

FROM YOUR PARISH HEALTH MINISTRY TEAM

New Cholesterol Guidelines Released in 2018

“Keep your heart with all vigilance, for from it flows the springs of life.” —Proverbs 4:23

The American Heart Association released new guidelines for cholesterol management in 2018 to help healthcare providers prevent, diagnose, and treat high cholesterol. It is well recognized that **LDL-C, bad cholesterol, is the main component that contributes to fatty build-up and narrowing of the arteries called atherosclerosis.** A lifetime of exposure increases the risk of heart attack and stroke. This has led to a “lifespan approach,” even stating it is reasonable to **test children as young as 2 if there is a strong family history.** A healthy lifestyle (healthy diet and weight, and exercise) is recommended for all age groups.

RISK FACTORS YOU SHOULD KNOW ABOUT

The goal is LDL-C level <100. The decision to start medication is based on your LDL-C level, age, risk factors, and possibly your calculated 10-year risk of ASCVD (atherosclerotic cardiovascular disease). Major risk factors include cigarette smoking, hypertension, diabetes, and other lipid abnormalities. Additional risk enhancing factors include family history of heart disease or stroke, metabolic syndrome, chronic kidney disease, chronic inflammatory conditions, history of premature menopause or preeclampsia, and high-risk race (South Asian ancestry). (Metabolic syndrome is generally recognized as any 3 of the following: ↑ waistline, ↑ triglycerides, ↑ blood pressure, ↑ glucose, low HDL-C = good cholesterol.)

STATIN MEDICATIONS

Statins are first line medications for treatment. Generic names for these drugs end in “statin.” Selection of a particular statin and dose depends on level of reduction desired while balancing risk of adverse reactions and drug interactions. Level of effectiveness ranges from high intensity (≥50% reduction in LDL-C), medium intensity (30-49% reduction), or low intensity (<30% reduction). A rough guide is a 1% reduction in LDL-C gives approximately a 1% reduction in risk of ASCVD.

In general, a statin should be taken in the evening to be most effective since **the body produces higher levels of cholesterol during the night.** This is particularly true for shorter acting statins: fluvastatin, lovastatin, pravastatin, and simvastatin. Atorvastatin, fluvastatin XL, pitavastatin, and rosuvastatin are longer acting so could be taken anytime during the day.

DEALING WITH STATIN SIDE EFFECTS

As with any medication, side effects are possible. **Having a side effect does not mean you cannot take a statin.** An assessment by your healthcare provider will be needed to rule out other causes and evaluate extent of the problem. There are many drugs that can interact with statins to cause an increased level in the body, increasing the risk of side effects. This includes

some over the counter medications. Grapefruit or grapefruit juice will also cause increased levels of the statin, especially with lovastatin and simvastatin. **Make sure your healthcare provider knows all prescription and over the counter medications and supplements you are taking.**

Statin associated side effects include muscle symptoms (weakness, aches, pains), occurrence of diabetes in people already susceptible to diabetes, and liver toxicity (uncommon). Muscle symptoms have been observed in 5%-20%. These are more likely to be statin related if they occur on both sides of the body, involve the legs, start within weeks to months after beginning the statin, and go away after stopping it. **Once symptoms improve recommendations are to restart with a reduced dose, or a different statin, or a combination of treatments and monitor to see if symptoms return.** In people at increased ASCVD risk, the goal is to treat with a guideline-recommended maximally tolerated statin dose.

NON-STATIN MEDICATIONS USED IN COMBINATION

Some people may require the **combination of a statin and non-statin** to achieve desired results. Non-statin drugs that lower LDL-C include ezetimibe (provides additional 13-20% reduction), bile acid sequestrants (additional 15-30% reduction), and PCSK9 inhibitors (a new class of very effective drugs with additional 43-64% reduction). Drugs that lower triglycerides are fibrates and niacin.

Bile acid sequestrants include: cholestyramine, colestevlam, and colestipol. These drugs **work in the gut** and are not absorbed by the body, so that is where side effects occur. These GI side effects often limit their use. They can also **bind to other drugs in the gut**, blocking their absorption. All other drugs should be taken at least 1 hour before or 4 hours after one of these drugs.

The PCSK9 inhibitors (alirocumab-Praluent® and evolocumab-Repatha®) are **given by injection** under the skin every 2-4 weeks. They are **highly effective, but very expensive** due to the monoclonal antibody technology used to make them. (List price is approximately \$14,000 per year.) These drugs are reserved as add-on therapy only in **very high-risk people.**

DEVELOP THE BEST PLAN FOR YOU AND STICK WITH IT

When **developing a plan** with your healthcare provider, make sure you **understand your personal risk** for ASCVD, **options,** and **risks/benefits** of the plan. **Ask questions** and make your preferences known. **Discuss potential barriers or concerns** you may have for complying with the plan. **Then commit** to the agreed upon plan and follow-up! Remember those words from Proverbs 4:23.

—VICKY SHELTON, D.PH.
CSUMC PARISH HEALTH TEAM