

Paediatric Diabetes

Paediatric Diabetes – HbA1c

What is an HbA1c blood test?

In the blood stream we have red blood cells, which are made of a molecule, haemoglobin. Glucose attaches to the haemoglobin to make a 'glycosylated haemoglobin' molecule, called haemoglobin A1C. We call this HbA1c. The more glucose in the blood, the more haemoglobin A1C or HbA1C will be present in the blood.

Red blood cells live in our body for 8 - 12 weeks before they are replaced. By measuring the HbA1c it can tell you how high your blood glucose has been on average over the last 8-12 weeks.

How often should I check my HbA1c?

HbA1c should be checked regularly, every three months in a person with type 1 diabetes. When you come to clinic, we will do a finger prick to obtain a blood sample. You will get the HbA1c result straight away, so you can discuss the result in your clinic consultation.

What does it tell us?

The better your blood glucose control the less chance there is of you developing diabetes complications such as eye, kidney or nerve damage, heart disease or stroke.

Red blood cells live for about 8 – 12 weeks before being replaced so the HbA1c test tells you what your blood glucose has been over the past few months and whether you are on target to keep your risk of complications as low as possible.



What do we mean by complications?

Data from the Diabetes Control and Complications Trial (DCCT) demonstrated conclusively that good control with blood glucose levels and HbA1c will delay and slow the progression of the most serious complications.

- 76% Reduction in Retinopathy (eye disease)
- 50% Reduction in Nephropathy (kidney disease)
- 60% Reduction in Neuropathy (damage to nerves)

Why measure it?

Because blood glucose levels vary throughout the day and from day to day, HbA1c is usually measured every 8-12 weeks. The results show if your blood glucose control has altered in response to changes in your diet, physical activity or medication.

What should my HbA1c be?

The NICE Guidelines 2015 advise a target of 48mmol/mol as being ideal. Your target HbA1c can be discussed with you in clinic. Having your HbA1c close to target reduces the possibility of getting diabetes complications.



How can I improve my HbA1c?

- Monitor your blood glucose levels regularly and make necessary adjustments to your insulin dose.
- Check your meter for weekly averages, two weekly averages, and aim to reduce your average readings.
- Eat a healthy diet, and take part in some form of regular physical activity.
- Keep in contact with your diabetes team for advice and support on 02476 967230

The Trust has access to interpreting and translation services. If you need this information in another language or format, we will do our best to meet your needs. Please contact the Department on 024 7696 7230.

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Document History

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