

## A Guide to Blood Glucose Monitoring for People with Type 2 Diabetes



### Special circumstances - When should I test my blood sugar more often?

There are times when your diabetes care team may advise you to test more often. For example:

- If your diabetes is poorly controlled
- If undertaking significant changes in lifestyle (diet / exercise / weight loss)
- During periods of illness
- If you have been started on steroids
- When a change to your diabetes treatment is being considered
- When your diabetes treatment is changed
- If you suspect hypoglycaemia (low blood sugar)
- According to DVA rules for drivers
- If you are pregnant or planning pregnancy - contact your diabetes care team for advice if you are planning a pregnancy or as soon as you know you are pregnant
- For a week before your hospital appointment if using insulin

### How do I make sure I get accurate results?

You must follow the instructions from the meter manufacturer and the test strips must be "in date"- all strips have an expiry date and some strips go out of date within just a few months of opening. You also need a good technique: make sure your skin is clean and dry and that you do not squeeze too hard to get blood. Your healthcare team can advise.

### What should I do with the test results?

Record your results - keep a note of the date, time and glucose level. If you are experiencing problems with your blood sugar control or if you would like advice about your treatment contact your diabetes care team. Bring your results along to your clinic appointments.

### How do I look after my blood glucose meter?

All meters have manufacturer advice brochures and it is important that you read, understand and follow the instructions. Helpline telephone advice is also

available from the meter company. Complete and send in the guarantee card.

### What other equipment do I need?

- Lancets
- Strips
- Sharps container
- Finger pricking device – is NOT available on prescription
- Other items may be needed (such as control solution, replacement batteries) but these are NOT available on prescription

*These are available on prescription*

### Safety Advice

- Do not allow anyone else to share your finger-pricking device or blood glucose meter
- Use a new lancet each time you test (unless instructed otherwise by your diabetes care team)
- Used lancets should be placed in the sharps container. Do not fill your sharps container beyond the mark indicated. When filled to the mark, return the sharps container to your pharmacy for safe disposal
- Use a new strip each time you test
- Dispose of used strips carefully

### Other Tips for Managing your Diabetes

Taking control of your diabetes involves more than just monitoring your blood glucose levels. You should also:

- *Eat a Healthy Diet*
- *Control your Cholesterol*
- *Get Active*
- *Control your Blood Pressure*
- *Stop Smoking*
- *Attend for Eye Tests*
- *Take your Medicines*
- *Inspect your Feet Regularly*
- *Get your HbA1c test*

### Useful sources of support and information

**Diabetes UK:** Bridgewood House, Newforge Business Park, Belfast BT9 5NW  
Tel: 028 9066 6656 Website: [www.diabetes.org.uk](http://www.diabetes.org.uk)

**DVA:** Tel: 0845 402 4000

Website: <http://www.nidirect.gov.uk/index/information-and-services/motoring/driver-licensing/telling-dva-about-a-condition.htm>

Name

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How often should I test?

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What is my target?

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Who should I contact if I am concerned about my home test results?

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### Why is it important to test blood glucose levels?

Your blood glucose levels should be kept at normal healthy levels to reduce your risk of problems associated with diabetes.

### How is this testing done?

It is important for **all people with diabetes** to have the **HbA1c** test done regularly. It is carried out by your GP surgery or hospital clinic. This lets you know what your average blood sugar has been over the last 2-3 months. Each test can be compared against the previous tests and this comparison will show how well your diabetes is being managed and if your treatment needs to be changed. For many people, this is all that is needed. *Your HbA1c target should be discussed with your diabetes care team.*

Testing your blood glucose at home (**Self Monitoring of Blood Glucose – “SMBG”**) can give an accurate indication of your blood sugar levels at the time that you test. It is a “snapshot” measurement. Home blood testing may help you to keep your diabetes under control but this may not be right for everyone. *The need for home testing should be discussed with your diabetes care team.*

### How can I control my blood sugar level?

Controlling blood sugar is a balance between food, activity and medication:

- Eat a healthy diet
- Take regular exercise
- Take your diabetes medication as prescribed
- Understand how your medication works

### Should I get a blood glucose meter?

You should first check with your diabetes care team because **SMBG is not useful for all people with diabetes**. Your diabetes care team will be able to advise on how helpful this would be for you and the best meter for you if you need one.

### Where does home testing fit in?

- If you and your diabetes care team agree that you should be doing SMBG, they will train you.

- In order to get the most out of SMBG, you must know **why** you are testing, **how** and **when** to test, and **what to do with the results**.
- If SMBG is carried out, it is important that the results help you (e.g. to manage your diet, lifestyle, or treatment) and so should only be done as *part of your agreed management plan*.
- Your diabetes care team will **review** your use of home testing. If you are managed by healthy eating and / or certain medicines and you are not able to use the results to help your diabetes management, then it is unlikely to be providing any benefit and may even be unnecessarily worrying. Your diabetes care team may then recommend that you could reduce or even stop SMBG.

**Remember: SMBG alone does not improve your diabetes. It is how you use the results that make the difference to your diabetes.**

### When should I test my blood glucose?

*This must be discussed and agreed with your diabetes care team as part of your own personal management plan, but as a general guide...*

#### 1. Healthy eating and exercise

If your diabetes is treated with healthy eating and exercise then SMBG is not routinely required if HbA1c is being measured. Sometimes it may be useful to use SMBG e.g. to help you to learn about how food and activity interact and affect your blood glucose management. If monitoring, test **twice** on one day **per week** – e.g. on one day per week test before breakfast and two hours after an evening meal. You may need ONE box of strips every 4-6 months.

#### 2. Tablets –

##### a. Metformin or glitazones or gliptins

(eg metformin, pioglitazone, sitagliptin). *Alone or in combination with each other*. SMBG is not required routinely if HbA1c is being measured. Sometimes it may be useful to do SMBG - test **twice** on one day **per week** – e.g. on one day per week test before breakfast

and two hours after an evening meal. You may need ONE box of strips every 4-6 months.

##### b. Sulphonylureas or Meglitinides

(eg gliclazide, repaglinide). *Alone or with any other non-insulin antidiabetic drugs*. You are more likely to get low blood sugar with these tablets. Test **twice** on one day **per week** – e.g. on one day per week test before breakfast and two hours after an evening meal. You will need ONE box of strips every 4-6 months.

### 3. Injections –

#### a. Incretin Mimetics

(eg liraglutide, exenatide). When first started on one of these, you may need to monitor carefully - especially if also taking a sulphonylurea. This will be for a short time until you are stabilized. After that, your diabetes care team will be able to help you to reduce or stop the testing (depending on what other antidiabetic drugs you are also taking).

#### b. Insulin

All people with diabetes who are using insulin should be monitoring their blood glucose regularly.

##### • Insulin and oral antidiabetic therapy

If your diabetes is treated with once daily insulin injection plus an oral antidiabetic medicine then test your blood glucose **once a day** before breakfast. You will need TWO boxes of strips every 3 months.

##### • Conventional insulin therapy

If your diabetes is treated with insulin then test your blood glucose **daily before each injection**. So, if you inject twice a day, then you will need TWO - THREE boxes every 2 months.

##### • Intensive insulin therapy

If your diabetes is treated with self adjusted basal bolus insulin you will need to test blood glucose at least **four times a day** (before meals and at bedtime). You will need TWO – THREE boxes of strips every month.

**Remember:** this is only a general guide – additional strips can be ordered to meet your specific needs as set out in your individual care plan. Also see overleaf.