



A change in reporting your HbA_{1c} results. Information for People with Diabetes

Change to reporting of HbA_{1c}

From 1 June 2009, the way in which HbA_{1c} results are reported in the UK is changing. This leaflet explains why 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 A1c or HbA_{1c}. The more glucose in your blood, the more HbA_{1c} will be present, so the level reported will be higher. The HbA_{1c} gives a measure of what your average blood glucose level has been in the previous 2-3 months.

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 HbA_{1c} 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.

Why measure it?

Because blood glucose levels vary throughout the day and from day to day, HbA_{1c} is usually measured every 2-6 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 6.5%. 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 new HbA_{1c} results?

The way the results will be given is very different from the old 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 new results compare:

| Current HbA _{1c} (%) | New HbA _{1c} (mmol/mol) |
|----------------------------------|-------------------------------------|
| 6.0 | 42 |
| 6.5 | 48 |
| 7.0 | 53 |
| 7.5 | 59 |
| 8.0 | 64 |
| 9.0 | 75 |

How will the targets change?

The equivalent of the current HbA_{1c} target of 6.5 % is a new HbA_{1c} target of 48 mmol/mol. (see the table above).

When will this happen?

The new units for HbA_{1c} are obviously very different from those currently in use. Everyone will need time to become familiar with the new 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 the current HbA_{1c} % and in the new HbA_{1c} units mmol/mol.

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

Old HbA_{1c} 6.9%

New HbA_{1c} 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 new units?

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

If you have any questions or concerns about this please contact the Diabetes UK Careline 0845 120 2960 or visit www.diabetes.org.uk