UPDATES IN HYPERLIPIDEMIA MANAGEMENT

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Disclosure to Learners

Julianna Lugo Serrano, faculty for this CE activity, has no relevant financial relationships with ineligible companies to disclose.

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Provider Number: 0151

Objectives

1. Review the pathophysiology, laboratory values and complications of hyperlipidemia.
2. Assess the risk for cardiovascular events.
3. Explain current guideline recommendations for the nonpharmacologic and pharmacologic treatments based on the patient’s goals.
4. Examine benefits and risks of current and emerging LDL-C lowering pharmacotherapies.
5. Identify new drugs approved by the FDA for hypercholesterolemia and their role in current practice.
6. Describe the role of pharmacists in dyslipidemia management.

Is it hyperlipidemia or dyslipidemia?

Dyslipidemia

Lipids in the body are out of balance — too high or too low.

Primary Dyslipidemia

- **Genetic mutations** affect lipid levels
- Familial hypercholesterolemia inheritance
  - Heterozygous (HeFH)
  - Homozygous (HoFH)
- Significant elevations in LDL-C that results in a very high risk of premature ASCVD

Secondary Dyslipidemia

- **Poor lifestyle**
- Four D's mnemonic: **diet, drugs, disorders of metabolism, and diseases**
- Lack of **physical activity**

Not modifiable

Modifiable

Pappan N, Awosika AO, Rehman A. Dyslipidemia. [Updated 2024 Mar 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK560891/

Dyslipidemia - Hormonal and Metabolic Disorders. (n.d.). In *Merck Manual Consumer Version*. Retrieved July 20, 2026, from https://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/cholesterol-disorders/dyslipidemia#Causes_v12820467

Why does hyperlipidemia matter?

Epidemiology

Hyperlipidemia in many cases is a **modifiable** cardiovascular risk factor — a key target to reduce the prevalence and mortality of cardiovascular disease.

~80%
of cardiovascular diseases (CVDs) are preventable

919,032
U.S. CVD deaths in 2023 — 1 in every 3 deaths

#1
cause of death in the U.S. & Puerto Rico

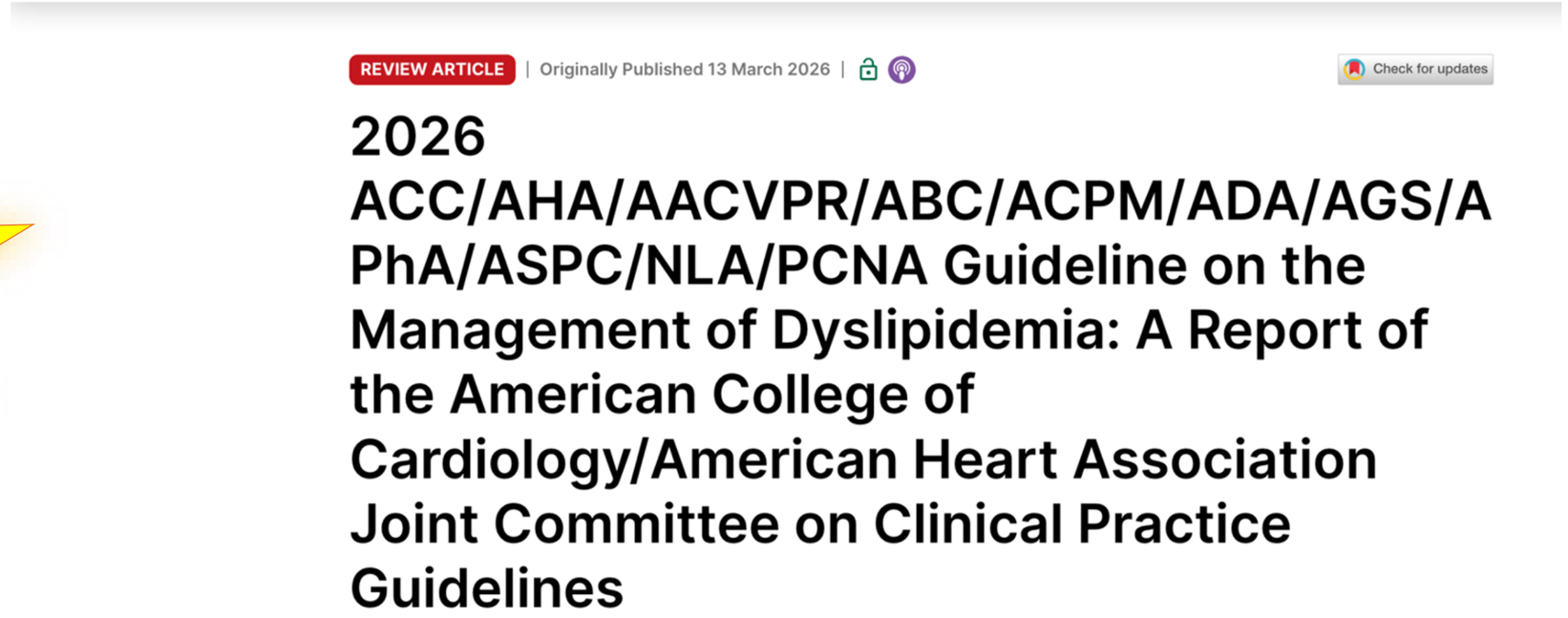
31.8% → 43%
high cholesterol incidence in Puerto Rico (ages 35–54 → over 54)

CMS Star Ratings now include cardiovascular care and statin medication adherence as quality measures.

★ ★ ★ ★ ★

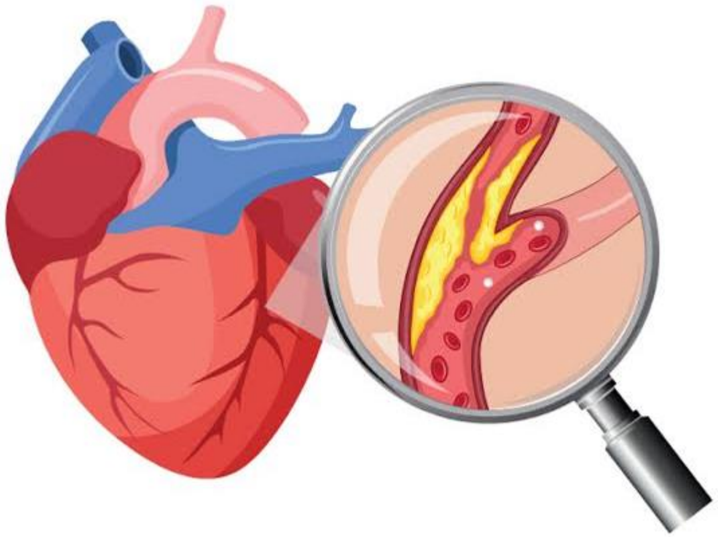
1. *El Colesterol y Salud Cardiovascular – Sociedad Puertorriqueña De Cardiologia*. Cardiologiapr.org. https://cardiologiapr.org/uncategorized/el-colesterol-y-salud-cardiovascular/ (accessed 2026-07-29).
2. Pham, H. N.; Ibrahim, R.; Enkhtsogt Sainbayar; Olson, A.; Singh, A.; Khanji, M. Y.; Lee, J.; Somers, V. K.; Wenger, C.; Anwar, C.; Mamas A. Mamas BMBCh. Burden of Hyperlipidemia, Cardiovascular Mortality, and COVID-19: A Retrospective-Cohort Analysis of US Data. *Journal of the American Heart Association* **2024**. https://doi.org/10.1161/jaha.124.037381.
3. Suárez, E., Marín, H., Mattei, H., Reyes, J. C., Torres, P., Da Luz, I., Santos, E., Pérez, C. (2020). Informe técnico: Estudio de Salud en Puerto Rico 2019 Para la Elaboración del Plan Estratégico 2020-2025 del Departamento de Salud (pp. 1–210). San Juan, PR: Escuela Graduada de Salud Pública.

New Guidelines



New guidelines emphasize **earlier intervention** through lifestyle changes, lower LDL-C goals, and percent reduction based on risk to reduce lifetime exposure to unhealthy lipids and cardiovascular risk.

Overview of Hyperlipidemia



Cholesterol Basics

Cholesterol is a waxy lipophilic compound that plays a critical role of normal physiological function.

Nutrient Absorption

Bile acid allows **better digestion of fats** and facilitates absorption of fat-soluble vitamins **(A, D, E, K)**

Hormone Production

Precursor in the synthesis **steroid hormones** and **sex hormones**

Cell Building

Essential component of **cell membranes** by maintaining structure and fluidity

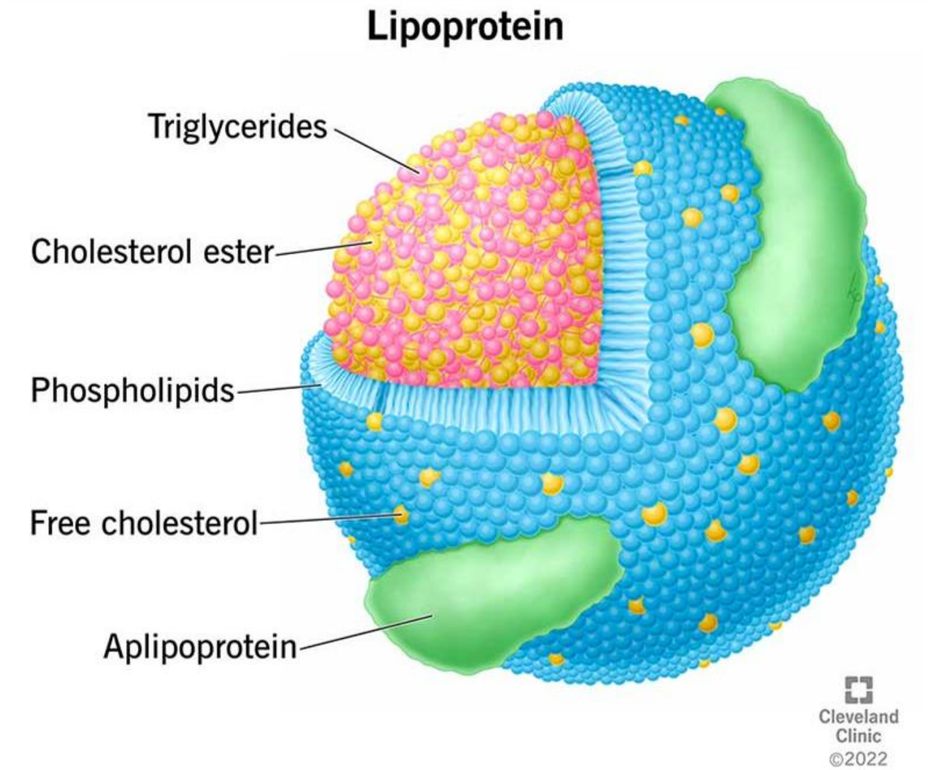
Vitamin D

Precursor molecule in the **synthesis** of vitamin D

Huff T, Boyd B, Jialal I. Physiology, Cholesterol. [Updated 2023 Mar 6]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470561/
Surdu AM, Pînzariu O, Ciobanu DM, et al. Vitamin D and Its Role in the Lipid Metabolism and the Development of Atherosclerosis. *Biomedicines*. 2021;9(2):172. Published 2021 Feb 9. doi:10.3390/biomedicines9020172

Key Concepts : Lipoproteins

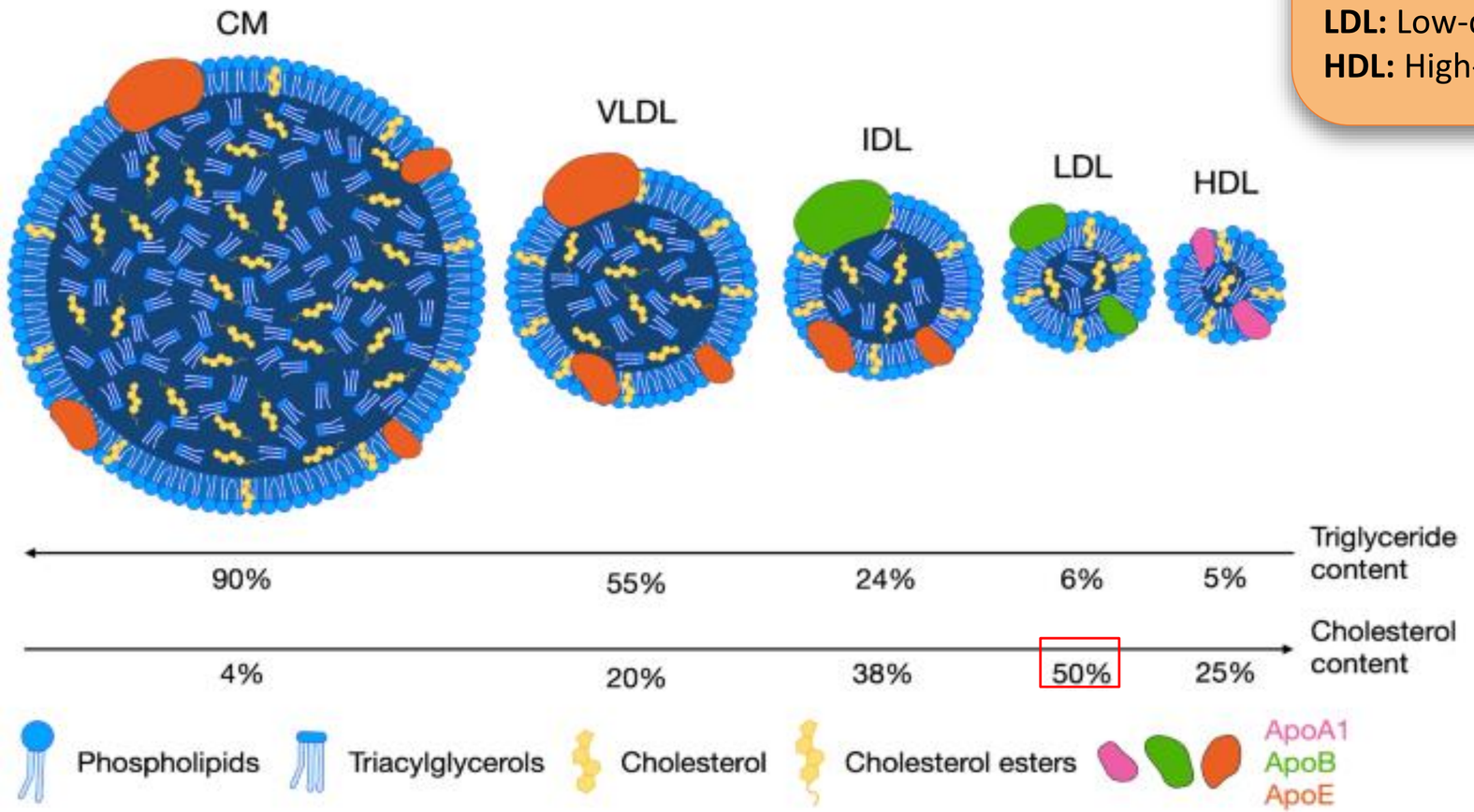
Since cholesterol and triglycerides are insoluble in water, these lipids must be transported in the blood in particles containing both lipid and proteins **called lipoproteins**.



Feingold KR. Introduction to Lipids and Lipoproteins. [Updated 2024 Jan 14]. In: Feingold KR, Adler RA, Ahmed SF, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK305896/
Huff T, Boyd B, Jialal I. Physiology, Cholesterol. [Updated 2023 Mar 6]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470561/

Lipoproteins

CM: Chylomicrons
VLDL: Very low-density lipoprotein
IDL: Intermediate-density lipoprotein
LDL: Low-density lipoprotein
HDL: High-density lipoprotein

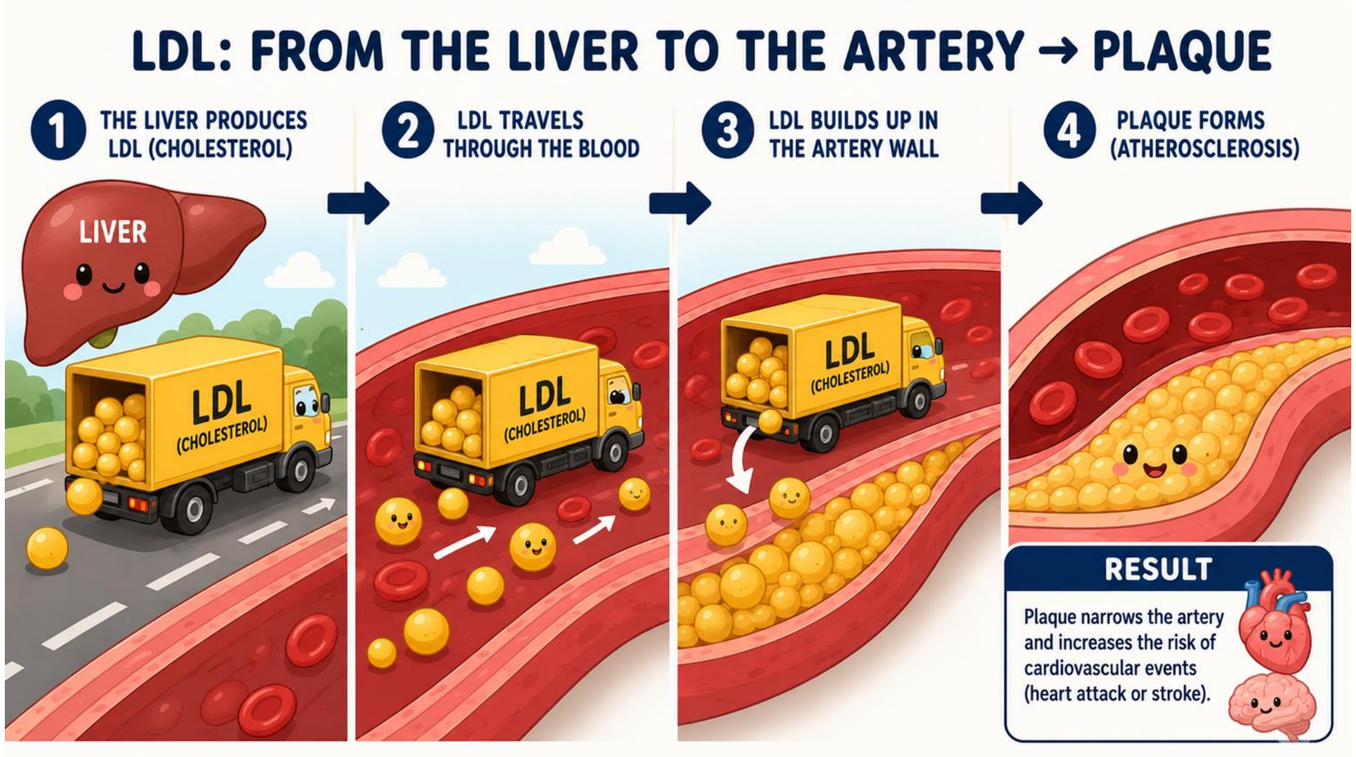


Pérez-Medina, C., Fisher, E. A., Fayad, Z. A., Mulder, W. J. M., & Teunissen, A. J. P. (2025). Radiolabeling lipoproteins to study and manage disease. *European Journal of Nuclear Medicine and Molecular Imaging*, *52*(12), 4717–4734. https://doi.org/10.1007/s00259-025-07281-4

Good vs Bad Cholesterol

Low-density lipoprotein (LDL)

- “**Pro-atherogenic**”
- Carries the majority of circulating cholesterol
- Prolonged retention time in the circulation
- Leads to plaque buildup in the arterial wall



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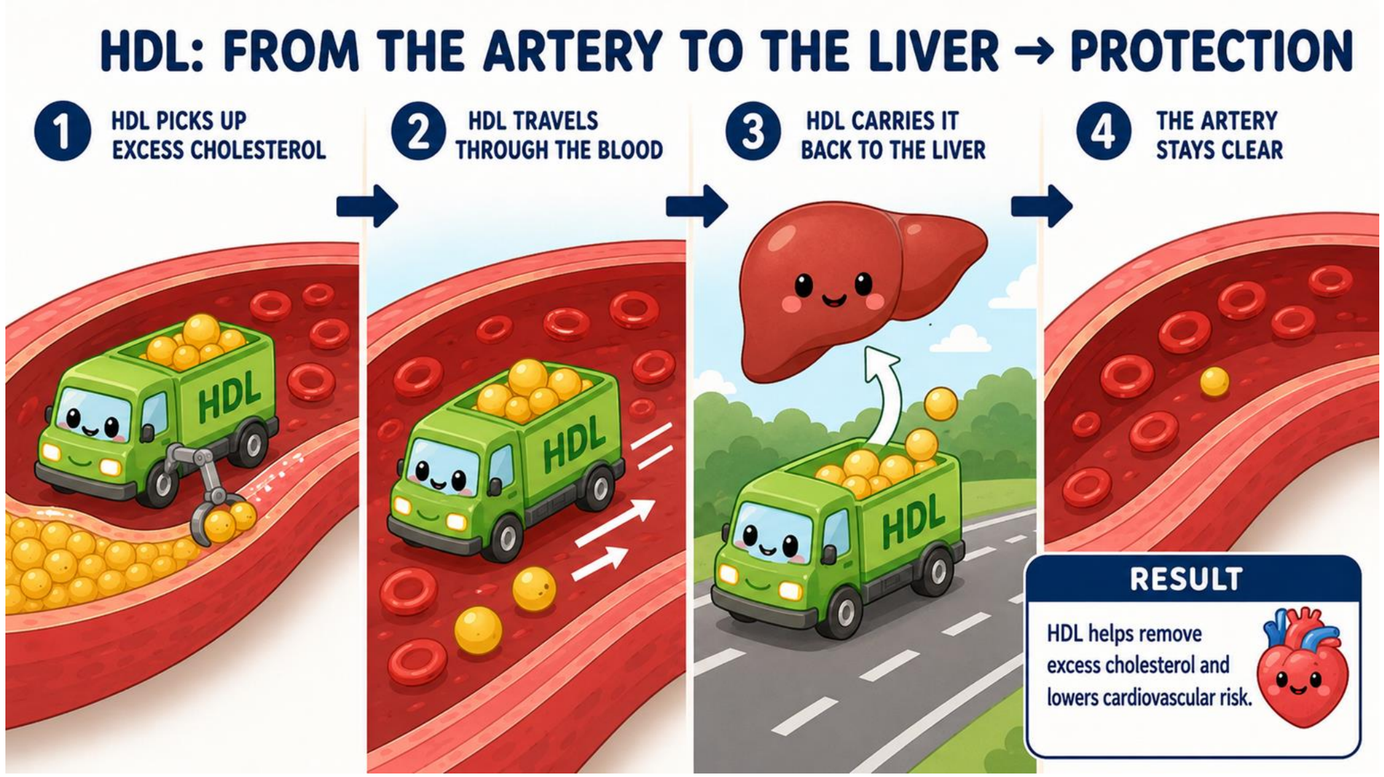
Good vs Bad Cholesterol

High-density lipoprotein (HDL)

- **“Anti-atherogenic”**
- Carries cholesterol back to the liver to be flushed out of your body



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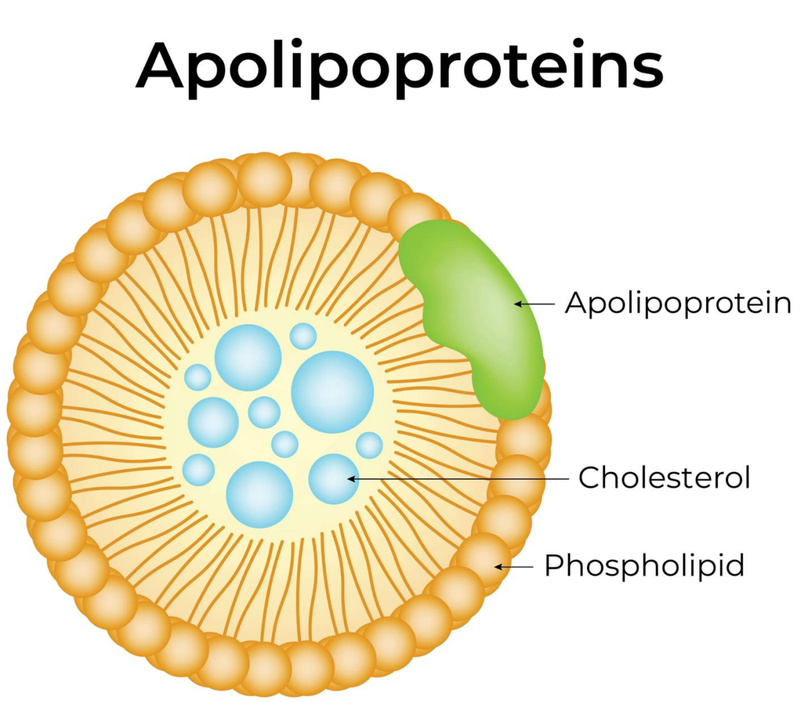
Apolipoproteins



Apolipoproteins serve a structural role and act as ligands for lipoprotein receptors.

ApoB is found on the surface of LDL, VLDL, IDL and lipoprotein (a) (Lp(a)) meaning that **it is directly related to the number of atherogenic particles circulating in the blood.**

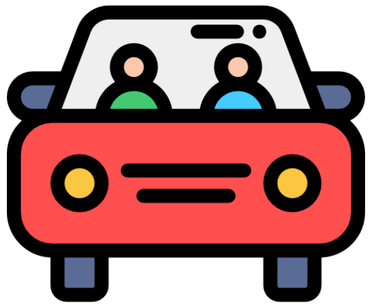
If LDL-C is at goal but apoB remains elevated, this indicates residual atherogenic particle burden and possible need for treatment intensification.

Elevation is most common in atherosclerotic cardiovascular disease (ASCVD), Cardiovascular-Kidney Metabolic (CKM) syndrome, diabetes type 2 (T2DM), and triglycerides ≥150 mg/dL.

Goal of **ApoB** in high-risk patients: <70 mg/dL; very high-risk patients: <55 mg/dL

Lipoproteins and Blood Lipids. In: King MW. eds. *High-Yield Q & A Review for USMLE Step 1: Biochemistry and Genetics, 2026 Update*. McGraw Hill Education; 2025. Accessed June 01, 2026. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3600&sectionid=300492382

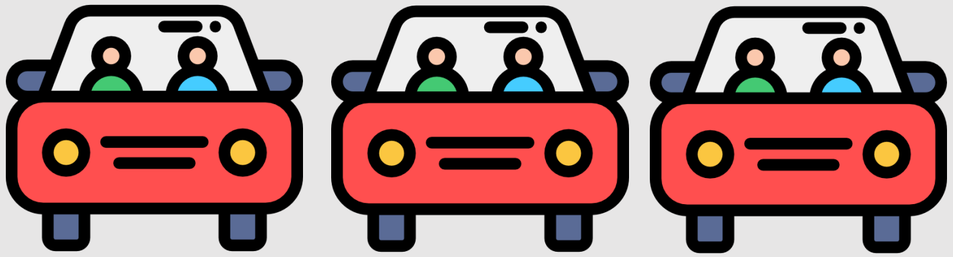
Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423



Apolipoproteins Explained

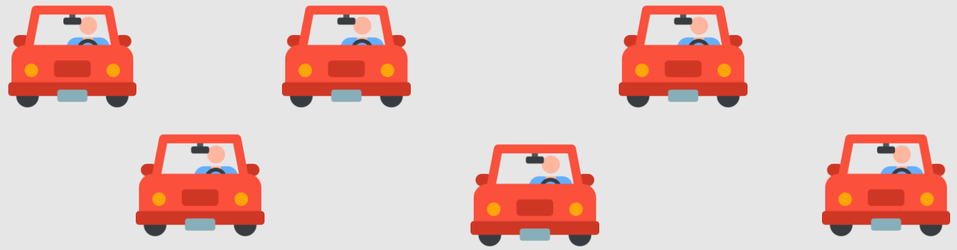
LDL=Number of passengers inside the car
ApoB= Number of cars

Scenario 1



Same LDL, lower ApoB

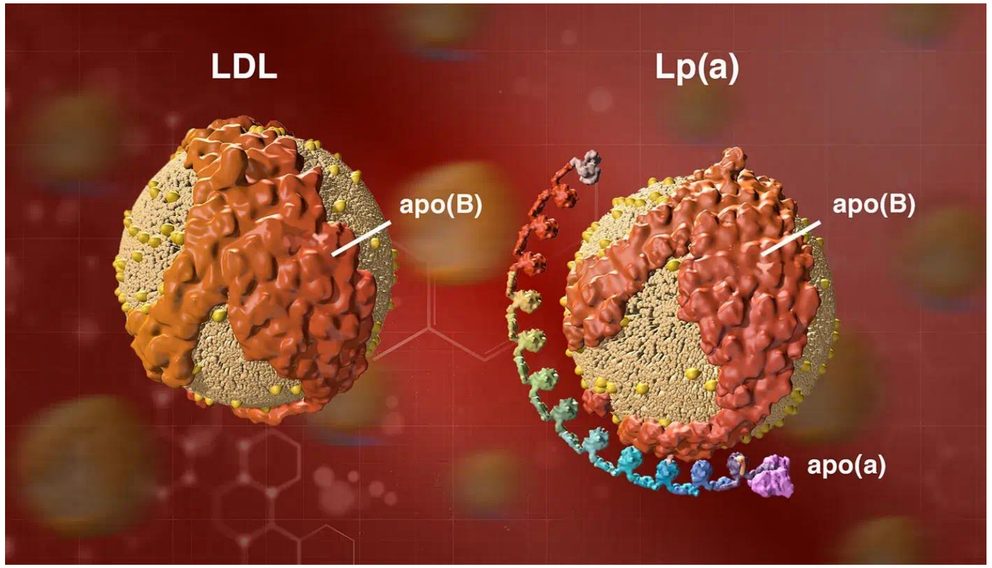
Scenario 2



Same LDL, higher ApoB

ApoB = more plaque formation

Lipoprotein a - Lp(a)



apoA makes it more likely to cause plaque than LDL itself

Lipoprotein A (Lp(a)) is a cholesterol-carrying lipoprotein in your blood made up of **apoA** and **apoB**.

Lp(a) concentrations are mostly **genetically determined**, remain similar over time and are minimally modified by lifestyle factors.

High levels of Lp(a) (≥125 nmol/L) are associated to clotting and inflammation, especially in genetically predisposed patients, which increases the risk of:

- Heart attack
- Stroke
- Aortic stenosis
- Peripheral artery disease

American Heart Association, Inc. *What is a Lipoprotein(a)*. American Heart Association. https://www.heart.org/en/health-topics/cholesterol/genetic-conditions/lipoprotein-a.
What is Lipoprotein(a) and How Does It Impact My Heart Health? www.goredforwomen.org. https://www.goredforwomen.org/es/health-topics/cholesterol/genetic-conditions/lipoprotein-a-risks (accessed 2026-07-22).
Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Laboratories

Core Laboratories

- **Lipid profile (Total cholesterol (TC), Triglycerides (TG), HDL-C, LDL-C and Non-HDL-C)** in adults and children to determine baseline lipid levels, estimate ASCVD risk and guide initiation of lipid-lowering therapy (LLT). **(1-B-NR)**

2026 Updates

- **ApoB** measurement in adults on LLT, particularly those with ASCVD, CKM syndrome, T2DM, and/or elevated TG is reasonable to guide decisions regarding further therapeutic intensification once LDL-C and/or non-HDL-C goals are achieved. **(2a-B-NR)**.

- **Lp(a)** measurement in all adults at least **once** for ASCVD risk assessment is recommended. **(1-B-NR)**

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Desirable Laboratories*

Types of lipids	Desirable ranges (mg/dL)
LDL	<100
HDL	≥ 40 (males) ≥ 50 (females)
TG	< 150

Monitoring and follow-up: In individuals with LLT, clinicians should perform a lipid profile 4-12 wk after initiation or dose adjustment and every 6-12 mo thereafter to assess efficacy and adherence to LLTs. **(1-A)**

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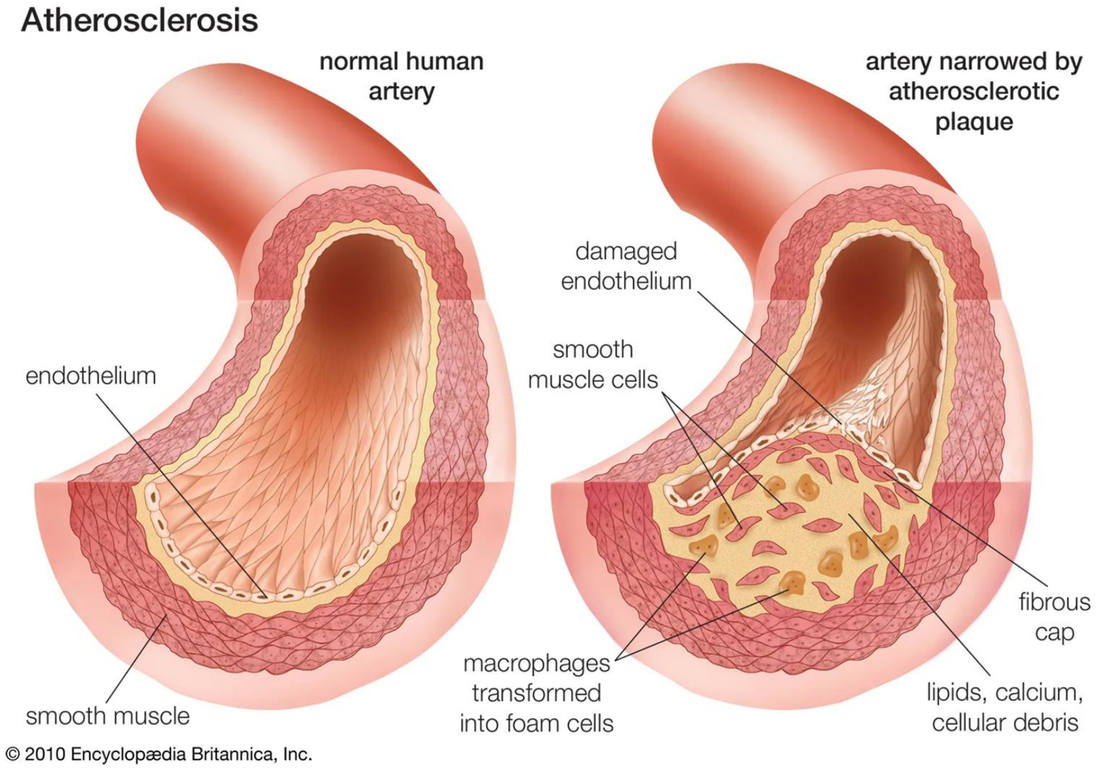
Health Consequences

Atherosclerotic Cardiovascular Disease (ASCVD)

Atherosclerosis is the accumulation of fatty plaques in the arterial walls, which can reduce blood flow and increase the risk of thrombosis.

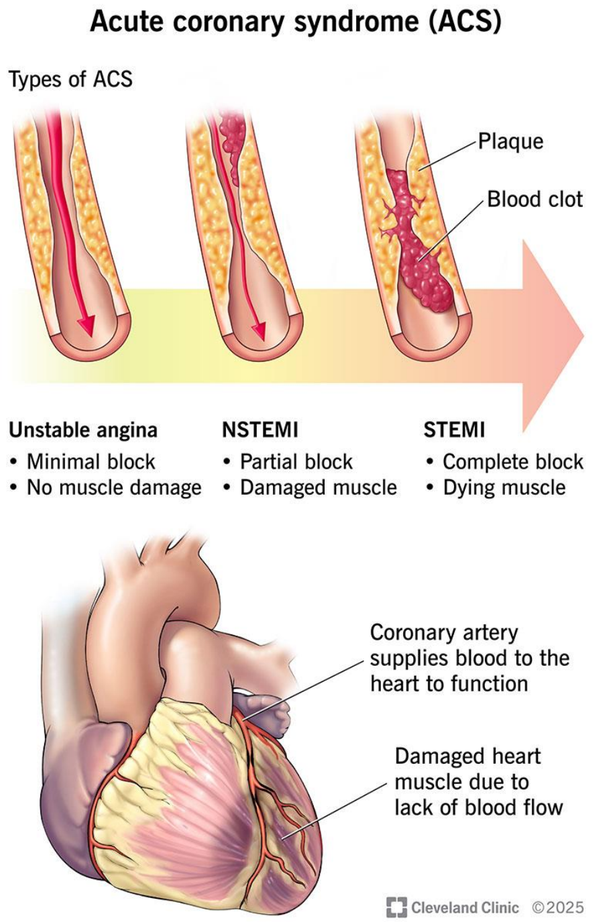


Britannica. *Atherosclerosis | Pathology;* 2019.

Atherosclerotic Cardiovascular Disease (ASCVD)

Atherosclerosis can lead to **atherosclerotic cardiovascular disease (ASCVD)** which includes:

- **Coronary Heart Disease** (CHD) (e.g. MI, angina (unstable/stable), and coronary artery stenosis)
- **Cerebrovascular disease** (e.g. transient ischemic attack (TIA), ischemic stroke, and carotid artery stenosis)
- **Peripheral artery disease** (e.g. claudication)
- **Aortic atherosclerotic disease** (e.g. abdominal aortic aneurysm and descending thoracic aneurysm)



Kelly MS, Scopelliti E. Dyslipidemia. In: Bethishou L, Bach A, Walsh A. eds. Patient Assessment in Pharmacy. McGraw Hill; 2025. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3555§ionid=294037852

What is new? PREVENT equation model

- The 2026 ACC/AHA guideline recommends using the **PREVENT-ASCVD** equations instead of the Pooled Cohort Equations (PCE) in patients without established ASCVD.

- PREVENT estimates both **10- and 30-year** risk using more contemporary data.

- With this updated approach, LLT may be considered at a **10-year risk of ≥3%**, compared with the previous PCE threshold of ≥5%.

	Approximate Equivalent Ranges of 10-Year ASCVD Risk Estimates	
Risk Group	**PCE**	**PREVENT - ASCVD**
Low	< 5%	< 3%
Borderline	5% to <7.5%	**3% to <5%**
Intermediate	7.5% to <20%	5% to <10%
High	≥20%	≥10%

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Why is PREVENT better?

- **PREVENT uses larger and more contemporary U.S. datasets than PCE**

- PREVENT equations have greater accuracy. PCE often **overestimates 10-year ASCVD risk** in modern populations while risk estimates from PREVENT-ASCVD equations tend to be 40% to 50% lower than older PCE.

Some Features	PCE	PREVENT
Age range for 10-year risk	40–79 years	**30–79 years**
Time horizon	Mostly 10-year ASCVD risk	10-year and **30-year risk**
Outcomes	ASCVD mainly: MI/stroke	ASCVD, **heart failure**, and total CVD
Medications	Not included	On statin or blood pressure therapy
Kidney function	Not included	Includes **eGFR**; **UACR** optional
Metabolic health	Diabetes included only as yes/no	Includes BMI; **HbA1c** optional
Race	Uses Black/White race coefficients	Does not use race/ethnicity; can add **zip code** to estimate social deprivation index

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PREVENT Calculator

CVD | **ASCVD** | Heart Failure

Sex*
(•) Male ( ) Female

Age (years)*
31

SBP (mmHg)*
138

Total Cholesterol (mg/dL)*
215

HDL Cholesterol (mg/dL)*
50

eGFR (mL/min/1.73m²)*
102

BMI (kg/m²)*
28

Diabetes
Any history of diabetes.
(•) No ( ) Yes

Current Smoking
Any cigarette use within the last 30 days
( ) No (•) Yes

Lipid-lowering medication
Current use of statin medication to lower cholesterol
(•) No ( ) Yes

Anti-hypertensive medication
Current use of any medication for hypertension
(•) No ( ) Yes

The following three predictors are optional for further personalization of risk assessment. When they are clinically indicated or available,

If available or indicated, select "Yes" and enter the value.

UACR (mg/g)
UACR is clinically indicated for individuals with chronic kidney disease, diabetes, or hypertension
(•) No ( ) Yes

HbA1C
HbA1c is clinically indicated for individuals with diabetes, prediabetes, overweight, or obesity, or those with history of gestational diabetes
(•) No ( ) Yes

Zip Code
valid 5-digit zip code is needed to estimate social deprivation index [SDI]
(•) No ( ) Yes

Calculate | Reset

About the PREVENT Equations | Online Calculator

Results for ASCVD

Estimated **10-year** risk of ASCVD
1.5%

Estimated **30-year** risk of ASCVD
8.8%

Click here for more information on how to interpret the results.

Click here for estimated risk reduction with starting therapy.

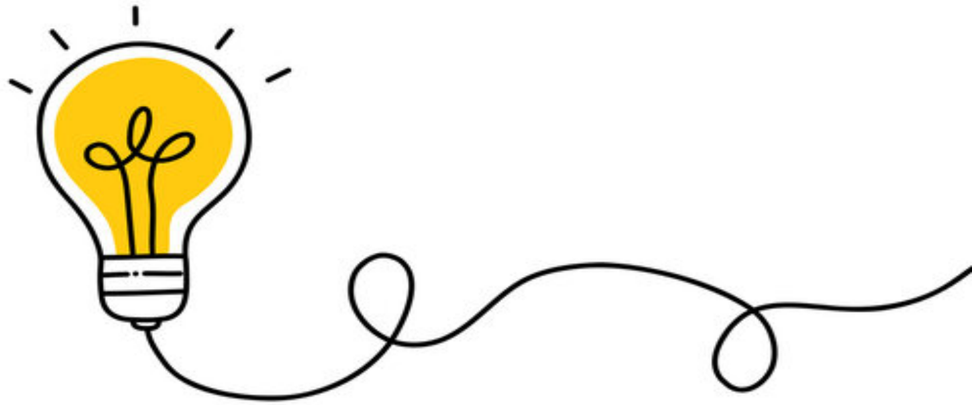
The risk estimates were calculated using the base equations

Print Result | View Related Content

The American Heart Association PREVENT™ Online Calculator; 2026. https://professional.heart.org/en/guidelines-and-statements/prevent-calculator#riskreduction (accessed 2026-07-24).

POP QUIZ

Let’s test our knowledge



Which discussed lab is directly related to the number of atherogenic particles circulating in the blood and guides in therapy intensification?

LDL 0%

ApoB 0%

HDL 0%

Lp(a) 0%

None of the above 0%

Which discussed lab is directly related to the number of atherogenic particles circulating in the blood and guides in therapy intensification? Select the best answer.

a. LDL

a. ApoB

a. HDL

a. Lp(a)

a. None of the above

Which discussed lab is directly related to the number of atherogenic particles circulating in the blood and guides in therapy intensification? Select the best answer.

a. LDL

a. ApoB

a. HDL

a. Lp(a)

a. None of the above

Non-Pharmacologic Therapy

Healthy Lifestyle

- Healthy lifestyle habits reduce adverse cardiovascular disease outcomes by **50%** even in individuals with genetic predisposition to ASCVD.
- It is critically important to optimize healthy lifestyle habits **as early as possible** to prevent the development of dyslipidemia at a young age.

The following points should be promoted and reinforced lifelong in children and healthy adults to reduce risk for dyslipidemia and ASCVD:

- **Maintenance of Healthy Weight**
- **Healthy Dietary Patterns**
- **Regular Physical Activity**
- **Avoidance of Tobacco Products**
- **Healthy Sleep**
- **Stress Management**

Recommendation: 1-A

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Recommendation for Dietary Supplements

In individuals with dyslipidemia, the use of dietary supplements is **not** recommended to lower LDL-C or TG based on limited and inconsistent data and/or limited benefits in lipid-lowering and reduction in ASCVD risk.

(No benefit B-R)

- Berberine, garlic/onion, turmeric, and red yeast rice have been associated with modest reductions in TC and LDL-C but results are inconsistent across trials.
- Cinnamon showed no significant cholesterol lowering.
- Non-prescription fish oils are not recommended since these products have not demonstrated clinical benefit in patients with hypertriglyceridemia or ASCVD. .

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Pharmacologic Therapy Based on Patient Goals

Pharmacologic Therapy Based on Patient Goals

Calculate and Classify → **Personalize** → **Reclassify and Reassess** → **Decide and Treat**

Primary Prevention

- ★ Age **30-79** + LDL 70-189 mg/dL (Calculate ASCVD risk with **PREVENT**)
- Primary Severe Dyslipidemia (LDL ≥ 190 mg/dL)
- DM and age 40-75 w/ LDL 70-189 mg/dL

Secondary prevention

- High-risk
- Very high-risk

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Primary Prevention: Age 30-79 w/ LDL 70-189 mg/dL

Risk	Therapy decision	Goal
Low (<3%)	LDL-C <160 mg/dL + age 30-59 : **lifestyle changes** **LDL-C 160 -189 mg/dL** or 30-year ASCVD risk≥ 10%**: moderate-intensity statin* (2a-C-LD)**	• LDL-C Reduction: ≥ 30% • **LDL-C < 100 mg/dL** • Non HDL-C <130 mg/dL
Borderline (3% to <5%)	**Moderate - intensity statin (2a-A)**	
Intermediate(5% to <10%)	**Moderate - intensity statin** ***If in the higher end of this risk, may consider high intensity statin (1-A)**	• LDL-C Reduction: ≥ 30% to ≤ 50% • **LDL-C < 100 mg/dL** • Non HDL-C <130 mg/dL
High (≥10%)	**Start high - intensity statin (1-A)**	• LDL-C Reduction: ≥ 50% • **LDL-C < 70 mg/dL** • Non HDL-C <100 mg/dL

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Primary Prevention: Primary Severe Dyslipidemia (LDL≥190 mg/dL)

Therapy Decision

Step 1 : Exclude secondary causes of dyslipidemia and cascade first-degree relatives and complete genetic testing

Step 2: Initiate maximally tolerated statin

Goals

No ASCVD and WITHOUT risk factors

- **LDL-C < 100 mg/dL**
- Non-HDL-C <130 mg/dL

Without ASCVD but WITH risk factors

- **LDL-C < 70 mg/dL**
- Non-HDL-C <100 mg/dL

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Primary Prevention: Adults with Diabetes and Without ASCVD

Age Group	Therapy Decision	Goal
Ages 40-75	**Moderate Intensity Statin**	• LDL- Reduction: ≥30-49% • **LDL-C < 100 mg/dL** • Non-HDL-C < 130 mg/dL **and ApoB Goal <90 mg/dL (Optional)** ★
Ages 40-75 + ASCVD risk ≥ 10% or multiple risk factors	**High Intensity Statin**	• LDL- Reduction: ≥50% • **LDL-C < 70 mg/dL** • Non-HDL-C < 100 mg/dL
Age >75	**Risk vs benefits** Moderate-intensity statin	
≥ 30 years of age + ★ PREVENT ASCVD risk ≥ 10%	**Moderate Intensity Statin**	

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423
American Diabetes Association Professional Practice Committee for Diabetes*; 10. Cardiovascular Disease and Risk Management: Standards of Care in Diabetes—2026. *Diabetes Care* 1 January 2026; 49 (Supplement_1): S216–S245. https://doi.org/10.2337/dc26-S010

Secondary Prevention

Secondary prevention goals depend if the patient has **not very high-risk** or **very-high risk ASCVD.**

Clinical ASCVD: Criteria for Defining “At Very High Risk” in Adult

Major ASCVD Events

- ACS within past 12 mo
- History of MI (other than ACS above)
- History of ischemic stroke
- Symptomatic PAD

High-Risk Conditions

- Age ≥65 y
- Coronary bypass or percutaneous intervention
- Current smoker
- Diabetes
- Hx of congestive heart failure
- Hypertension
- LDL-C ≥100 mg/dL (2.6 mmol/L) despite maximally tolerated statin + ezetimibe

≥2 major ASCVD events

OR

1 major ASCVD event + ≥2 high-risk conditions

Secondary Prevention

ASCVD Not at Very High Risk	ASCVD At Very High Risk
Start **high-intensity or maximally tolerated statin** **Goal:** ≥ 50% LDL-C reduction , **LDL-C < 70 mg/dL and**, non-HDL-C <100 mg/dL	Start **high-intensity or maximally tolerated statin** **Goal:** ≥ 50% LDL-C reduction , **LDL-C < 55 mg/dL and**, non-HDL-C <85 mg/dL - **AND** - **Optional apoB goal <55 mg/dL** ★

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Secondary Prevention: ADA Guidelines 2026

For people with **diabetes** and **ASCVD**, treatment with **high-intensity statin therapy** is recommended to obtain an LDL cholesterol reduction of ≥50% from baseline and an **LDL cholesterol goal of <55 mg/dL** .

American Diabetes Association Professional Practice Committee for Diabetes*; 10. Cardiovascular Disease and Risk Management: Standards of Care in Diabetes—2026. *Diabetes Care* 1 January 2026; 49 (Supplement_1): S216–S245. https://doi.org/10.2337/dc26-S010

Specific Classifications

Person living with HIV

In people living with HIV aged 40 to 75 on stable combination antiretroviral therapy, statin therapy is recommended to reduce risk of a first ASCVD event and reduce the rate of coronary atherosclerosis progression. (1-B-R)

Adults with CKD Stage 3 or Higher

In adults with CKD stage ≥ 3 and ASCVD, a high-intensity statin with/without ezetimibe and/or a PCSK9 inh is recommended to achieve a ≥50% reduction in LDL-C and a goal of LDL-C <55 mg/dL and non–HDL-C <85 mg/dL to reduce ASCVD risk. (1-B-R)

Adults with cancer or history of cancer

Adult cancer survivors with life expectancy of at least 2 y who otherwise qualify for LLT should be treated similarly to people without history of cancer to reduce the risk of ASCVD events. (1-B-NR)

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Pharmacologic Therapy Based on Patient Goals

Calculate and Classify → **Personalize** → Reclassify and Reassess → Decide and Treat

➔ **Always discuss risk estimate and therapy options with patient**

➔ **Evaluate Risk Enhancers (≥ 1 risk to evaluate optimization)**

- **High-sensitivity C-reactive protein (hsCRP ≥2 mg/L) on >1 occasion (if measured) with no identifiable underlying cause**
- **Reproductive risk markers (premature menopause, preeclampsia, gestational diabetes, gestational HTN, preterm delivery)**
- History of premature ASCVD in parent or sibling (age < 55 y for men, <65 y for women)
- High polygenic risk scores
- Chronic diseases (e.g., systemic lupus, rheumatoid arthritis, advanced psoriasis, inflammatory arthritis)
- Lp(a) ≥ 125 nmol/L
- Higher risk ancestry (e.g., South Asian, Filipino)
- TG persistently ≥ 175 mg/dL
- LDL-C persistently ≥160–189 mg/dL, non–HDL-C ≥190–219 mg/dL or apoB ≥120 mg/dL
- CKM syndrome

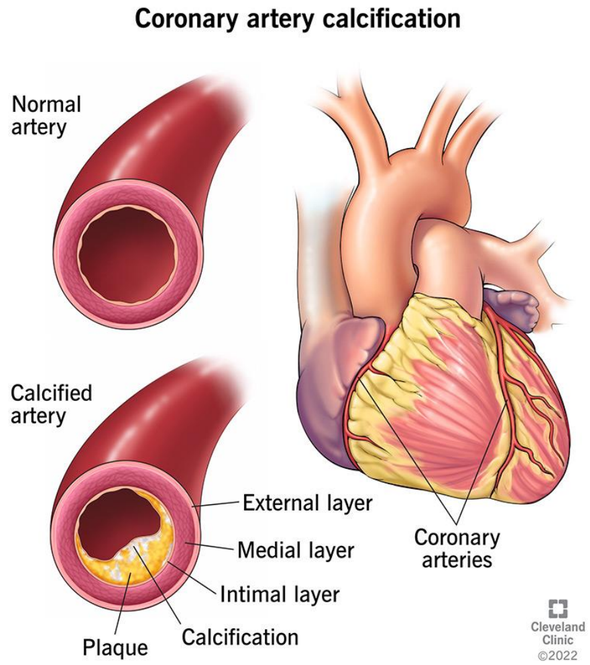
Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Pharmacologic Therapy Based on Patient Goals

Calculate and Classify → Personalize → **Reclassify and Reassess** → Decide and Treat

In borderline- or intermediate-risk adults without ASCVD, coronary artery calcium (CAC) scoring may help when the treatment decision is uncertain. (1-BR)

- CAC is a CT scan that detects coronary artery calcium
- Generally considered in men ≥40 and women ≥45 years.
- A **CAC score >0** supports starting therapy, especially when **CAC ≥100**. (1-B-NR)



Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Cleveland Clinic. *Coronary Artery Calcification: Causes, Symptoms & Treatment*; 2022. https://my.clevelandclinic.org/health/diseases/22953-coronary-artery-calcification (accessed 2026-07-26).

Pharmacologic Therapy Based on Patient Goals

Calculate and Classify → Personalize → Reclassify and Reassess → **Decide and Treat**

➔ **Lifestyle modification**

- Dietary changes and physical activity

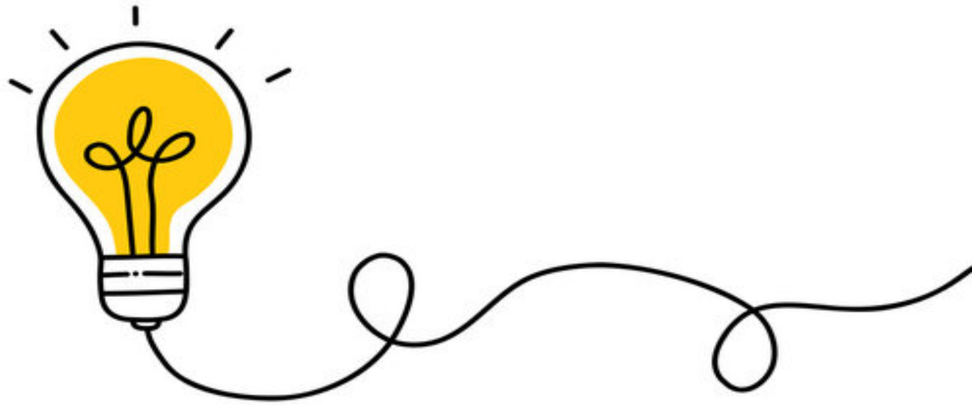
➔ **Therapy Modification**

- Do we optimize/change therapy?

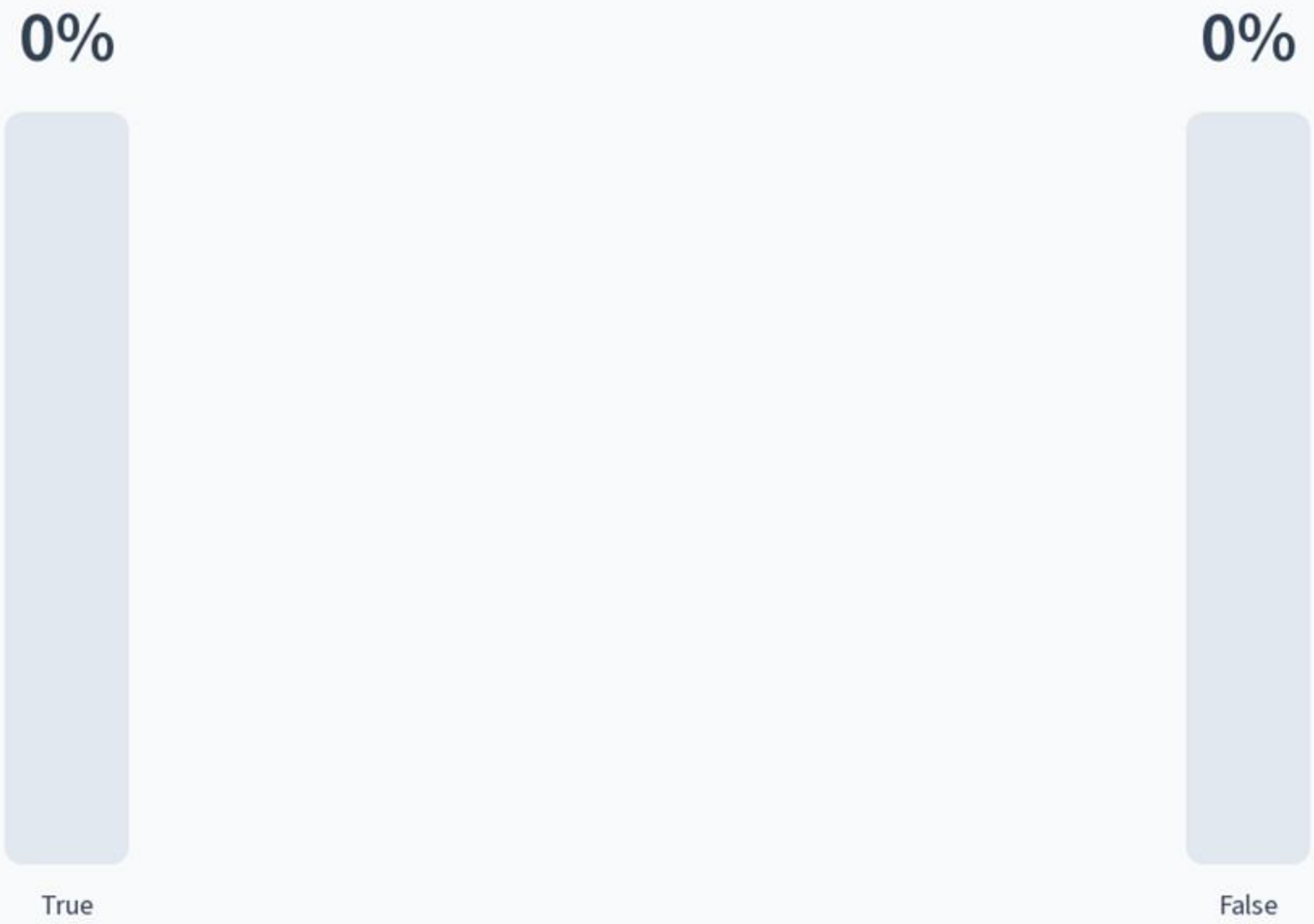
Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

POP QUIZ

Let’s test our knowledge



TRUE or FALSE: High-sensitivity C-reactive protein (hsCRP) ≥ 2 mg/dL measured on > 1 occasion with no identifiable underlying cause could indicate an inflammatory marker linked to an increased risk of heart attack or stroke.



TRUE or FALSE: High-sensitivity C-reactive protein (hsCRP) ≥ 2 mg/dL measured on > 1 occasion with no identifiable underlying cause could indicate an inflammatory marker linked to an increased risk of heart attack or stroke.

a.True

a.False

TRUE or FALSE: High-sensitivity C-reactive protein (hsCRP) ≥ 2 mg/dL measured on > 1 occasion with no identifiable underlying cause could indicate an inflammatory marker linked to an increased risk of heart attack or stroke.

a.True

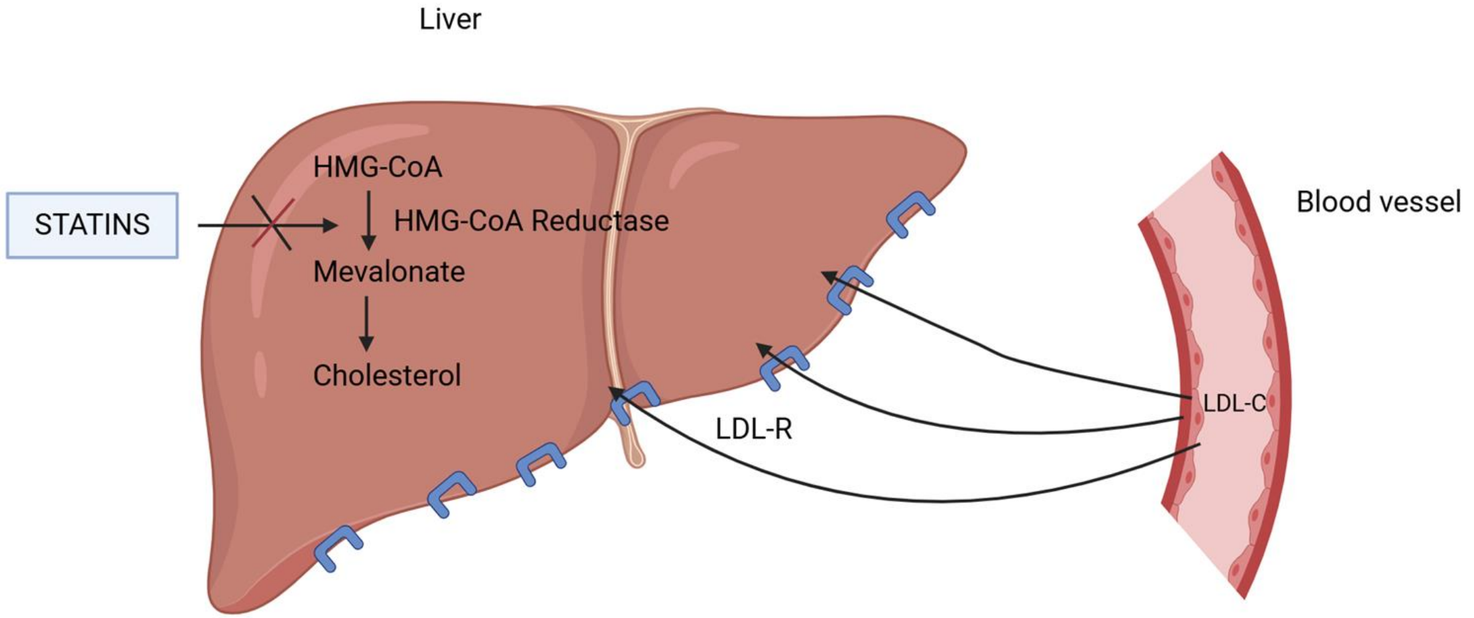
a.False

Pharmacologic Therapy

Statins

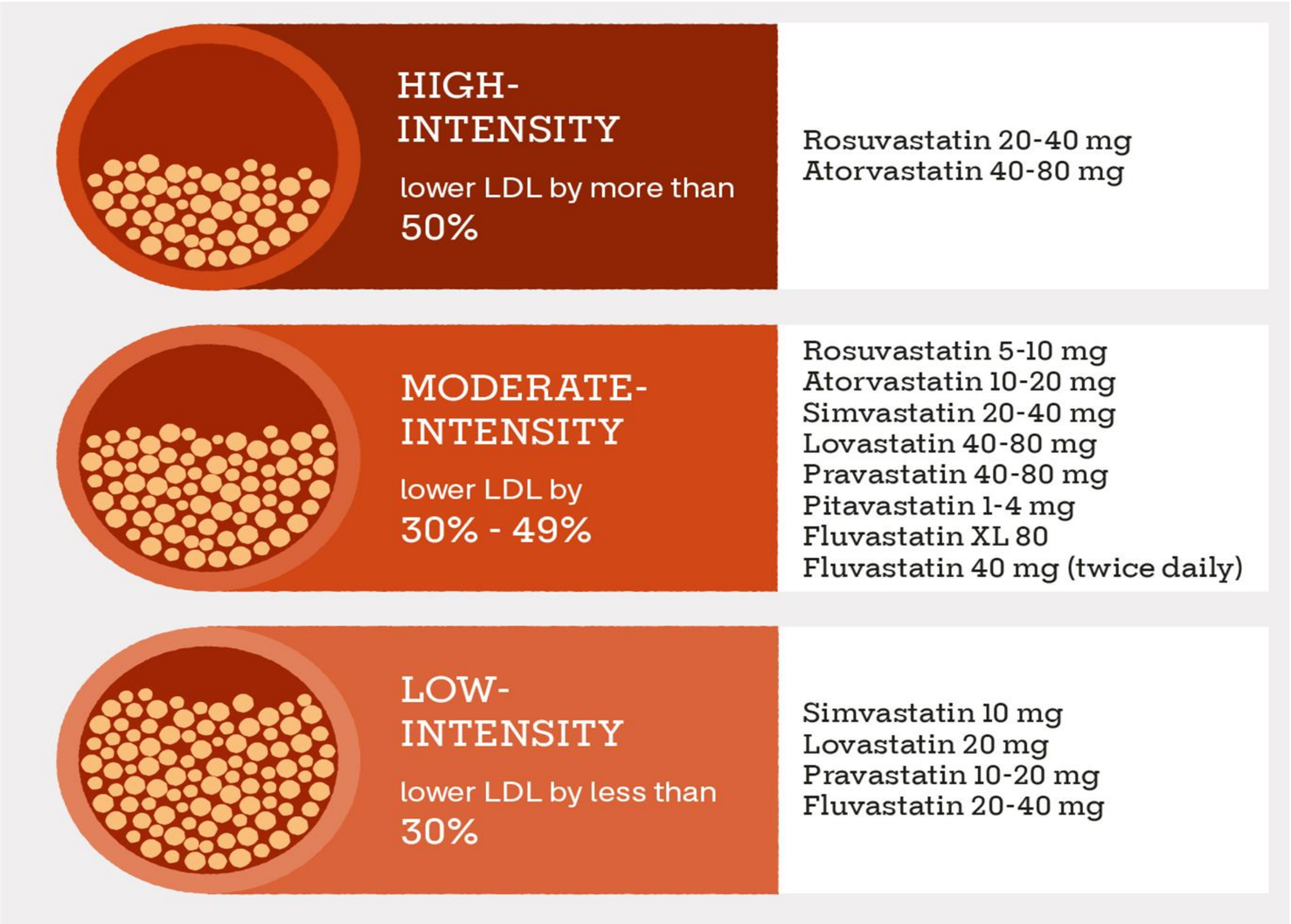
First line treatment

- **Mechanism of Action:** Interrupt the conversion of HMG-CoA to mevalonate, the rate-limiting step in cholesterol synthesis, by inhibiting HMG-CoA reductase in the liver.



Dixon DL, Riche DM, Kelly MS. Dyslipidemia. In: DiPiro JT, Yee GC, Haines ST, Nolin TD, Ellingrod VL, Posey L. eds. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 12th Edition. McGraw Hill; 2023. Accessed October 12, 2025. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3097&sectionid=267225800
Bombatch C, Brian S, Davis C, Colley P. Dyslipidemia. In: RxPrep 2023 NAPLEX Course Book. RxPrep, Inc. 2022; 2022:416-427

Statins

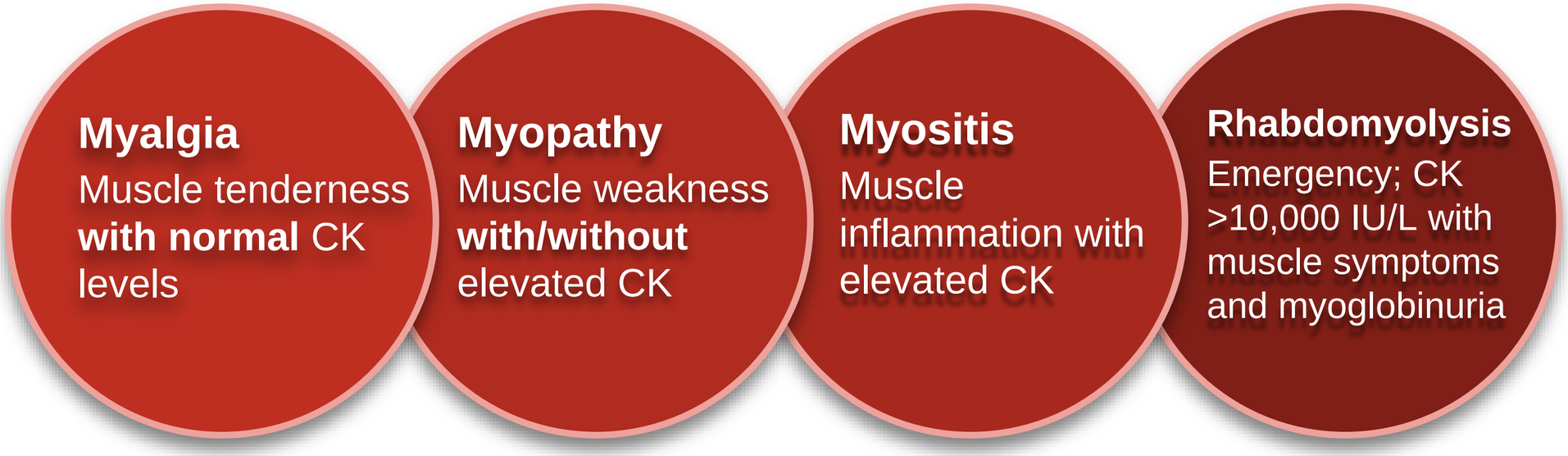


Aungst T. What Are High Intensity Statins, and When Are They Used? GoodRx. Published January 19, 2022. Accessed October 27, 2025. https://www.goodrx.com/classes/statins/high-intensity-statins?srsltid=AfmBOooOMzYCMT1xrt16DmyqiWU-fMGiZF-iOavJpYpKmxtk0T7jB8NP

Statins- Safety Concerns

- **Adverse Reactions:**
  - **Common:** Muscle symptoms (myalgia/myopathy)
  - **Rare:** Rhabdomyolysis and severe hepatotoxicity

Differentiating muscle damage



Bombatch C, Brian S, Davis C, Colley P. Dyslipidemia. In: RxPrep 2023 NAPLEX Course Book. RxPrep, Inc. 2022; 2022:416-427

Statins- Managing Symptoms

The **first step** is for the clinician **acknowledges the patient's concerns** while **reinforcing the increased risk for MACE associated with suboptimal LDL-C lowering**.

Exclude

Excessive muscular activity, **disease states**, and **drug-drug interactions** that raise statin blood levels

Physical Examination

To assess muscle strength and if muscle symptoms are severe, **CK levels** should be measured

Hold Statin

If severe myalgia, **muscle weakness** and **CK levels ≥10 times** the upper normal limit

Reintroduce Statin

After **2-4 weeks**, reintroduce statin at **lower dose** or other statin, preferably a **long-acting one,** and take on **infrequent days**. Can add **non-statin therapy.**

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Statins- Managing Symptoms

- **Contraindications**
  - Pregnancy, **active liver disease (NOT chronic stable liver disease or metabolic dysfunction-associated steatotic liver disease (MASLD))**
- **Select drug interactions:**
  - **Fibrates:** Increased risk of myopathy and rhabdomyolysis when coadministered with statins. **Risk is greater with gemfibrozil (CONTRAINDICATED) than with fenofibrate.**
  - **Niacin:** Although statins and niacin are commonly used together, doses >1 g/day increase the risk of myopathy and rhabdomyolysis when used concomitantly with statins; risk is lower than with fibrates.

Bombatch C, Brian S, Davis C, Colley P. Dyslipidemia. In: RxPrep 2023 NAPLEX Course Book. RxPrep, Inc. 2022; 2022:416-427

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Non-Statin Therapy

Primary Prevention: Not at goal?

New recommendations no longer require that ezetimibe be added to statin therapy prior to initiating a PCSK9 inh mAb.

Age 30-79 and LDL-C 70-189 mg/dL with ASCVD ≥10%	Severe Dyslipidemia	Diabetes 40-75 Y Without ASCVD
Add ezetimibe	**Add ezetimibe, PCSK9 inh** and/or **bempedoic acid**	**Add ezetimibe** and/or **PCSK9 inh**
If not at goal add **PCSK9 inh** or **bempedoic acid**	Add **Inclisiran** if PCSK9 inh **not tolerated**	

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Secondary Prevention: Not at goal?

ASCVD Not Very High Risk	ASCVD Very High Risk
Not at goal despite high-intensity or maximally tolerated statin	
Add ezetimibe, a **PCSK9 inh,** and/or **bempedoic acid** and, **optional ApoB goal <70 mg/dL**	**Add ezetimibe** and/or **PCSK9 inh** and, **optional ApoB goal <55 mg/dL**
If patient unable to tolerate, obtain, or adhere to PCSK9 inh **add Inclisiran**	If patient unable to tolerate, obtain, or adhere to PCSK9 inh **add Inclisiran**
	If not at goal add **bempedoic acid**

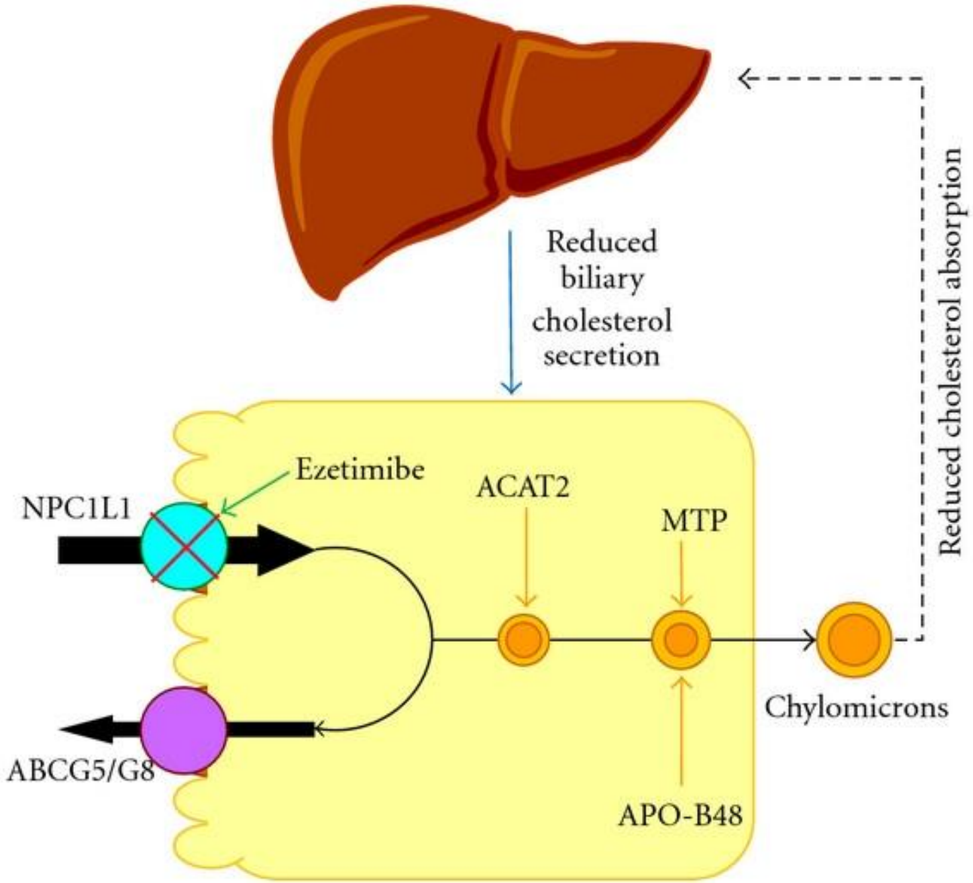
Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Ezetimibe

- **Mechanism of action:** inhibits the NPC1L1 protein, an important transporter of **cholesterol absorption in the small intestine** and hepatocytes.

- Reduces LDL-C by **18%** as monotherapy. Considered if **<25%** additional LDL lowering is needed**.**

- **Cardiovascular risk reduction:** when added to statin**,** the CV event rate at 7 years was 32.7% compared with 34.7% in the statin monotherapy group (ARR **2.0%**; HR 0.936; 95% CI 0.89–0.99; *p* = 0.016).(IMPROVE IT trial)



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de Bari, Ornella, Neuschwander-Tetri, Brent A., Liu, Min, Portincasa, Piero, Wang, David Q.-H., *Ezetimibe: Its Novel Effects on the Prevention and the Treatment of Cholesterol Gallstones and Nonalcoholic Fatty Liver Disease*, *Journal of Lipids*, 2012, 302847, 16 pages, 2012. https://doi.org/10.1155/2012/302847
Hammersley D, Signy M. Ezetimibe: an update on its clinical usefulness in specific patient groups. *Ther Adv Chronic Dis*. 2017;8(1):4-11. doi:10.1177/2040622316672544

Ezetimibe

- **Administration:** 10 mg oral daily tablet
- **Adverse effects: mild gastrointestinal complaints (diarrhea)**, myalgia and mild ALT elevations when used in combination with statins
- **Contraindications:**
  - Pregnant/lactating women
  - Liver disease, including those with elevated LFT
- **Drug interactions:**
  - Concomitant use with cyclosporine can lead to increased exposure to both ezetimibe and cyclosporine.
  - Can increase risk of **cholelithiasis** when used with fenofibrate and gemfibrozil.

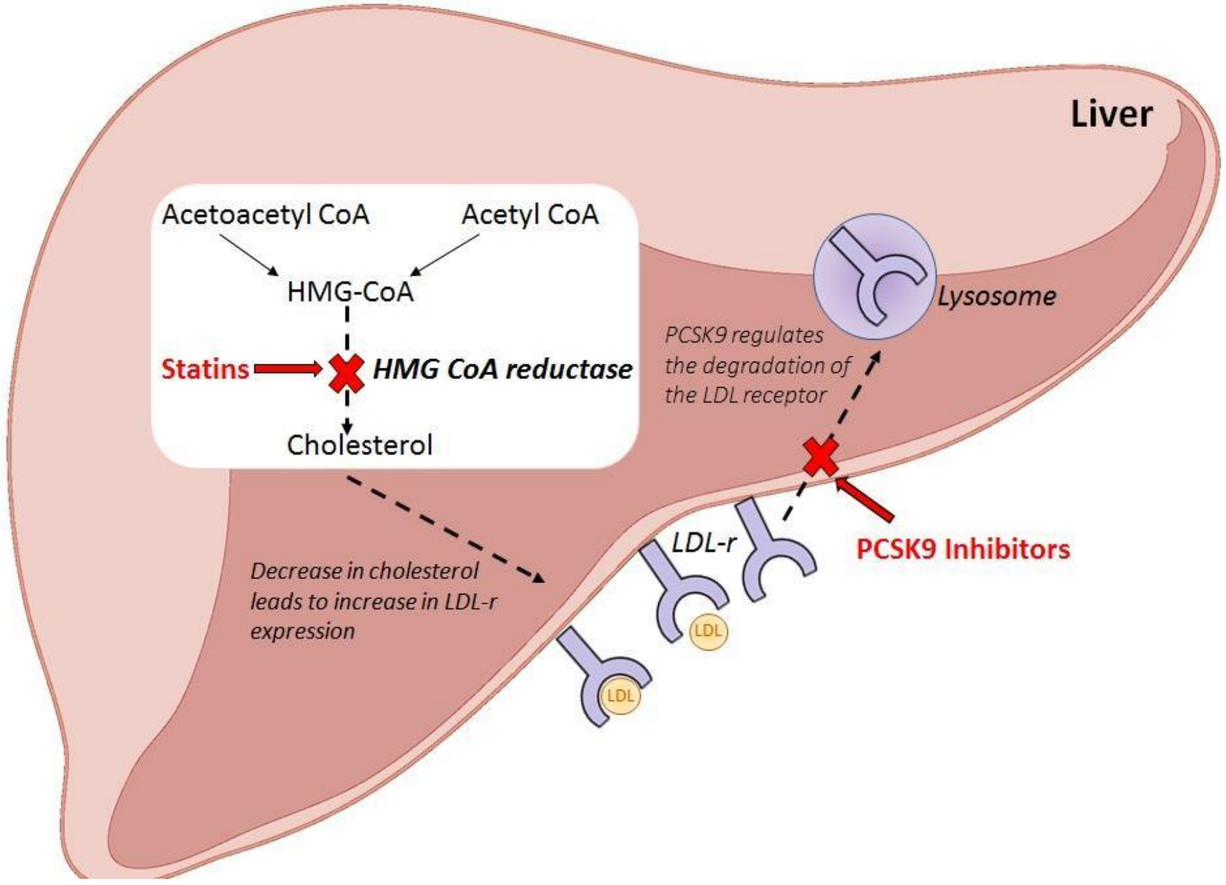
- Dixon DL, Riche DM, Kelly MS. Dyslipidemia. In: Haines ST, Nolin TD, Ellingrod VL, Posey L, Cocohoba J, Holle L. eds. *DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 13th Edition*. McGraw Hill; 2026. Accessed June 20, 2026. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3386&sectionid=292508127

PCSK9 Inhibitors

- **Mechanism of Action:** Monoclonal antibodies that inhibit a protein called PCSK9, increasing cholesterol clearance from the liver

- **Lower LDL-C by an additional 45%–64% when combined with statin therapy**

- **Cardiovascular risk reduction: 15% reduction** in composite of CV death, MI, stroke, hospitalization for unstable angina, or coronary revascularization (HR 0.85; 95% CI, 0.79 to 0.92. (FOURIER Study))



Pokhrel B, Pellegrini MV, Levine SN. PCSK9 Inhibitors. [Updated 2024 Feb 25]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK448100/

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

PCSK9 Inhibitors

- **FDA approved therapies:**
  - **Evolocumab: approved on 2015**
    - **HeFH or clinical ASCVD:** 140 mg **SubQ every 2 weeks OR**, 420 mg **SubQ once monthly**
    - **HoFH:** 420 mg SubQ once monthly

  - **Alirocumab: approved on 2015**
    - **HeFH (ages 8 and up) or clinical ASCVD:** 75 mg SubQ every 2 weeks **OR** 300 mg SubQ every 4 weeks; if LDL-C not at goal adjust dose to 150 mg SubQ every 2 weeks
    - **HoFH:** 150 mg SubQ every 2 weeks

Dosing and Administration | Repatha® (Evolocumab). https://www.repathahcp.com/dosing-and-administration (accessed 2026-07-27)

PRALUENT(R) (Alirocumab) Injection. https://www.praluent.com/s/how-to-use-praluent (accessed 2026-07-27).

PCSK9 Inhibitors

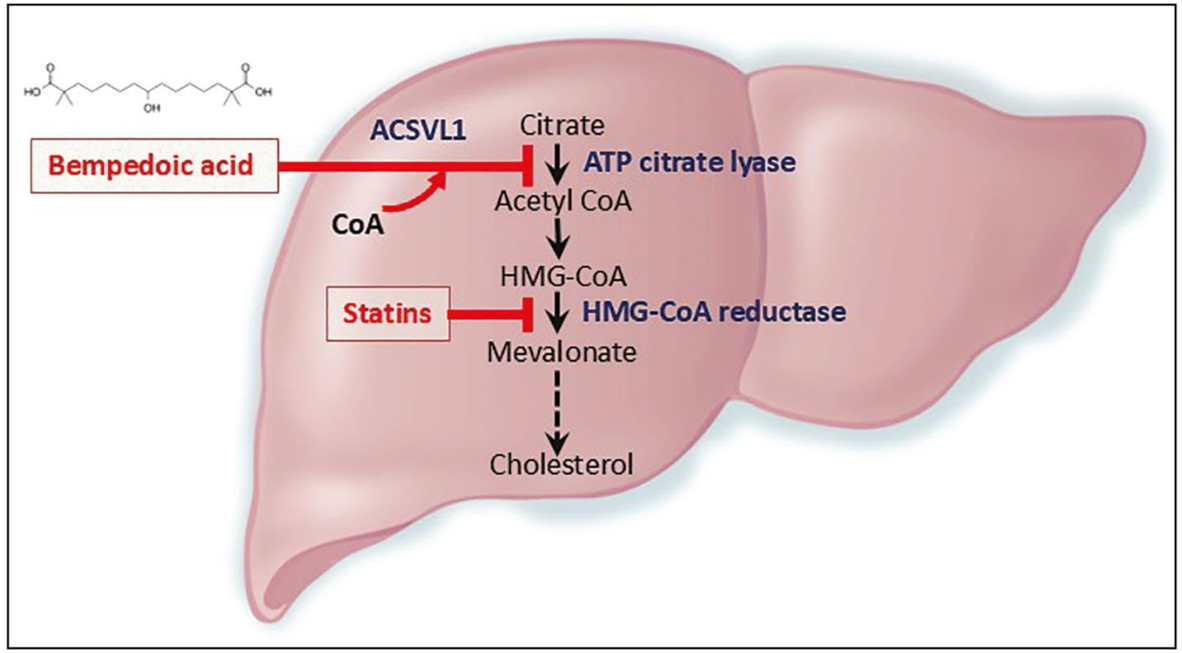
- **Adverse effects:** Injection-site reactions, respiratory infections
- **Contraindication:** Serious hypersensitivity (eg, angioedema) to evolocumab or any component of the formulation.
- **Precaution:**
  - **Latex:** The needle cap of prefilled syringe and autoinjector may contain dry natural rubber, which is a derivative of latex.
- **Cost ($$$):** currently only available as branded products and require prior authorization due to their higher cost compared to other LDL-C lowering therapies.

Dosing and Administration | Repatha® (Evolocumab). https://www.repathahcp.com/dosing-and-administration (accessed 2026-07-27)

PRALUENT(R) (Alirocumab) Injection. https://www.praluent.com/s/how-to-use-praluent (accessed 2026-07-27).

Bempedoic Acid

- **Mechanism of Action:** Inhibits adenosine triphosphate-citrate lyase (ACL) → reduces activity of HMG-CoA reductase→ reduces cholesterol and fatty acid synthesis →upregulates LDL receptor synthesis which enhances LDL clearance rate.



- **LDL-C reduction: 21% - 24%** as **monotherapy** and by an additional **17% - 18% in combination** with a maximally tolerated statin

- **Cardiovascular risk reduction:** In participants with statin-attributed side effects, bempedoic acid use led to a **13% RRR** in MACE in the overall trial. (OUTCOMES trial)

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Bempedoic Acid

➔ **FDA approved therapy: (Bempedoic acid) (approved on 2020)**

- ◆ ASCVD in those who are unable to take statins (including those not on statin)
- ◆ In combination with/without other therapies to reduce LDL-C including HeFH
  - 180 mg orally daily tablet

➔ **Adverse effects:** URTI, muscle spasms, **hyperuricemia,** back pain, abdominal pain/discomfort, bronchitis, pain in extremity, anemia, and elevated liver enzymes.

➔ **Warnings:** hyperuricemia and tendon rupture

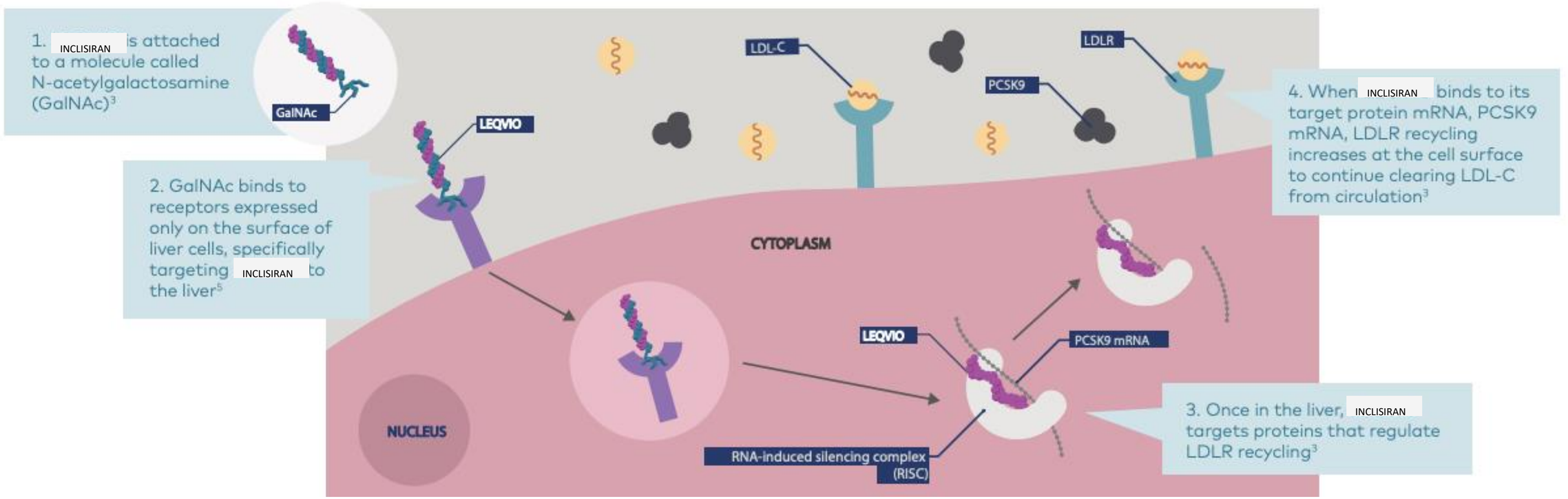
- ◆ Prodrug activated by ACSVL1 in the liver but not in muscle, which **limits muscle-related side effects**; increases simvastatin and pravastatin levels (limit simvastatin to 20 mg and pravastatin to 40 mg daily).

➔ **Cost:** Not on formulary

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423
About NEXLETOL. https://www.nexlizet.com/about-nexletol/ (accessed 2026-07-27).

Inclisiran

- **Mechanism of Action** is currently the **only PCSK9-modulating therapy** that is a **small interfering RNA (siRNA) molecule** that prevents formation of PCSK9 protein, allowing more LDL-C receptors to remove circulating LDL-C.



Mechanism of Action | LEQVIO® (Inclisiran) | HCP. https://www.leqviohcp.com/mechanism-of-action (accessed 2026-07-27).

Inclisiran

- **LDL-C reduction: 48% to 52%** when added to statin therapy; LDL-C reduction is sustained over the **6 months** between maintenance doses.
  - Cardiovascular outcomes trials are still ongoing.

- FDA therapy: **Inclisiran (approved 2021)**
  - LDL-C reduction in adults with **hypercholesterolemia**, including **HeFH** (Adjunctive therapy): 284 mg administered as a single SubQ injection initially, again at **3** months, and then every **6** months.

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Dosing and Administration | LEQVIO® (Inclisiran) | HCP. https://www.leqviohcp.com/dosing-and-administration (accessed 2026-07-27).

Inclisiran

- **Adverse reactions:** headache, local-site reaction, arthralgia, bronchitis

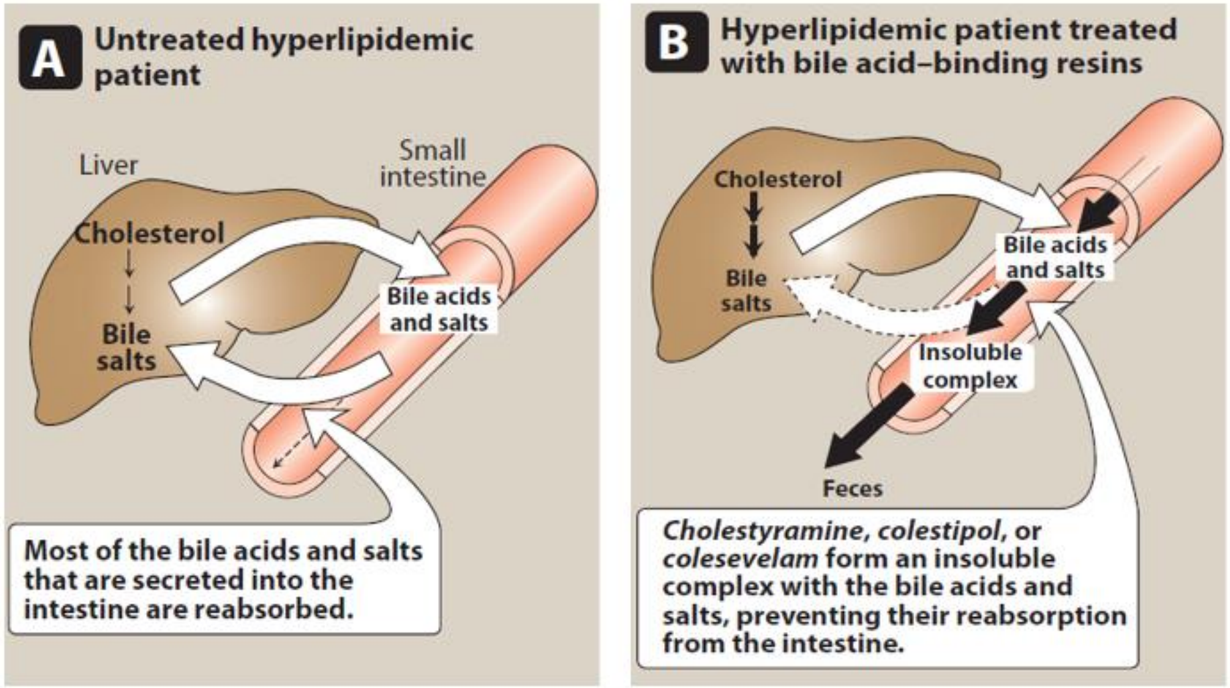
- **Contraindication:** Serious hypersensitivity (e.g., anaphylaxis, angioedema) to inclisiran or any component of the formulation.

- **Cost:** Not on formulary

Bile Acid Sequestrants

- **Mechanism of Action:** bind bile acids in the intestine, prevents their reabsorption and forms a complex that is excreted in the feces. Since bile acids are made from cholesterol, the liver has to use more cholesterol to make new bile acids thus, increases LDL receptors in the liver to remove LDL-C from the blood.

- **LDL-C Reduction:** (10%-27%) as monotherapy or when added to other lipid-lowering medications.



Rima. Bile Acid Sequestering Agents - BioPharma Notes. BioPharma Notes. Published December 18, 2020. Accessed October 27, 2025. https://biopharmanotes.com/pharmacology-of-bile-acid-sequestering-agents/#google_vignette

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Bile Acid Sequestrants

- **Cardiovascular outcome:** 1 trial demonstrated cardiovascular event reduction in primary prevention as <u>monotherapy</u>

- **Not on algorithm:**
  - Gastrointestinal side effects may limit its use
  - Their clinical utility is limited by the absence of ASCVD outcomes data when used in combination with statins.

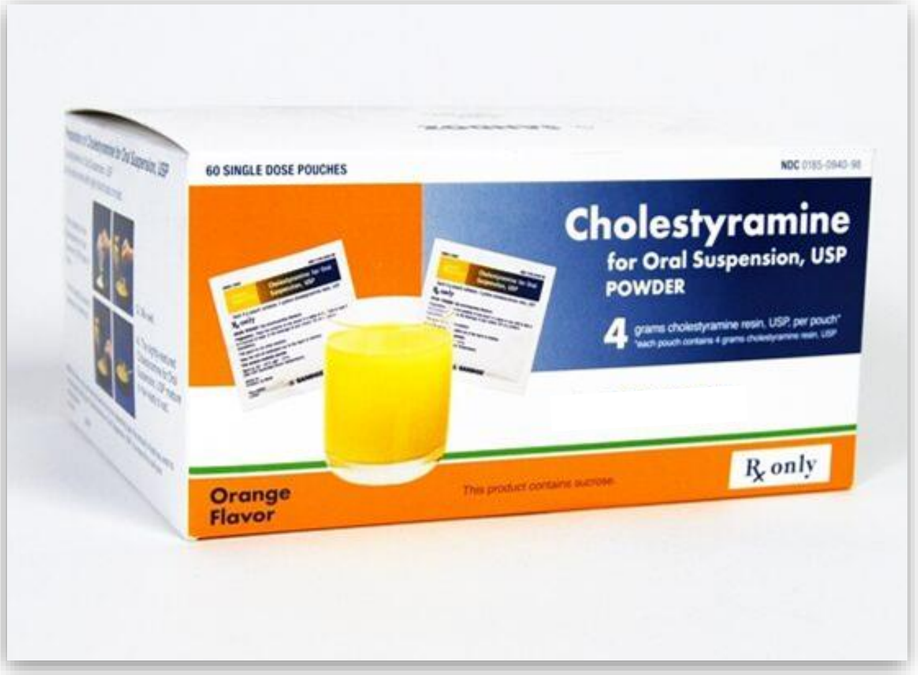
- **Adverse events:** constipation, abdominal pain, cramping, bloating, gas, dyspepsia, nausea, esophageal obstruction (both LDL-C lowering and incidence of side effects are dose related), may increase triglycerides

- **Contraindications:** history of bowel obstruction, fasting TG are ≥ 300 mg/dL

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Bile Acid Sequestrants

- **Pregnancy:** Safe to use. No evidence of risk in humans due to lack of systemic absorption.



Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Hypertriglyceridemia

Hypertriglyceridemia

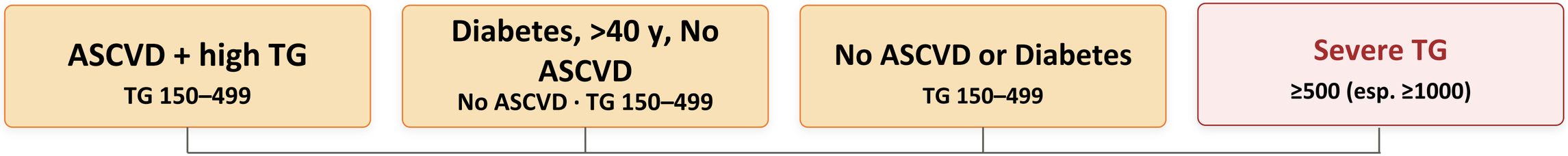
Strong association between high triglycerides and ASCVD risk

Mild	Moderate	Severe	Very Severe
150-199 mg/dL	200-499 mg/dL	>500 mg/dL	>1000 mg/dL

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Managing adults with hypertriglyceridemia

Simplified from the 2026 ACC/AHA Dyslipidemia Guideline · TG in mg/dL



The first thing to do is to identify secondary causes!

- **Diseases:** uncontrolled diabetes, CKD, uncontrolled hypothyroidism, rheumatoid arthritis etc.
- **Diet/Lifestyle:** sedentary lifestyles, diet high in saturated fats and sugars, hx of alcohol abuse, parenteral nutrition with lipid emulsion
- **Drugs:** propofol, bile acid sequestrants, glucocorticoids, atypical antipsychotics etc.
- **Disorders of Metabolism:** overweight/obesity, metabolic syndrome, insulin resistance
- **Physiological:** pregnancy

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

1. **First line approach:** optimize diet and lifestyle.

2. **Initiate statin** and titrate to **maximally tolerated dose** if indicated based on ASCVD risk.

3. If persistent hypertriglyceridemia, **intensify lipid lowering therapy** or consider other therapies.

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Hypertriglyceridemia

- **Persistent hypertriglyceridemia:** fasting **TG ≥150 mg/dL** after evaluation and management of secondary causes, a minimum of 4 to 12 weeks of lifestyle management and on maximally tolerated statin.

Foundation for all patients

Lifestyle optimization + address secondary causes + statin for ASCVD risk

TG 150-499 mg/dL
With ASCVD

If LDL-C < 100 mg/dL, non- HDL <130 mg/dL and on maximally tolerated statin :
add Icosapent ethyl

TG 150-499 mg/dL
Without ASCVD/Diabetes

Calculate **10 y-ASCVD risk** and **maximize statin and other therapies** to achieve LDL-C, HDL-C and ApoB* goals

TG ≥500-999 mg/dL
Severe

Calculate **10 y-ASCVD risk** , **maximize statin and other therapies** and, **add fibric acid derivatives or Rx Omega-3 fatty acids**

TG ≥1000 mg/dL
Very Severe

Refer to lipid specialist, add **fibric acid derivatives or Rx Omega-3 fatty acids**. Add **Olezarsen** to lower TG (referring of patient has FCS).

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Why statins first?

The initial priority in patients with hypertriglyceridemia (≥150 mg/dL) is **ASCVD risk reduction** with **statin therapy.**

Although fibric acid derivatives lower TG levels, they **do not provide incremental ASCVD risk reduction** when added to statin therapy.

We only start fibric acid derivatives and prescription Omega-3 fatty acids when TG ≥ 500 mg/dL, especially if TG ≥ 1000 mg/dL to reduce risk of pancreatitis.

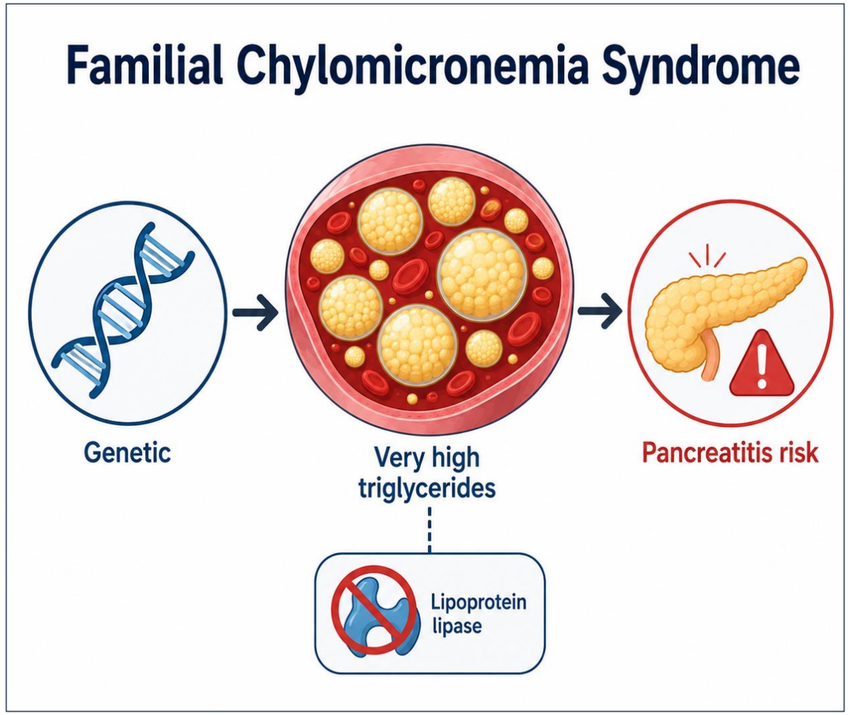
Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Familial Chylomicronemia Syndrome

- **Familial chylomicronemia syndrome (FCS)**: rare genetic disorder caused by **reduced lipoprotein lipase activity (LPL),** leading to severe hypertriglyceridemia, usually **TG ≥1000 mg/dL**, and increased risk of **acute pancreatitis.**

- Standard lipid-lowering therapies, such as fibrates, omega-3 fatty acids, and statins, are minimally effective because they rely partly on LPL-mediated TG clearance.

- **Olezarsen** is FDA-approved as an adjunct to diet to reduce triglycerides in adults with FCS.



Familial Chylomicronemia Syndrome (FCS). https://www.endocrine.org/patient-engagement/endocrine-library/familial-chylomicronemia-syndrome (accessed 2026-07-27).

Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423

Recently FDA-approved Therapies

Recently FDA-approved Therapies

Lerodalcibep-liga

Medication Class: PCSK9 inhibitor

How does it work?

Binds to PCSK9

↓LDLR degradation

More LDLR to clear LDL from the blood

Dose: 300 mg SubQ **monthly** (Self-administered)

Storage: Extended room temperature storage for up to **3 months**

Current role in practice:
Adjunct to diet and exercise to reduce LDL-C in adults with hypercholesterolemia, including HeFH

LIB Therapeutics. *LEROCHOL (Lerodalcibep-Liga) for Injection*; 2024. https://www.lerochol.com/ (accessed 2026-07-28).

Lerodalcibep-liga

Study Results:

ASCVD risk or very high risk for CV event

↓LDL by 60%

Results maintained through week 52

HeFH (inherited high cholesterol)

↓LDL by 50%

Results maintained through week 24

At 1 year, studies showed that over **90%** of people taking lerodalcibep-liga lowered their LDL-C levels down to target.

- Lerodalcibep-liga also helped in lowering **ApoB** by about **46%** and **Lp(a)** by **33%.**

LIBTherapeutics. *LEROCHOL (Lerodalcibep-Liga) for Injection*; 2024. https://www.lerochol.com/ (accessed 2026-07-28).

Olezarsen

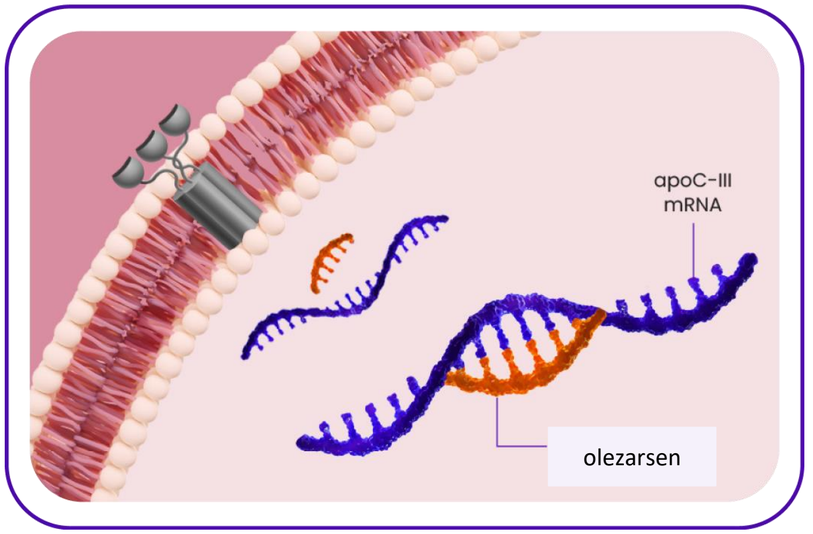
Medication Class: APOC-III-directed antisense oligonucleotide (ASO)

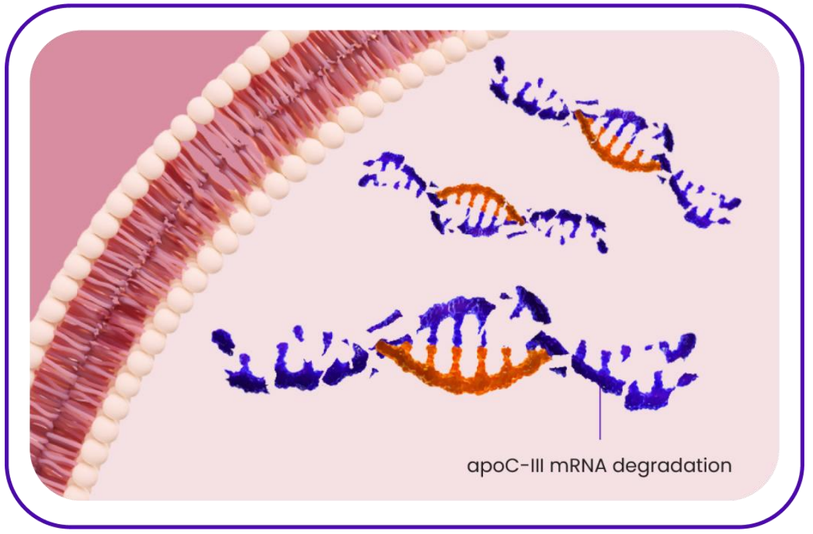
How does it work?

ASO-GalNAc3 conjugate
Targets apoC-iii mRNA

↓apoC-III mRNA
Reduction or apoC-III

↓TG and VLDL
Increased clearance of TG and VLDL





Current role in practice:
Adjunct to a very-low fat diet to reduce TG in adults with FCS **and** to reduce TG and the risk of acute pancreatitis in adults with severe hypertriglyceridemia (TG ≥ to 500 mg/dL)

TRYNGOLZA®. Tryngolza. https://tryngolza.com/fcs/about-tryngolza/how-tryngolza-works (accessed 2026-07-29).

Olezarsen

Phase III trial: genetically confirmed FCS - olezarsen 80 mg (apoC-III antisense oligonucleotide) vs placebo

Triglycerides at 6 months

–43.5%

vs placebo (95% CI −69.1 to −17.9) P<0.001

Pancreatitis events

0.12 **rate ratio**

pooled olezarsen vs placebo (95% CI 0.02–0.66)

~88% fewer

Dose:

- **Adults with FCS:** 80 mg SubQ once monthly
- **Adults with severe hypertriglyceridemia:** 50 mg SubQ once monthly; may increase dose to 80 mg monthly if necessary

TRYNGOLZA®. Tryngolza. https://tryngolza.com/fcs/about-tryngolza/clinical-trial (accessed 2026-07-29).

Enlicitide

Medication Class: First oral PCSK9 inhibitor

How does it work?

Binds to PCSK9

↓LDL-R degradation

More LDL-R to clear LDL from the blood

Current role in practice:
Adjunct to diet and exercise to reduce LDL-C in adults with hypercholesterolemia, including HeFH

The U.S. Food and Drug Administration. *Highlights of Prescribing Information:Lipfendra*. FDA. https://www.merck.com/product/usa/pi_circulars/l/lipfendra/lipfendra_pi.pdf.

Enlicitide

Study Results:

LDL-C reduction after week 24

-56%

Compared to placebo at week 24 (95% CI -61, -51; p<0.001)

LDL-C reduction in adults with HeFH

-59%

Compared to placebo (95% CI: -66, -53; p<0.001)

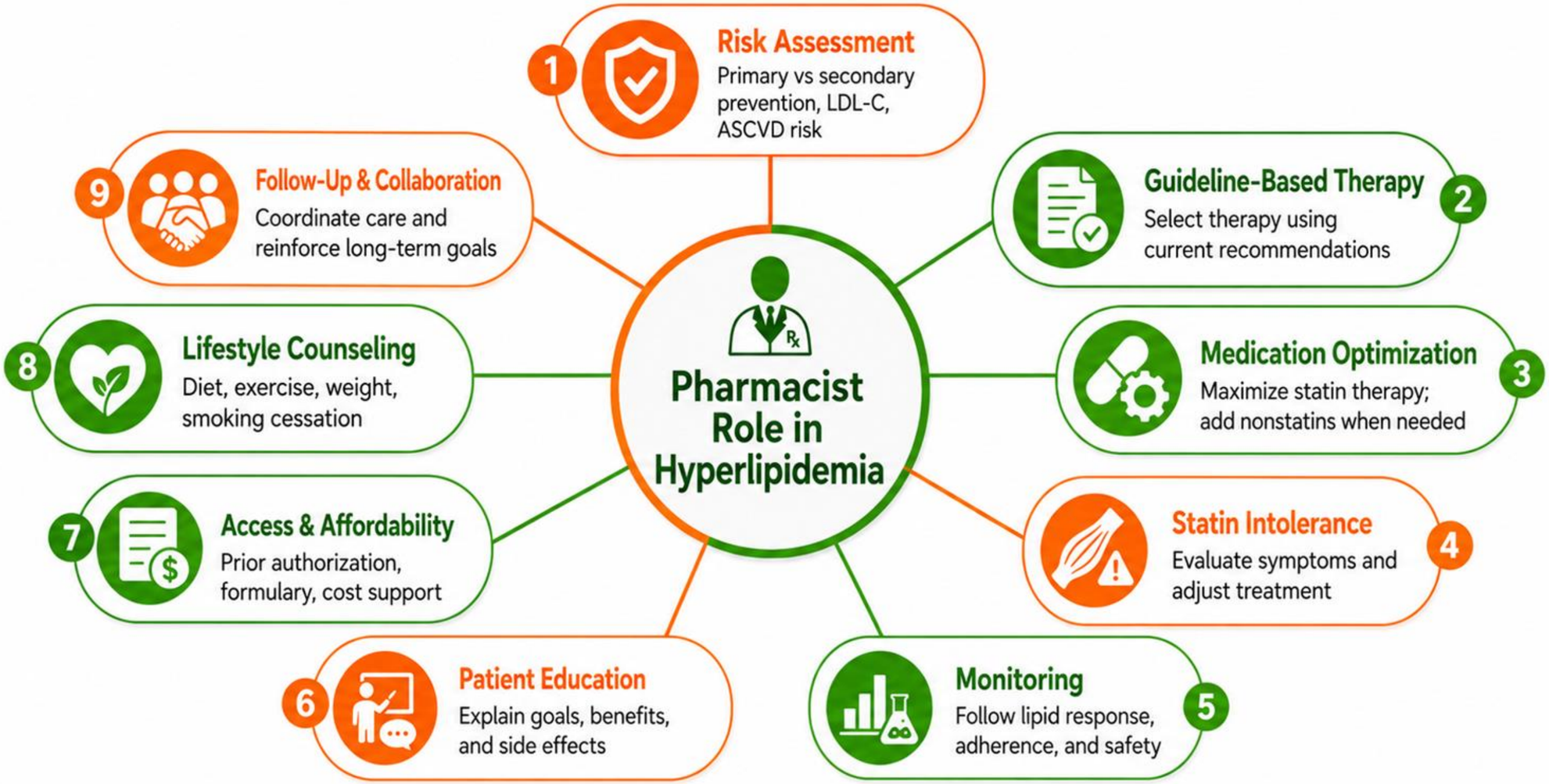
Dose:

- **20 mg tablet taken orally once daily**
- After taking it wait at least 30 min before eating food or drinking beverages other than water, black coffee, or plain tea

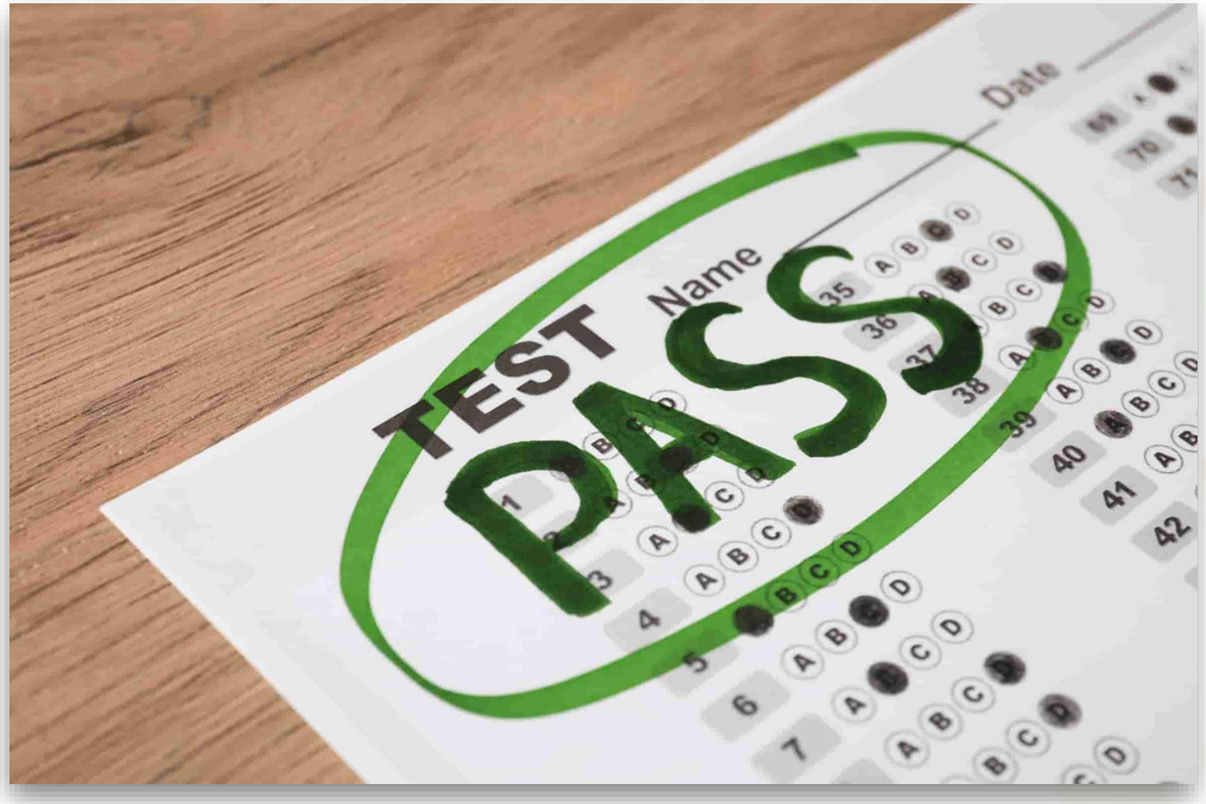
Merck's LIPFENDRA® (enlicitide) is the First and Only Once-Daily Oral PCSK9 Inhibitor Approved by the U.S. FDA to Reduce LDL-C in Adults with Hypercholesterolemia.
Merck.com.https://www.merck.com/news/mercks-lipfendra-enlicitide-is-the-first-and-only-once-daily-oral-pcsk9-inhibitor-approved-by-the-u-s-fda-to-reduce-ldl-c-in-adults-with-hypercholesterolemia/ (accessed 2026-07-28).
Office of the Commissioner. *FDA Approves First Oral PCSK9 Inhibitor to Lower LDL Cholesterol in Adults with High Cholesterol*. U.S. Food and Drug Administration. https://www.fda.gov/news-events/press-announcements/fda-approves-first-oral-pcsk9-inhibitor-lower-ldl-cholesterol-adults-high-cholesterol (accessed 2026-07-28).

Pharmacist Role

Pharmacist Role in Hyperlipidemia Management



Post Test



Question 1

True or False : Low-density lipoproteins (LDL) are considered pro-atherogenic while high-density lipoproteins (HDL) are considered anti-atherogenic.

a. True

a. False

Question 1

True or False : Low-density lipoproteins (LDL) are considered pro-atherogenic while high-density lipoproteins (HDL) are considered anti-atherogenic.

a. True

a. False

Question 2

True or False : The PREVENT-ASCVD equation is now recommended by the newer guidelines instead of the Pooled Cohort Equations (PCE) to help estimate cardiovascular risk in primary prevention.

a. True

a. False

Question 2

True or False : The PREVENT-ASCVD equation is now recommended by the newer guidelines instead of the Pooled Cohort Equations (PCE) to help estimate cardiovascular risk in primary prevention.

a. True

a. False

Question 3

True or False : The use of dietary supplements such as fish oils are effective alternatives for patients with dyslipidemia who do not wish to continue with prescribed lipid-lowering treatment.

a. True

a. False

Question 3

True or False : The use of dietary supplements such as fish oils are effective alternatives for patients with dyslipidemia who do not wish to continue with prescribed lipid-lowering treatment.

a. True

a. False

Question 4

True or False : When patients report muscle symptoms while taking a statin, the first steps are for the clinician to acknowledge the patient's concerns and discontinue the statin without hesitation.

a. True

a. False

Question 4

True or False : When patients report muscle symptoms while taking a statin, the first steps are for the clinician to acknowledge the patient's concerns and discontinue the statin without hesitation.

a. True

a. False

Question 5

True or False : Lerodalcibep-liga is an FDA-approved oral PCSK9 inhibitor given twice weekly to reduce LDL-C in adults with hypercholesterolemia including HeFH.

a. True

a. False

Question 5

True or False : Lerodalcibep-liga is an FDA-approved oral PCSK9 inhibitor given twice weekly to reduce LDL-C in adults with hypercholesterolemia including HeFH.

a. True

a. False

Question 6

True or False : Pharmacists have a role in dyslipidemia management by assessing adherence, identifying drug interactions, educating on possible side effects to treatment, identifying patients who may benefit from therapy intensification, and communicating recommendations to providers.

a. True

a. False

Question 6

True or False : Pharmacists have a role in dyslipidemia management by assessing adherence, identifying drug interactions, educating on possible side effects to treatment, identifying patients who may benefit from therapy intensification, and communicating recommendations to providers.

a. True

a. False

References

1. Pappan N, Awosika AO, Rehman A. Dyslipidemia. [Updated 2024 Mar 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK560891/
2. Dyslipidemia - Hormonal and Metabolic Disorders. (n.d.). In Merck Manual Consumer Version. Retrieved July 20, 2026, from https://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/cholesterol-disorders/dyslipidemia#Causes_v12820467
3. El Colesterol y Salud Cardiovascular – Sociedad Puertorriqueña De Cardiologia. Cardiologiapr.org. https://cardiologiapr.org/uncategorized/el-colesterol-y-salud-cardiovascular/ (accessed 2026-07-29).
4. Pham, H. N.; Ibrahim, R.; Enkhtsogt Sainbayar; Olson, A.; Singh, A.; Khanji, M. Y.; Lee, J.; Somers, V. K.; Wenger, C.; Anwar, C.; Mamas A. Mamas BMBCh. Burden of Hyperlipidemia, Cardiovascular Mortality, and COVID-19: A Retrospective-Cohort Analysis of US Data. Journal of the American Heart Association **2024**. https://doi.org/10.1161/jaha.124.037381.
5. Suárez, E., Marín, H., Mattei, H., Reyes, J. C., Torres, P., Da Luz, I., Santos, E., Pérez, C. (2020). Informe técnico: Estudio de Salud en Puerto Rico 2019 Para la Elaboración del Plan Estratégico 2020-2025 del Departamento de Salud (pp. 1–210). San Juan, PR: Escuela Graduada de Salud Pública.
6. Huff T, Boyd B, Jialal I. Physiology, Cholesterol. [Updated 2023 Mar 6]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470561/
7. Surdu AM, Pînzariu O, Ciobanu DM, et al. Vitamin D and Its Role in the Lipid Metabolism and the Development of Atherosclerosis. Biomedicines. 2021;9(2):172. Published 2021 Feb 9. doi:10.3390/biomedicines9020172
8. Feingold KR. Introduction to Lipids and Lipoproteins. [Updated 2024 Jan 14]. In: Feingold KR, Adler RA, Ahmed SF, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK305896/
9. Pérez-Medina, C., Fisher, E. A., Fayad, Z. A., Mulder, W. J. M., & Teunissen, A. J. P. (2025). Radiolabeling lipoproteins to study and manage disease. European Journal of Nuclear Medicine and Molecular Imaging, 52(12), 4717–4734. https://doi.org/10.1007/s00259-025-07281-4
10. Lipoproteins and Blood Lipids. In: King MW. eds. High-Yield Q & A Review for USMLE Step 1: Biochemistry and Genetics, 2026 Update. McGraw Hill Education; 2025. Accessed June 01, 2026. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3600&sectionid=300492382
11. Blumenthal RS, Morris PB, Gaudino M, et al. 2026 ACC/AHA/AACVPR/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA Guideline on the Management of Dyslipidemia: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. Circulation. 2026;153(17):e1154-e1276. doi:10.1161/cir.0000000000001423
12. American Heart Association, Inc. What is a Lipoprotein(a). American Heart Association. https://www.heart.org/en/health-topics/cholesterol/genetic-conditions/lipoprotein-a.
13. What is Lipoprotein(a) and How Does It Impact My Heart Health? www.goredforwomen.org. https://www.goredforwomen.org/es/health-topics/cholesterol/genetic-conditions/lipoprotein-a-risks (accessed 2026-07-22).
14. Britannica. Atherosclerosis | Pathology; 2019.
15. Kelly MS, Scopelliti E. Dyslipidemia. In: Bethishou L, Bach A, Walsh A. eds. Patient Assessment in Pharmacy. McGraw Hill; 2025. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3555§ionid=294037852
16. The American Heart Association PREVENT™ Online Calculator; 2026. https://professional.heart.org/en/guidelines-and-statements/prevent-calculator#riskreduction (accessed 2026-07-24).
17. American Diabetes Association Professional Practice Committee for Diabetes*; 10. Cardiovascular Disease and Risk Management: Standards of Care in Diabetes—2026. Diabetes Care 1 January 2026; 49 (Supplement_1): S216–S245. https://doi.org/10.2337/dc26-S010
18. Cleveland Clinic. Coronary Artery Calcification: Causes, Symptoms & Treatment; 2022. https://my.clevelandclinic.org/health/diseases/22953-coronary-artery-calcification (accessed 2026-07-26).
19. Dixon DL, Riche DM, Kelly MS. Dyslipidemia. In: DiPiro JT, Yee GC, Haines ST, Nolin TD, Ellingrod VL, Posey L. eds. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 12th Edition. McGraw Hill; 2023. Accessed October 12, 2025. https://accesspharmacy-mhmedical-com.ezproxylocal.library.nova.edu/content.aspx?bookid=3097&sectionid=267225800
20. Bombatch C, Brian S, Davis C, Colley P. Dyslipidemia. In: RxPrep 2023 NAPLEX Course Book. RxPrep, Inc. 2022; 2022:416-427
21. de Bari, Ornella, Neuschwander-Tetri, Brent A., Liu, Min, Portincasa, Piero, Wang, David Q.-H., Ezetimibe: Its Novel Effects on the Prevention and the Treatment of Cholesterol Gallstones and Nonalcoholic Fatty Liver Disease, Journal of Lipids, 2012, 302847, 16 pages, 2012. https://doi.org/10.1155/2012/302847
22. Pokhrel B, Pellegrini MV, Levine SN. PCSK9 Inhibitors. [Updated 2024 Feb 25]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK448100/
23. Dosing and Administration | Repatha® (Evolocumab). https://www.repathahcp.com/dosing-and-administration (accessed 2026-07-27)
24. PRALUENT(R) (Alirocumab) Injection. https://www.praluent.com/s/how-to-use-praluent (accessed 2026-07-27).
25. About NEXLETOL. https://www.nexlizet.com/about-nexletol/ (accessed 2026-07-27).
26. Mechanism of Action | LEQVIO® (Inclisiran) | HCP. https://www.leqviohcp.com/mechanism-of-action (accessed 2026-07-27).
27. Dosing and Administration | LEQVIO® (Inclisiran) | HCP. https://www.leqviohcp.com/dosing-and-administration (accessed 2026-07-27).
28. Rima. Bile Acid Sequestering Agents - BioPharma Notes. BioPharma Notes. Published December 18, 2020. Accessed October 27, 2025. https://biopharmanotes.com/pharmacology-of-bile-acid-sequestering-agents/#google_vignette
29. Familial Chylomicronemia Syndrome (FCS). https://www.endocrine.org/patient-engagement/endocrine-library/familial-chylomicronemia-syndrome (accessed 2026-07-27).
30. LEQVIO (inclisiran) US prescribing information (USPI) updates - American Society for Preventive Cardiology. Aspconline.org. https://www.aspconline.org/news/leqvio-inclisiran-us-prescribing-information-uspi-updates (accessed 2026-07-27).
31. Novartis Twice-Yearly* Leqvio® (Inclisiran) Receives FDA Approval for New Indication Enabling First-Line Use; 2025. https://www.novartis.com/us-en/news/media-releases/novartis-twice-yearly-leqvio-inclisiran-receives-fda-approval-new-indication-enabling-first-line-use (accessed 2026-07-27).
32. Drugs.com. U.S. FDA Approves Broad New Labels for Nexletol and Nexlizet to Prevent Heart Attacks and Cardiovascular Procedures in Both Primary and Secondary Prevention Patients, Regardless of Statin Use. Drugs.com. https://www.drugs.com/newdrugs/u-s-fda-approves-broad-new-labels-nexletol-nexlizet-prevent-heart-attacks-cardiovascular-procedures-6229.html (accessed 2026-07-27).
33. Office of the Commissioner. FDA Approves First Oral PCSK9 Inhibitor to Lower LDL Cholesterol in Adults with High Cholesterol. U.S. Food and Drug Administration. https://www.fda.gov/news-events/press-announcements/fda-approves-first-oral-pcsk9-inhibitor-lower-ldl-cholesterol-adults-
34. FDA. Highlights of Prescribing Information: Redemplo. US Food & Drug Administration. https://www.accessdata.fda.gov/drugsatfda_docs/label/2025/219947s000lbl.pdf (accessed 2026-07-27).
35. LIB Therapeutics. LEROCHOL (Lerodalcibep-Liga) for Injection; 2024. https://www.lerochol.com/ (accessed 2026-07-28).
36. TRYNGOLZA®. Tryngolza. https://tryngolza.com/fcs/about-tryngolza/clinical-trial (accessed 2026-07-29).
37. The U.S. Food and Drug Administration. Highlights of Prescribing Information:Lipfendra. FDA. https://www.merck.com/product/usa/pi_circulars/l/lipfendra/lipfendra_pi.pdf.
38. 39. Merck's LIPFENDRA® (enlicitide) is the First and Only Once-Daily Oral PCSK9 Inhibitor Approved by the U.S. FDA to Reduce LDL-C in Adults with Hypercholesterolemia. Merck.com.https://www.merck.com/news/mercks-lipfendra-enlicitide-is-the-first-and-only-once-daily-oral-pcsk9-inhibitor-approved-by-the-u-s-fda-to-reduce-ldl-c-in-adults-with-hypercholesterolemia/ (accessed 2026-07-28).
39. 40. Office of the Commissioner. FDA Approves First Oral PCSK9 Inhibitor to Lower LDL Cholesterol in Adults with High Cholesterol. U.S. Food and Drug Administration. https://www.fda.gov/news-events/press-announcements/fda-approves-first-oral-pcsk9-inhibitor-lower-ldl-cholesterol-adults-high-cholesterol (accessed 2026-07-28).

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