Lipid Management in Endocrine Disorders

Cardiovascular risk assessment and lipid-lowering therapy across the spectrum of endocrine disease.

2020 Endocrine Society
Lipid Management in Endocrine Disorders Guideline
Newman et al. · JCEM 2020;105:3613–3682

GRADE — 1 · Strong For | 2 · Suggest For | 2- · Suggest Against | Ungraded / Best Practice

1 Screening & Risk Assessment

1 — Obtain a **lipid panel** (TG + calculated LDL-C) in all adults with endocrine disorders — non-fasting acceptable initially; repeat fasting if TG elevated or genetic dyslipidemia suspected. **Calculate 10-yr ASCVD risk** (Pooled Cohort Equations) in all.

2 — If **borderline/intermediate risk** (5–19.9%) and treatment decision is uncertain, measure **coronary artery calcium (CAC)** score to guide shared decision-making. Measure **Lp(a)** if personal/family history of premature ASCVD or high Lp(a) — ≥50 mg/dL enhances risk (check once, not repeated).

2 Hypertriglyceridemia

1 — Start **pharmacologic therapy** (adjunct to diet/exercise) if fasting **TG >500 mg/dL**, to prevent pancreatitis. In TG-induced pancreatitis, **against** routine insulin infusion or acute plasmapheresis (use insulin only if diabetes is uncontrolled).

2 — If on a statin with TG persistently >150 mg/dL and ASCVD or diabetes + 2 risk factors, add **EPA ethyl ester 4 g/d** (fibrate if unavailable). Check TG before/after starting a bile acid sequestrant — contraindicated if TG >500.

3 Condition-Specific Management

CONDITION	KEY RECOMMENDATIONS
Type 2 Diabetes	Statin + lifestyle if additional CV risk factors (LDL goal <70; <55 if established ASCVD/multiple risk factors); statin **regardless of risk score** if CKD stages 1–4/post-transplant (adjust renally-cleared statins) or diabetic retinopathy (add fenofibrate)
Type 1 Diabetes	Statin **regardless of risk score** if age ≥40y, and/or duration >20y, and/or microvascular disease, CKD 1–4, obesity/high TG–low HDL, or retinopathy — LDL is the primary target (consider therapy if >70 mg/dL)
Obesity	Assess metabolic syndrome & fat distribution (GPS); lifestyle first-line for TG; calculate 10-yr ASCVD risk to guide lipid therapy; reassess lipids after 5% weight loss, on weight-loss medication, and 1–3 months post-bariatric surgery
Thyroid Disease	Rule out hypothyroidism before starting lipid-lowering meds; avoid treating hyperlipidemia until euthyroid in overt hypothyroidism; consider L-T4 if subclinical (TSH <10) with hyperlipidemia; recheck lipids once euthyroid after hyperthyroidism
Cushing Syndrome / Chronic GC	Monitor lipids at diagnosis + periodically; statin if persistent endogenous CS (irrespective of risk score); treat per general-population guidelines once cured; assess/treat lipids on chronic supraphysiologic glucocorticoid therapy
GH Disorders	Lipid profile at GHD diagnosis, treat if hypopituitary; **against** GH replacement solely to lower LDL; lipid profile before/after treating acromegaly
PCOS	Fasting lipid panel at diagnosis; **against** lipid-lowering therapy solely for hyperandrogenism or infertility
Menopause	Statin — not hormone therapy — for dyslipidemia; statin if on hormone therapy + other CV risk factors; treat lipids/CV risk if early menopause (<40–45y)
Hypogonadism	Testosterone only for symptoms, **not** to treat dyslipidemia/CV risk; investigate anabolic steroid abuse if low HDL without hypertriglyceridemia
Gender-Affirming Therapy	Assess cardiovascular risk using standard (nontransgender) guidelines

Remember — High-intensity statins for established ASCVD or risk-enhancing factors; avoid statins in pregnancy/those trying to conceive; in patients >75y, weigh risk, prognosis, and polypharmacy before starting or continuing.

Newman CB, Blaha MJ, Boord JB, et al. Lipid Management in Patients with Endocrine Disorders: An Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab.* 2020;105(12):3613–3682.