

## What is FreeStyle Libre®?

The FreeStyle Libre® flash glucose monitoring system is a device for the self-monitoring of glucose levels. Unlike traditional finger-prick devices (that measure the glucose level in the blood), FreeStyle Libre® measures the glucose level in the interstitial fluid, via a sensor that sits just under the skin. The sensor automatically measures glucose levels every minute and stores readings at 15-minute intervals for 8 hours. When the sensor is scanned by the reader, the sensor automatically transmits 8 hours of data to the reader. FreeStyle Libre® is licensed for adults and children above the age of 4 years.

## Is this a replacement for fingerpick blood glucose testing?

As FreeStyle Libre® measures interstitial glucose, it is not a complete substitute for blood glucose testing. Blood glucose measurements are required in certain circumstances, including:

- During times of rapidly changing glucose levels e.g. exercise
- To meet certain [Driving and Vehicle Licensing Agency \(DVLA\) regulations](#)
- When FreeStyle Libre® reader results do not correspond with the user's symptoms e.g. patient feels hypoglycaemic, however the FreeStyle Libre® reader shows a higher glucose reading
- To use bolus calculators
- Where the reader indicates a low glucose reading



Patient swiping over the sensor to take a reading

Patients will continue to require prescriptions for blood glucose testing strips on prescription for the situations highlighted above; the expected amount will be detailed by the specialist team on the initiation documentation. Please note that if FreeStyle Libre® has been prescribed for users of high numbers of test strips, it is expected that number will fall over the first few months. Patients can continue to use their current blood glucose meter and test strips alongside FreeStyle Libre®.

## How does a patient get a reading?

The patient swipes the reader over the sensor to get a glucose reading as often as they wish. After scanning the reader over the sensor (even through clothing), patients can see their current glucose reading, their 8-hour glucose history and a trend arrow showing the direction and rate of change of their glucose levels. Scanning every 8 hours will provide a near continuous record. In line with national criteria set by NHS England, patients need to agree to scan glucose levels no less than 8 times per day and use the sensor >70% of the time.



## The FreeStyle Libre Sensor



## The FreeStyle Libre Reader



## How is the FreeStyle Libre® sensor applied on the body?

The FreeStyle Libre® sensor is applied to the back of the upper arm with a disposable applicator. When the sensor is applied, a 5mm sterile filament is inserted just under the skin, and held in place with a small adhesive pad. The sensor lasts for up to 14 days. There is an app (available for iPhone and Android) which patients can use with their smartphone to take readings.

## What do continuing prescribers need to do?

Initiation and prescribing of the sensors for the **first six weeks** should be carried out by the specialist diabetes team in specialist centres. Primary care practitioners will be notified of the initiation of flash glucose and receive a 'transfer of prescribing request' and '[patient-prescriber agreement](#)' after a one month review. Transfer of prescribing will be accompanied by clear monitoring responsibilities and information on ongoing review. Sensors last 14 days and therefore patients need two per month.

After 6-9 months, the specialist team will review continuation of flash glucose against NHS England continuation criteria. Primary care practitioners will be notified whether outcomes have been met and whether the GP practice should continue/discontinue flash glucose sensors on the NHS via the '[6-9 month review](#)' letter. Patients will receive enough sensors to last them the first six weeks from the specialist centre. Patients will continue to be reviewed by the specialist diabetes team at appropriate intervals for ongoing review.

Practices should ensure quantities of sensors are monitored and over-ordering prevented. Consider limiting issues on repeat to 6 to ensure regular reviews are carried out.

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South East London Area Prescribing Committee. A partnership between NHS organisations in South East London: Bexlev, Bromley, Greenwich, Lambeth, Lewisham and Southwark Clinical Commissioning Groups (CCGs) and GSTFT/KCH /SIAM/ Oxleas NHS Foundation

Approval date: July 2019 Review date: July 2021 or sooner if evidence or practice changes

### **Troubleshooting**

- Sensors that fall off or malfunction should **not** be replaced on prescription. Patients should contact the [Abbott Customer Careline](#) directly (0800 170 1177), who will advise on their replacement policy. Replacements should be received within 3-5 days.
- If the patient has any issues with the device, or requires further guidance, please refer to the patient [frequently asked questions](#) document or refer them back to the initiating team (details on the initiation paperwork).

### **Adverse Skin Reactions**

Patients who have reported or may be experiencing skin reactions to the sensor adhesive may include erythema, itching and blistering. Consider if continued use of this device for patients with skin reactions is suitable, and consider use of alternative glucose monitoring systems for these patients. Advise patients not to use creams, patches or sprays under the sensor to reduce skin reactions, which may affect device performance ([MHRA 2019](#)). If patient is unable to check glucose levels using FreeStyle Libre®, they should continue to check blood glucose levels using finger prick glucose testing, and be referred back to the initiating team (details on the initiation paperwork). Please see the patient [frequently asked questions](#) document for further information.

### **Disposal**

Once used, the sensor needs to be disposed of appropriately in a sharps bin. The applicator and pack should go in a biohazard pack (supplied by diabetes team or local authority) and the sensor pack can go into general waste. See [disposal guidance](#).

### **Where can I get more information?**

- Short video tutorials on how to set up the device and apply the sensor can be found by clicking on the following link <https://www.freestylelibre.co.uk/libre/help/tutorials.html>
- More in-depth information can be found on the South East London flash glucose [training and competencies document](#)
- For further information on primary care prescribing please see the [flash glucose section](#) on the South East London Area Prescribing Committee webpage or contact your medicines optimisation team.

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