

HbA1c

Paediatric Diabetes Patient Information Leaflet

Introduction

This leaflet gives more information on what HbA1c is and what help you will be offered to reduce your levels of HbA1c if needed.

If you have any questions or concerns, please do not hesitate to contact a member of the paediatric diabetes team.

What is HbA1c?

The term HbA1c refers to glycated haemoglobin. It develops when haemoglobin, a protein within red blood cells that carries oxygen throughout your body, joins with glucose in the blood, becoming 'glycated'.

In people who have been diagnosed with diabetes, a glycated haemoglobin (HbA1c) test is often used to show how well their diabetes is being controlled.

What does the HbA1c test measure?

The HbA1c test measures the amount of glucose that is being carried by the red blood cells in the body. The higher the levels of glucose in the blood over time, the more glucose will be stuck to the red blood cells. This will result in a higher HbA1c measurement.

On average, a red blood cell lives 120 days. Therefore, the HbA1c level reflects the average blood glucose over the previous two to three months. This gives a longer-term trend of your blood glucose levels over a period of time. The results can indicate whether the measures you are taking to control your diabetes are working.

How is HbA1c measured?

A blood test is used to measure HbA1c. This can be carried out at any time of the day and does not need any special preparations, such as fasting.

HbA1c levels used to be given in percentages (%). However, it is now reported as a measurement of mmol/mol. For example, 8% is now reported as 64mmol/mol.

If you are used to the old system of reporting, and need help with the change from the percentage system, Diabetes UK has developed a converter which you can access online at:

<https://www.diabetes.org.uk/Guide-to-diabetes/Monitoring/Testing/>

What should my HbA1c level be?

New guidelines recommend aiming for an HbA1c level of 48mmol/mol or less.

Lower levels of HbA1c show that blood glucose levels are being controlled well. This will reduce the risk of developing complications that can result from high levels of blood glucose. However, any reduction in HbA1c levels will help reduce the risk of developing complications.

What are the risks of a high HbA1c level?

High HbA1c levels, meaning poorly controlled blood glucose levels, can have a negative effect on general health and education performance.

In the long term, having high HbA1c levels increases the risk of developing complications of diabetes, such as eye disease, kidney disease, heart disease, strokes or impotence.

How can I reduce my level of HbA1c?

You will be given support and advice from the paediatric diabetes team to lower your levels of blood glucose. Lowering blood glucose levels will improve your levels of HbA1c and to reduce the risk of any complications.

If your HbA1c is currently more than 69mmol/mol (8.5%), this is classed as high risk.

We will meet with you regularly and set personalised targets to help you reduce your HbA1c. We will ask you to call for a telephone review in two weeks. After this, you will be offered a face-to-face appointment every six weeks with a paediatric diabetes team member. This is in addition to your three monthly consultant appointment.

In between the six-weekly appointments with the paediatric diabetes team, we will encourage you to contact us every two weeks by phone or email. This is so that we can see how you are getting on and give you support, if you need it. We may recommend that you come in and see us.

You will need to have another HbA1c test in approximately three months to see what your levels are. After this test:

- **If your HbA1c is more than 69mmol/mol, but it has reduced by more than 10mmol/mol**, you will continue to be offered six-weekly appointments with a paediatric diabetes team member. We will also encourage you to contact us every two weeks by phone or email.

- **If your HbA1c is still more than 69mmol/mol, and has not reduced by more than 10mmol/mol, we will discuss your progress with your consultant.**

Your consultant may possibly recommend:

- involving other agencies to offer further support
- a stay in hospital to try and stabilise your blood glucose levels

We will discuss this with you in more detail at the time.

In addition, we will continue to offer you six-weekly appointments with a paediatric diabetes team member. We will also encourage you to contact us every two weeks by phone or email.

We encourage patients and their families to contact the paediatric diabetes team for support whenever they need it, on 01384 456111 ext. 3148/3149/3150 (9am to 5pm, Monday to Friday).

You can also email us at dqft.paediatric.diabetes@nhs.net

If you need urgent advice, or it is outside of these hours or on a Bank holiday, please contact the Children's Ward at Russells Hall Hospital on 01384 244271.

My personal targets:

- 1.
- 2.
- 3.
- 4.

Your HbA1c

on _____ was _____ mmol/mol



Your target HbA1c for next 3 months is _____ mmol/mol

Your HbA1c

on _____ was _____ mmol/mol



Your target HbA1c for next 3 months is _____ mmol/mol

Your HbA1c

on _____ was _____ mmol/mol



Your target HbA1c for next 3 months is _____ mmol/mol

Your HbA1c

on _____ was _____ mmol/mol



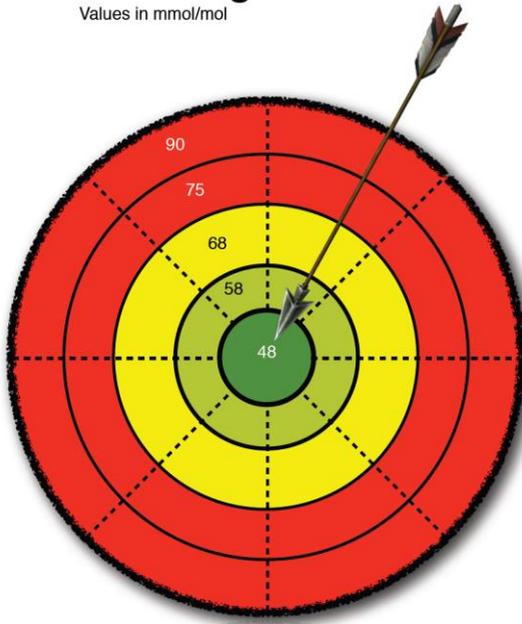
Your target HbA1c for next 3 months is _____ mmol/mol

What can I do to help reach my target?

1. Try to keep your blood glucose level between 4 and 7mmol/L all the time.
2. Test your blood glucose six times a day.
3. Be very accurate when you are counting carbohydrates.
4. If your pre-meal blood glucose is more than 7mmol/L, always add a correction dose to your meal time insulin.
5. If you are on a pump, always put your blood glucose reading through your bolus wizard and use the recommended insulin dose.
6. Review your blood glucose diary at least every two weeks and adjust your insulin, if necessary.
7. Aim to be active for at least 60 minutes every day.

HbA1c Target

Values in mmol/mol



Can I find out more?

You can find out more from the following weblinks:

Diabetes UK

<https://www.diabetes.org.uk/Guide-to-diabetes/Monitoring/Testing/>

Diabetes.co.uk

<http://www.diabetes.co.uk/what-is-hba1c.html>

NHS Choices

<http://www.nhs.uk/Conditions/Diabetes-type1/Pages/Diagnosis.aspx>

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Paediatric Diabetes Team on 01384 456111 ext. 3148/3149/3150
(9am to 5pm, Monday to Friday)

For urgent advice out of these hours contact:

Children's Ward on 01384 244271

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/paediatrics-and-neonatology/>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

للحصول على هذه النشرة بحجم أكبر، وعلى شكل إصدار صوتي و بلغات أخرى، الرجاء الاتصال بالرقم 08000730510.

此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

ਇਹ ਪਰਚਾ ਵੱਡੇ ਅੱਖਰਾਂ, ਬੋਲ ਕੇ ਰੀਕਾਰਡ ਕੀਤਾ ਹੋਇਆ ਅਤੇ ਦੂਸਰੀਆਂ ਭਾਸ਼ਾਵਾਂ ਵਿਚ ਵੀ ਪ੍ਰਾਪਤ ਹੋ ਸਕਦਾ ਹੈ, 0800 073 0510 ਤੇ ਫੋਨ ਕਰੋ ਜੀ।

Aceasta brosură poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru va rugăm sunați la 0800 073 0510.

یہ کتابچہ آپ کو بڑے حروف کی لکھائی، سمعی صورت اور دیگر زبانوں میں مہیا کیا جا سکتا ہے۔ برائے مہربانی فون نمبر 08000730510 پر رابطہ کریں۔