DYSLIPIDEMIA

Manganese
Cofactor to an antioxidant (superoxide dismutase) that repairs damage to blood vessels caused by oxidized LDL (low density lipoprotein). [1,2]

Magnesium
Deficiency causes pro-atherogenic (heart-disease causing) changes in lipoprotein metabolism; Protects LDL (low density lipoprotein) from being oxidized. [3,4]

Vitamin C
Protects LDL from oxidation, thus making it less "sticky" and prone to atherosclerosis (clogging of arteries); Prevents white blood cells (monocytes) and oxidized LDL from sticking to blood vessel wall; Lowers Lp(a) in some people. [5,6,7]

Vitamin D
Suppresses foam cell formation thus reducing risk of lipid-related arterial blockages; Deficiency linked to dyslipidemia. [8,9]

Zinc
Suboptimal zinc raises dangerous lipoproteins that promote vascular inflammation and arterial plaque formation; Cellular zinc controls the gene that makes heart-protective HDL (high density lipoprotein). [34,35,36]

Vitamin B3
Niacin (B3) effectively lowers the highly atherogenic Lp(a) by decreasing its rate of synthesis in the liver. [10,11]

Selenium
Prevents post-prandial (after a meal) changes in lipoproteins that make them susceptible to oxidation and thus harmful. [32,33]

Vitamin B5
Favorably alters low density lipoprotein metabolism and reduces triglycerides; Full benefit of lipid lowering effects may not be seen for up to four months. [12,13]

Copper
Several copper-dependent enzymes affect lipoprotein metabolism; Deficiency contributes to fatty buildup in arteries caused by dyslipidemia. [29,30,31]

Carnitine
In supplementation trials, carnitine lowers triglycerides, oxidized LDL and the atherogenic Lp(a); This effect is likely due to its role in transporting fatty acids into cells so they can be used as fuel. [14,15,16]

Coenzyme Q10
It is well established that statins, often prescribed for dyslipidemia, deplete CoQ10; Lowers Lp(a) and improves efficacy of some dyslipidemia meds. [27,28]

Chromium
Specifically improves the dyslipidemia that accompanies insulin resistance; May increase HDL; Synergistic effect with niacin (B3) for dyslipidemia. [24,25,26]

Choline
Regulates HDL metabolism; Part of the enzyme lecithin-cholesterol acyltransferase that has a major impact on lipoprotein metabolism. [22,23]

Inositol
Decreases small, dense LDL especially in patients with metabolic syndrome; Lowers triglycerides. [19,20,21]

Lipoic Acid
Improves lipid profile by reducing small, dense LDL (dangerous type); Protects vascular lining from oxidized cholesterol. [17,18]

Additional nutrients affect lipid metabolism. This list is non-exhaustive.