The FreeStyle Libre Flash Glucose Monitoring System

Healthcare Professional and Patient Training - London

What is Flash Glucose Monitoring?

- Flash glucose monitoring is an easy way to generate the dense glucose data needed for a complete glycaemic picture^
- What makes flash glucose monitoring unique is the 1-second painless scan of the reader over the sensor to collect glucose data.
- Another key feature of a flash glucose monitoring system is the small and fully disposable sensor that **lasts up to 14 days, requires no user calibration, no routine finger pricks*, and automatically measures, captures and stores glucose data^**

* A finger prick test using a blood glucose meter is required during times of rapidly changing glucose levels when interstitial fluid glucose levels may not accurately reflect blood glucose levels or if hypoglycaemia or impending hypoglycaemia is reported by the System or when symptoms do not match the System readings. ^ For a complete glycaemic picture scan sensor every 8 hours.

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The FreeStyle Libre Flash Glucose Monitoring System Indication of Use

The FreeStyle Libre flash glucose monitoring system is indicated for measuring interstitial fluid glucose levels in people (age 4 and older) with diabetes mellitus, including pregnant women.

The indication for children (age 4 - 12) is limited to those who are supervised by a caregiver who is at least 18 years of age. The caregiver is responsible for managing or assisting the child to manage the FreeStyle Libre flash glucose monitoring system and also for interpreting or assisting the child to interpret FreeStyle Libre readings.

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The FreeStyle Libre Flash Glucose Monitoring System Indication of Use

The FreeStyle Libre system is designed to replace blood glucose testing in the self-management of diabetes with the exceptions listed below. Under the following circumstances, use a blood glucose meter to check the current glucose readings from the FreeStyle Libre flash glucose monitoring system sensor:

- *During times of rapidly changing glucose levels, interstitial glucose levels as measured by the sensor and reported as current may not accurately reflect blood glucose levels. When glucose levels are falling rapidly, glucose readings from the sensor may be higher than blood glucose levels. Conversely when glucose levels are rising rapidly, glucose readings from the sensor may be lower than blood glucose levels.*

- *In order to confirm hypoglycaemia or impending hypoglycaemia as reported by the sensor.*

- *If symptoms do not match the FreeStyle Libre flash glucose monitoring system reading. Do not ignore symptoms that may be due to low blood glucose or high blood glucose.*

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The FreeStyle Libre System and Driving

- The DVLA (Driver and Vehicle Licensing Agency) does not consider interstitial fluid glucose readings, such as those provided by the FreeStyle Libre sensors to be sufficient on their own and drivers must also monitor their blood glucose levels using a traditional blood glucose test

- For the most up-to-date diabetes self-monitoring requirements for driving check the DVLA website:

www.gov.uk/guidance/diabetes-mellitus-assessing-fitness-to-drive

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The FreeStyle Libre Flash Glucose Monitoring System:
A new category and experience in glucose monitoring

The FreeStyle Libre reader

The FreeStyle Libre sensor

LibreView software*

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* LibreView is developed, distributed and supported by NewYu, Inc.

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The FreeStyle Libre Reader

Touchscreen

USB Port

Used to charge the reader and connect it to a Mac or PC

Test Strip Port

Insert a test strip here to use the built-in blood glucose and ketone meter

Home Button

Turns the reader on/off, returns user to home screen

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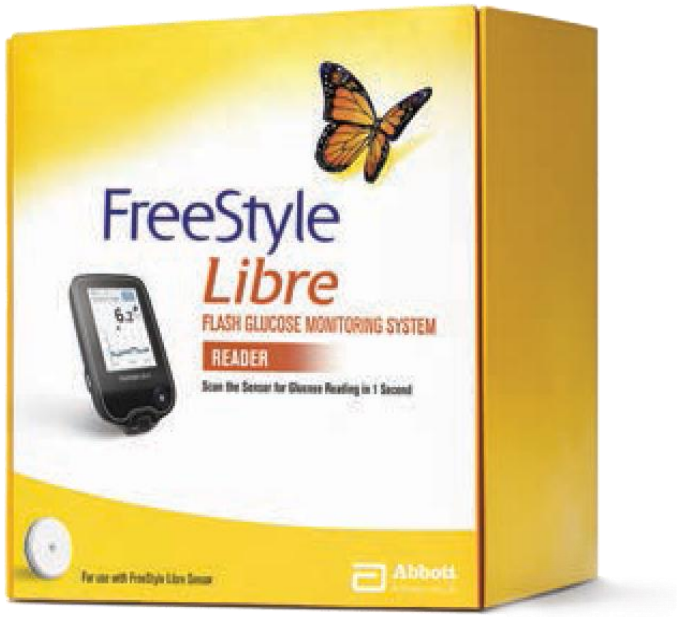
The FreeStyle Libre Reader Kit

- 1 FreeStyle Libre reader–compact and lightweight, easy to hold, with a colour touchscreen
- 1 USB cable–can connect to a computer to generate reports, and used to charge the reader
- 1 power adapter–use with the USB cable to charge the battery, for 3 hours, the battery charge lasts approximately 7 days, under typical use assumptions*
- User's manual–all of the information required to operate the system
- Quick start guide– a guide to get patients started quickly



*Typical use is assumed to be 10 scans per day

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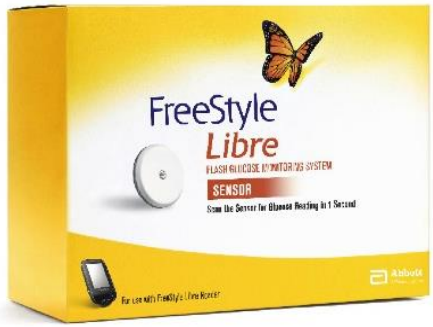
The FreeStyle Libre Sensor Kit

- 1 sensor applicator - applies the sensor to the back of the upper arm
- 1 sensor pack - used with the sensor applicator and contains the sensor
- Alcohol wipes - to clean the application site
- Product insert - provides instructions on how to apply the sensor

Sensor applicator Sensor pack

Sensor



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Sensor Features

The FreeStyle Libre sensor is designed to be easy to apply and easy to wear. It represents technology that is much less intrusive than traditional BGM and makes glucose testing hassle-free.*

- Small size (35 mm x 5 mm) – akin to £2 coin
  Discreet—the sensor can scan even through clothing†
- Designed to stay on the body for up to 14 days
- Requires no finger prick calibration
  Eliminates painful finger pricks needed for calibration
- Water-resistant
  Can be worn while bathing, showering, swimming‡, and exercising
- Applied by the patient
  Easy-to-use applicator to apply the sensor
- Automatically captures readings day and night§
  With an easy scan, patients can see their glucose variations, including night-time lows

*In a study conducted by Abbott Diabetes Care, 95.7 % of patients surveyed (n=30) agreed that the FreeStyle Libre system would reduce the hassles of glucose monitoring.Data on file, Abbott Diabetes Care. †The reader can capture the data from sensor when it is up to 4cm from sensor. ‡Sensor is water-resistant in up to 1 metre of water. Do not immerse longer than 30 minutes. §For a complete glycaemic picture, scan once every 8 hours.

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How Glucose is Measured and Stored

The FreeStyle Libre sensor has a thin, sterile filament that is inserted approximately 5 mm under skin to continuously measure glucose in the body using interstitial fluid (ISF)

How does the sensor store glucose readings?

The FreeStyle Libre sensor:

- **continuously** records data for up to 14 days
- **records** the reading every minute
- **stores** a glucose reading every 15 minutes for the last 8 hours

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How Glucose is Measured and Stored (cont'd)

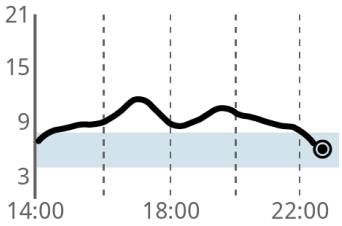
Data generated following the 1-second scan of the reader over the sensor

1. Current glucose reading:

   Based on the most **recently updated** glucose value (1 minute)

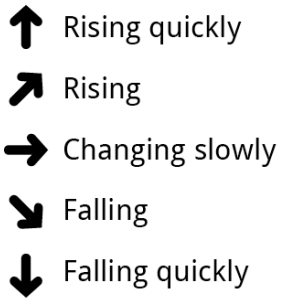
2. 8-hour history:

   The graph is made up of **15-minute readings** stored over the last 8 hours (15 minute)



3. Trend arrow:

   The trend arrow shows the **direction glucose** is heading along with rate of change



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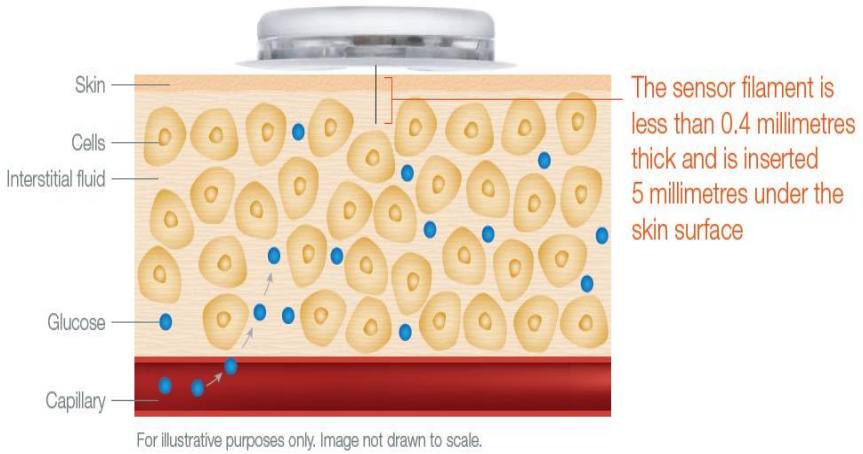
Monitoring Glucose with Interstitial Fluid

- The FreeStyle Libre system measures glucose in the interstitial fluid, or ISF (the fluid between the body's cells).
- Glucose in ISF has been shown to be a reliable indicator of glucose levels in blood because glucose freely diffuses from capillaries to the interstitial space.[1]
- The FreeStyle Libre sensor contains glucose-sensitive reagents that measure glucose in the ISF continuously.
- Glucose diffusion between capillary and ISF is shown to have a short lag of 5-10 minutes.[2]



1. Rebrin K, Steil GM. Can interstitial glucose assessment replace blood glucose measurements? *Diabetes Technology Ther*. 2000;2(3):461-472. 2. Rebrin K, Sheppard NF Jr, Steil, GM. Use of subcutaneous interstitial fluid glucose to estimate blood glucose: Revisiting delay and sensor offset. J Diabetes Sci Technol. 2010;4(5): 1087-1098.

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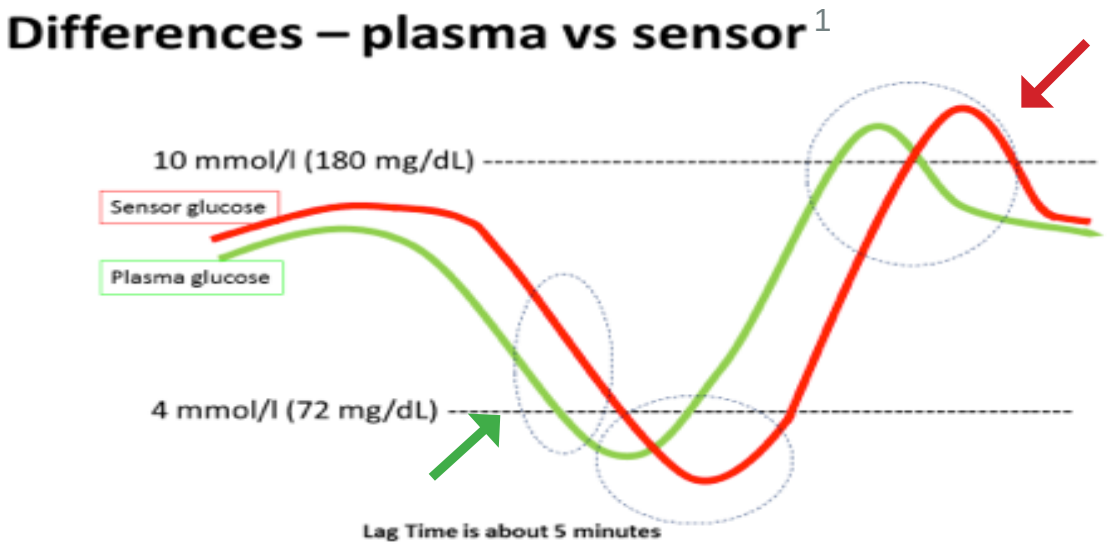
Differences between Plasma and Interstitial Glucose

The lag time is the difference in measurement between the actual blood glucose level and the interstitial glucose level. The time difference is between 5-10 minutes.[2]

- If your values are falling rapidly, your blood glucose value might initially be lower than the sensor reading ↗ (see diagram below)[1]
- If the values are rising rapidly the blood glucose value may be higher than the sensor reading but then the sensor reading will go higher than your blood glucose value ↙ (see diagram below)[1]



1. Real-time flash glucose scanning, training for healthcare professionals and patients. Association of children's diabetes clinicians. Feb 2017.
2. Rebrin K, Sheppard NF Jr, Steil, GM. Use of subcutaneous interstitial fluid glucose to estimate blood glucose: Revisiting delay and sensor offset. J Diabetes Sci Technol. 2010;4(5): 1087-1098.

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Patient's Sensor Reading May Not Match a Blood Glucose Reading

- When glucose levels are stable blood and sensor glucose readings may be very similar. If glucose levels are rising or falling, then the two readings may be different
- This is completely normal and to be expected, particularly after meals, after taking insulin or during exercise
- Although the readings may differ slightly, the FreeStyle Libre system is accurate[1] and safe to dose insulin from your scanned glucose result[2]

1. Bailey T, Bode BW, Christiansen MP et al. The performance and usability of a factory-calibrated flash glucose monitoring system. Diabetes Technol Ther 2015; 17:787–794. 2. A finger prick test using a blood glucose meter is required during times of rapidly changing glucose levels when interstitial fluid glucose levels may not accurately reflect blood glucose levels or if hypoglycaemia or impending hypoglycaemia is reported by the System or when symptoms do not match the System readings

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Patient's Sensor Reading May Not Match a Blood Glucose Reading

- The FreeStyle Libre system is proven to be accurate[1] and consistent over 14 days without the need for finger prick calibration.

- Accuracy of the FreeStyle Libre system has been measured in three studies. Comparisons were performed including the consensus error grid[2,3]. Consensus error grid represents risk levels defined by zones: zone A, no effect on clinical action; zone B, altered clinical action or little or no effect on clinical outcome

1. Bailey T, Bode BW, Christiansen MP et al. The performance and usability of a factory-calibrated flash glucose monitoring system. Diabetes Technol Ther 2015; 17:787–794. 2. Parkes JL, Slatin SL, Pardo S, Ginsberg BH. A new consensus error grid to evaluate the clinical significance of inaccuracies in the measurement of blood glucose. Diabetes Care 2000;23:1143–8. http://www.ncbi.nlm.nih.gov/pubmed/10937512. 10.2337/diacare.23.8.1143. 3. 352. Clarke WL, Cox D, Gonder-Frederick LA, Carter W, Pohl SL. Evaluating clinical accuracy of systems for self-monitoring of blood glucose. Diabetes Care 1987;10:622–8. http://www.ncbi.nlm.nih.gov/pubmed/3677983. 10.2337/diacare.10.5.622

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Patient's Sensor Reading May Not Match a Blood Glucose Reading

- Adults

99.7% of sensor results fall within the clinically acceptable zones A and B of the Consensus Error Grid[1]

The mean absolute relative difference (MARD) is 11.4% compared to blood glucose testing[1]

- Paediatrics

99.4% of sensor results fall within the clinically acceptable zones A and B of the Consensus Error Grid[2]

The MARD is 13.9%, compared to blood glucose testing[2]

- Pregnancy

99.8% of sensor results fall within the clinically acceptable zones A and B of the Consensus Error Grid[3]

1. Bailey T, Bode BW, Christiansen MP et al. The performance and usability of a factory-calibrated flash glucose monitoring system. Diabetes Technol Ther 2015; 17:787–794. 2. Edge J et al. An alternative sensor-based method for glucose monitoring in children and young people with diabetes. Arch Dis Child 2017; 0:1-7. doi 10.1136/archdischild-2016-311530. 3. Scott E, Kautzky-Willer A, Bilous R et al. Accuracy, user acceptability, and safety evaluation for the FreeStyle Libre flash glucose monitoring system when used by pregnant women with diabetes. Diabetes Technol Ther 2018; Vol 20, No. 3. doi 10.1089/dia.2018. 0386.

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre Flash Glucose Monitoring System Contraindication and System-Related Information

- Contraindications
  - The FreeStyle Libre system must be removed prior to Magnetic Resonance Imaging (MRI)

- System-related information
  - A medical appointment that includes strong magnetic or electromagnetic radiation, for example an X-ray, Magnetic Resonance Imaging (MRI), or Computed Tomography (CT) scan, remove the sensor and apply a new one after the appointment. The effect of these types of procedures on the performance of the system has not been evaluated
  - The FreeStyle Libre system has not been evaluated for use in persons on dialysis or people less than 4 years of age

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Setting Up The FreeStyle Libre Reader For The First Time

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How to Set Up the Reader

After the reader is charged, the first step is to set up date and time

1. Press the Home Button to turn on the reader

2. Use up/down arrows to set the current date, touch next to continue

3. Use the up/down arrows to set the current time, touch next to continue

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How to Set Up the Reader (cont'd)

4. Next, use the up/down arrows to set the glucose target range. Touch next to continue. Patients should work with their Healthcare Professional to determine their target glucose range

5. There are 2 screens to explain the glucose trend arrows and how to return to the Home Screen from any other screen. Touch "next" to continue after each screen

6. Touch "done" to go to the Home Screen

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Applying The FreeStyle Libre Sensor

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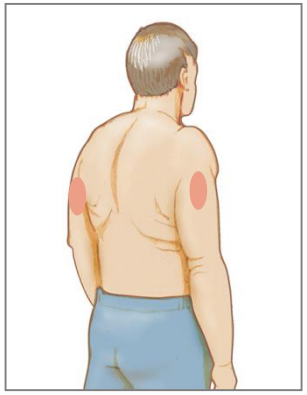
How to Apply a Sensor

Applying the sensor is quick and easy. Patients follow these following steps to apply a new sensor.

1. Apply sensor only on the back of your upper arm. Avoid areas with scars, moles, stretch marks, or lumps



2. Clean the area on the arm with an alcohol wipe (included in the sensor kit) and allow site to dry*

3. Open the sensor pack by peeling the lid off completely[1]

1. CAUTION: Do NOT use if the sensor pack or the sensor applicator seem to be damaged or already opened. Do NOT use if past expiration date.
*Avoid areas with scars, moles, stretch marks, or lumps. Select an area of skin that generally stays flat during your normal daily activities (no bending or folding). Choose a site that is at least 2.5 cm (1 inch) away from an insulin injection site. To prevent discomfort or skin irritation, you should select a different site other than the one most recently used.

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How to Apply a Sensor (cont'd)

4. Unscrew the cap from the sensor applicator and set the cap aside

5. Line up the dark mark on the sensor applicator with the dark mark on the sensor pack. On a hard surface, press firmly down on the sensor applicator until it comes to a stop

6. Lift the sensor applicator out of the sensor pack*

*__CAUTION:__ The sensor applicator now contains a needle. Do NOT touch inside the sensor applicator or put it back into the sensor pack.

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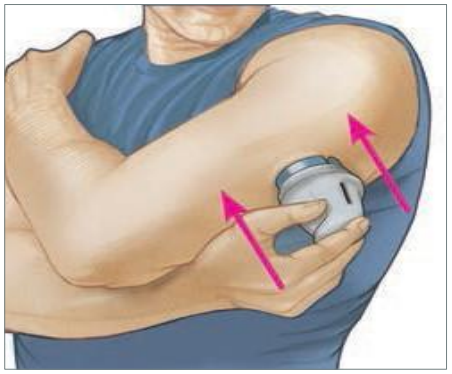
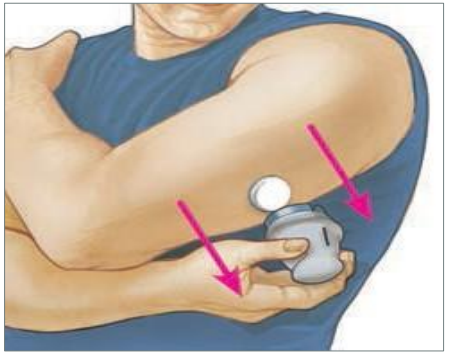
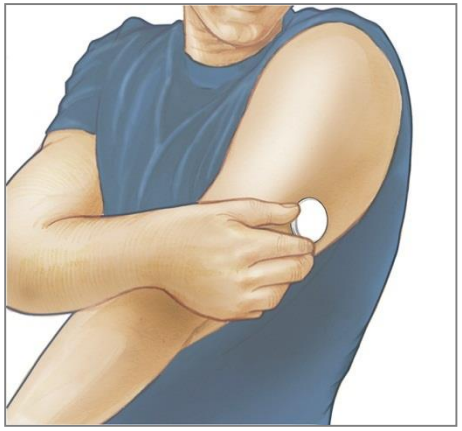
How to Apply a Sensor (cont'd)

7. Place the sensor applicator over the prepared site and push down firmly to apply the sensor to the back of the upper arm. A thin, flexible, sterile fibre is inserted just below the skin when the sensor is applied†



8. Gently pull the sensor applicator away from the arm. The sensor should now be firmly attached to the patient's skin‡





9. Make sure the sensor is secure after application. Put the cap back on the sensor applicator. Discard the used sensor pack and sensor applicator safely according to local regulations

†**CAUTION:** Do NOT push down on the sensor applicator until placed over prepared site to prevent unintended results or injury.

‡**NOTE:** Applying the sensor may cause bruising or bleeding. If there is bleeding that does not stop, remove the sensor, and apply a new one at a different site. Make sure the sensor is secure after application.

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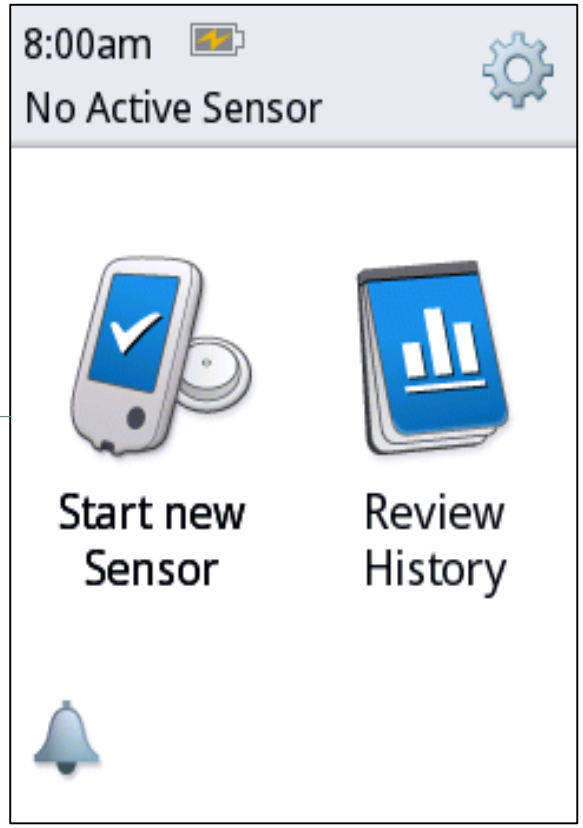
Home Screen – Before Sensor Activation

Start new sensor
Touch to activate new sensor



- After reader set up, the home screen lets you start a new sensor
- After sensor activation, the home screen lets you check glucose

How to Start the Sensor

After applying the sensor, patients must start it with the reader

1. Press the Home Button to turn on the reader

2. Press ‘Start new sensor’ on the screen

3. Hold the reader within 4cm of the sensor to scan it. A beep (if the sounds are enabled) or a vibration will confirm that sensor has been activated. Once patients activate a sensor with a reader, it can only be used with that reader

4. 1 hour after starting a new sensor the patient can get their glucose results*. Patients will now be able to scan the sensor to check their glucose

*The system equilibrates for 1 hour in order to ensure that the system is providing accurate glucose readings

How to Check Glucose

After activation, patients can check glucose in **60 minutes**

1. Press the Home Button to turn on the reader. A screen showing ‘Check Glucose’ will appear. Bring the reader close (within 4 cm) to sensor to scan it

2. Initial scan will display current glucose level, and a trend arrow showing if glucose is going up, down, or changing slowly

After wearing the sensor for some time, the glucose history begins building up and patients can also see 8-hour history with every scan

With every scan, patients will see their current glucose level, 8 hours of glucose history, and a trend arrow showing if their glucose is going up, down, or changing slowly

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The FreeStyle LibreLink app

Now you can do it with your Android & iPhone smartphone[1]

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- Use the free FreeStyle LibreLink app instead of, or in combination with the FreeStyle Libre reader[2,3]
- Phone displays the current glucose reading, trend arrow, and up to 8-hours of glucose history with every scan
- The sensor communicates with the reader that started it, or the FreeStyle LibreLink app that started it[2,3]
- If you wish to use both the reader and the app, start your sensor with the reader first, then scan with the phone within one hour
- Data is not synchronised between devices, to ensure reports include all available data, choose one device to scan sensor at least once every 8 hours
- Easy to share reports with caregivers and healthcare professional with LibreView and LibreLinkUp[4]

1. The FreeStyle LibreLink app is compatible with NFC-enabled phones running Android OS 5.0 or higher and with iPhone 7 and higher running iOS 11 and higher. 2. The FreeStyle LibreLink app and the FreeStyle Libre reader have similar but not identical features. A finger prick test using a blood glucose meter is required during times of rapidly changing glucose levels when interstitial fluid glucose levels may not accurately reflect blood glucose levels or if hypoglycaemia or impending hypoglycaemia is reported by the FreeStyle LibreLink app or when symptoms do not match the LibreLink app readings. 3. The FreeStyle Libre sensor communicates with the FreeStyle Libre reader that started it or the FreeStyle LibreLink app that started it. A sensor started by the FreeStyle Libre reader will also communicate with the FreeStyle LibreLink app, provided that the FreeStyle LibreLink app is used to scan the sensor within an hour of the sensor starting up. 4. LibreLinkUp is a mobile application, developed and provided by Newyu. Use of LibreLinkUp requires registration with LibreView, a service provided by Abbott and Newyu, Inc.

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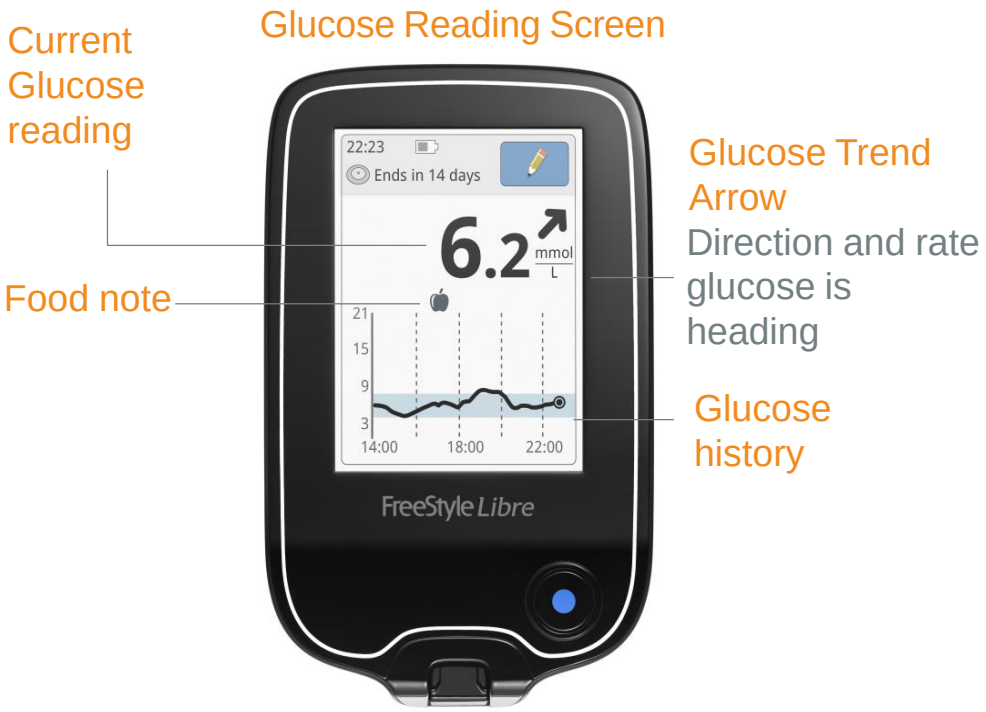
Reader Features After the Sensor is Scanned

The FreeStyle Libre system provides more than just a glucose number

The reader screen shows:

- Current glucose reading
- Glucose trend arrow indicating if glucose is going up, down, or changing slowly, as well as the rate of this change
- Graph of the last 8 hours of glucose history
- An optional message with information about critical glucose levels
- A symbol indicating that food or rapid acting insulin notes have been added in the last 8 hours



Note:

1. *8 hour graph line will appear flat when readings are below 2.2 mmol/L and above 21.0 mmol/L .*
2. *8 hour graph line turns red when readings are below 3.9 mmol/L.*

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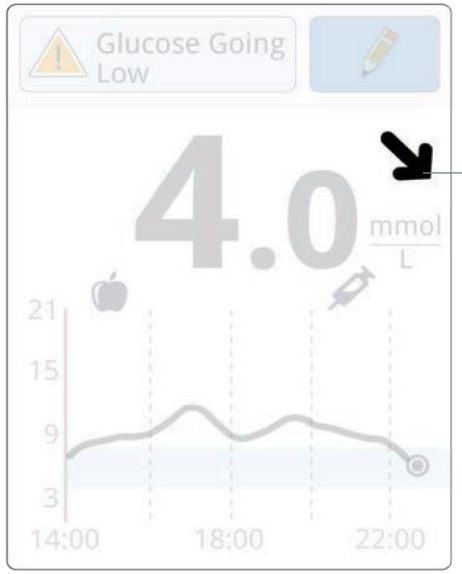
Glucose Trend Arrows

The glucose trend arrow is a tool to help patients monitor their glucose more closely. It shows the direction a patient's glucose is heading—going up, down, or changing slowly

And, the **angle of the arrow** indicates how quickly or slowly the patient's glucose is changing. With this information, patients can better understand their glucose levels

- Glucose is going up quickly
  (more than 0.1 mmol/L per minute)
- Glucose is going up
  (between 0.06 and 0.1 mmol/L per minute)
- Glucose is changing slowly
  (less than 0.06 mmol/L per minute)
- Glucose is going down
  (between 0.06 and 0.1 mmol/L per minute)
- Glucose is going down quickly
  (more than 0.1 mmol/L per minute)



Glucose Reading Screen

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Important to Scan the Sensor

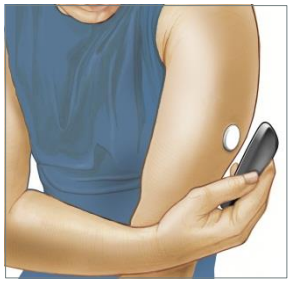
Patients can check their glucose as often as they want. The sensor continuously measures glucose every minute. It stores this glucose data every 15 minutes.

Every 1 minute

- Current glucose reading is updated
- The trend arrow is updated

Every 15 minutes

- 8-hour glucose history is updated



The sensor stores up to 8 hours of glucose data

For example, if a person scans their sensor at 13:00 and does not scan until 22:00, the glucose data from 13:00 to 14:00 is not captured

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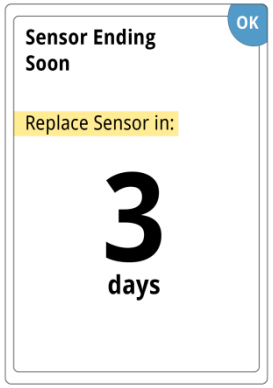
Reader Notifies Patients when it is Time for a New Sensor

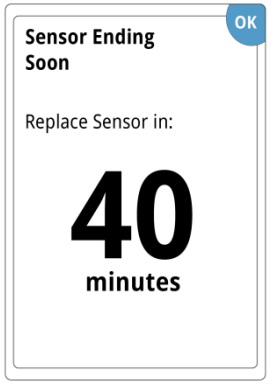
Notifications on scan

Sensor ending soon:

If the sensor is going to end in less than 3 days, a message appears on the reader after the scan, before presenting a reading



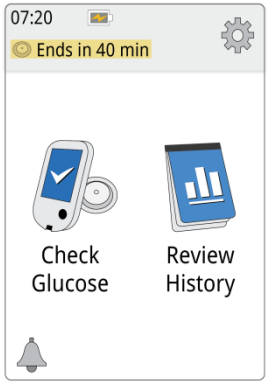
Notification showing sensor ending soon start appearing 3 days before end of sensor



Notifications on home screen

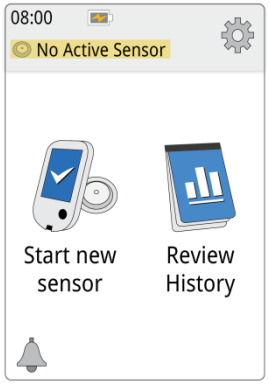
Sensor ending soon:

A message is always displayed showing the amount of time remaining



Sensor ended/No active sensor:

When there is no active sensor, the status bar displays “No Active Sensor”



End of Sensor Notification

The sensor automatically stops working after 14 days and must be replaced

Patients will see this screen on their reader notifying them that it is time to replace their sensor

If a sensor is removed before 14 days of use, then patients need to start a new sensor to check glucose

The reader will tell patients to replace it once the sensor has ended and the patient tries to scan

How to Remove the Sensor

After patients remove their sensor, they should apply and start a new sensor

The sensor is easy to remove. Patients simply pull up the edge of the adhesive and slowly peel away from the skin in one motion[1]

The reader will tell patients to replace it once the sensor has ended and the patient tries to scan

*__1.__ Discard the used sensor according to local regulations.

ADCMDP180051b(1) – Date of Preparation May 2018

Replacing the Sensor

- Patients should remove currently applied FreeStyle Libre sensor before applying a new sensor
- After patients remove their sensor, they should follow the instructions on how to apply and activate a new sensor
- The reader can only read one sensor at a time and the sensor will only give glucose readings to the reader that started it
- If a sensor is removed before 14 days of use, a prompt to confirm that the patient would like to start a new sensor appears on the reader when patient attempts to start another sensor

ADCMDP180051b(1) – Date of Preparation May 2018

What to Do if a Sensor Falls Off or the Device Malfunctions?

- Abbott Customer Careline
  - Telephone - 0800 170 1177 (Mon-Fri 8:00am - 8:00pm)
  - Email – adchelpuk@abbott.com

ADCMDP180051b(1) – Date of Preparation May 2018

Managing Skin Reactions from the Sensor

- If significant skin irritation around or under the sensor occurs, the patient should remove the sensor and stop using the FreeStyle Libre system. They should contact their healthcare professional before continuing to use the FreeStyle Libre system

- Applying the sensor may cause bruising or bleeding. If there is bleeding that does not stop, the sensor should be removed, and a new one applied to a different site

- All centres will be provided with Abbott sensor adhesion guide leaflet

ADCMDP180051b(1) – Date of Preparation May 2018

How to Dispose of System Components After Use?

- Puck / sensor - Sharps bin

- Applicator with cap on - Biohazard bag

- Sensor pack - General waste

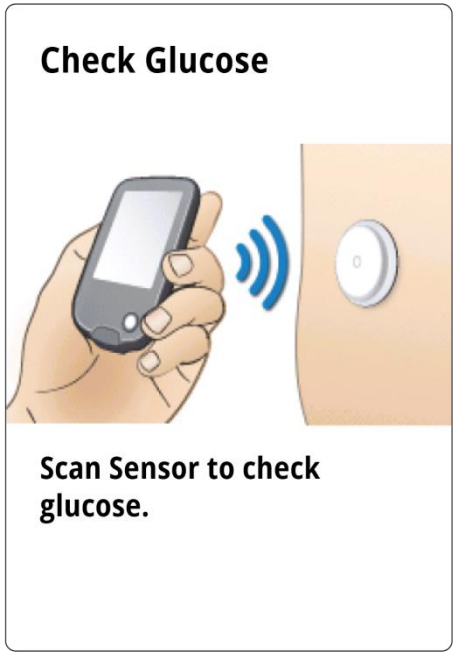
ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre System Reader Reports

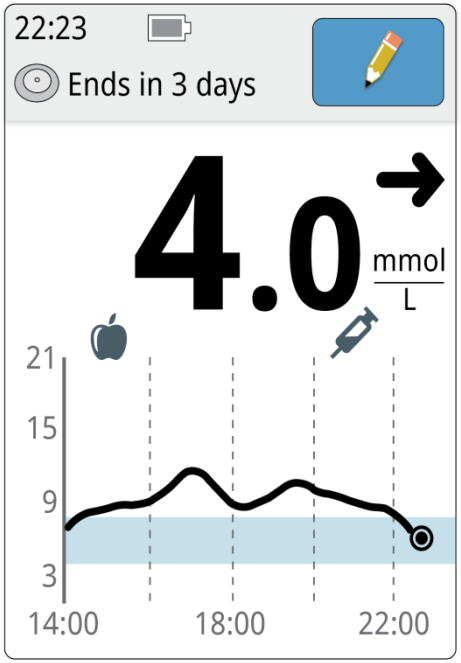
ADCMDP180051b(1) – Date of Preparation May 2018

Most Commonly Seen Screens

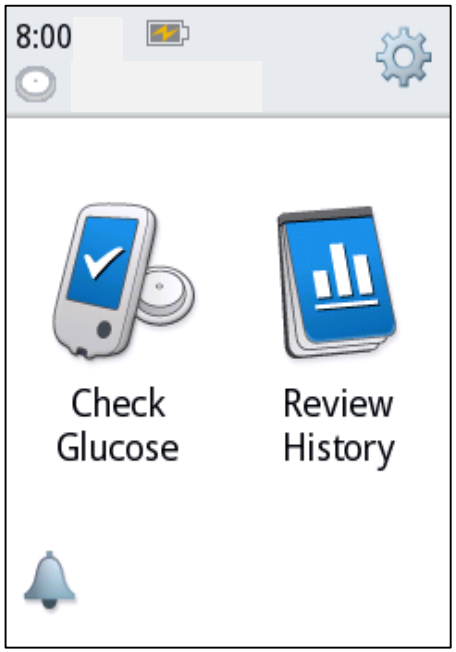
Patients will see the following screen when they turn on the reader using power button:



After each scan, patients will see a screen like the example shown below:



Patients can return to this home screen from any screen by pressing blue home button on the reader

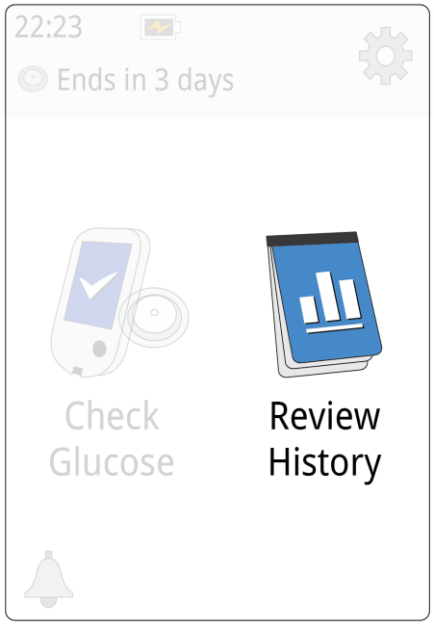


Simulated data for illustrative purposes only. Not real patient or data.

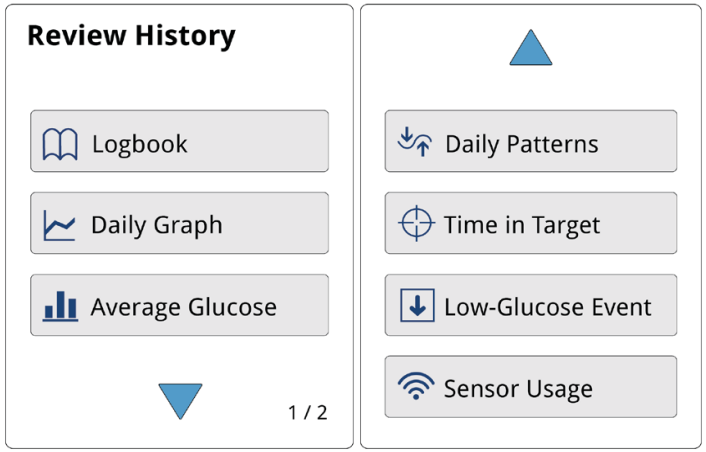
FreeStyle Libre Reader Reports

- There are 7 reports on the reader:
  - **Logbook**
  - **Time in Target**
  - **Low Glucose Events**
  - Daily Graph
  - Average Glucose
  - Sensor Usage
  - Daily Patterns

- They are accessed via the **Review History** icon on the Home Screen

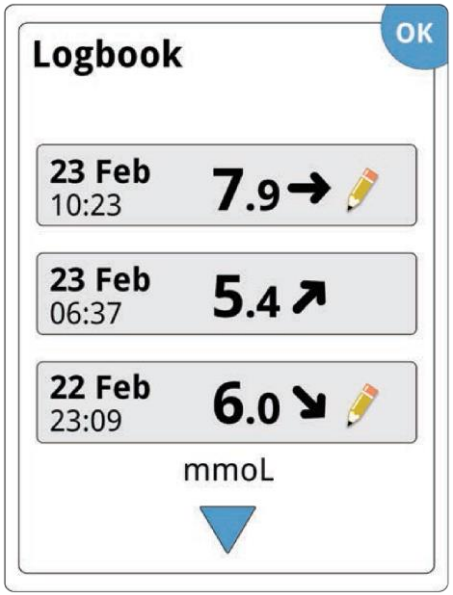


Review History
Touch to review information about past glucose readings



Logbook

- An entry is created when a patient checks glucose, takes a blood glucose reading or a ketone test was performed
- The pencil icon shows that a note was added, The Logbook will record other entries, such as high or low messages, time and date changes
- Logbook entries can be edited within 15 minutes after checking glucose results
- The patient can use Notes to record events such as food eaten or insulin taken



Provides a detailed view of glucose readings, activity to help patients see day-to-day glucose values and information stored.

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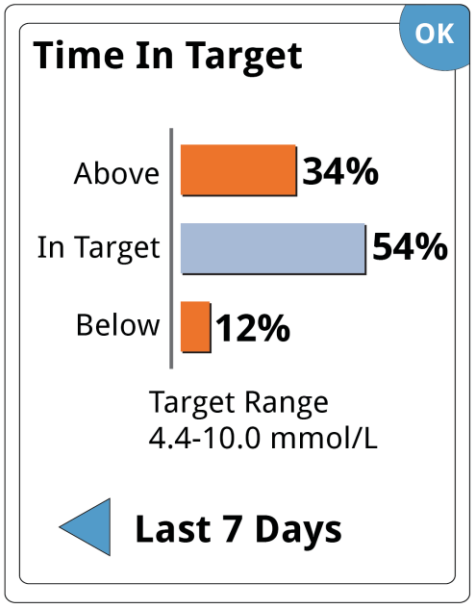
Time in Target

This report shows the percentage of time glucose readings were **above or below the target glucose range**.

- Shows percentage of time above, below, or within the target glucose range listed at the bottom of the report
- This reader report can show the last 7, 14, 30, and 90 days†



More information on highs and lows can help motivate patients to get more of their readings into the target range.

†Assuming patients replace the sensor regularly and scan sensor at least once in 8 hours

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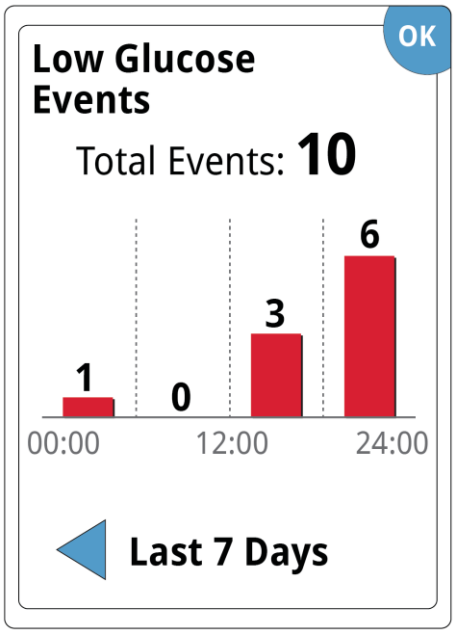
Low Glucose Events

The total number of low glucose events are displayed in the form of bar graph, which shows **the number of low glucose events** at 4 different times of the day

- Low Glucose Events are recorded when glucose readings are lower than 3.9 mmol for longer than 15 minutes
- This reader report can show the last 7, 14, 30, and 90 days †



More information on lows and when they occur can help patients better manage their glucose.

†Assuming patients replace the sensor regularly and scan sensor at least once in 8 hours

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Notes

Notes can be entered when patients get a glucose reading, **within 15 minutes** of scanning the sensor, and directly from the Logbook reader report. From the Glucose Reading Screen patients can easily record their activities, if they choose to.

- By touching the pencil symbol, patients can easily record food, insulin, exercise and/or medication
- Food and rapid-acting insulin notes are shown on glucose graphs, and in some LibreView software reports
- The patient Logbook shows all notes that have been entered

Glucose Reading Screen

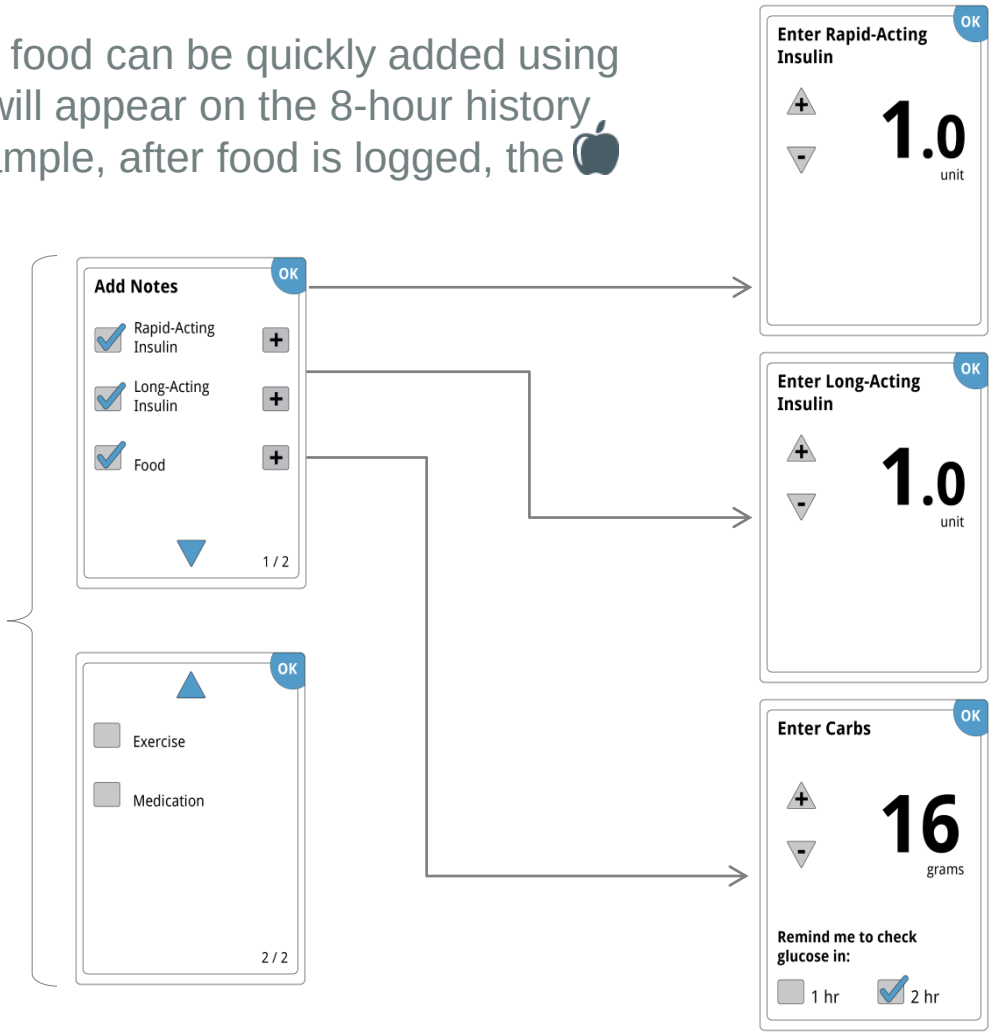
ADCMDP180051b(1) – Date of Preparation May 2018

Notes (cont'd)

Examples of adding notes

Notes for rapid-acting insulin and food can be quickly added using the up and down arrows. These will appear on the 8-hour history graph and other reports. For example, after food is logged, the appears on the graph.

Patients touch the plus symbol to enter insulin units for rapid-acting or long-acting insulin taken (at either 1.0 or 0.5 increments), or to enter carb and/or servings of food.



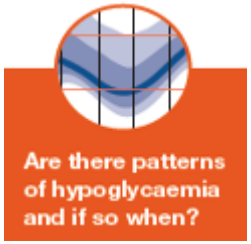
Understanding Ambulatory Glucose Profile (AGP)

ADCMDP180051b(1) – Date of Preparation May 2018

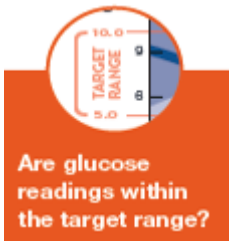
How AGP Can Help Make Glucose Information Clearer

The AGP graph is shown as a clear group of lines which can help you see:

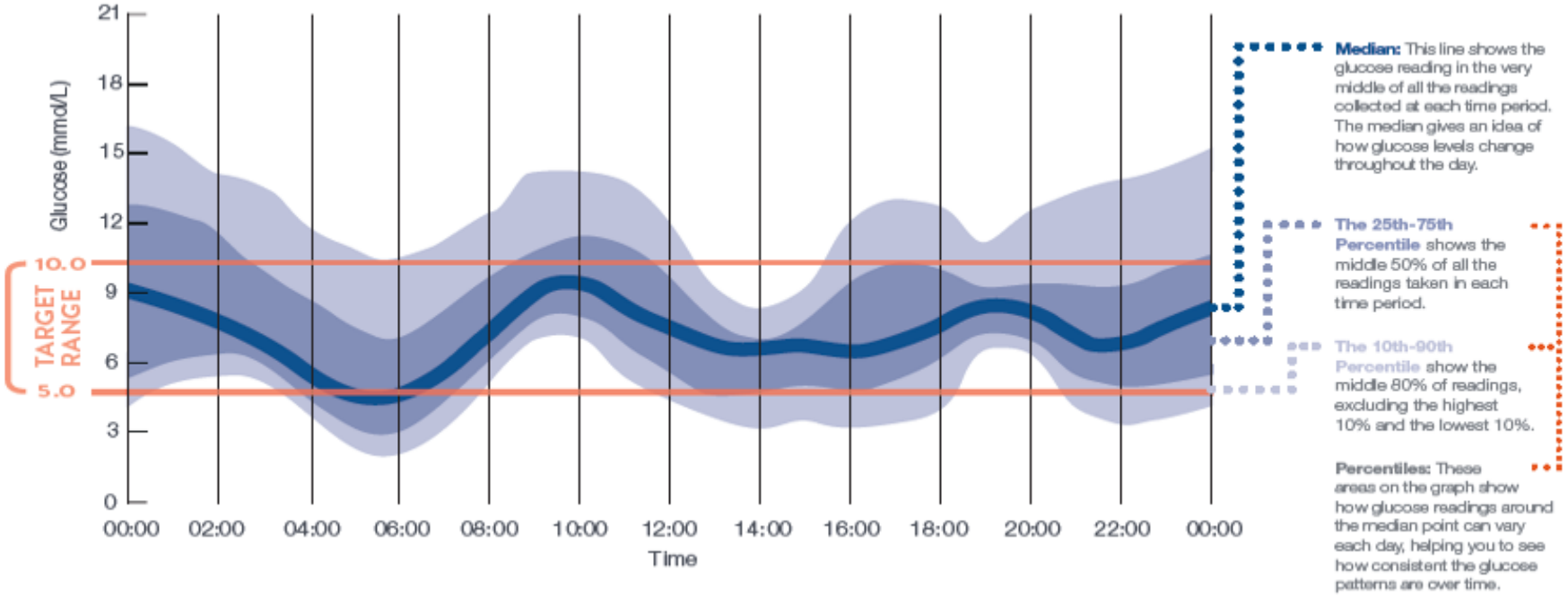
Are there areas of wide variation?



Are there patterns of hypoglycaemia and if so when?



Are glucose readings within the target range?



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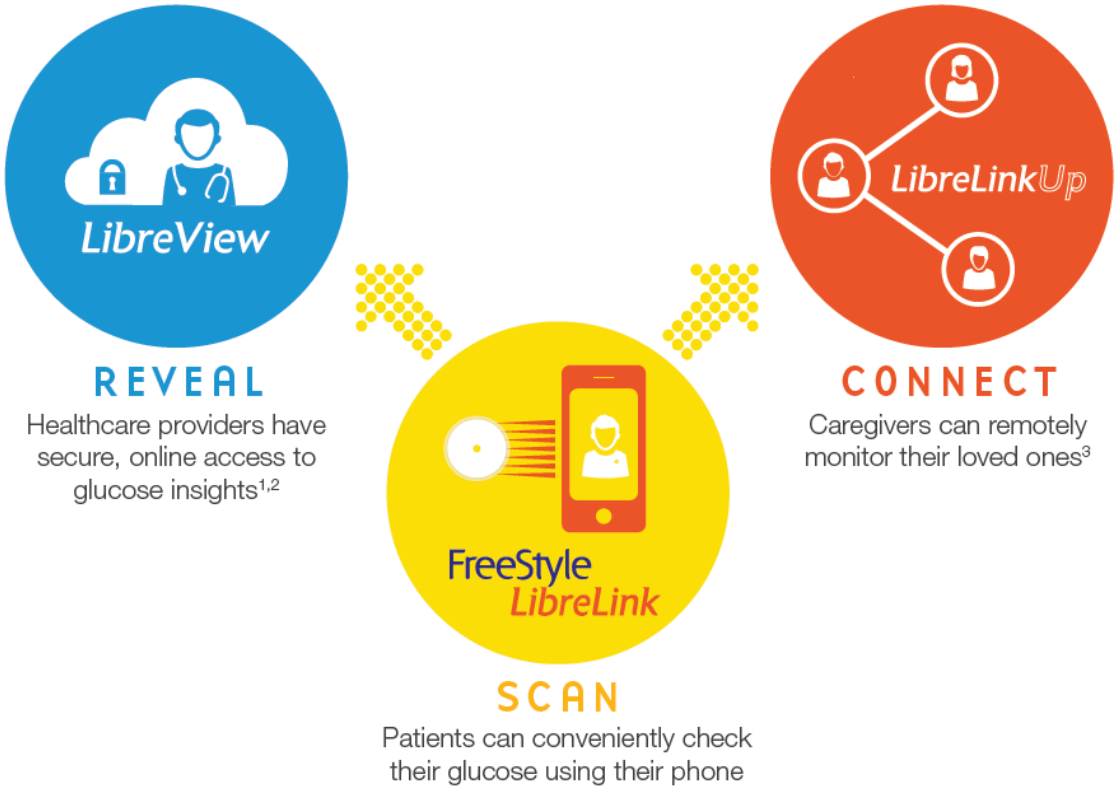
Digital Health Solutions For The FreeStyle Libre System

ADCMDP180051b(1) – Date of Preparation May 2018

Digital Health Solutions for the FreeStyle Libre System

Digital health tools that work together for seamless diabetes management

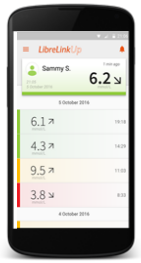


1. LibreView data can be viewed in the Safari Browser on Mac OS X Mountain Lion or higher computers and on iOS 6 or higher mobile devices. Currently, uploading of glucose data is only supported on Windows-based computers. Minimum system requirements are Windows Vista with IE10 or the latest versions of Google Chrome and Mozilla Firefox, running on a 550MHz Pentium III, 512MB DRAM, 2G Hard Drive, USB 2.0, LCD Screen with resolution of 1024x768. 2. LibreView (including the LibreLinkUp mobile app) is not intended to be a primary glucose monitor: home users must consult their primary device(s) and consult a healthcare professional before making any medical interpretation and therapy adjustments from the information in the software, and healthcare professionals should use information in the software in conjunction with other clinical information available to them. 3. LibreLinkUp is a mobile application, developed and provided by Newyu, Inc. Use of LibreLinkUp requires registration with LibreView, a service provided by Abbott and Newyu, Inc.

ADCMDP180051b(1) – Date of Preparation May 2018

Find Out More…

- You can scan the FreeStyle Libre sensor with your Android or iPhone phones using the FreeStyle LibreLink app[1]



- You can stay connected with your loved ones anytime[2], anywhere[3] with the LibreLinkUp[4] app

- A whole new way to view your glucose data online with LibreView[4]

1. The FreeStyle LibreLink app is compatible with NFC-enabled phones running Android OS 5.0 or higher and with iPhone 7 and higher running iOS 11 and higher. 2. 60-minute warm up period required when applying the sensor. 3. Sensor is water-resistant in up to 1 metre (3 feet) of water. Do not immerse longer than 30 minutes. Not to be used above 10,000 feet. 4. LibreLinkUp is a mobile application, developed and provided by Newyu. Use of LibreLinkUp requires registration with LibreView, a service provided by Abbott and Newyu, Inc.

ADCMDP180051b(1) – Date of Preparation May 2018

LibreView For The FreeStyle Libre System

ADCMDP180051b(1) – Date of Preparation May 2018

What is LibreView?

LibreView[1] is your our data management solution for the FreeStyle Libre system, including FreeStyle LibreLink and other major BGM meters[2]

Key benefits:

- Quickly upload reader data to a PC and access it anywhere with an internet connection
- For patients using the FreeStyle LibreLink application, glucose data will automatically upload to your LibreView account each time you scan the FreeStyle Libre sensor
- View consistent, easy-to-read reports to see glucose patterns at a glance
- Optimise treatment plans through remote patient monitoring and collaboration with your care team

Simulated data for illustrative purposes only. Not real patient or data.

1. LibreView is developed, distributed and supported by NewYu, Inc. 2. Compatible with major meters from the FreeStyle, OneTouch, Accu-Check and Bayer brands. For a complete list of compatible meters, visit www.LibreView.com

ADCMDP180051b(1) – Date of Preparation May 2018

How to Sign-Up for LibreView

- Visit LibreView.com and sign up for free
- Log in to the LibreView site and follow the on-screen instructions to upload data from your meter
- Download the patient quick start guide for step by step instructions
- If you wish, share data with your healthcare professional online. Your healthcare professional will send you an email link or give you a practice ID code
- If given a practice code, simply go to your account settings, click on my practices and enter the code given
- Your glucose data is stored securely in the cloud so you and your healthcare professional can view your reports anytime, anywhere from any internet connected device*

* Compatible with major meters from the FreeStyle, OneTouch, Accu-Check and Bayer brands. For a complete list of compatible meters, visit www.LibreView.com

ADCMDP180051b(1) – Date of Preparation May 2018

FreeStyle LibreLink & LibreLinkUp for the FreeStyle Libre System

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle LibreLink app

Now you can do it with your Android & iPhone smartphone[1]

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- Use the free FreeStyle LibreLink app instead of, or in combination with, the FreeStyle Libre reader[2,3]
- Collects data with a quick and painless scan[4]
- Phone displays the current glucose reading, trend arrow, and up to 8-hours of glucose history with every typical scan
- Easy to share reports with caregivers and healthcare professional with LibreView and LibreLinkUp[5]

1. The FreeStyle LibreLink app is compatible with NFC-enabled phones running Android OS 5.0 or higher and with iPhone 7 and higher running iOS 11 and higher. 2. The FreeStyle LibreLink app and the FreeStyle Libre reader have similar but not identical features. A finger prick test using a blood glucose meter is required during times of rapidly changing glucose levels when interstitial fluid glucose levels may not accurately reflect blood glucose levels or if hypoglycaemia or impending hypoglycaemia is reported by the FreeStyle LibreLink app or when symptoms do not match the LibreLink app readings. 3. The FreeStyle Libre sensor communicates with the FreeStyle Libre reader that started it or the FreeStyle LibreLink app that started it. A sensor started by the FreeStyle Libre reader will also communicate with the FreeStyle LibreLink app, provided that the FreeStyle LibreLink app is used to scan the sensor within an hour of the sensor starting up. 4. Scanning the sensor to obtain glucose values does not require lancets. 5. Scanning the sensor to obtain glucose values does not require lancets. 5. LibreLinkUp is a mobile application, developed and provided by Newyu. Use of LibreLinkUp requires registration with LibreView, a service provided by Abbott and Newyu, Inc.

ADCMDP180051b(1) – Date of Preparation May 2018

How to Download the FreeStyle LibreLink app

Download app, start a new sensor, view glucose results

1

Download from the App store or Google Play store

- Download the FreeStyle LibreLink app on your iPhone or Android phone[1]
- When you open the app, you will be guided through the setup process

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2

Start a new FreeStyle Libre sensor

- Scan your FreeStyle Libre sensor with your phone
- Wait 60 minutes while the sensor warms up
- The app will notify you when the sensor is ready for use

3

View Results with an instant scan

- Scan sensor with your phone every 8 hours to avoid gaps in data[2]
- View your current glucose reading, direction your glucose is heading and up to 8 hours of glucose history on your phone
- Explore graphs that reveal trends and patterns that enable patients and HCPs to make more informed treatment decisions.

1. The FreeStyle LibreLink app is compatible with NFC-enabled phones running Android OS 5.0 or higher and with iPhone 7 and higher running iOS 11 and higher. 2. The FreeStyle Libre sensor communicates with the FreeStyle Libre reader that started it, or the FreeStyle LibreLink app that started it. If you wish to use both the reader and the app, start your sensor with the reader first, then scan with the phone within one hour. Data is not synchronized between devices, so to ensure your reports include all available data choose one device that you will use to scan your sensor at least once every 8 hours.

ADCMDP180051b(1) – Date of Preparation May 2018

How to use the FreeStyle LibreLink app and the FreeStyle Libre Reader with the Same Sensor

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1 **Download** from the App store or Google Play store

- Download the FreeStyle LibreLink app on your iPhone or Android phone[1]
- When you open the app, you will be guided through the setup process

2 **Start** a new FreeStyle Libre sensor

- Scan your FreeStyle Libre sensor **with your reader**
- During the 60 minute warm-up period scan your sensor with your phone
- The app and reader will notify you when the sensor is ready for use

3 **View Results** with an instant scan

- Scan sensor with your phone and/or reader every 8 hours to avoid gaps in data[2]
- View your current glucose reading, direction your glucose is heading and up to 8 hours of glucose history on your reader or phone
- Explore graphs that reveal trends and patterns that enable patients and HCPs to make more informed treatment decisions.

1. The FreeStyle LibreLink app is compatible with NFC-enabled phones running Android OS 5.0 or higher and with iPhone 7 and higher running iOS 11 and higher. 2. The FreeStyle Libre sensor communicates with the FreeStyle Libre reader that started it, or the FreeStyle LibreLink app that started it. If you wish to use both the reader and the app, start your sensor with the reader first, then scan with the phone within one hour. Data is not synchronized between devices, so to ensure your reports include all available data choose one device that you will use to scan your sensor at least once every 8 hours.

ADCMDP180051b(1) – Date of Preparation May 2018

LibreLinkUp[1]

- Every FreeStyle LibreLink scan is automatically sent to caregivers phone[2]
- Allows caregivers to remotely monitor glucose readings and trends, and be notified of glucose changes, day and night
- Receive notifications when glucose readings are too high or too low
- Stay connected to help manage diabetes together

Simulated date for illustrative purposes only; not real patient or data.
1. LibreLinkUp is developed, distributed and supported by NewYu, Inc. 2. The LibreLinkUp is compatible with mobile phones running Android OS 4.4 or higher and iPhone running iOS 10 or higher.

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre System Education

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre Academy

Better diabetes management – one scan at a time

- The FreeStyle Libre Academy is a unique resource committed to supporting you, and your patient, to get the most from the FreeStyle Libre system
- A range of ‘bite-size’ modules, that will introduce you, and your patient to the FreeStyle Libre system, and help your patient get the most out of their data to manage their diabetes
- The FreeStyle Libre Academy offers practical advice to incorporate into day-to-day life to help manage their diabetes

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre Academy

- Visit **www.FreeStyleLibreAcademy.co.uk**
- Create a FreeStyle Progress account to access the FreeStyle Libre Academy
- Each module will guide you through the features of the FreeStyle Libre system
- Each module should take approximately 15 minutes to complete and you can save and return to them at your convenience

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre Academy Modules

The triangle of diabetes care

Learn about 3 key areas to improving diabetes management

How the FreeStyle Libre system works

Everything you need to know about the FreeStyle Libre system

Trend arrows

Discover what the trend arrows really mean and how they can help you

Keeping tabs on your glucose ups & downs

Take control of unwanted highs & lows using the FreeStyle Libre system

Hitting back at hypos

Hit back at hypos, by uncovering key insights

ADCMDP180051b(1) – Date of Preparation May 2018

The FreeStyle Libre Academy Modules

Different ways to look at your diabetes day

Spot trends using your data for better diabetes control

How to make positive changes, using your data

Practical solutions to make positive changes to your diabetes day

Using your smart phone

Find out how your smart phone can make managing your diabetes even easier

Using LibreView software

Introducing LibreView. Taking your data and diabetes management to the next level

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