

# AgaMatrix®

Advanced Blood Glucose Monitoring



## UNDERSTANDING DIABETES TERMS

From the makers of   

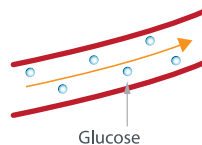
# TERMS EXPLAINED

There are many unfamiliar terms and words which are used in diabetes. Here we explain some of the key ones you will hear:

## ▶ Blood glucose (BG)

The cells in your body require energy to function. This energy comes in the form of glucose which is a type of sugar. Glucose is transported around the body in the bloodstream.

When you measure your blood glucose using your meter, you are measuring the amount of glucose present in your blood.



## ▶ Fasting blood glucose

Fasting blood glucose is measured after sleeping and before breakfast, when you have not eaten or had a drink containing sugar/glucose for at least 8 hours.

Fasting blood glucose is used in diabetes management to understand the effectiveness of different medication or dietary changes.



## ▶ BG monitoring

Testing your blood glucose level gives you an accurate reading at the time you take the test.

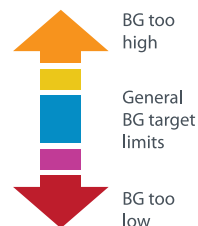
As part of your routine, it helps you monitor for hypo and hyperglycaemia and make choices regarding treatment and lifestyle changes.



## ▶ BG target range

You should aim for your blood glucose readings to fall within the blood glucose range set by your doctor or nurse.

It is important to aim for this range as it shows you have control of your diabetes, which will reduce the risk of long term effects on your health.



## ► Hypoglycaemia (hypo)

Hypoglycaemia or “hypo” is when you have a low level of glucose in your blood. Hypo symptoms include:

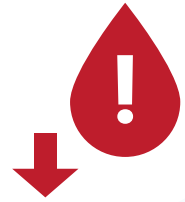
- Hunger
- Sweating
- Palpitations
- Dizziness
- Anxiety
- Faintness
- Blurred vision
- Difficulty in thinking
- Tingling

When your glucose level is too low your body doesn't have enough energy to carry out its activities.

### How to treat a hypo

The immediate treatment for hypoglycaemia is to have some food or drink that contains sugar, such as dextrose tablets or fruit juice.

After having something sugary you may need to have a longer acting starchy carbohydrate food such as a few biscuits or a sandwich.



## ► Hyperglycaemia (hyper)

Hyperglycaemia or “hyper” is when you have a high level of glucose in your blood. Hyperglycaemia can lead to symptoms such as increased thirst, frequent urination and fatigue.

Being consistently hyperglycemic can produce a range of serious complications over a period of years including damage to:

- Kidneys and cardiovascular system
- Retina
- Feet and legs

### How to treat a hyper

Short periods of high blood glucose don't require emergency treatment. But if it remains at a high level you should:

- Drink lots of sugar-free fluids.
- You may need to take more insulin if you are on insulin.
- If you are vomiting or feeling unwell, contact your doctor or nurse for advice.



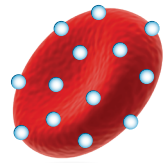
## ▶ HbA1c

HbA1c is a form of haemoglobin (which is in red blood cells) that is measured to identify the average blood glucose concentration over a period of about 3 months. A high HbA1c indicates that blood glucose levels over the last 3 months have been high (hyperglycaemia).

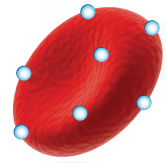
A **9.8 mmol/mol (0.9%)** HbA1c drop can have the following effect\*:

- 21% risk reduction of diabetic eye disease\*
- 34% risk reduction of permanent kidney damage\*
- 25% risk reduction of microvascular complications\*

According to American Diabetes Association (ADA) HbA1c is the gold-standard measure for assessment of diabetes control. Better control of HbA1c leads to better outcomes for people with diabetes.



High HbA1c



Low HbA1c

## ▶ Tagging

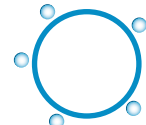
A tag is a description label that you add to blood glucose readings. It is important to mark each test with the correct tag to help your meter know what each of your blood glucose tests are. You can then use your meter to identify patterns and improve your diabetes management.

- **'Fasting' test tag:** This test is usually in the morning before any food and drink. You should not have eaten anything for at least 8 hours. Also known as a "Pre-breakfast" tag.
- **'Pre-meal' test tag:** This test is typically between a few minutes to 1 hour before your major meals at lunch and dinner.
- **'Post-meal' test tag:** The post meal test is typically 1.5 to 2 hours after your major meals: breakfast, lunch and dinner.
- **'Bedtime' test tag:** The bedtime test is done just before you go to bed.
- **'No tag' test tag:** For readings taken outside the times explained above.

## ► Insulin

Insulin is a hormone made by cells inside the pancreas. When we eat, most of the food breaks down into glucose (sugar). The glucose goes into our bloodstream. We need insulin to allow that glucose to move from our bloodstream into our cells, giving them energy.

- No insulin means glucose can't get into our cells
- Insulin unlocks a pathway so glucose can get into our cells



No insulin



With insulin

## ► Long acting insulin

Long acting insulin can also be called basal insulin. Long acting insulin provides a slow and steady release of insulin into the blood stream around the clock.

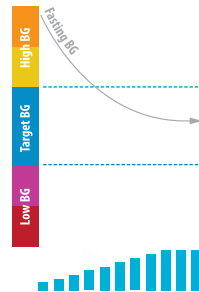
Long acting insulin assists the movement of glucose into cells.



## ► Insulin dose adjustment

When your doctor prescribes long acting insulin to control your blood glucose, it will take some time to find the right dose for you. Your dose should be adjusted slowly, so your body can adapt to changes as your glucose control improves.

It can take up to three months, sometimes more, to find the right dose, but when you do you should feel better and have more energy, so its important for you to stick with it long enough.

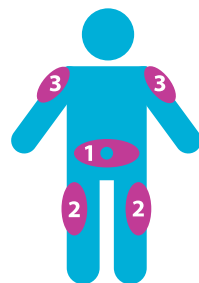


## ► Injection sites

Giving yourself an insulin injection isn't difficult, but it does take practice. Your doctor or member of your healthcare team will show you how.

**The 3 recommended injection sites:**

- 1. The abdomen:** except for a 2-inch circle around the navel.
- 2. The top and outer thighs:** avoid injecting too close to the area above the knee.



**3. The outer, upper arms:** use the outer back area of the upper arm where there is fatty tissue

It is important that you change the injection site you use every time. If you use the same area, small lumps can appear under the skin. These make it difficult for the body to absorb and use the insulin that you are injecting.

## ► Diabetic Ketoacidosis

Diabetic ketoacidosis (DKA) is caused by an absolute deficiency of insulin in your body. The body becomes unable to use glucose for energy and will start to break down other body tissue to use as an energy source. This process produces poisonous chemicals called ketones. If these are left untreated, they will cause the body to become acidic.

A simple blood or urine test using strips available on prescription will easily detect ketones.

You should check for ketones if your blood glucose levels are consistently above 15mmol/L or if you experience any of the following:

- Frequent urination
- Thirst
- Tiredness and feeling lethargic
- Blurred vision
- Abdominal pain, nausea and vomiting
- Changes in breathing (deep sighing breaths)
- Smell of ketones on breath (similar to the smell of pear drops)
- Collapse/unconsciousness

For other leaflets in this range  
go to [www.agamatrix.co.uk](http://www.agamatrix.co.uk)

*The information in this guide is not intended to replace the advice of your healthcare professional. Always consult with your healthcare professional for further information, recommendations, and treatment decisions.*

**AgaMatrix Europe Ltd**  
Harwell Innovation Centre, 173 Curie Avenue  
Harwell Oxford, Oxon, OX11 0QG  
Tel. 0800 093 1812  
Email. [info@agamatrix.co.uk](mailto:info@agamatrix.co.uk)  
[www.agamatrix.co.uk](http://www.agamatrix.co.uk)

7500-10192 Rev B ©2022 AgaMatrix, Inc. All rights reserved. This is for informational purposes only. Requests for permission to reproduce or distribute this document must be directed to AgaMatrix, Inc. All trademarks and/or copyrights are the properties of their respective owners.