



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES



National
Institutes
of Health



National Heart,
Lung, and Blood
Institute



The Office on
Women's Health

The Heart Truth Professional Education Campaign: LDL Goals and Drug Therapy Cut-Points in Women

General Information:

- Any person at high risk or moderately high risk who has lifestyle-related risk factors (eg, obesity, physical inactivity, elevated triglycerides, low HDL-C, or metabolic syndrome) is a candidate for therapeutic lifestyle changes to modify these risk factors regardless of LDL-C level.
- Metabolic syndrome: Current American Heart Association/National Heart, Lung, and Blood Institute diagnosis in women requires three of the following five criteria:
 - ▶ Central obesity as measured by waist circumference greater than or equal to 35 inches
 - ▶ Fasting blood triglycerides greater than or equal to 150 mg/dL
 - ▶ Blood HDL cholesterol less than 50 mg/dL
 - ▶ Blood pressure greater than or equal to 130/85 mmHg
 - ▶ Fasting glucose greater than or equal to 100 mg/dL

References:

- Grundt SM, Cleeman JI, Bairey Merz N, et al. Implications of recent clinical trials for the National Cholesterol Education Program Adult Treatment Panel III guidelines. *Circulation* 2004; 110:227-239.
- Grundt SM, Cleeman JI, Daniels SR, et al. Diagnosis and management of the metabolic syndrome: American Heart Association/National Heart, Lung, and Blood Institute scientific statement. *Circulation* 2005; 112:2735-52.
- Mosca L, Appel LJ, Benjamin EJ, et al. Evidence-based guidelines for cardiovascular disease prevention in women. *Circulation* 2004; 109:672-93.

Risk Status	Method of Assessing Risk Status	Goal LDL-C Level*	Consider Drug Therapy
<p>High Risk: >20% 10-year risk of CHD event</p> <p>NOTE: No additional risk calculation is indicated for patients with CHD or equivalent risk conditions. Attempts to use the CHD risk calculator for these patients may seriously underestimate risk.</p>	<p>Patients with CHD or equivalent risk conditions have a >20% risk of CHD events.</p> <p>High risk patients include those with:</p> <ul style="list-style-type: none"> • Known CHD • Noncoronary forms of atherosclerotic disease <ul style="list-style-type: none"> - Peripheral arterial disease - Abdominal aortic aneurysm - Carotid artery disease (transient ischemic attacks or stroke of carotid origin or >50% obstruction of a carotid artery) • Diabetes <p>OR</p> <ul style="list-style-type: none"> • 2+ risk factors with calculated 10-year risk for CHD >20% (includes patients with end stage renal disease) (see below) 	<ul style="list-style-type: none"> • <100 mg/dL • Optional goal < 70 mg/dL • When LDL-lowering drug therapy is employed, it is advised that intensity of therapy be sufficient to achieve at least a 30% to 40% reduction in LDL-C levels. 	<ul style="list-style-type: none"> • ≥100 mg/dL • If baseline LDL-C is < 100 mg/dL, institution of an LDL-lowering drug is a therapeutic option on the basis of available clinical trial results.
<p>Moderate Risk: 2+ risk factors, 10-20% 10-year risk of CHD event</p>	<p>Use Electronic 10-year risk calculators available at www.nhlbi.nih.gov/guidelines/cholesterol for patients at moderate risk.</p> <p>Risk factors include :</p> <ul style="list-style-type: none"> • Cigarette smoking • Hypertension (BP ≥140/90 mm Hg or on antihypertensive medication) • Low HDL cholesterol (<40 mg/dL) • Family history of premature CHD (CHD in male first-degree relative <55 years of age; CHD in female first-degree relative <65 years of age) • Age ≥ 55 years 	<ul style="list-style-type: none"> • <130 mg/dL • When LDL-lowering drug therapy is employed, it is advised that intensity of therapy be sufficient to achieve at least a 30% to 40% reduction in LDL-C levels. 	<ul style="list-style-type: none"> • ≥130 mg/dL • For moderately high-risk persons, when LDL-C level is 100-129 mg/dL, at baseline or on lifestyle therapy, initiation of an LDL-lowering drug to achieve an LDL-C level <100 mg/dL is a therapeutic option on the basis of available clinical trial results.
<p>Moderate Risk: 2+ risk factors, <10% 10-year risk of CHD event</p>	<p>Use Electronic 10-year risk calculators available at www.nhlbi.nih.gov/guidelines/cholesterol for patients at moderate risk.</p> <p>Risk factors include :</p> <ul style="list-style-type: none"> • Cigarette smoking • Hypertension (BP ≥140/90 mm Hg or on antihypertensive medication) • Low HDL cholesterol (<40 mg/dL) • Family history of premature CHD (CHD in male first-degree relative <55 years of age; CHD in female first-degree relative <65 years of age) • Age ≥ 55 years 	<ul style="list-style-type: none"> • <130 mg/dL • When LDL-lowering drug therapy is employed, it is advised that intensity of therapy be sufficient to achieve at least a 30% to 40% reduction in LDL-C levels. 	<ul style="list-style-type: none"> • ≥160 mg/dL
<p>Lower Risk: Zero or one risk factor</p>	<p>Almost all people with zero or one risk factor have a 10-year risk <10%. 10-year risk assessment in people with zero or one risk factor is thus not necessary.</p>	<ul style="list-style-type: none"> • <160 mg/dL • When LDL-lowering drug therapy is employed, it is advised that intensity of therapy be sufficient to achieve at least a 30% to 40% reduction in LDL-C levels. 	<ul style="list-style-type: none"> • ≥190 mg/dL • 160-189 mg/dL; LDL-lowering drug optional

* Goal LDL-C levels are targets for drug therapy. An LDL-C level of <100 mg/dL is considered "optimal" for all women, and should be encouraged through lifestyle changes