

## Understanding your diabetes ... HbA1c

### Glycated Haemoglobin (HbA1c)

This may help you understand what we mean when we say you are going to have a glycated haemoglobin or HbA1c, or A1c test. This test is used as a very good guide as to what your average blood glucose level during the past three months has been.

#### What does it measure?

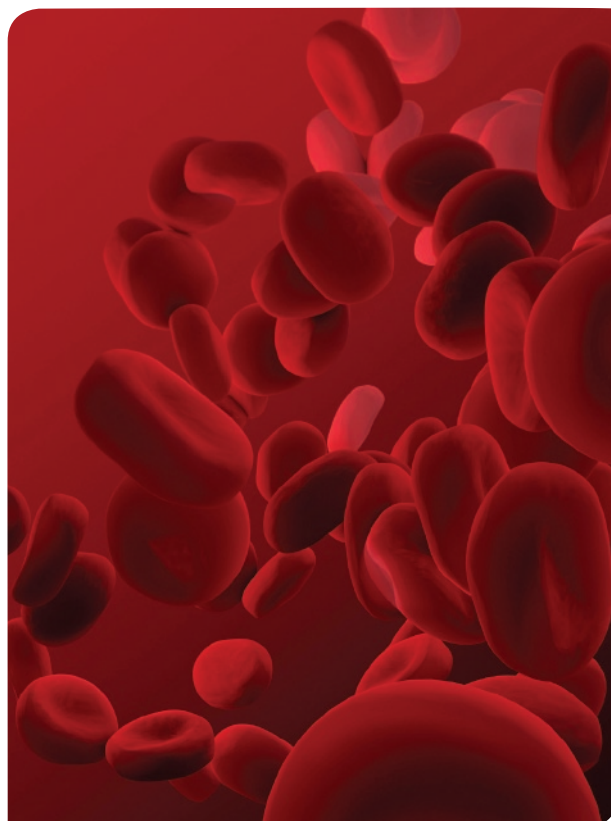
Haemoglobin (the Hb of HbA1c) is present in everyone's red blood cells. It's what makes your blood red. Glucose sticks to the red cells and the more glucose there is in your blood stream, the more glucose sticks to the red cells. The average life span of a red blood cell is 120 days (three months), and if we measure how many red cells have glucose attached to them, it gives us a guide to the glucose levels in your blood over the last 120 days. It gives us an average level, which in turn indicates your risk of developing problems with your health.

#### What does it not measure?

Glycated haemoglobin (HbA1c, A1c) is not a measure of blood glucose as you would get it if you were doing a finger prick and testing your blood with your meter. It doesn't measure sudden changes in your blood glucose, or what your blood glucose level is right at the moment of testing.

#### What are normal levels and how does it relate to your blood glucose?

People who do not have diabetes have HbA1c in the range of 4.0 – 6.0%. This means that approximately six red cells out of every 100 in your blood have glucose attached.



The National Guidelines aim for an HbA1c of less than 7.0%. This is not always easy to achieve, but getting as close to it as possible lowers your risk of developing problems with your circulation, heart, brain (less risk of heart attack or stroke), kidneys, eyes, feet and your nerves. It means you will live a longer, healthier and happier life. That's got to be worth the effort!

#### How often is it measured?

Every three months is ideal. 

HbA1c	Normal/abnormal	Blood glucose level via meter
4.0 - 6.0%	Normal for those without diabetes	3 - 8mmol/L
6.1 - 7.0%	Target range for those with diabetes	4 - 8mmol/L
7.1 - 8.0%	High	8 - 11mmol/L
8.1 - 9.0%	Too high	11 - 14mmol/L
Greater than 9.1%	Very high	15mmol/L and above

Article prepared by Maggie Lasdauskas RN CDE.

Maggie is the Manager of Diabetes Health Services with Diabetes TASMANIA.