

Diagnosis of Diabetes

1. Symptoms of diabetes plus "casual" plasma glucose (PG) value ≥ 11.1 mmol/L. Casual is defined as any time of the day without regard to time since last meal. The classic symptoms of diabetes include fatigue, polyuria, polydipsia, and unexplained weight loss.
OR
2. A fasting plasma glucose (FPG) ≥ 7.0 mmol/L. Fasting is defined as no calorie intake for at least 8 hours.
OR
3. The PG value in the 2-hour sample of the 75g OGTT is ≥ 11.1 mmol/L.
OR
4. A1C $\geq 6.5\%$.

Confirmatory Test

In the absence of unequivocal hyperglycemia with acute symptoms, values above these criteria must be confirmed by a second test on a different day.

Glucose levels for diagnosis

Category	A1C	FPG mmol/L	PG 1 hr after 75g glucose load mmol/L	PG 2 hr after 75 g glucose load, mmol/L
Prediabetes	6.0 - 6.4%	6.1-6.9 (IFG)	N/A	7.8-11.0 (IGT)
Diabetes Mellitus (DM)	$\geq 6.5\%$ (type 2)	≥ 7	N/A	≥ 11.1
Gestational Diabetes (GDM)*		≥ 5.3	≥ 10.6	≥ 9.0

*Screen at 24 to 28 weeks gestation with a 50g oral glucose challenge (earlier in high risk patients).

- If ≥ 11.1 mmol/L, GDM is present and the 75g OGTT is unnecessary.
- If 7.8-11.0 mmol/L, a 75g OGTT is recommended. If one of the following values is met or exceeded (with a 75g OGTT), GDM is present.
 - FPG ≥ 5.3
 - 1 hr PG ≥ 10.6
 - 2 hr PG ≥ 9.0

Targets for Good Diabetes Control

Glycated Hemoglobin (HbA1c): Measure every 3 to 6 months, preferably every 3 months if not at target. Target for most patients: $\leq 7.0\%$
 Alternate target (consider for patients in whom it can be achieved safely) $\leq 6.5\%$
 Glycemic targets should be individualized based on age, duration of diabetes, risk of hypoglycemia, life expectancy and history of cardiovascular disease.

Blood glucose: Optimal glucose control in adults and children over age 12

- Fasting or AC 4-7mmol/L
- 1 or 2 hour PC 5-10 mmol/L (5-8 mmol/L for optimal control)

Lipids: Measure fasting at diagnosis and repeat every 1 to 3 years as clinically indicated

Primary target LDL-C ≤ 2.0 mmol/L

ECG at baseline and every 2 years in patients:

- Age > 40 years • Duration of diabetes >15 years and age > 30 years. • End organ damage • Cardiac risk factors

Blood pressure: Measure at diagnosis and every 3 to 4 months thereafter unless otherwise indicated

- BP in people with DM <130/80

Screening for Diabetic Nephropathy using a random urine albumin to creatinine ratio

- Type 1 diabetes - annually after puberty in those with diabetes of ≥ 5 years' duration
- Type 2 diabetes - at diagnosis and then annually
- Serum creatinine levels (should be measured) and a GFR annually in those patients with diabetes without albuminuria and at least every 6 months in those with albuminuria

Annual foot examination for all people with diabetes, starting at puberty. Those at higher risk for foot problems (previous ulceration, neuropathy, structural deformity, peripheral vascular disease and/or microvascular complications) may require more frequent foot examinations.

- Type 1 diabetes - annually after 5 years duration of Type 1 in post-pubertal individuals
- Type 2 diabetes - annually

Retinal Eye examination

- Type 1 diabetes - annually 5 years after the onset of diabetes in individuals ≥ 15 years of age
- Type 2 diabetes - at diagnosis and then every 1 to 2 years