



HbA1c VS Fasting Glucose: What Your Blood Test Results Mean

A patient guide to understanding your diabetes blood tests.

When your doctor wants to diagnose prediabetes or Type 2 Diabetes, they check your blood sugar level. Fasting Plasma Glucose (FPG) and Haemoglobin A1c (HbA1c) are the two main diagnostic tests.

While both tests measure blood sugar levels, they do so in different ways:

- FPG is a single snapshot; it shows your blood sugar at a specific time
- HbA1c is the average blood sugar over the past 3 months.



How do doctors diagnose Type 2 diabetes?

Prediabetes or early type 2 diabetes often don't show noticeable symptoms. That is why healthcare providers recommend routine blood sugar testing from age 35.

To diagnose type 2 diabetes, you must have 2 blood tests showing a high level of sugar in your blood. These can be 2 different tests taken on the same day, such as FPG and HbA1c, or the same test repeated on a different day.

What is Fasting Plasma Glucose (FPG)?

FPG is a blood test that measures the sugar level in your blood plasma, the liquid part of your blood. It gives a single reading at the time of the blood draw.

- Preparation: Fast for at least 8 hours before the test, with no food or drink except water.
- What your numbers mean:
 - ➔ Normal: Less than 5.6 mmol/L
 - ➔ Prediabetes: 5.6 to 6.9 mmol/L
 - ➔ Diabetes: Equal to or more than 7.0 mmol/L

FPG is a single test at a specific time, so factors such as physical activity, stress, or illness on the morning of the test can raise or lower glucose levels, which affect the results.

What is Haemoglobin A1c (HbA1c)?

Sugar attaches to haemoglobin, a protein inside your red blood cells, which live for 2 to 3 months. This test measures your average blood sugar over those 2 to 3 months. This makes HbA1c more stable and reliable over time than FPG.

- Preparation: HbA1c doesn't require fasting; you can have it at any time of day.
- What your numbers mean:
 - ➔ Normal: under 5.7%
 - ➔ Prediabetes: 5.7% to 6.4%
 - ➔ Diabetes: 6.5% or higher

When HbA1c is not accurate: In certain health conditions, such as pregnancy, anaemia, kidney failure, or a recent blood transfusion. In these cases, doctors will use FPG to diagnose and assess your blood sugar risk.

Comparing Both Tests:

Feature	Fasting Plasma Glucose (FPG)	Haemoglobin A1c (HbA1c)
Fasting	Yes (8 hours)	No fasting needed
Time Frame Measured	Single moment (snapshot)	2 to 3 months average
Day-to-day Stability	Changes with stress, sleep or illness	Very stable from day to day
Prediabetes Range	5.6–6.9 mmol/L	5.7% to 6.4%
Diabetes Range	7.0 mmol/L or higher	6.5% or higher

How can you improve your test results?

Small, consistent lifestyle habits can lower both test results:



Eating healthy

Choose nutrient-rich patterns such as the Mediterranean or low-carbohydrate diets to reduce blood sugar spikes.



Regular Exercise

Aim for at least 150 minutes of moderate activity per week (such as walking, cycling, or light resistance training).



Digital Tracking

Use smartphone health-tracking apps or digital logs to monitor daily meals, physical activity, and glucose trends.



Take Medications

If your doctor prescribes a blood-sugar-lowering medication, take it consistently.

Questions to Ask Your Doctor at Your Next Visit:

- Do my lab results show normal, prediabetes, or diabetes blood sugar levels?
- Do I need a second test to confirm my result?
- Could any of my other health conditions affect my HbA1c levels?
- If I have diabetes, what is my target HbA1c? (Note: An HbA1c under 7.0% is common for adults with diagnosed diabetes to prevent long-term complications.)

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