



Finding a Better Balance

Your guide to diabetes: how to connect
blood glucose, insulin, and lifestyle choices

The information provided is for general background purposes and is not intended as a substitute for medical diagnosis or treatment by a trained professional. Please consult your healthcare professional about any questions you may have, especially before trying a new medication, diet, fitness programme, or approach to healthcare issues.



Welcome

Congratulations! You now own a **FreeStyle Optium Neo** Blood Glucose and Ketone Monitoring System with insulin logging and dose guide. It helps make the link between your blood glucose and your insulin doses.

People often manage their diabetes reactively. For example, when a person has a high blood glucose reading at lunchtime, that person may change his or her insulin dose because of it. However, this is only a short-term fix.

Having three or more high blood glucose readings on different days, but at around the same time of day, just might be telling you something. The readings could mean you have a high blood glucose *trend*.

Learning how to deal with trends is a healthy way to care for your diabetes.

With the help of your **FreeStyle Optium Neo** system, you can learn how to:

- Understand your blood glucose trends
- Avoid high or low blood glucose readings
- Use insulin, diet, and daily activity to manage your diabetes

Let's get started!

Four Simple Steps

The good news is that seeing and managing blood glucose trends can be done in just four simple steps.

1 Understanding the
blood glucose-insulin link

2 Spotting blood glucose trends

3 Insulin logging

4 Putting it together

Step

1

**Understanding the
Blood Glucose-Insulin Link**



Insulin controls your blood glucose

Normally, the organ in your body called the pancreas makes insulin. Insulin allows the glucose from carbohydrate in food to be used for energy in the body. I.e. Insulin controls the glucose in the blood.

With diabetes, however, the body does not make enough insulin to do a complete job. That's why many people with diabetes take insulin—to take care of the glucose that is in the blood. Many people with type 2 diabetes take insulin just once a day. This is called basal or long-acting insulin. Other people with diabetes take insulin before meals. Others may take a mix of long-acting and meal insulin.

However insulin is taken, the link is simple. Many foods containing starchy or sweet carbohydrate raise blood glucose levels; but insulin and daily activity help lower blood glucose levels. Other factors can also have an impact such as stress, menstruation, other medication or infection. Talk to your doctor or nurse if you are unsure.

Controlling blood glucose levels with a balanced diet, healthy activities, and a good insulin plan is the key to managing diabetes.



Raises blood glucose levels

Missed insulin Milk/dairy
Alcohol Illness
Carbohydrate-containing foods



Lowers blood glucose levels

Daily activity Stress
Exercise Alcohol
Insulin Vomiting
Hot weather

What “low blood glucose” means

Low blood glucose can be bad for your health. A blood glucose reading that is less than 4 mmol/L is too low if it happens too often.

Low blood glucose is also called “hypoglycaemia.” It can be caused by not eating enough, doing more than the usual amount of activity, or taking too much insulin. Symptoms of a hypo could include feeling dizzy, hungry, excessive sweating, trembling, or finding it hard to concentrate.

To avoid the risk of low blood glucose, you need to eat regularly and take your insulin as prescribed. (Note: If meal insulin is taken too late or without food, it can cause low blood glucose.)

If low blood glucose is a common problem for you, lowering your insulin doses may help. Talk to your doctor or nurse if you have low blood glucose. Your insulin or other drugs may need to be adjusted or altered.

Symptoms of low blood glucose may include

Sudden hunger

Shakiness

Nervousness

Sweating

Pale skin colour

Dizziness

Pounding heart

Headache

Without treatment, severe symptoms may develop

Mental confusion

Seizure

Fainting

Unconsciousness

Nightmares

What “high blood glucose” means

A blood glucose reading is high if it's over 7.0 mmol/L when fasting, over 11.0 mmol/L 2 hours after meals, or above your individual blood glucose target.

High blood glucose is also called “hyperglycaemia.” It can be a serious problem and should be kept in check. Common causes of high blood glucose include skipping or forgetting to take insulin, eating too much starchy and/or sugary carbohydrate, infection or illness, increased stress, or too little activity.

Insulin doses help lower high blood glucose. If you miss an insulin dose, speak with your doctor or nurse and ask what to do.

If high blood glucose is a common problem for you, raising or changing your insulin doses may help. Talk to your doctor or nurse if you have high blood glucose. They may decide to change your insulin plan or other drugs you are taking.

Symptoms of high blood glucose may include

Dry mouth or skin	Tiredness
Increased thirst	Fatigue
Frequent urination	Weight loss
Blurry vision	

Without treatment, severe symptoms may include

Difficulty breathing	Low blood pressure
Dizziness	Increased drowsiness
Rapid weight loss	Confusion
Vomiting	Blackouts
Abdominal pain	Seizure
Dehydration	Coma
Weakness	

Step
2

**Spotting
Blood Glucose
Trends**



Understanding a blood glucose trend

A blood glucose trend is when blood glucose readings are either too high or too low at about the same time of day, for a few days in a row. For example, maybe you test your blood glucose after getting up in the morning and it is often too high. Or, before lunch, you find your blood glucose is often too low.

Finding a trend in your blood glucose and trying to control the trend is a better way to take care of your diabetes. It may not be a good idea to change your insulin dose because of just one high or low reading. Sometimes it is better to see if a high or low happens around the same time, for two or three days in a row. Talk to your doctor or nurse if you think your insulin doses may need to change.

Causes for high or low blood glucose trends

- Not taking the right insulin dose at a certain time of day
- Drinking too much alcohol
- Having too many starchy and/or sugary carbohydrates, fruits, and/or milk
- Too little or too much activity
- Stress
- Illness
- Weight change

Having high or low blood glucose trends may also mean that healthy changes in your diet or activity level are needed. Sometimes, it is hard to know what is causing a high or low trend, so talk to your doctor or nurse for help.

It's not always easy to spot a trend. It is a good thing that your **FreeStyle Optium Neo** system tracks trends for you.

Read on to find out more.

How to spot trends with your FreeStyle Optium Neo system

The **FreeStyle Optium Neo** system stores your blood glucose readings from day to day and lets you know when you have a high or low blood glucose trend.

Here's how it works: If you have one high blood glucose reading, the up arrow lights yellow. If you test high three times within five days and within the same three-hour time period, the up arrow blinks or flashes yellow. This is the high blood glucose trend indicator.

There is also a low blood glucose trend indicator: If you test low once, the down arrow lights red. If you test low two times within five days and within the same three-hour time period, the down arrow blinks or flashes red. This is the low blood glucose trend indicator.

Be sure to read your **FreeStyle Optium Neo** system setup guide for more details.

High blood glucose trend indicator



Yellow light: High blood glucose



Yellow flash: High trend

Low blood glucose trend indicator



Red light: Low blood glucose



Red flash: Low trend

What to do with a low blood glucose trend

It is important to discuss any blood glucose trends with your doctor or nurse. If you get a red flashing low blood glucose trend indicator from the **FreeStyle Optium Neo** system, it is a sign that your doctor or nurse may need to change your diabetes plan. Changing your diet or activity level may help fix your low blood glucose trend.

There could be a reason that your readings are low at the same time of day.

- Did you eat less than normal, miss a meal, or change your diet slightly?
- Have you been too active?
- Are you taking the right dose of medicine at the right time?

If you're trending low in the morning, here are some things to think about:

- Did you get enough sleep?
- Did you drink alcohol the night before?
- Did you take the right dose of insulin before dinner or at night?

Have there been any changes in your life or body?

- Weight loss
- Stress
- Change in diet
- Change in mealtimes
- Change in work hours

Be sure to tell your doctor or nurse.



The flashing red "down" arrow indicates a low blood glucose trend.

First look to lifestyle changes that may help improve your low blood glucose trend. Then talk with your doctor or nurse.

What to do with a high blood glucose trend

If you get a yellow flashing high blood glucose trend indicator from the **FreeStyle Optium Neo** system, this means that a change in your diabetes plan may be needed.

Look to changes in your diet or activity level that might help lower your blood glucose at this time of day. These changes may help you avoid a high blood glucose trend.

If your blood glucose is trending high, here are some things to think about:

- Are you eating too much starchy / sugary carbohydrate?
- Are you skipping regular activity?
- Are you sitting more than usual?
- Are you snacking too much?

Tell your doctor or nurse about any life or body changes, such as:

- Weight gain
- Stress
- Not sleeping well
- Changes in mealtimes or work hours



The flashing yellow "up" arrow indicates a high blood glucose trend.

Getting help adjusting your insulin doses

If your doctor or nurse decides to change your insulin doses, the good news is that with your **FreeStyle Optium Neo** system you can look up your doses and when to take them.

Your doctor or nurse can set it to help you remember how to make changes in your long-acting or meal insulin doses.

As always, discuss this with your doctor or nurse and please read the **FreeStyle Optium Neo** system “Your Insulin Features” guide for more information.



The FreeStyle Optium Neo is suggesting a night-time long-acting insulin dose adjustment from 10 to 12 units

There are changes that might help lower your blood glucose around the time your trend indicator appears.

Step

3

Insulin Logging



Logging your insulin doses

Understanding how insulin can change your blood glucose level is the key to diabetes health.

Logging how much insulin you take and when you take it can help you and your doctor or nurse decide if your doses need to change.

If so, your doctor or nurse will want to see how much insulin you take, the time(s) you take it, and what your blood glucose readings are.

Your **FreeStyle Optium Neo** system makes it easy to log insulin use *and* blood glucose readings.

Here's how it works: Your doctor or nurse will first put the insulin dose plan recommended for you into the **FreeStyle Optium Neo** system. Then you can look up those insulin dose recommendations at any time and record how much and when you take a dose.

To log an insulin dose, simply press the tick box next to that dose. If you need to take an insulin dose that is different from the one your doctor or nurse recommended, you can note that, too. Simply press the up or down chevrons to change the dose, then press the tick box. Alternatively you can log insulin doses without the insulin dose plan.



Logged dose of 12 insulin units

See your **FreeStyle Optium Neo** system setup guide for instructions.



Step
4

Putting It Together

Doing your best

Your blood glucose readings can get better. You can use your knowledge to help you deal with high or low blood glucose trends in the future.

The great news is that your **FreeStyle Optium Neo** system lets you see both your insulin and blood glucose information, so you can see how one affects the other.

When you check your blood glucose, if it is too high or too low, look in the insulin log to see your last dose.

Ask yourself how much insulin you took, and when. Did you eat something with too much starchy / sugary carbohydrate? Could this be the reason for the high or low blood glucose?

If your blood glucose reading is where it should be, then you know your insulin dose, diet, and activity level are in balance. If your blood glucose reading is too low, maybe your last insulin dose was too high (or maybe your previous meal was too small).

On the other hand, if your blood glucose reading is too high, maybe you didn't get enough insulin with your last dose (or maybe you need to add more activity to your day).

Please talk to your doctor or nurse if you have any questions, especially before taking any new medicines or trying a new diet or fitness programme.

Balance is the goal

The goal for good management is to keep your blood glucose where your doctor or nurse thinks it should be. Your **FreeStyle Optium Neo** system can help you.

Your doctor or nurse can enter your personal blood glucose target range, and the trend indicators will let you know if you are moving outside your target range.

Balancing your insulin dose with diet and activity may help you stay right where you need to be.

Look back and ask:

“How did the insulin I have taken affect my current blood glucose reading?”

Look forward and ask:

“Are there any changes I can make to improve my blood glucose levels this week?”



Four Simple Steps

Find and manage blood glucose trends with your **FreeStyle Optium Neo** system and these simple steps. Read more, inside!

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blood glucose-insulin link**

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Putting it together

For further information, please call the Abbott Diabetes Care Customer Careline on 0500 467466, or visit www.abbottdiabetescare.co.uk

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