



Information for People with Diabetes

A change in reporting your HbA_{1c} results.

Change to reporting of HbA_{1c}

From 1 June 2009, the way in which HbA_{1c} results are reported in the UK is changing.

There will be no change to the way you do or record your home blood glucose monitoring.

This leaflet explains why HbA_{1c} results are changing and how this will happen.

What is HbA_{1c}?

Glucose in the blood sticks to haemoglobin in red blood cells, making glycosylated haemoglobin, called haemoglobin A_{1c} or HbA_{1c}. Red blood cells live for about 8 – 12 weeks before being replaced so **the HbA_{1c} test tells you how well controlled your blood glucose has been over the previous 2-3 months**. The more glucose in your blood, the more HbA_{1c} will be present, so the level reported will be higher.

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. The HbA_{1c} test tells you whether you are on target to keep your risk of complications as low as possible.

Why measure HbA_{1c}?

Because blood glucose levels vary throughout the day and from day to day, HbA_{1c} is usually measured every 3-6 months. The results show if your blood glucose control has altered in response to changes in your diet, physical activity or medication.

What are the current HbA_{1c} results and targets?

The HbA_{1c} results are currently given as a percentage. For most people with diabetes, the current HbA_{1c} target is below 7%. However, you should have agreed your own individual target with your health care team, as sometimes a different target might be more appropriate. For example, if you have had a lot of problems with low blood glucose levels (hypos), a higher target might be appropriate.

What is changing?

Laboratories in the UK are about to change the way in which the HbA_{1c} results are reported. The International Federation of Clinical Chemistry (IFCC) has put forward a new reference measurement method after discussion with diabetes groups worldwide. This will make comparing HbA_{1c} results from different laboratories and from research trials throughout the world much easier.

What are the IFCC HbA_{1c} results?

The way the results will be given is very different from what is known as the DCCT aligned results, but the test will still give you the same basic information about what your glucose control has been over the last 2-3 months. The measurement will be in millimoles per mol (mmol/mol) instead of percentage (%)

Here is how the results compare:

HbA _{1c} (DCCT) (%)	HbA _{1c} (IFCC) (mmol/mol)
6.0	42
6.5	48
7.0	53
7.5	59
8.0	64
9.0	75
10.0	86
11.0	97
12.0	108

How will the targets change?

The equivalent of an HbA_{1c} target of 7 % is an HbA_{1c} (IFCC) target of 53 mmol/mol. (See the table above).

When will this happen?

The IFCC units for HbA_{1c} are obviously very different from those currently in use. Everyone will need time to become familiar with these units, and how they compare with the current result. So from 1 June 2009, all HbA_{1c} results in the UK will be given in both units: HbA_{1c} (DCCT) %, and HbA_{1c} (IFCC) mmol/mol. This dual reporting will

continue until 31 May 2011. So for example, the report of your HbA_{1c} result might read:

HbA_{1c} (DCCT) 6.9%

HbA_{1c} (IFCC) 51 mmol/mol

The fact that the number is higher does not mean there is more glucose in your blood. It is just a different way of expressing the same thing.

When is the changeover to only IFCC units?

From 1 June 2011, results will be given only as the HbA_{1c} (IFCC) in mmol/mol.

If you have any questions or concerns about this please contact your diabetes specialist nurse, practice nurse, GP or **the Diabetes UK Careline 0845 120 2960** or visit www.diabetes.org.uk