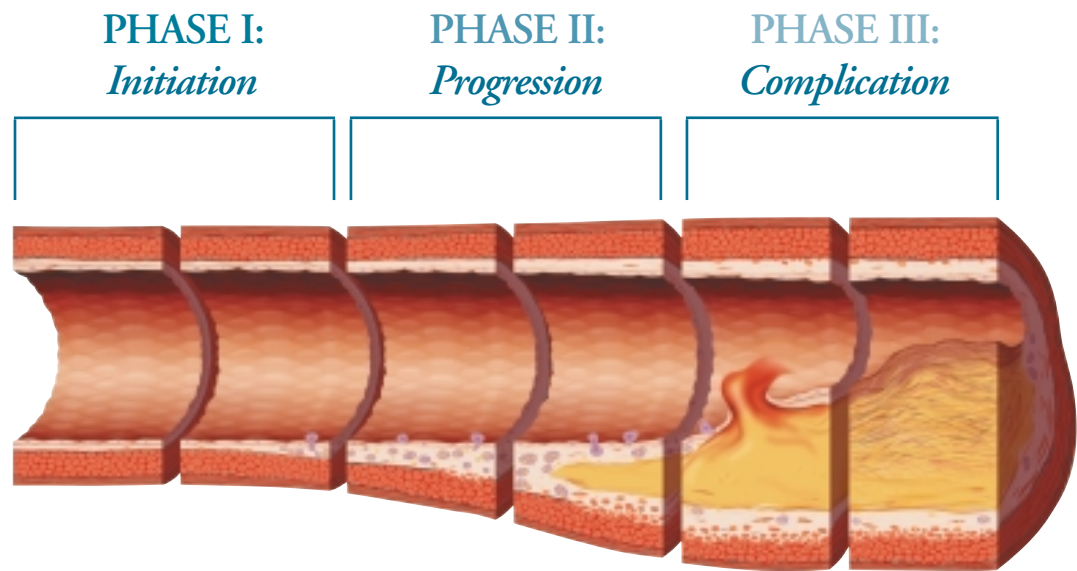


Dyslipidemia plays a key role in atherosclerosis—a chronic, dynamic disease

The progression of atherosclerosis: **A threat in 3 phases**¹



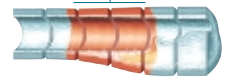
PHASE I: Initiation

LDL-C plays a major role in initiating the development of atherosclerotic plaque^{2,3}

- When LDL-C level is high, there is an increased likelihood that LDL-C will pass through the endothelium and accumulate in the intima³
- The presence of hypertriglyceridemia is believed to enhance the retention and accumulation of remnant lipoproteins in the artery wall and increase formation of atherogenic, small, dense LDL particles⁴

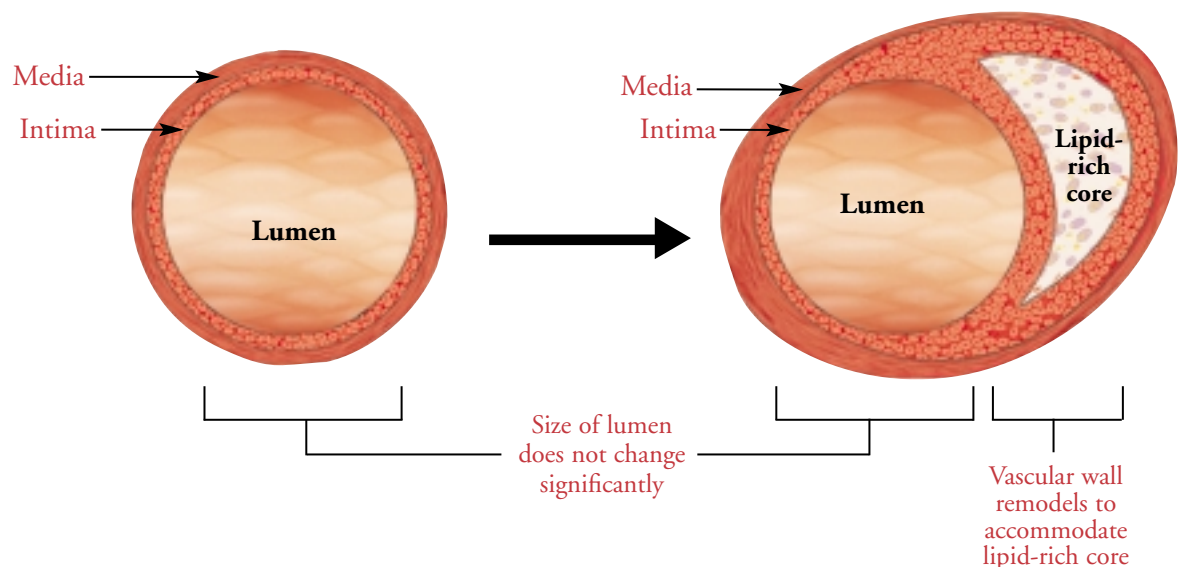
It is hypothesized that endothelial dysfunction promotes atherosclerosis through²:

- inflammation
- vasoconstriction
- platelet activation
- leukocyte adhesion
- thrombogenesis
- smooth-muscle-cell proliferation
- collagen breakdown

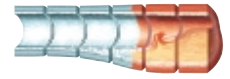


LDL-C and inflammation are 2 major components of atherosclerosis

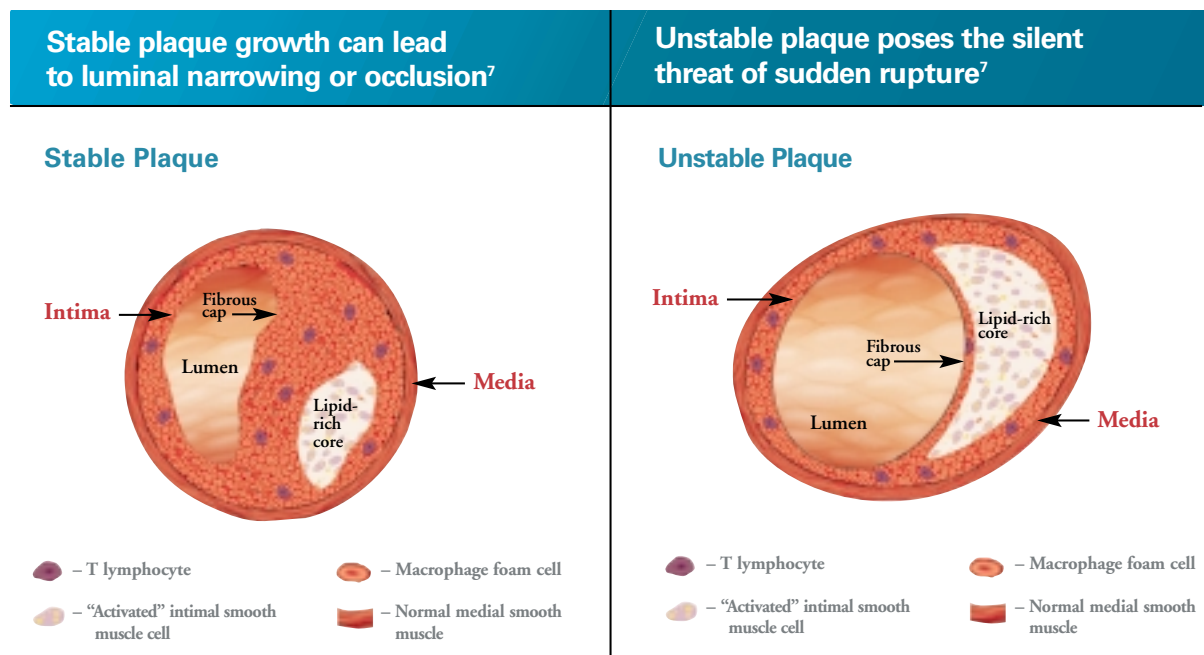
Disease progression results in the remodeling of the vascular wall⁵



- Accumulation and oxidation of LDL-C lead to a chronic inflammatory reaction that results in monocyte recruitment³
- Death of smooth muscle cells contributes to the development of a lipid-rich core at the center of the lesion⁶
- Because lumen size usually does not change significantly—even in the presence of a large lipid-rich core—atherosclerosis may be present for decades before being discovered³



Both stable and unstable plaque can precede many complications of atherosclerosis⁷



The danger of unstable plaque

- Extensive lipid accumulation; a thin, weakened fibrous cap; and a greater inflammatory component can pose the threat of plaque rupture³
- Unstable plaque rupture can lead to serious complications including MI, acute coronary syndrome, unstable angina, stroke, and PVD³
- Studies have shown that at least two thirds of all MIs were caused by lesions that have less than 50% stenosis⁸

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