

Svenska Diabetesförbundet

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Svensk Förening för Diabetologi

**Barnläkarföreningens sektion för
endokrinologi och diabetes**

Svensk Förening för Endokrinologi

Svensk Förening för Allmänmedicin

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HbA1c

in a
new
way



**Svenska
Diabetesförbundet**



External quality assurance
in laboratory medicine in
Sweden

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INFORMATION FOR DIABETICS

HbA1c is a blood sample that is taken to monitor the disease diabetes. From 1 September 2010, the results of HbA1c tests will be expressed in a new way in Sweden. The change is part of an international collaboration that makes HbA1c results directly comparable across the world.

The new way of measuring will give more reliable values than we had previously. The new value, **HbA1c (IFCC)**, will be higher than the previous **HbA1c (Mono S)**.

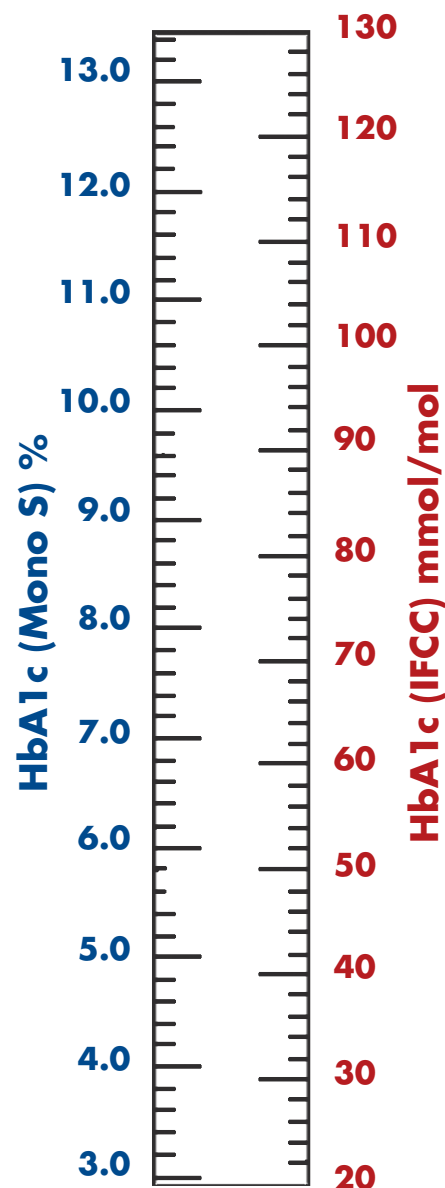
The relationship between the new and the old values is shown in the diagram to the right.

Another advantage of the new values is that they are less easy to confuse with blood sugar (plasma glucose) values.

To make it easier to understand and change to the new values, the old ones will also be included in laboratory responses until 31 December 2010. From 2011, only the new **HbA1c (IFCC)** way will be used.

IFCC, International Federation of Clinical Chemistry and Laboratory Medicine, is an international organisation in the field of Laboratory Medicine.

For those accustomed to information from abroad, it is important to be aware that in other countries HbA1c has previously been expressed in NGSP or DCCT percentage units. This gives HbA1c values that are about one percentage unit higher than the Swedish Mono S percentage units.



What does HbA1c say about blood sugar?

HbA1c – or “long-term sugar” – reflects what the blood sugar has been, on average, over about two to three months before the sample was taken. The test measures how much sugar (glucose) has adhered to the haemoglobin in the red blood cells. More sugar adheres when the blood sugar is high than when it is low.

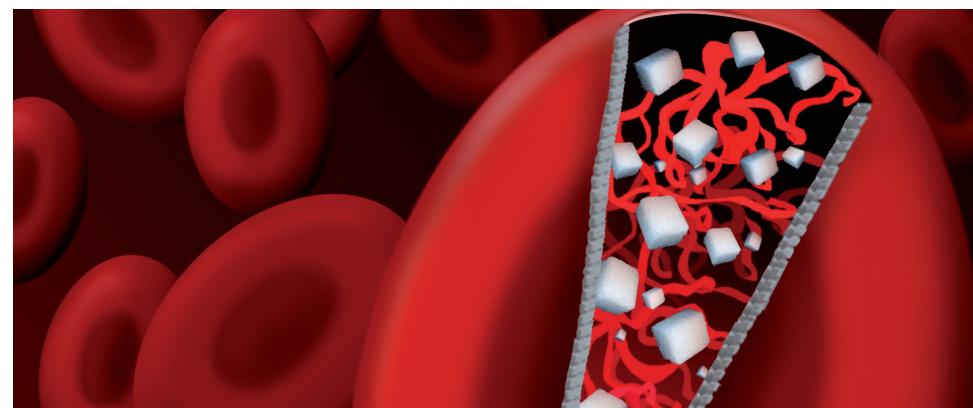
However, the measurement of blood sugar shows what the blood sugar is at the time the sample is taken. It shows what the blood sugar is at particular times during the day, and how it is affected by different activities and different foods.

What should the HbA1c value be?

Up to the age of 50, the HbA1c value of a person without diabetes normally ranges from 27–42 mmol/mol. For people over 50, 31–46 mmol/mol is normal.

For diabetics, the general target remains unchanged: HbA1c should be **below 52 mmol/mol**.

What is a good target for an individual diabetic depends on many different factors. Individual treatment targets are set in consultation between the diabetic and the treating medical practitioner, and will be discussed when you visit your doctor or diabetes nurse.



The illustration on the cover and above represents how sugar (glucose) binds to the protein haemoglobin inside the red blood cell.