



Rafael González-Manzanares, MD, PhD.

Department of Cardiology, Hospital Universitario Reina Sofía (Córdoba, Spain).
Instituto Maimónides de Investigación Biomédica (IMIBIC) (Córdoba, Spain).

Cardiovascular risk assessment in people with diabetes



Atherosclerotic cardiovascular disease is the leading cause of death in people with diabetes (1). In essence, atherosclerosis consists of the progressive deposition of cholesterol within the arterial walls. Although this process is initially silent, it may eventually lead to symptoms such as angina or even myocardial infarction or stroke. Alongside atherosclerosis, the other major cardiovascular complication of diabetes is heart failure, a condition in which the heart loses its ability to pump blood efficiently to organs and tissues (2). When any of these complications develops in people with diabetes, impaired kidney function is also frequently present, giving rise to the concept of the cardiovascular-kidney-metabolic syndrome to describe this closely interconnected triad of diseases (3).

These complications do not affect all people with diabetes equally. Their development depends largely on glycemic control and on the presence of other concomitant cardiovascular risk factors, including hypertension, dyslipidemia, smoking, and obesity. Therefore, early and systematic identification and treatment of these factors are the cornerstone of cardiovascular prevention in diabetes.

» The 2026 American Diabetes Association clinical practice guidelines (*Standards of Care in Diabetes—2026, ADA 2026*) devote a specific chapter to the management of cardiovascular disease and its risk factors.¹ This article summarizes the main recommendations, ranging from blood pressure and lipid management to the emerging role of certain glucose-lowering drugs with demonstrated cardiovascular benefit.

HYPERTENSION: TARGETS AND TREATMENT

Hypertension is one of the most prevalent modifiable cardiovascular risk factors in people with diabetes and one of those with the greatest impact on cardiovascular and renal prognosis. The ADA 2026 guidelines recommend measuring blood pressure at every routine clinical visit or at least every 6 months. Hypertension is diagnosed when systolic blood pressure is ≥ 130 mmHg or diastolic blood pressure is ≥ 80 mmHg, based on the average of multiple measurements obtained on different occasions.

Treatment targets should be individualized through shared decision-making between the health care professional and the patient. The general target is **<130/80** mmHg. In people at high cardiovascular risk in whom it can be achieved safely, a systolic blood pressure target < 120 mmHg may be considered, while carefully balancing the benefits in terms of cardiovascular events against potential risks such as hypotension, dizziness, or syncope.

Lifestyle interventions are the first step and include weight loss when indicated, a DASH-style diet low in sodium and rich in fruits, vegetables, and low-fat dairy products, limiting alcohol consumption, and increasing physical activity.

When blood pressure exceeds 130/80 mmHg, pharmacological treatment should be added. Angiotensin-converting enzyme inhibitors (ACEi) and angiotensin II receptor blockers (ARBs) are recommended as first-line therapy, particularly in patients who also have coronary artery disease or albuminuria. Albu-

minuria is defined as increased urinary protein excretion and is an early marker of kidney damage that can be readily detected on urine testing. Additional drugs are often required to achieve the target, and fixed-dose combinations are available. In general, adding a second drug is preferable to increasing an ACEi or ARB to the maximum dose because this improves efficacy and reduces the risk of adverse effects. The concomitant use of an ACEi and an ARB is contraindicated.

In resistant hypertension, defined as uncontrolled blood pressure despite 3 drugs at appropriate doses, including a diuretic, the addition of a mineralocorticoid receptor antagonist (MRA) is recommended, with close monitoring of serum potassium and renal function.

LIPID MANAGEMENT: STATINS, TARGETS, AND BEYOND

The starting point is to obtain a complete lipid profile at the time of diabetes diagnosis and monitor it regularly: 4-12 weeks after initiating or modifying treatment and annually thereafter. Moreover, lifestyle interventions play an important complementary role and include a Mediterranean or DASH diet, reduction of saturated and trans fats, increased intake of omega-3 fatty acids and fiber, weight loss when appropriate, and regular physical exercise.

The ADA 2026 guidelines distinguish between 2 scenarios with different recommendations: primary prevention, in people without previous cardiovascular disease, and **secondary prevention**, in those with established cardiovascular disease.

For primary prevention in people with diabetes aged 40-75 years, the usual recommendation is to initiate a moderate-intensity statin. These drugs reduce hepatic LDL cholesterol production and can lower LDL cholesterol levels by approximately 40%. If multiple additional cardiovascular risk factors are present, escalation to a **high-intensity statin** is recommended, with an LDL reduction of

at least 50% and a target LDL cholesterol level <70 mg/dL.

In secondary prevention, the standard is more intensive: high-intensity statin therapy, with the aim of reducing LDL cholesterol by at least 50% from baseline and achieving an **LDL cholesterol level <55 mg/dL**. If this threshold is not reached with the maximum tolerated statin dose, ezetimibe, which reduces intestinal cholesterol absorption, or a PCSK9 inhibitor, a class of monoclonal antibodies that enhances hepatic LDL clearance, should be added.

In patients with statin intolerance, bempedoic acid or PCSK9-targeted therapies are valid alternatives. In people at high cardiovascular risk with persistently elevated triglycerides between 150 mg/dL and 499 mg/dL despite statin therapy, the addition of icosapent ethyl may be considered.

A frequent question among patients is whether statins “cause diabetes.” The available data are reassuring: it is estimated that for every 255 people treated for 4 years, 1 additional case of diabetes would occur, whereas 5 major vascular events would be prevented in the same group.⁴ The benefit-risk balance is therefore clearly favorable.

ANTIPLATELET THERAPY: WHEN AND FOR WHOM

Antiplatelet drugs reduce the tendency of platelets to aggregate and form clots within the arteries, thereby lowering the risk of myocardial infarction and stroke. Their most established role is in secondary prevention: acetylsalicylic acid (aspirin) at a dose of 75-162 mg/day is the standard recommendation in people with diabetes and established cardiovascular disease. In patients with documented aspirin allergy, clopidogrel 75 mg/day is the recommended alternative.

In primary prevention, the situation is more controversial. Aspirin may be considered in patients at high cardiovascular risk and low **bleeding risk**, but only after an individualized discussion of the bene- »

» Fits and risks, particularly the increased risk of gastrointestinal bleeding. Therefore, routine use is not recommended, although this was common practice until relatively recently.

In people with peripheral artery disease or stable coronary artery disease, the ADA 2026 guidelines consider the combination of aspirin and low-dose rivaroxaban, a direct oral anticoagulant, to reduce the risk of major cardiovascular events and ischemic limb complications.

DRUGS WITH CARDIOVASCULAR BENEFIT: BEYOND GLYCEMIC CONTROL

The ADA 2026 guidelines emphasize that the treatment of type 2 diabetes can no longer be limited to glycemic control. Two classes of glucose-lowering drugs have demonstrated direct cardiovascular benefits in recent years that are independent of their glucose-lowering effects, substantially transforming the therapeutic paradigm.

Sodium-glucose cotransporter 2 **inhibitors (SGLT2i)**, also known as gliflozins, act by promoting urinary glucose excretion, whereas

glucagon-like peptide-1 receptor **agonists (GLP-1 RAs)** modulate insulin secretion and reduce appetite. These drugs are now central to the treatment of people with type 2 diabetes mellitus who have established cardiovascular disease, multiple cardiovascular risk factors, or chronic kidney disease (CKD). In these settings, their use is based not only on their ability to lower glucose but also on their demonstrated capacity to reduce major adverse cardiovascular events.

In the context of heart failure, diabetes significantly increases the risk of developing the condition and worsens its prognosis. SGLT2i are strongly recommended in people with type 2 diabetes mellitus and heart failure, whether systolic function is reduced or preserved, because they improve symptoms, reduce hospitalizations, and lower cardiovascular mortality. In people with heart failure with preserved ejection fraction and coexisting obesity, GLP-1 RAs or therapies with dual activity at the GIP and GLP-1 receptors are also recommended options. Finerenone, a nonsteroidal mineralocorticoid receptor antagonist, is indicated to reduce the risk of hospitalization for heart failure in people with type 2 diabetes mellitus and CKD with significant albuminuria (**Table 1**). »

THERAPEUTIC AREA	KEY RECOMMENDATION
Hypertension	ACE inhibitor or ARB as first-line therapy at the maximum tolerated dose, particularly in the presence of albuminuria or reduced eGFR. Add an MRA for resistant hypertension (3 drugs including a diuretic). General BP target <130/80 mmHg, with a systolic BP target < 120 mmHg considered in selected cases.
Lipids, primary prevention (age 40-75 years without ASCVD)	Moderate-intensity statin as initial therapy; escalate to high-intensity statin with an LDL cholesterol target <70 mg/dL in patients with multiple risk factors. Do not add fibrates, niacin, or omega-3 supplements to statin therapy.
Lipids, secondary prevention (established ASCVD)	High-intensity statin with an LDL cholesterol target < 55 mg/dL; add ezetimibe or a PCSK9 inhibitor if the target is not achieved.
Antiplatelet therapy	Secondary prevention: ASA 100 mg/day (clopidogrel 75 mg/day in patients with ASA allergy). In PAD or stable ischemic heart disease with low bleeding risk: ASA + rivaroxaban 2.5 mg every 12 hours. Primary prevention: ASA only in patients at high cardiovascular risk and low bleeding risk, after individualized assessment.
SGLT2i and/or GLP-1 RAs	Recommended in type 2 diabetes mellitus with established ASCVD, multiple cardiovascular risk factors, or CKD, regardless of HbA1c level.
Heart failure (HF) with reduced or preserved EF	SGLT2i with demonstrated benefit in reducing worsening heart failure and cardiovascular death.
HF with preserved EF and obesity	Add a dual GIP/GLP-1 receptor agonist or GLP-1 RA with demonstrated benefit in heart failure symptoms and events.
HF with EF > 40% or CKD with albuminuria	Nonsteroidal MRA (finerenone) to reduce worsening heart failure and progression of CKD.
ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin II receptor blocker; ASA, acetylsalicylic acid; ASCVD, atherosclerotic cardiovascular disease; BP, blood pressure; CKD, chronic kidney disease; EF, ejection fraction; eGFR, estimated glomerular filtration rate; GIP, glucose-dependent insulintropic polypeptide; GLP-1 RA, glucagon-like peptide-1 receptor agonist; HbA1c, glycated hemoglobin; LDL, low-density lipoprotein; MRA, mineralocorticoid receptor antagonist; PAD, peripheral artery disease; SGLT2i, sodium-glucose cotransporter 2 inhibitor.	

TABLE 1. Key pharmacological recommendations by therapeutic area (ADA 2026)

» Regarding screening for asymptomatic cardiovascular disease, the guidelines do not recommend routine screening for coronary artery disease in asymptomatic patients when risk factors are already being treated intensively. However, measurement of the cardiac biomarkers BNP or NT-proBNP, peptides released by the heart under conditions of over-

load or injury, is recommended to identify early stages of heart failure before symptoms develop. The ankle-brachial index, calculated as the ratio between blood pressure measured at the ankle and the arm and used to detect narrowing of lower-extremity arteries, is recommended in people aged > 65 years or in those with target-organ damage. **D**

CONCLUSIONS

1. Cardiovascular disease is the leading cause of death in people with diabetes, and its prevention requires simultaneous management of all modifiable risk factors.
2. The blood pressure target is < 130/80 mmHg, with ACE inhibitors or ARBs as first-line treatment, particularly when albuminuria is present; in selected high-risk patients, an even stricter systolic blood pressure target may be considered.
3. Statins are the standard lipid-lowering therapy, with LDL cholesterol targets varying according to the presence of established cardiovascular disease or other cardiovascular risk factors.
4. Aspirin is not routinely recommended for primary prevention, and its use should be individualized by balancing cardiovascular risk against bleeding risk.
5. SGLT2i and GLP-1 RAs with demonstrated cardiovascular benefit are an essential part of the treatment of type 2 diabetes in people with cardiovascular or renal disease, regardless of glycemic control.

THE RISK
OF NEW-ONSET
DIABETES
WITH STATINS
IS MINIMAL
COMPARED
WITH THE
CARDIOVASCULAR
PROTECTION
THEY PROVIDE:
FOR EVERY
ADDITIONAL CASE
OF DIABETES,
MORE THAN
5 MAJOR
VASCULAR
EVENTS ARE
PREVENTED

REFERENCES

1. American Diabetes Association Professional Practice Committee. 10. Cardiovascular Disease and Risk Management: Standards of Care in Diabetes-2026. Diabetes Care. 2026;49(Suppl 1):S216-S245. doi:10.2337/dc26-S010
2. Gonzalez-Manzanares R. Insuficiencia Cardíaca y Diabetes Mellitus: comprendiendo esta estrecha relación y el nuevo paradigma de tratamiento. Revista Diabetes [Internet]. Disponible en: <https://www.revistadiabetes.org/complicaciones/insuficiencia-cardiaca-y-diabetes-mellitus-comprendiendo-esta-estrecha-relacion-y-el-nuevo-paradigma-de-tratamiento/>
3. Casas A, Broseta JJ, Marqués M, Cigarrán S, Julián JC, Alcázar R, Ortiz A. La definición del síndrome cardiovascular-reno-metabólico (cardiovascular-kidney-metabolic syndrome) y su papel en la prevención, estratificación del riesgo y tratamiento. Una oportunidad para la Nefrología. Nefrología. 2024;44(6):769-920. doi:10.1016/j.nefro.2024.05.001
4. Sattar N, Preiss D, Murray HM, Welsh P, Buckley BM, de Craen AJ, et al. Statins and risk of incident diabetes: a collaborative meta-analysis of randomised statin trials. Lancet. 2010;375(9716):735-42. doi:10.1016/S0140-6736(09)61965-6