

What is the 'HbA1C'?

HbA1C is the name of a chemical in the blood. The amount of this chemical can tell you and your doctor and nurse how well your diabetes is controlled. In diabetes an HbA1C of 4 - 6% is ideal.

HbA1C is formed when sugar in the blood sticks 'haemoglobin' (this is the red chemical in your blood). HbA1C is also called 'glycosylated haemoglobin' or haemoglobin A1C.

The more sugar in your blood over a 10 week period, the more HbA1C will be present in your blood. This is because red cells live for 8 -12 weeks before they are replaced.

The HbA1C level is tested from a small blood sample sent to the laboratory, and is one of the best ways to test if your diabetes is under control. A normal non-diabetic HbA1C is 3.5-5.5%, and in diabetes a level below 7% is preferred.

Remember, the HbA1C is not the same as the sugar level. The HbA1C can be used as a 'quality control test': it tells you how well you have controlled your sugar level over the previous 10 weeks.

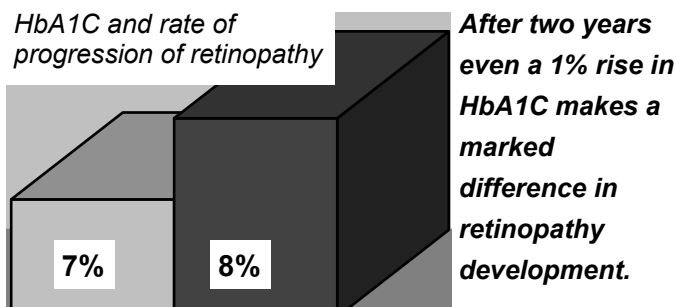
The HbA1C test is needed every year at least if your diabetes is controlled, but more often if higher and you are trying to improve control.

Why do you need an HbA1C below 7%?

The higher the HbA1C the more likely you are to develop problems from your diabetes. Even a 1% rise in the HbA1C (for example 8% rather than 7%) makes you 32% more likely to develop retinopathy.

Retinopathy is a condition of the retina at the back of the eye ...the film of the eye.... If this film, the retina, becomes badly damaged your sight can be badly affected.

By having an HbA1C less than 7% you are less likely to develop retinopathy, or at least if it does develop it will develop a lot more slowly. A low HbA1C also protects your heart, kidneys, and all parts of your body (as does low blood pressure... see overleaf).



Coincidentally an HbA1C level of 7% requires an AVERAGE sugar of 7, but to achieve this you need 5.5's to balance some 8's that inevitably may occur after meals.

Your sugar level

To control your diabetes and achieve an HbA1C of below 7%, you should check your sugar levels. Remember, nearly everyone with diabetes needs help now and again to devise a treatment plan to improve control and sort out problems. Diabetes can be a real challenge!

Diet and tablet controlled diabetes

Fasting glucose levels of 4 - 7 mmol/l (just after you wake up). You should test your own blood sugar (if you cannot, see your practice nurse regularly to have it checked). If your diabetes is not controlled with tablets you may need insulin: there is NO 'mild' type of diabetes.

People using insulin

Blood glucose levels 30 minutes before meals between 4 and 7 mmol/l.

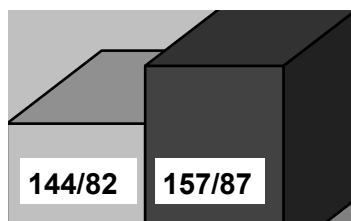
Be careful of hypos: learn how to avoid & how to treat them. Discuss insulin changes with your doctor or nurse before you make them unless you know what you are doing. You still need tablets/insulin even if you are ill; if you are being sick or cannot swallow the tablets, let your doctor or nurse know. Remember to rotate injection sites and beware of 3am hypos.

Why and how to keep your blood pressure down

If you have a low blood pressure below 130/80 you are much less likely to develop retinopathy and other diabetic related problems. The lower the better; 125/75 if protein in urine.

To keep fit and keep blood pressure low:

- exercise, such as walking, cycling or swimming, 30 minutes a day (you should exercise even if your blood pressure is normal)
- excess alcohol causes high blood pressure
- reducing salt intake (beware some processed food)
- stick to a diabetic type diet
- loose weight if overweight: exercise more and eat less
- smoking doubles diabetic damage: try stopping



Blood pressure and retinopathy development over 1 year

Even a small rise in blood pressure considerably increases the development of complications.

Other check ups

You need to check your feet every day. See a chiropodist when your diabetes is diagnosed and regularly after that (how often, this depends on your health and age).

You need to see a dietician yearly, but more often if your diabetes is not controlled or you would like to loose weight and just after diagnosis.

Your eyes should be checked yearly by an optometrist in a diabetic retinopathy screening scheme. Have your cholesterol/lipid levels (and possibly thyroid) tested every 3 years.

Your family

The World Health Organisation now advises that the relations of people with type 2 diabetes, basically non-insulin dependant diabetes, should take precautions as they are at risk of becoming diabetic.

- exercise 30 minutes a day (walk, cycle, swim) can delay or prevent diabetes
- a healthy diet also helps to delay or prevent diabetes
- smoking is harmful; it damages the arteries and can double the problems that diabetes can itself cause. It makes diabetes more likely.



Taking Control of Your Diabetes



- **what is the 'HbA1C'?**
- **why do you need an HbA1C of 6% or below?**
- **what sugar levels do you need?**
- **why do you need a blood pressure of 130/80?**
- **what feet, cholesterol, and eye checks do you need?**
- **should your relations be tested, and what can they**

Read up and take control of your diabetes whilst you are well, to prevent and delay complications later.

This leaflet is designed to be photocopied in black and white. Print out page one and two in colour. For outpatient use is easier to photocopy than print out double sided copies. Photocopy page one, and two, as 'double sided'.

The leaflet can then be folded as shown and is easy to display. Make sure one of the pages is not upside down...this may require experimenting how pages feed into the photo copier.

