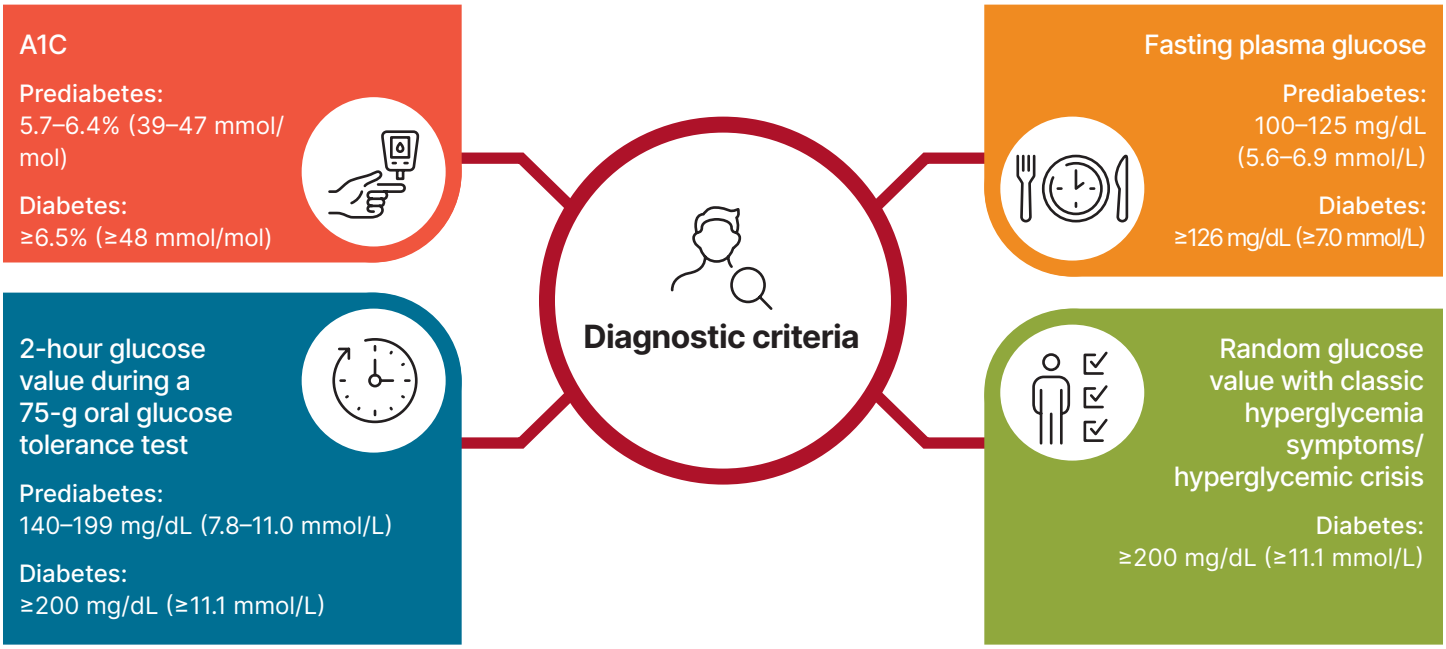
Section 2:

Diagnosis and Classification of Diabetes

Diagnostic Tests for Diabetes



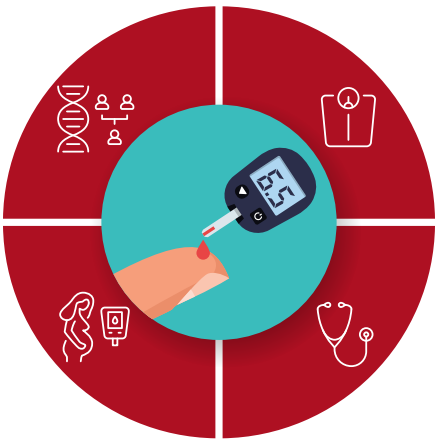
- There is insufficient evidence to support the use of continuous glucose monitoring for screening or diagnosing prediabetes or diabetes.
- In the absence of unequivocal hyperglycemia (e.g., hyperglycemic crisis), diagnosis of type 2 diabetes requires confirmatory testing, which can be a different test on the same day or the same test on a different day.
- Marked discordance between A1C and repeated blood glucose measurements should raise the possibility of a problem or interference with either test.

Classification

Classification of diabetes type is not always straightforward at presentation, and misdiagnosis is common.

Type 1 diabetes (idiopathic or autoimmune β-cell destruction)

Gestational diabetes mellitus (GDM; detected at 24–28 weeks of gestation in individuals without previously identified diabetes or high-risk glucose metabolism)



Type 2 diabetes (non-autoimmune progressive loss of adequate β-cell insulin secretion frequently on the background of insulin resistance and metabolic syndrome)

Diabetes from other causes (e.g., monogenic diabetes syndromes, diseases of the exocrine pancreas, and drug- or chemical-induced diabetes)

Suggested citation: American Diabetes Association Primary Care Advisory Group. 2. Diagnosis and classification of diabetes: *Standards of Care in Diabetes—2024* abridged for primary care professionals. Clin Diabetes 2024;42:183–185 (doi: 10.2337/cd24-a002)

Screening Criteria for Prediabetes and Type 2 Diabetes:

Screening for prediabetes and type 2 diabetes should be performed in asymptomatic adults with an informal assessment of risk factors or a validated risk calculator.

Informal Risk Factor Assessment for Prediabetes and Type 2 Diabetes

Adults (≥18 years of age) with overweight or obesity (BMI ≥25 kg/m^2 or ≥23 kg/m^2 in Asian American individuals) who have one or more of the following risk factors:

- First-degree relative with diabetes
- High-risk race/ethnicity
- History of cardiovascular disease
- Hypertension (≥130/80 mmHg or on therapy for hypertension)
- Polycystic ovary syndrome
- HDL cholesterol <35 mg/dL (<0.9 mmol/L) and/or triglycerides >250 mg/dL (>2.8 mmol/L)
- Physical inactivity
- Other clinical conditions associated with insulin resistance

Clinical Notes

- If results are normal, repeat screening at least every 3 years (annually for those with prediabetes), or sooner with symptoms or changes in risk.
- Risk-based screening for prediabetes or type 2 diabetes should be considered after the onset of puberty or after 10 years of age, whichever occurs earlier, in children and adolescents with overweight (BMI ≥85th percentile) or obesity (BMI ≥95th percentile) who have one or more risk factors for diabetes.

Additional Screening Guidelines

Condition	Clinical Tips	Best Test
An altered relationship between A1C and glycemia	A mismatch between A1C and glycemia could be caused by some hemoglobin variants, pregnancy (second and third trimesters and the postpartum period), glucose-6-phosphate dehydrogenase deficiency, HIV, hemodialysis, recent blood loss or transfusion, anemia, or erythropoietin therapy. People with HIV should be screened for diabetes and prediabetes before and 3–6 months after starting or changing antiretroviral therapy, and annually if initial results are normal.	Fasting plasma glucose
Acute pancreatitis	Screen for diabetes 3-6 months after an episode of acute pancreatitis and annually thereafter.	Any standard test for diagnosing diabetes
Cystic fibrosis	Annual screening should begin by the age of 10 years in all people with cystic fibrosis not previously diagnosed with cystic fibrosis-related diabetes	Oral glucose tolerance test
Posttransplantation status	Screen for hyperglycemia after organ transplantation. Posttransplantation diabetes mellitus should be diagnosed when the individual is stable on immunosuppressive therapy and free of acute infections.	Oral glucose tolerance test
Possible monogenic diabetes	Suspect monogenic diabetes in people diagnosed with diabetes in the first 6 months of life and in children and young adults with atypical characteristics of type 1 or type 2 diabetes, who often have a family history of diabetes in successive generations (suggestive of an autosomal dominant pattern of inheritance).	Any standard test for diagnosing diabetes plus appropriate genetic testing
Therapy with certain medications	Consider screening people for prediabetes or diabetes if they are on certain medications known to increase diabetes risk, such as glucocorticoids, statins, thiazide diuretics, some HIV medications, and second-generation antipsychotic medications.	Any standard test test for diagnosing diabetes