enzymes may be elevated in 3 to 5% of patients on full doses of niacin (>2 g/d). Because of its propensity to worsen the control of blood sugar, niacin should be used with caution in patients with diabetes.