

Lipid Therapy in Type 2 Diabetes

Please Note: This algorithm is **not** intended for treatment and target selection in children <18 years of age or in women who are or could become pregnant.

- ▶ Obtain a fasting lipid panel in patients with diabetes
 - at diagnosis of diabetes or initial diabetes visit;
 - at least every 5 years if age <40 years, annually after 40; and
 - at initiation of statin therapy and after dosing changes.
- ▶ Provide lifestyle therapy to all patients with diabetes (individualized nutrition therapy, physical activity, and weight loss guidance).
- ▶ Evaluate for statin therapy
 - Secondary Prevention:
 - **Prescribe high intensity statin therapy for patients with diabetes and ASCVD¹.**
 - Primary Prevention:
 - **Use the following table to guide statin therapy and dosing for people with diabetes and no ASCVD diagnosis.**
 - Evaluate ASCVD risk factors **independent of diabetes².**
 - Calculate 10-year ASCVD risk for patients aged 40-75 years using the ASCVD Risk Estimator Plus at <https://tools.acc.org/ASCVD-Risk-Estimator-Plus/#!/calculate/estimate/>.

Age	ASCVD ¹ Risk	Statin Therapy
<40 years	None	None
	One or more ASCVD risk factors ²	Moderate or High Intensity ³
40-75 years	None or 10-year ASCVD risk <5%	Moderate Intensity
	One or more ASCVD risk factors ² or 10-year ASCVD risk 5-20%	Moderate or High Intensity ³
	10-year ASCVD risk >20%	High Intensity ⁴
>75 years	Individualize ASCVD risk assessment ⁵	Moderate or High Intensity

1 ASCVD (atherosclerotic cardiovascular disease) is atherosclerosis affecting the vasculature that results in diseases of any of the following: heart (e.g. myocardial infarction, angina), the brain (e.g., stroke, transient ischemic attack), and the lower extremities (e.g peripheral artery disease, limb ischemia).

2 ASCVD Risk Factors **independent of diabetes** include: LDL cholesterol ≥ 100 mg/dL, smoking, hypertension, chronic kidney disease, albuminuria, or family history of premature ASCVD.

3 Consider high intensity statin therapy if multiple ASCVD risk factors.

4 Consider adding ezetimibe to maximally tolerated statin if ASCVD risk >20% to reduce LDL cholesterol by 50% or more from baseline.

5 Use of statin therapy for primary prevention of ASCVD in patients aged >75 years should include careful consideration of the potential risks of adverse drug events versus benefit of therapy.

Reference: American Diabetes Association Clinical Practice Recommendations

Statin Medications	Moderate Intensity Dose	High Intensity Dose
Atorvastatin	10-20 mg	40-80 mg
Rosuvastatin	5-10 mg	20-40 mg
Simvastatin	20-40 mg	Not applicable
Pravastatin	40-80 mg	Not applicable

Note: All statins are dosed daily.

Other statins include fluvastatin, lovastatin, pitavastatin (*Livalo*).

Contraindications: acute liver disease, pregnancy, nursing mothers

Safety and monitoring: Check liver function tests before initiating therapy; routine monitoring not necessary.

Statin intolerance: Usually due to side effect, such as myalgias. Consider trying a different statin. If unable to tolerate daily statin, there may still be benefit from a lower dose or less frequent dosing.

Combination therapy: In patients with ASCVD and very high risk with an LDL cholesterol ≥ 70 mg/dL on a maximally tolerated statin, consider the addition of **ezetimibe** 10 mg daily and/or a PCSK9 inhibitor to further reduce the risk of cardiovascular events.

- Evolocumab (*Repatha*) 140 mg SC every two weeks or 420 mg SC monthly
- Alirocumab (*Praluent*) 75-150 mg SC every two weeks or 300 mg SC monthly

Managing Elevated Triglycerides (>150 mg/dL)

- Ensure optimal blood glucose control; identify and address any secondary causes (e.g., high fat and/or high carbohydrate diet, hypothyroidism, excessive alcohol use, and medications).
- Consider initiating or increasing statin therapy when triglyceride levels >150 mg/dL to ≤ 500 mg/dL.
- Consider additional lipid lowering medications to reduce risk of pancreatitis if triglycerides ≥ 500 mg/dL (especially if $\geq 1,000$ mg/dL).
 - Fenofibrate 120-160 mg daily
 - Omega 3 fatty acid 2 g bid
 - Icosapent ethyl (*Vascepa*) 2 g bid

Aspirin Therapy in Type 2 Diabetes

Secondary Prevention: Patients with a history of ASCVD should receive **aspirin** 75-162 mg daily if it is not contraindicated. If allergic to aspirin, consider **clopidogrel** 75 mg daily.

Primary Prevention: Consider **aspirin** 75-162 mg daily in patients with increased risk of ASCVD (e.g., age 50-70 years and one or more ASCVD risk factors) if they are not at increased risk of bleeding.

Aspirin is not recommended in patients at lower risk of ASCVD (e.g., age <50 years with no other ASCVD risk factors). Aspirin is not generally recommended in those aged >70 years due to increased bleeding risk.

Medications on the IHS National Core Formulary are in **BOLD** above.

Please consult a complete prescribing reference for more detailed information. No endorsement of specific products is implied.