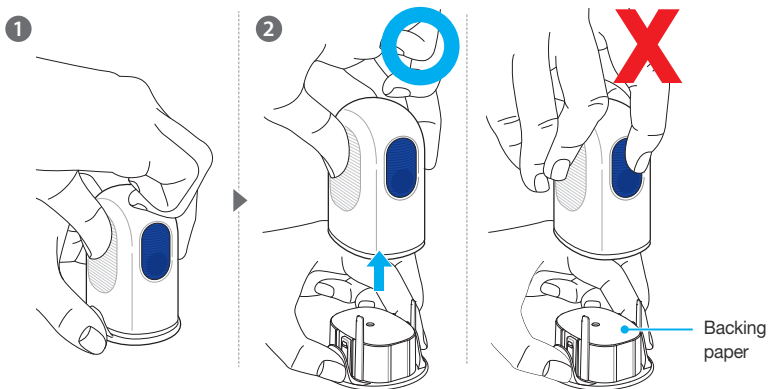


- 6** Hold the safety cap and remove the applicator.
When the safety cap is removed, the backing paper covering the skin adhesive is removed at the same time.

 Note

Make sure that the backing paper has been completely removed from the skin adhesive and is on top of the safety cap.



 Caution

The applicator and the sensor cannot be re-used.

 Warning

Do not press the release button on the applicator until you are ready to attach the sensor.

- 7** Remove the safety cap, and place the applicator horizontally on the rear of your upper arm where the sensor will be attached.

The sensor may not attach properly if the applicator is positioned vertically.

Note



Place the applicator horizontally on the area of attachment and then press the Release button.



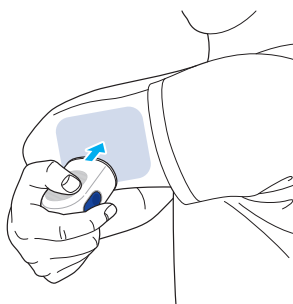
Do not press the applicator on the area of the attachment too hard.



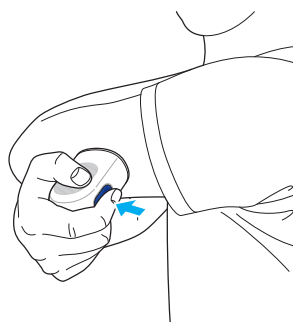
Do not leave any space between the area and the applicator.



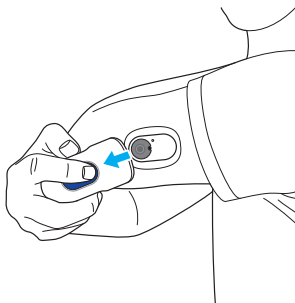
Do not tilt the applicator onto the area.



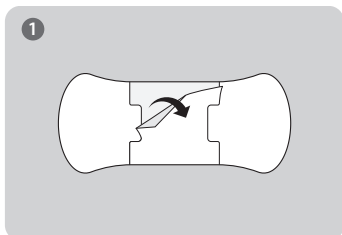
- 8** Press the Release button on the applicator. The sensor is then released from the applicator and can be attached to the rear of your upper arm.



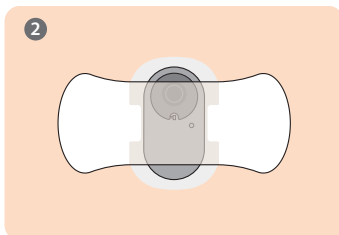
- 9** Remove the applicator and make sure that the sensor has been properly attached.



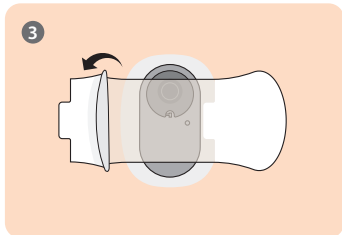
- After attaching the sensor, sensor tape can be attached as shown in the picture below to prevent the sensor from being easily removed from the attachment area. For example, 7 days after attaching the sensor, the tape can be used to prevent it from being removed from the attachment area.



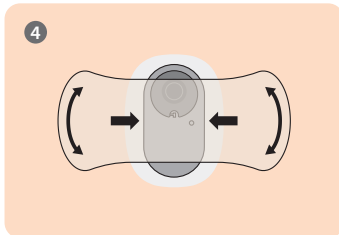
Remove the middle back side of the sensor tape.



Attach the sensor in the center of the sensor tape.



Remove both back sides of the sensor tape.



To affix the sensor to the area, press the sensor tape.

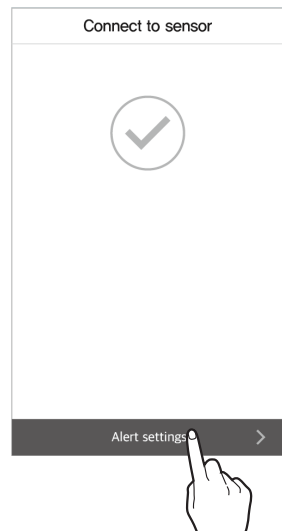
- 10** The applicator is intended for a single use only. Discard it after use.

Configuring your alert settings after connecting to the sensor

After the sensor is connected successfully, enter threshold values for very low, low, and high and proceed with setting up your alerts. It is recommended to consult a medical professional to choose the appropriate threshold values for very low, low, and high.

Take the following steps to configure your alert settings after connecting with the sensor.

- 1 Make sure that the sensor is attached and that the power is on. Refer to '[Attaching the sensor](#)' for more information on attaching sensors.
- 2 Tap **Alert settings** on the 'Connect to sensor' screen if you would like to receive app alerts while using the sensor.



- 3 On the 'Alert settings' screen, enter threshold values for very low, low, high, rapidly changing blood glucose levels and alert types, then tap **Finished**.

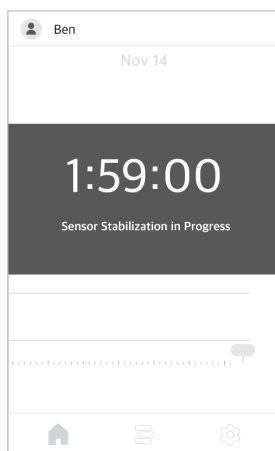
The 'Alert Settings' screen consists of three main sections. The first section allows users to select the unit of measurement (mg/dL or mmol/L) and set threshold values for Very Low, Low, and High blood glucose levels. The second section allows users to select the alert type (2 mg/dL/min or Higher, or 3 mg/dL/min or Higher). The third section allows users to select the alert type (Sound, Vibration, Sound + Vibration, or Mute). A hand icon points to the 'Finished' button in the bottom right corner of the third screen.

- 4 Sensor warmup will start automatically.

 Note

If you need to make a treatment decision during the 2 hours needed for sensor warmup, use a glucose meter.

- The home screen shows the status of sensor warmup, which takes about 2 hours.
- If the sensor fails to warm up, contact your place of purchase or customer service.



5 Once warmup is completed,  changes its color from grey to red. Tap the red .

6 On the 'Calibration value input' screen, enter two glucose measurements within 5 minutes taken with a personal glucose meter by pricking a finger and tap **Apply**.

7 Once the values are entered successfully, the home screen will appear.

 Note

If you do not input initial calibration values, no measurements will be displayed on the chart.

If the sensor fails to connect

If the sensor fails to connect, a pop-up window explaining the cause of the failure will appear. Depending on the cause of the failure, follow these steps to try connecting the sensor again:

- If a sensor is malfunctioning: The sensor is defective and cannot be used. Disconnect the sensor if necessary. Then, attach and connect with a new sensor. Read '[Disconnecting and removing the sensor](#)' for more information on how to disconnect the sensor. For more information on connecting the sensor, please refer to '[Connecting the sensor to Android apps](#)' or '[Connecting the sensor to iOS apps](#)'.
- If the connection is not secure: The sensor cannot be connected due to unstable connection with your mobile device. Take the following steps and try connecting again:
 - Keep the sensor and the smart device close to each other.
 - In the settings of your smart device, turn Bluetooth off and then back on.
- If the sensor is already in use: You have tried to connect to a sensor that is already being used by another user. Check whether the sensor information on the package has been entered correctly. Enter the serial number and PIN code accurately and connect again.

If the connection between the sensor and the smart device is interrupted

A communication error between the sensor and the smart device may occur in the following cases:

- If Bluetooth is turned off on your smart device
- If the sensor is not within connection range of the smart device
- If the sensor is out of battery
- If the sensor is broken
- If the smart device has insufficient storage space

If a communication error occurs, a normally operating sensor will store the data it collects and transfer it to the smart device when the connection is reestablished. The sensor can save data for 12 hours. After 12 hours, any additional data may be lost.

If a connection error occurs, follow these steps and try connecting again:

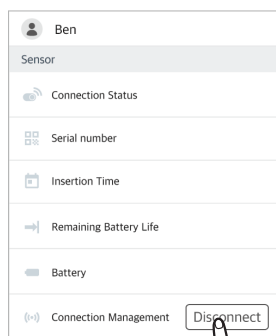
- Keep the sensor and the smart device close to each other.
- Exit the app, then restart it.
- Turn off and restart Bluetooth on your smart device.
- Turn the power of the smart device off and then back on.

Disconnecting and removing the sensor

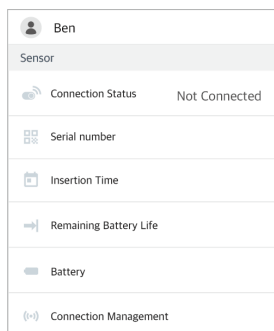
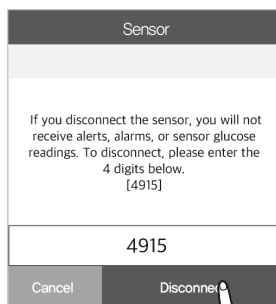
The sensor is automatically disconnected when it expires. You can manually disconnect from a sensor while it is still in use. You can disconnect from a sensor if it malfunctions due to damage or low battery. You may lose any data that hasn't been transferred when you disconnect the sensor. Check that all recent data has been received before you disconnect it.

Follow these steps to disconnect from the sensor:

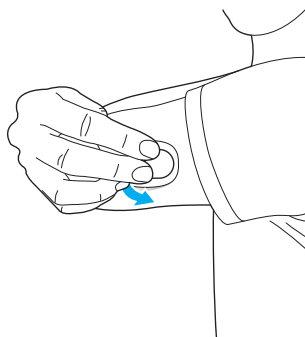
- 1 Run the app and tap  at the bottom of the home screen.
- 2 Tap **Disconnect** on the right of Connection management. The sensor disconnection pop-up window will appear.



- 3 Enter the 4-digit code in the sensor disconnection popup window and then tap **Disconnect**. Once the sensor is successfully disconnected, the connection status will change to **Not connected**.



- 4 Remove the sensor attached to the rear of your upper arm. Remove it slowly, starting from the edge of the skin adhesive tape.



3.3 Understanding the home screen

If the sensor is operating stably, a real-time graph of changes in glucose level will be displayed on the home screen of the app. The CareSens Air app home screen contains the following:

- Basic information: user profile, user name
- Menu bar: links to the home screen, the log book, and Settings
- Glucose data: sensor connection status, current glucose level, glucose level change arrow, glucose trends, and calibration values

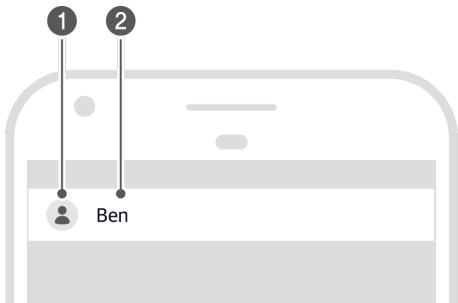
The glucose level and glucose change arrow on the home screen can help you understand your glucose status. You can check the changes in the sensor's glucose levels in the glucose trends. Understanding the content and features of the app will help you use CareSens Air to manage your diabetes more effectively.

This section will help you to:

- Understand what is displayed on the Home screen.
- Learn what the icons on the Home screen do.
- Learn how to check past glucose trends.
- Check glucose levels.
- See your low and high alert levels in the glucose trends.
- Check whether a sensor has been calibrated
- Check the event logs and the details of events

Basic information

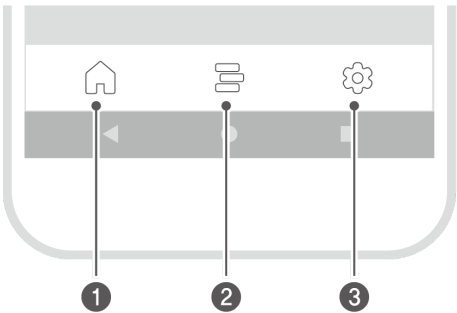
The table below explains the basic information which the CareSens Air app displays at the top of the home screen.



No.	Icon	Name	Description
1		Profile picture	The image uploaded to your profile is shown. You can change this image on the 'User information' screen by tapping your nickname.
2	Ben	Nickname	The nickname you entered when you registered is displayed. It can be changed on the 'User information' screen by tapping it.

Menu bar

The following table explains the icons and features available on the Home screen menu.



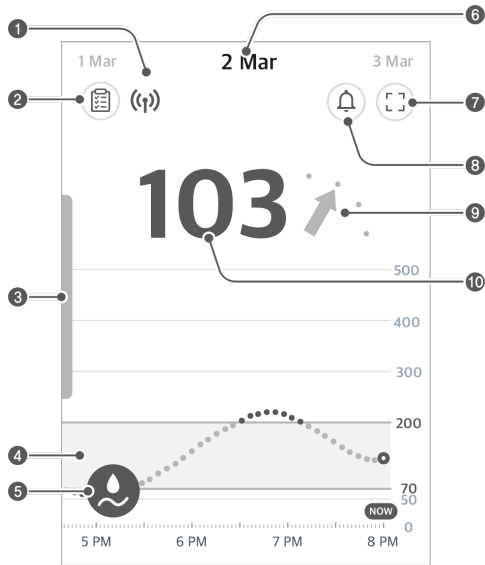
No.	Icon	Name	Description
1		Home	Tap this to go back to the app home screen.
2		Log book	- When you tap this icon, a list of events registered by the user will be displayed. You can add, edit, or delete events. - Refer to '5 Using events' for detailed information on events.

No.	Icon	Name	Description
3		Configuration	• When you tap this icon, you will see a display telling you about the sensor connection status, whether or not the battery is low, the calibration status, alert type, and your glucose alert levels. • All data saved on the app can be uploaded and saved to the cloud server. You can change your settings to automatically upload data, or you can instantly upload data whenever you want. • You can connect to a new sensor, or disconnect from a currently connected sensor. • You can check the user manual, help center, and app info. • Refer to 'Changing Settings' for more information on changing your settings. • Refer to 'Updating the app' for more information on updating to the latest version of the app. • You can check the personal glucose meter that is connected to your smart device, or register a new one. Refer to 'Connecting with a glucose meter' for more information on connecting with your personal glucose meter.

Glucose data

The CareSens Air app displays your current glucose level and the glucose change arrow as shown below. You can choose whether to display them vertically or horizontally on your smart device screen.

The table below explains how the home screen displays glucose level data:



No.	Icon	Name	Description
1	((P))	Connection status	The status of the connection between the smart device and the sensor is displayed in the following colors: • Blue: The communication status is good. • Red: The smart device has not received any signal for 25 minutes. • Grey: The smart device's Bluetooth is turned off.

No.	Icon	Name	Description
2		Glucose statistics	When you tap this icon, statistics of your glucose levels over the past 24 hours will be displayed: average level, standard deviation, and how much time your level spent within the target glucose level, and the low and high ranges
3		Viewing previous data	When you tap the bar on the left of the screen, your previous glucose trends will appear in sections. When you select a section, a detailed screen will be displayed in the same format as the home screen.
4		Glucose trends	Changes to your glucose level while the sensor is in use are displayed as a graph.
5		Calibration button	- If you tap this icon, the calibration input screen will be displayed. Enter a glucose reading taken with a personal glucose meter by pricking a finger. The icon will be red if an first calibration value has not been entered. Once an first calibration value is entered successfully it turns blue. - See '4 Calibration' for more information on calibration.
6	2 Mar	Date	The date when the data was received from the currently connected sensor is displayed. Tap another date to see the glucose trends for that date.
7		Screen mode	Tap to switch between landscape and portrait screen orientation.
8		Alert history	Move to the alert history screen.

No.	Icon	Name	Description
9		Glucose trend arrows	The current rate of change in your glucose level compared with the previous measurement is displayed. Each point indicates a glucose reading taken every 5 minutes. See ' Change arrows ' for more information on the glucose level change arrow.
10		Glucose level	The most recently measured glucose reading is displayed, either as a number or as one of the following: • - : No data has been received within the last 25 minutes • Lo: Lower than 40 mg/dL (2.2 mmol/L) • Hi: Higher than 500 mg/dL (27.8 mmol/L)

Trend arrows

The glucose trend arrow shows the direction and velocity of change between the most recent glucose reading and the second most recent reading.

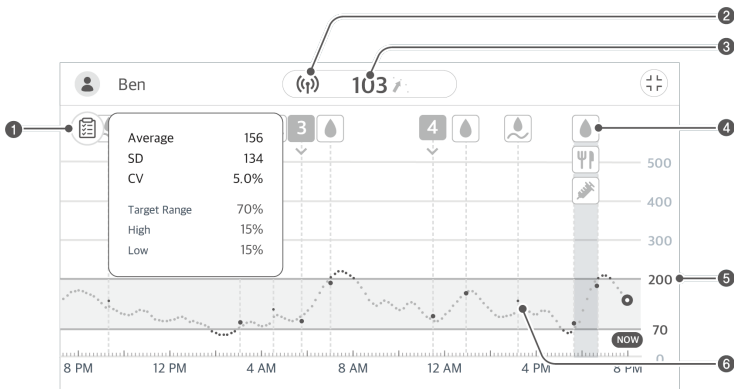
It is shown as an arrow on the right of the most recent glucose reading on the home screen.

Velocity arrow	Change in glucose level	Description
	Stable	The glucose level is increasing or decreasing by less than 1 mg/dL (0.1 mmol/L) per minute, or by less than 5 mg/dL (0.3 mmol/L) every 5 minutes.
	Increasing slowly	The glucose level is increasing by 1 mg/dL (0.1 mmol/L) or higher per minute, or by 5 mg/dL (0.3 mmol/L) every 5 minutes.
	Increasing	The glucose level is increasing by 2 mg/dL (0.1 mmol/L) or higher per minute, or by 10 mg/dL (0.6 mmol/L) every 5 minutes.
	Increasing rapidly	The glucose level is increasing by 3 mg/dL (0.2 mmol/L) or higher per minute, or by 15 mg/dL (0.8 mmol/L) every 5 minutes.
	Decreasing slowly	The glucose level is decreasing by 1 mg/dL (0.1 mmol/L) or higher per minute, or by 5 mg/dL (0.3 mmol/L) every 5 minutes.
	Decreasing	The glucose level is decreasing by 2 mg/dL (0.1 mmol/L) or higher per minute, or by 10 mg/dL (0.6 mmol/L) every 5 minutes.
	Decreasing rapidly	The glucose level is decreasing by 3 mg/dL (0.2 mmol/L) or higher per minute, or by 15 mg/dL (0.8 mmol/L) every 5 minutes.
	Unknown	The volume of data is insufficient to calculate the direction and speed of changes in glucose levels.

Interpreting trends in glucose data

Interpreting trends in glucose data shown on the home screen can help you manage your diabetes more effectively. The most recent glucose reading is displayed, and the pace and direction of change in comparison with the last measurement is indicated with an arrow. See '[Change arrows](#)' for more information on the glucose level change arrow.

Interpreting trends in glucose data will allow you to choose appropriate ways based on the glucose level intervals and the pace and direction of change to manage your diabetes in advance. This will help you keep your glucose level within the target range.



No.	Description
1	You can use the statistics based on your glucose trends to check your glucose level management status. If the amount of time your blood glucose level remains within the target range is high, but the standard deviation is also high, this indicates large changes in blood glucose level. If the sensor was functioning normally within the given period, you can check your events and use this information to make lifestyle improvements which will help you maintain a stable level.
2	This shows that the sensor attached to your body is operating normally. An alert will occur if the sensor goes out of its range.

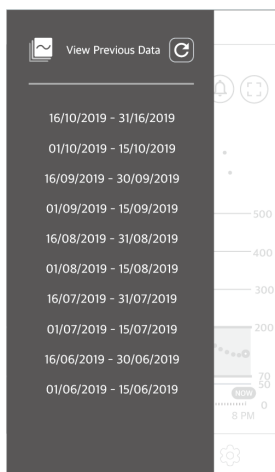
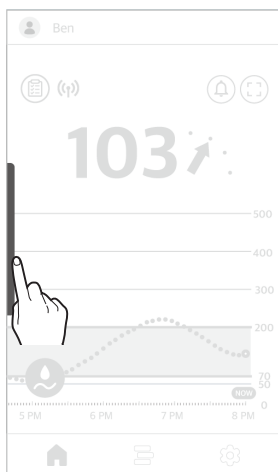
No.	Description
3	The most recent glucose reading is 103 mg/dL (5.7 mmol/L), which is within the target range. It has increased in comparison to the previous value, but is still within the target range. However, even if the glucose reading value is 103 mg/dL (5.7 mmol/L), it may increase to 160 mg/dL (8.9 mmol/L) or higher after 30 minutes when you see the change arrow. *  means that the glucose level is increasing by 2 mg/dL (0.1 mmol/L) or more per minute, or up to 10 mg/dL (0.6 mmol/L) every 5 minutes. Refer to 'Change arrows' for more information. In this case, the CareSens Air user and those who use personal glucometers may take different actions. • With CareSens Air: Interpreting glucose trends allows you to predict a rapid increase in the glucose level to 160 mg/dL (8.9 mmol/L) or higher after 30 minutes by looking at the change arrow. This means that observing the graph can help you know that you should take actions to prevent a serious incident occurring due to hyperglycemia. • Only using a personal glucose meter: If your glucose level is increasing rapidly, it could reach 160 mg/dL (8.9 mmol/L) in 30 minutes. But you cannot see the change in level unless you take another finger prick measurement. This may make it difficult to take action before a hyperglycemia event occurs.
4	By checking the events displayed in the glucose trends, you can check the change in your glucose level according to your lifestyle. For example, you may see that jogging for 30 minutes every day brings down your high value to the target level and helps you maintain it.
5	The glucose alert levels have been set to 70 mg/dL (3.9 mmol/L) for low and 200 mg/dL (11.1 mmol/L) for high. Check whether your glucose level is staying within the target range.
6	You can check calibration values which have been applied normally on your glucose trends.

Viewing previous data

You can click the vertical bar on the left of the app home screen to view earlier data. You can not only view readings from the sensor you are currently using but all the data delivered from any sensor used on your account. The glucose trend screen appears when you tap on the date list.

Take the following steps to view earlier glucose trends:

- 1 Tap the vertical bar on the home screen.



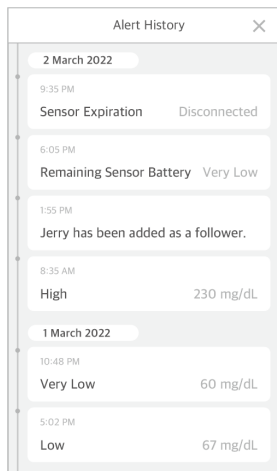
- 2 Tap the date list on the 'View previous data' screen. A detail screen will appear. Tap **X** to go back to the home screen.

Notification history

Tap  on the upper right corner of the home screen to see the notification history. You can check the history of blood glucose alarms (very low, low blood sugar, high blood sugar, sudden fluctuations), sensor notifications, and follow-related notifications.

Follow the steps below to check the notification history.

- 1 Tap  in the top right of the home screen. The notification history screen will be displayed.



- 2 Tap  to go back to the home screen.

3.4 Exploring the app features

You can use various features of the CareSens Air app to manage your diabetes in your daily life. All the glucose readings collected by the sensor appear together on the glucose trends display. You can record your food intake, physical activity, insulin intake, and other items as events. Observing changes in your glucose level and comparing them with these events can help you make lifestyle improvements or make effective treatment decisions. All the data measured by the CareSens Air system can be uploaded and saved on the cloud server.

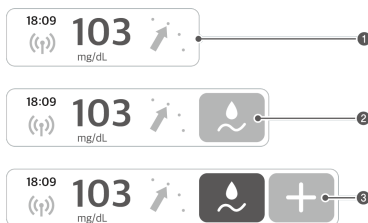
Reading this section will allow you to:

- Record events and check past events
- Configure your alert settings
- Update the app to the newest version
- Check help or the tutorial as needed
- Register a personal glucose meter

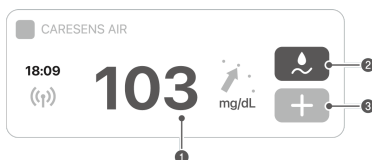
Running the widget

CareSens Air can display important information and features as a widget so that you can view them on the main screen of your smart device. You can use the CareSens Air widget to check your sensor connection status, sensor glucose readings, and trend arrows, or to enter a calibration value.

You can choose from three different widget layouts for Android.



You can check the widget layout for iOS.



No.	Name	Description
1	Glucose data	This display shows your sensor connection status, most recent glucose reading, and a trend arrow. It appears on the home screen when you tap the widget.
2	Calibration value input	This display shows whether a calibration value needs to be entered. If a calibration value is required, the icon will turn red. Tapping  causes the 'Calibration value input' screen to appear.
3	Entering an event	Tapping  causes the 'Enter event' screen to be displayed.

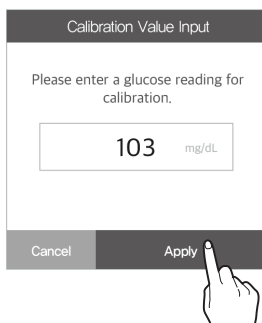
Entering a calibration value

When you need to enter a calibration value, you should use a personal glucose meter to make a blood glucose reading by pricking a finger. Enter this reading as a calibration value for CareSens Air.

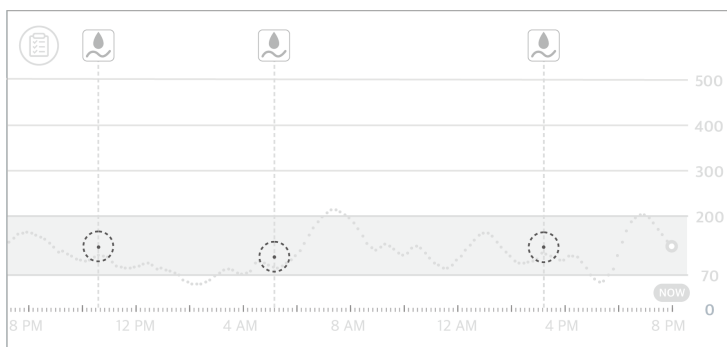
Refer to '[4 Calibration](#)' for more information on glucose level calibration.

Follow these steps to enter a calibration value in the app.

- 1 Tap  at the bottom of the home screen. The 'Calibration value input' screen will be displayed.
- 2 Use your personal glucose meter to measure your blood glucose level with a finger prick.
- 3 Enter the finger prick reading within 5 minutes and tap **Apply**. The calibration value is reflected by CareSens Air.



- 4 Check your glucose trends on the home screen to see whether the calibration value has been applied.
 - The calibration value is shown as a grey dot on the glucose trends at the date and time of entry.



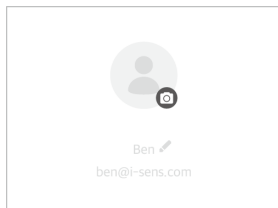
Editing and checking your profile

You can view or edit the information in your user profile.

Follow these steps to enter profile information.

1 Tap  at the top of the home screen. The 'User Information' screen is displayed.

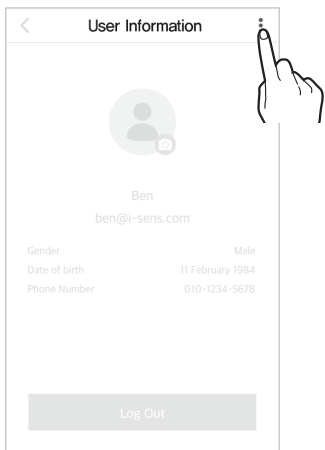
2 Tap  on the 'User Information' screen to change your profile photo. The 'Change Profile Photo' screen will be displayed.



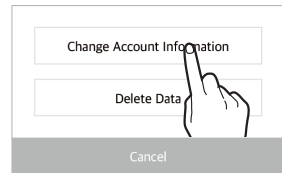
3 In the 'Change Profile Photo' pop-up window, tap **Take a Picture or Select from the Gallery**.



4 To change user information, tap  at the top right of the 'User Information' screen.



5 Tap **Change Account Information**.



6 On the 'Change account information' screen, change your information and tap **Save**.

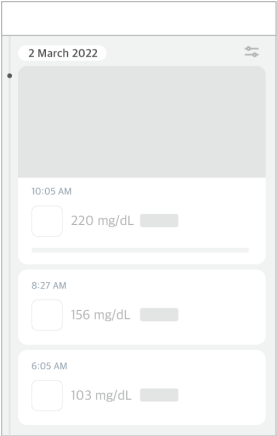
Viewing the log book

The log book displays all the events registered by the user, beginning with the most recent.

Follow these steps to check event details in the log book.

- 1 Tap  at the bottom of the home screen. Events registered by the user are displayed.

- The table below explains the icons used on the logbook screen.



Icon	Name	Description
	Glucose level	The value entered by the user or measured using the blood glucose meter is displayed as follows at the time the event occurred. • : If the entered value indicates a glucose level • : If the entered value indicates a calibration value
	Ketone level	The value entered by the user or the ketone value measured by the ketone meter is displayed at the time the event occurred.
	Insulin	The name of the insulin and the dosage taken at the time the event occurred are displayed. You can enter up to 2 insulin administration records.
	Oral medication	The name of the oral medication and the dosage taken at the time the event occurred are displayed. You can enter up to 5 doses of oral medication.

Icon	Name	Description
	Meal	The amount of carbohydrates and protein consumed at the time the event occurred are displayed in grams (g).
	Exercise	The number of minutes spent exercising is displayed, along with the time.

Recording an event

Activities or situations that may affect your glucose level can be registered as events. Refer to '5 Using events' for more information on how to use events to manage your diabetes.

Follow these steps to register an event.

1 Tap at the bottom of the home screen and then tap on the logbook screen. The 'Enter Event' screen will be displayed.

2 Tap the event icon you want to enter.

Enter Event

Glucose

Exercise

Insulin

Ketone

Food

Oral Medication

Cancel

3 Enter the event details, including the date and time, on the 'Enter Event' screen, then tap **Save**.

- A maximum of 2 types of insulin can be entered.
- A maximum of 2 doses of oral medication can be entered.
- If necessary, you can enter notes or attach files such as photos and audio.

Date

2 March 2022

Time

12:27 AM

My Data

Glucose

None

Memo

Attachments

Save



Changing your settings

The following table explains the icons and features available on the home screen menu:
Your settings are displayed when you tap  at the bottom of the home screen.

Icon	Name	Description
	Connection status	If a sensor is connected, In use is displayed. If a sensor is not connected, Not connected is displayed.
	Serial number	This is a unique number assigned to the sensor.
	Insertion Time	The date and time when the sensor was first connected are displayed.
	Remaining battery life	The remaining life of the sensor is displayed.
	Battery	The sensor battery status is displayed as Good , Low , or Very low .
	Connection Management	• Tap Disconnect to disconnect the sensor currently in use. • If a sensor is not connected, New connection is displayed. Refer to 3.2 Connecting the sensor for more information on how to connect the sensor.
	Interval	The first two calibrations are made at 12-hour intervals, and the third calibration are made at 24-hour intervals.
	Last calibration	The time of the last calibration is displayed.
	Very low	Enter the threshold value for Very low to receive alerts and select the alert method.
	Low	Enter the threshold value for Low to receive alerts and select the alert method.
	High	Enter the threshold value for High to receive alerts and select the alert method.

Icon	Name	Description
	Rapidly changing	Enter the threshold value for Rapid changes to receive alerts and select the alert method.
	System	You can set the notifications for calibration, signal loss, sensor expiration, sensor battery, and error notification.
	Voice	You can choose to have your glucose level and alerts read aloud.
	Security	You can set the app lock feature.
	Glucose Meter	Register and connect a personal glucose meter with your smart device.
	Follower management	You can share your data to the follower app. Refer to ' Sharing your blood glucose information ' for detailed information on how to share data.
	Last upload	The last time data was uploaded to the app is displayed.
	Upload now	Tap Upload to save data stored in the app on the cloud server.
	Unit	Choose either mg/dL or mmol/L as a measurement unit.
	Maximum y-axis value on chart	Set the maximum value for the Y axis indicated on the chart.
	Tutorial	You will be directed to the 'Tutorial' screen.
	Help	You will be directed to the 'Help' screen.

Icon	Name	Description
	App info	The current version of the app is displayed. If a new version of the app is available for installation, it will be shown to the right of the current version. Refer to 'Updating the app' for detailed information on how to update the app to the newest version.

Follow the steps below to change your alert settings:

1 Tap  at the bottom of the home screen.

2 Make changes on the Settings screen and tap **Apply**.

The settings screen offers the following options:

- **Alert type:** Choose from **Sound, Vibration, Sound and Vibration, or Mute**.
- **Voice:** Choose whether you would like to have your **Glucose level** and **Alerts** read aloud.
- **Glucose alert level:** Enter your very low, low and high alert levels.
- **Rapidly changing:** Choose between **2 mg/dL/min (0.1 mmol/L/min) or higher** and **3 mg/dL/min (0.2 mmol/L/min) or higher**.
- **System:** Set whether to receive alerts for calibration, signal loss, sensor expiration, sensor battery, and error notifications.
- **Unit:** Select mg/dL or mmol/L as a measurement unit.
- **Maximum y-axis value on chart:** Choose among Auto, 300 mg/dL (16.7 mmol/L), 400 mg/dL (22.2 mmol/L), and 500 mg/dL (27.8 mmol/L) for the max value of the Y axis.

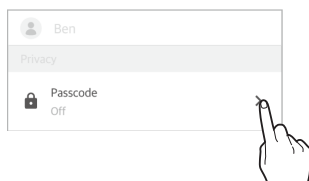
Setting app lockout

You can set the app lock feature to protect your personal data.

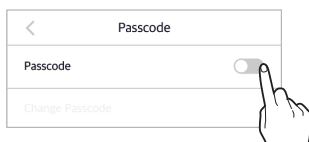
Follow the steps below to set up the app lock feature:

1 Tap  at the bottom of the home screen. The Settings screen will be displayed.

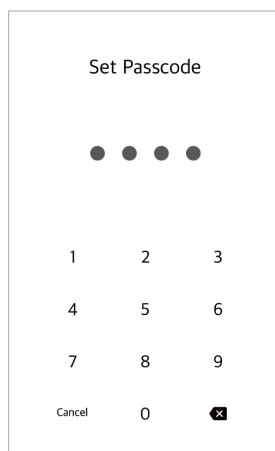
2 Tap  of App Lock.



3 Tap .



4 Enter the 4-digit password.



5 Enter the password again to confirm.

Note

- Once the lock setting is complete, you need to enter your password to access the app.
- If you have forgotten the password, you can reset it after following the on-screen instructions to go through the verification process.

Connecting with a glucose meter

You can connect a personal glucose meter to the CareSens Air app and download your glucose meter data.

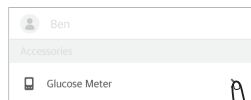
Follow these steps to connect a glucose meter:

Note

For your personal glucose meter, use a Bluetooth glucose meter from the manufacturer of CareSens Air.

1 Tap  at the bottom of the home screen. The Settings screen will be displayed.

2 Tap  next to **Glucose Meter**.



3 Tap  to connect with a new glucose meter.

- Turn on your personal glucose meter on and connect using Bluetooth. The method for connecting with Bluetooth may differ depending on the type of glucose meter you use.

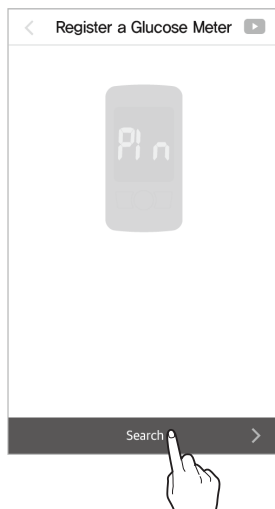
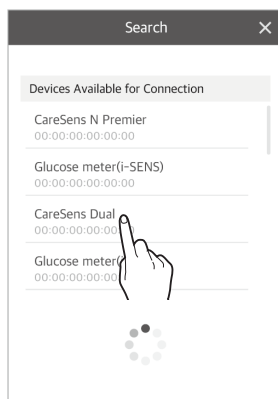


4 Check the glucose meter registration procedure and then tap **Next**.

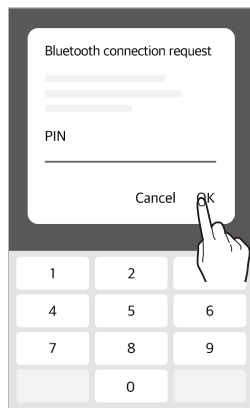


5 Tap **Search** to start searching for a glucose meter.

- Tap  for more information on the connection process.

**6** From the list of connectable devices, tap the glucose meter you want to connect to.

- 7 Enter the PIN code displayed on the glucose meter screen and tap **OK**.

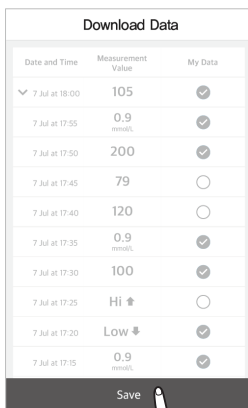


- 8 When the process is completed, the download will proceed. When the download is completed, you will be directed to the 'Download Data' screen, and the downloaded glucose level will be displayed. Tap **Save** to complete the process.



Note

Uncheck My Data to exclude it from the statistics.

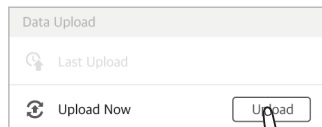


Uploading data

All the data saved on your smart device by the CareSens Air app can be saved and used on the cloud server.

Follow the steps below to upload your app data:

- 1 Tap  at the bottom of the home screen. The Settings screen will be displayed.
- 2 Tap **Upload** to instantly save your app data on the cloud server.



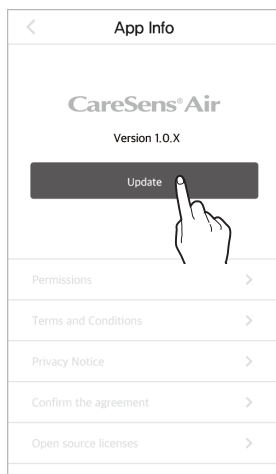
Updating the app

If a new version of the CareSens Air app is available and has not been downloaded, it will be shown on the Settings screen.

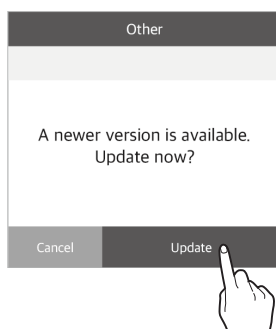
Go to the App Store to download and install the most recent version.

Follow these steps to update the CareSens Air app to the most recent version.

- 1 Tap  at the bottom of the home screen.
- 2 On the Settings screen, tap  next to **App info**.
- 3 Tap **Update** in the 'App info' screen. **Update** is enabled only when a new version of the app is available.



- 4 Tap **Update** in the popup window. You will be taken to the app store.

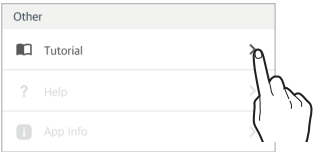


- 5 Download and install the newest version of the app from the app store. Your existing data will not be affected as the app is updated to the most recent version.

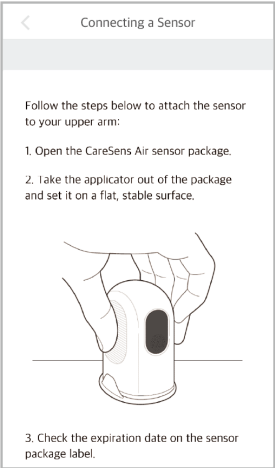
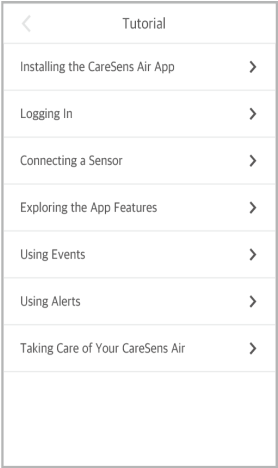
See how to use

Follow these steps to view the CareSens Air app user guide.

- 1 Tap  at the bottom of the home screen.
- 2 On the Settings screen, tap  next to **Tutorial**.

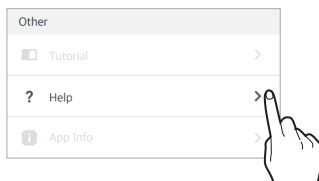


- 3 Tap to check if you have any questions about how to use the device.

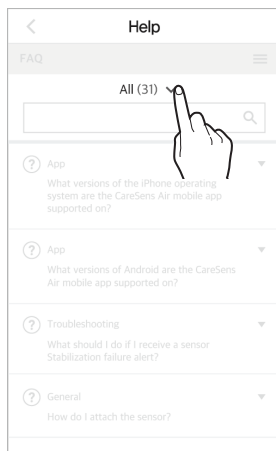


See Help

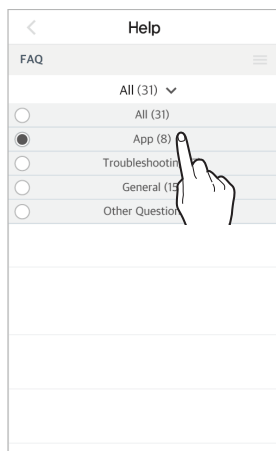
- 1 Tap ➤ next to **help** Help to read frequently asked questions and answers. You will be taken to the 'Help' screen.



- 2 Tap ▼ on the 'Help' screen to check the categories.



- 3 Tap a help category to see a list of topics.

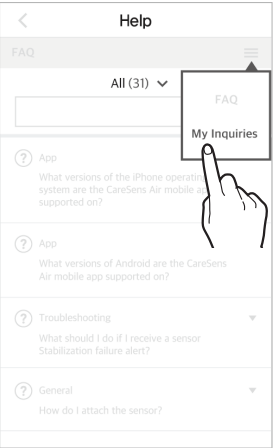
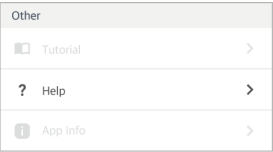


Making an inquiry

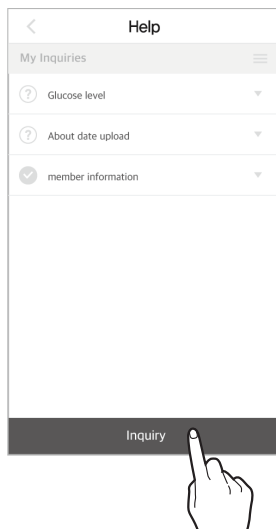
You can use the app to ask questions about CareSens Air. The manufacturer's customer service representatives will check your inquiry and reply by email.

To view **My inquiries**, or **Inquiry**, follow these steps:

- 1 Tap  at the bottom of the home screen.
- 2 On the Settings screen, tap  next to **help**. You will be taken to the 'Help' screen and the FAQ list will be displayed.
- 3 On the 'Help' screen, tap  **My inquiries**. You can see the list of your inquiries.



- 4 Tap **Inquiry** on the 'My Inquiries' screen to make a new inquiry.



- 5 On the 'Make an inquiry' screen, tap **Finished** after making an inquiry.

- **Email address:** The email address associated with the account is entered automatically and cannot be changed.
- **Model number:** The model of the smart device using the app is entered automatically and cannot be changed.
- **OS version:** The version of the CareSens Air app installed on the smart device is automatically entered and cannot be changed by the user.
- **App version:** The version of the CareSens Air app is automatically entered.
- **Title:** Enter the title of the inquiry.
- **Content:** Enter the details of your inquiry.
- **Attachments:** Tap  to attach a product image or screenshot of the app screen related to your inquiry.
- **Personal Information Collection and Usage Agreement:** In order to add an inquiry, you must agree to the collection of your personal information.

Inquiry ✕

* Email Address
ben@naver.com

* Model Number
SM-G955N

* OS Version
9

* App Version
1.0.X

* Title
Member information

* Content
How do I change member information?

Attachments
image.png ✕

* Agree to the Collection and Use of Your Personal Information ☒

Finish

- 6** Tap **Close** on the pop-up window which confirms receipt of the inquiry.

Help

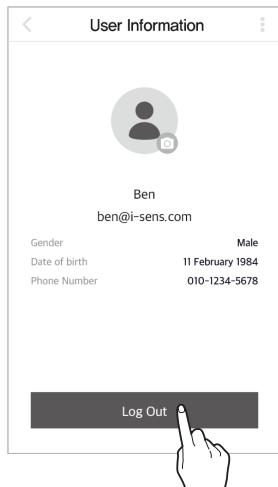
Your inquiry has been submitted.

Close

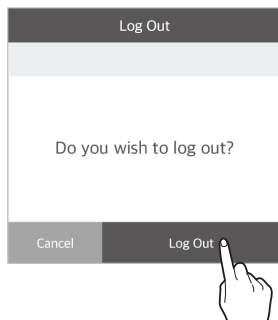
3.5 Logging out

Follow these steps to log out of the app:

- 1 Tap  at the top of the home screen. The 'User Information' screen is displayed.
- 2 Tap **Log Out** on the 'User Information' screen to log out.



- 3 Tap **Log Out** on the 'Log Out' pop-up window.



Note

You cannot view your account information while you are logged out. You need to log in to view your existing account information.

4 Calibration

The sensor measures glucose levels in intracellular fluid and transfers the data to the CareSens Air app. Continuous glucose monitoring calculates the concentration of glucose in the blood by measuring the concentration of glucose in the interstitial fluid. However, when the concentration of glucose in the blood changes, the concentration of glucose in the interstitial fluid changes about 5 to 15 minutes later. CareSens Air uses readings taken by a glucose meter by pricking a finger and entered by the user within 5 minutes to calibrate the sensor. The calibration is used to match sensor glucose readings as accurately as possible to the actual glucose level in the intracellular fluid, optimizing the performance of the CareSens Air.

Caution

Do not calibrate if your blood glucose level is changing rapidly (by 2 mg/dL (0.1 mmol/L) or more per minute). This may affect the accuracy of the sensor.

Note

If a CareSens Air calibration alert occurs, you must calibrate immediately. Otherwise, the accuracy of readings may decrease.

How to calibrate a sensor

If a calibration alert occurs, you can use a glucose meter to measure your glucose level by pricking a finger and enter it within 5 minutes into the CareSens Air app. This calibration value will be immediately reflected by the app.

When to calibrate a sensor

Following the sensor warmup, the initial two calibrations should be made at intervals of 12 hours each. Subsequently, calibrations should be made every 24 hours for the remaining of sensor's useful life.

Refer to '[4.2 Calibration value input](#)' for more information on your calibration interval and how to input calibration values.

4.1 Measuring a calibration value

Calibration requires a reading taken by pricking a finger. A personal glucose meter is used to measure your glucose level. Refer to '[Connecting to a glucose meter](#)' for more information on how to connect a glucose meter to a smart device.

Caution

- Do not use a measurement taken from any part of the body (palm, forearm, etc.) other than your fingertip for calibration. The result may be different from one taken by pricking a finger, and this can affect the accuracy of sensor glucose readings.
- If the result of the finger prick reading is lower than 10 mg/dL (0.6 mmol/L) or higher than 600 mg/dL (33.3 mmol/L), it cannot be used as a calibration value.

Note

- If the calibration value is inaccurate, CareSens Air may fail to provide accurate glucose readings.
- It is recommended that you use the same glucose meter for every measurement. The accuracy of glucose meters differs between models. If you switch to a different glucose meter while using a sensor, this may result in inaccurate glucose readings.
- Before starting the calibration, make sure that the glucose meter is operating correctly according to manufacturer specifications, and that the date and time on the glucose meter and smart device match.

Follow these steps to measure your glucose level from a finger prick using a glucose meter:

- 1** Before the finger prick test, wash your hands (including the area you will prick) with warm water and soap, and dry them thoroughly. Do not apply any moisturizer or skin care product to the area you will prick.
- 2** Follow the instructions on the glucose meter when you prick your fingertip. Make sure to use a fingertip. Measurements made using other parts of the body may be inaccurate.
- 3** Enter the glucose measurement within 5 minutes as the calibration value. Refer to '[4.2 Calibration value input](#)' for more information on how to input calibration values.

4.2 Entering a calibration value

CareSens Air calibrates the sensor using glucose readings taken within 5 minutes by pricking a finger to ensure that its readings are accurate.

The user must enter a calibration value in the following situations:

After completing sensor warmup

Once the sensor is connected with a smart device, the sensor will warm up for the next two hours. Enter two glucose measurements taken with a glucose meter by pricking a finger. For more information on how to input calibration values after warm up the sensor connection, please refer to '[Connecting the sensor to Android apps](#)' or '[Connecting the sensor to iOS apps](#)'.

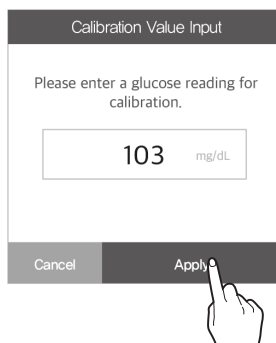
You can check the calibration interval of the sensor in use on the Settings screen. Refer to '[Changing settings](#)' for more information.

Setting and receiving calibration alerts

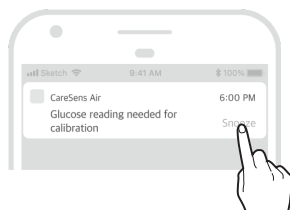
If you do not enter a calibration value at the end of the calibration interval, a calibration alert will occur and a pop-up window will be displayed.

When a calibration alert occurs, follow these steps to enter a calibration value:

- Tap  on home screen and enter a calibration value then tap **Apply**.



- Tap **Snooze** on the right side of the calibration alert screen to snooze the alert for 10 minutes. The alert will repeat every 3 hours if a calibration value is not entered.



5 Using events

You can use events to record activities and situations which may affect your glucose levels. You can manage events you have recorded on the CareSens Air app using the log book. You can also view them on your glucose trends, allowing you to manage your glucose levels more effectively. Managing your events allows you to track specific activities or situations that affect your glucose levels, allowing you to manage your diabetes more effectively with the help of a medical professional. You have the option of uploading and saving the events you record on the cloud server.

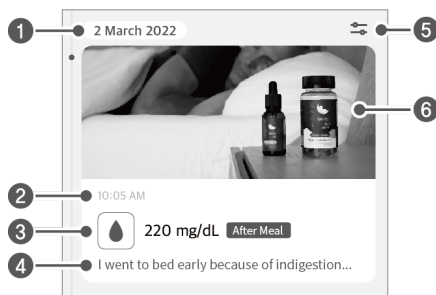
This section will help you to:

- Record, edit, or delete an event.
- Check the event icon on the CareSens Air app.
- See the effect of events on your glucose levels.

5.1 Checking your event information

Viewing the log book

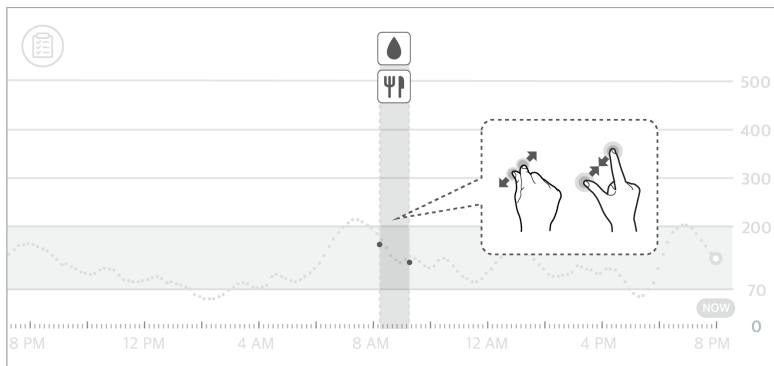
Using the log book, you can record appropriate types of events for a variety of situations, and check your glucose levels before and after they occurred. Events are displayed by the CareSens Air user app as shown below. Tap  on the bottom of the home screen to view a list of events you have recorded.



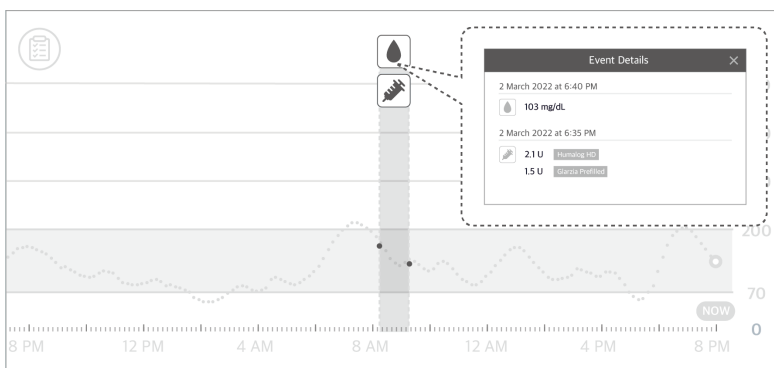
Index	Name	Description
1	Date	The year, month, and day that the event occurred are displayed.
2	Time	This displays the time that the event occurred.
3	Event value	The event value entered by the user and additional information are displayed.
4	Memo	The memo entered with the event is displayed.
5	Event filter	The results are filtered by the selected item.
6	Attachments	Displays the picture, audio and files attached to Events.

Viewing events on your glucose trends

When the screen is oriented horizontally, event details are displayed using the icons above your glucose trends at each specific time. The app displays events from the last 24 hours by default, and you can zoom in or out to view events from the past 6 hours, 12 hours, or 24 hours. When multiple categories are recorded as a single event, the number of items entered is expressed as a number, not as an icon. Tap ▼ under the number to display the event category icons.



You can view the event details by tapping the event icon.

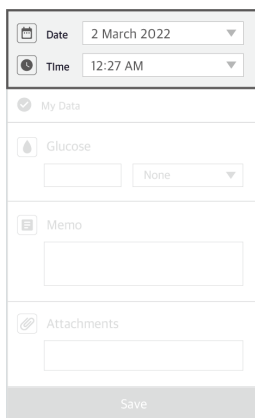
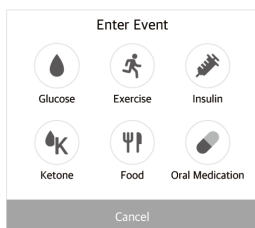


5.2 Recording an event

You can record glucose levels, ketones, insulin, oral medication, diet, and exercise that may affect your diabetes management to register them as events

Take the following steps to register an event using the CareSens Air user app.

- 1 Tap  on the menu bar of the home screen. A list of events you have recorded is displayed in chronological order, beginning with most recent.
- 2 Tap  at the bottom right of the event list.
- 3 Tap the event icon you want to enter.
- 4 On the 'Enter event' screen, select the date and time of the event.

The 'Enter event' form includes a 'Date' field set to '2 March 2022' and a 'Time' field set to '12:27 AM'. Below these is a 'My Data' section with a 'Glucose' field containing a drop icon and a 'None' dropdown. There are also 'Memo' and 'Attachments' text input fields. A grey 'Save' button is at the bottom.

5 On the 'Enter event' screen, enter desired information such as blood glucose level, ketone level, insulin, oral medication, meal, and exercise, and then tap **Save**.

- **Glucose level:** Enter your blood glucose value and diet information. The unit selected in the Unit section of the Settings menu is displayed.
- **Ketone value:** Enter the ketone value.
- **Insulin:** Enter the type and the dose of insulin administered. You can enter up to 2 items.
- **Oral medication:** Enter the name and the dose of oral medication administered. You can enter up to 5 items.
- **Meal:** Enter the amount of carbohydrates and proteins in grams.
- **Exercise:** Enter the type and duration of the exercise.

The screenshot shows the 'Enter event' screen. At the top, there are dropdown menus for 'Date' (2 March 2022) and 'Time' (12:27 AM). Below these is a section titled 'My Data' with a checkmark icon. The main content area has three sections: 'Glucose' with a glucose drop icon, a text input field, and a 'None' dropdown; 'Memo' with a notepad icon and a large text input field; and 'Attachments' with a paperclip icon and a text input field. At the bottom is a 'Save' button.

6 If necessary, additional information about the event can be recorded in notes and attachments.

- **Memo:** Record any significant information at the time of the event.
- **Attachments:** You can attach files such as photos and audio.

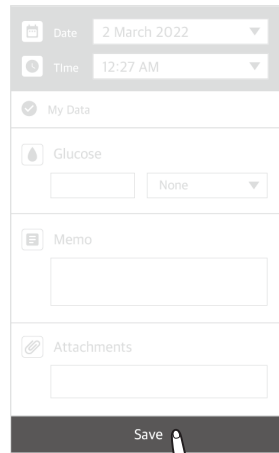


Caution

Depending on the size of the attached file, there may be limitations on the attachment function.

This is another screenshot of the 'Enter event' screen, identical to the one above. It shows the same layout: Date and Time dropdowns, 'My Data' section, 'Glucose' input with unit dropdown, 'Memo' text area, 'Attachments' input, and a 'Save' button at the bottom.

7 Tap **Save** when you finish entering information.



The screenshot shows a mobile application interface for entering data. At the top, there are two dropdown menus: 'Date' set to '2 March 2022' and 'Time' set to '12:27 AM'. Below these is a section titled 'My Data' with a checkmark icon. The first section is 'Glucose', featuring a glucose drop icon, a text input field, and a dropdown menu currently showing 'None'. The second section is 'Memo', with a list icon and a large text input area. The third section is 'Attachments', with a paperclip icon and a text input field. At the bottom of the form is a dark grey bar with the word 'Save' in white text. A hand icon is shown pointing at the 'Save' button.

5.3 Changing an event

You can also change or delete any event details you have recorded.

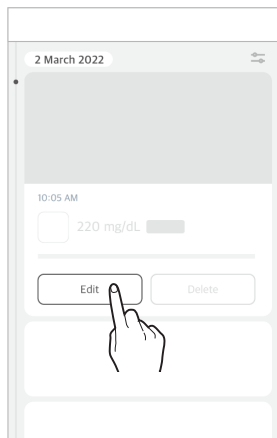
Editing an event

You can edit the event information you have recorded. If the event includes a blood glucose reading taken with a personal glucose meter or a calibration value entered by you, the date, time, and glucose level of the event cannot be changed. When you edit an event, any category which cannot be edited is disabled. Calibration values and glucose readings entered by a user or taken with a connected glucose meter as part of an event are displayed as shown below.

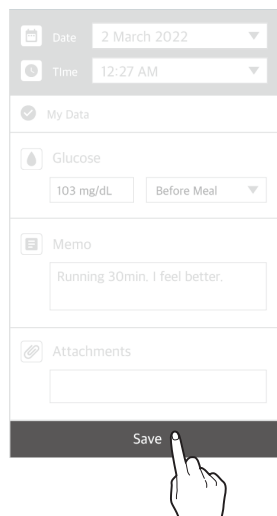
ITEM	Glucose level icon in Events
Calibration value (inactive)	
Blood glucose reading taken with a glucose meter (inactive)	
Blood glucose reading entered by the user	
Ketone values entered by the user	

Follow these steps to edit an event you have recorded.

- 1 Tap  on the menu bar of the home screen.
- 2 Select the event you want to edit from the event list and tap **Edit**.



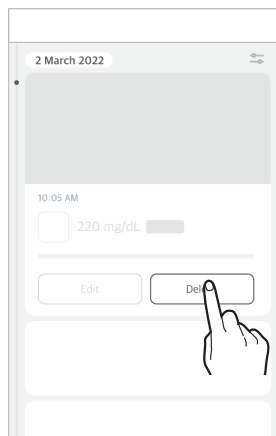
- 3 Edit the category you want to edit and tap **Save**.



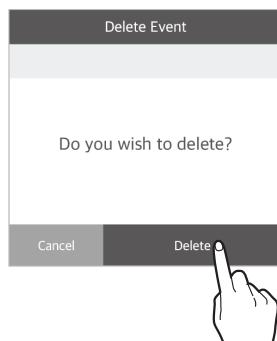
Deleting an event

Follow these steps to delete an event you have recorded.

- 1 Tap  on the menu bar of the home screen.
- 2 Select the event you want to delete and tap **Delete**.



- 3 Tap **Delete** to delete an event on the pop-up window.
The event data has been deleted.



Note

Calibration values entered by you and glucose levels measured with a personal glucose meter cannot be deleted.

6 Using alerts

If you have diabetes, it is extremely important to manage your glucose levels in real time. The CareSens Air app uses alerts to update you with your glucose levels even when it is not running. With the alerts, you can manage your glucose levels as well as your use of CareSens Air in real-time.

This chapter will help you to:

- Configure your initial alert settings
- Understand the differences between various alerts
- Select appropriate alert settings based on the sound mode of your smart device
- Change the alert settings to suite you

6.1 Changing your smart device settings

To receive alerts from the app, you must enable app notifications in your smart device's settings.

Note

- Make sure that the volume of your smart device is turned on. You will not be able to hear alerts if the volume is turned off.
- If your smart device is connected to other devices, you can only hear alerts on one device.
If you connect your smart device to another device, check the settings and make sure that you can receive alerts

Follow these steps to enable the CareSens Air app to send alerts on your smart device:

- 1 Open the settings of your smart device.
- 2 In 'Settings', tap **Notifications**. A list of apps which send notifications will appear.
- 3 Find CareSens Air on the list of apps on the 'Notifications' screen and tap the icon.
- 4 In app details, tap **Notifications** and enable **Show notifications**.

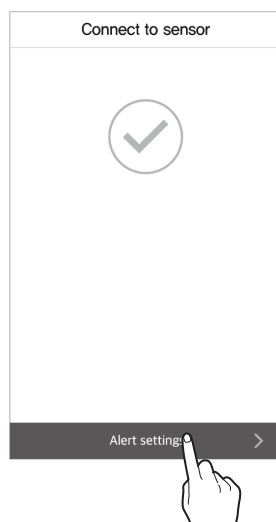
6.2 Initial app alert settings

The initial alert settings are made when you connect a new sensor to the CareSens Air app. You can change your alert settings in the app settings. For more information, please refer to '[Connecting the sensor to Android apps](#)' or '[Connecting the sensor to iOS apps](#)'.

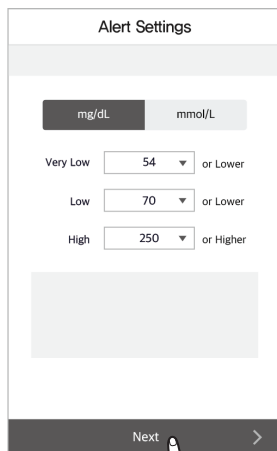
You can set notifications in the CareSens Air app for glucose levels (very low, low, high) and rapid changes (2 mg/dL/min (0.1 mmol/L/min) or higher and 3 mg/dL/min (0.2 mmol/L/min) or higher).

Follow these steps to configure your alert settings on the app.

- 1 Use the app to finish connecting the sensor and then tap **Alert settings** on the 'Connect to sensor' screen.

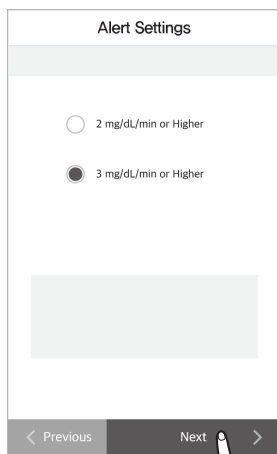


- 2 On the 'Alert settings' screen, set the threshold alert levels for Very Low, Low and High and tap **Next**.



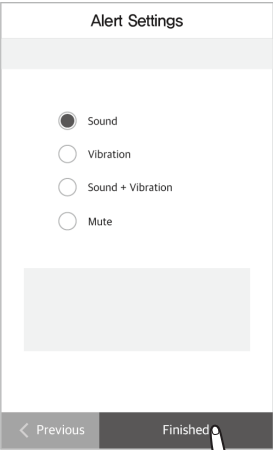
The 'Alert Settings' screen displays two tabs: 'mg/dL' (selected) and 'mmol/L'. Below the tabs, there are three rows for setting thresholds: 'Very Low' with a dropdown set to '54' and the text 'or Lower', 'Low' with a dropdown set to '70' and the text 'or Lower', and 'High' with a dropdown set to '250' and the text 'or Higher'. At the bottom, there is a 'Next' button with a right arrow, which is being tapped by a finger.

- 3 On the 'Alert settings' screen, set the rapidly changing glucose alert level and tap **Next**.



The 'Alert Settings' screen shows two radio button options for the rapidly changing glucose alert level: '2 mg/dL/min or Higher' (unselected) and '3 mg/dL/min or Higher' (selected). At the bottom, there are two buttons: 'Previous' (with a left arrow) and 'Next' (with a right arrow). A finger is tapping the 'Next' button.

4 Choose an alert type, then tap **Finished**.



6.3 Checking your alerts

CareSens Air uses various alerts to let you know about changes to your glucose level or the sensor status. If multiple alerts are triggered at the same time, the most important will be delivered, in the following order of priority:

- Signal loss alert > Glucose alert Level > Rapidly changing glucose level alert > Calibration alert > Low battery alert > Sensor replacement alert > Sensor error

Note

- If the system notification settings of your smart device and the notification settings of the CareSens Air App are different, those of the CareSens Air App will take priority.
- An alert pop-up will always be displayed, even if the smart device is in 'Mute' or 'Do not disturb' mode.
- It may be difficult to tell the difference between CareSens Air alerts and notifications sent by your smart device or other apps if the app alert type is set to sound or vibration.

This chapter will help you to:

- Tell the difference between the types of alerts sent by the CareSens Air app
- Understand how the CareSens Air app delivers alerts to users

Signal loss alert

The Signal loss alert occurs when the connection between the sensor and your smart device is lost for 25 minutes or longer.

- Measures to take upon signal loss alerts: Refer to '[If the connection between the sensor and the smart device is interrupted](#)'.
- Refer to '[6.4 Changing alert settings](#)' for information on how to change your signal loss alert settings.

On the following table, you can see the Signal loss alert settings and the contents of the messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alert	Alert Signal Loss Sensor Signal Loss Take the following steps in order. If the connection is successfully achieved the data will be received within 5 minutes of connection. * Keep the sensor and smart device close together. * Close and restart the app. * Turn off and restart Bluetooth on your smart device. * Turn off your smart device and restart it * If there are too many apps running in the background, close them. If the problem persists, contact i-SENS, Inc. customer service (080-910-0600) Close
• If you are using your smart device after closing the app • If the smart device screen is locked	Notification	CareSens Air Sensor Signal Loss View Guide

Glucose alert Level

These alerts occur if your glucose level falls very low, above the high alert level, or below the low alert level you have set. Refer to '[6.4 Changing alert settings](#)' for information on how to change your blood glucose level alert settings.

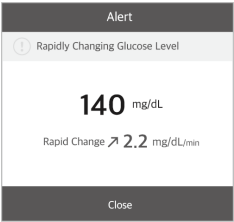
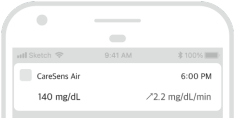
On the following table, you can see the blood glucose level alert settings and the content of messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alert	Alert Low Glucose Alert Low 60 mg/dL ↘ 0.5 mg/dL/min Close
- If you are using your smart device after closing the app - If the smart device screen is locked	Notification	well search 9:41 AM 100% CareSens Air6:00 PM60 mg/dL↘0.5 mg/dL/min

Rapidly changing glucose level alert

Rapidly changing glucose level alert occurs if your glucose level changes more quickly than the set rate. You can select 2 mg/dL/min (0.1 mmol/L/min) or 3 mg/dL/min (0.2 mmol/L/min) as the standard rate for rapidly changing glucose level. Refer to '6.4 Changing alert settings' for more information on how to change your rapid change alert settings.

On the following table, you can see the rapid change alert settings and the content of the messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alert	
- If you are using your smart device after closing the app - If the smart device screen is locked	Notification	

Calibration alert

A Calibration alert occurs when a sensor value calibration is required. If you tap Snooze, you'll hear it again after 10 minutes.

On the following table, you can check the Calibration alert settings and the content of messages based on what mode the app is running in.

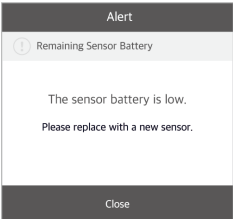
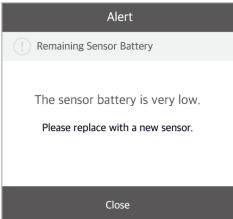
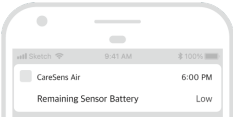
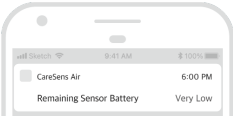
Situation	Alert type	Screen
With app running	Popup alert	Alert Calibration Alert Glucose reading needed for calibration. Enter a calibration value measured with a glucose meter. Close Snooze
- If you are using your smart device after closing the app - If the smart device screen is locked	Notification	CareSens Air Glucose reading needed for calibration 6:00 PM Snooze

Low battery alert

A low battery alert occurs when the sensor battery is low. If the sensor battery is low, replace the sensor with a new one.

- The 'Low' alert occurs if 2.6V or less of battery power remains.
- The 'very low' alert occurs if 2.55V or less of battery power remains.

On the following table, you can check the low battery alert settings and the content of messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alert	
		
• If you are using your smart device after closing the app • If the smart device screen is locked	Notification	 

Sensor replacement alert

The sensor can be used for a maximum of 15 days. This alert occurs 5 days, 3 days, 1 day, and 1 hour before the sensor expires. The sensor is automatically disconnected when it expires.

On the following table, you can check the sensor replacement alert settings and the content of messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alert	Alert Sensor Expiration The sensor will expire in 3 days. The sensor will be disconnected when it expires. Please have a new sensor ready. Close Alert Sensor Expiration The sensor has expired and has been disconnected. Close
- If you are using your smart device after closing the app - If the smart device screen is locked	Notification	well Connect 9:41 AM 100% CareSens Air 6:00 PM Sensor Expiration 3 days remaining well Connect 9:41 AM 100% CareSens Air 6:00 PM Sensor Expiration Disconnected

Sensor error

When an error occurs in the sensor, the following notification occurs:

Depending on whether warmup has been completed, in case of an error, “sensor warmup failure” appears if it has occurred during warmup, or a “sensor error” notification occurs if it has occurred during use after warmup has been completed. When this notification occurs, the app disconnects from the sensor and can no longer be used.

On the following table, you can check the sensor error alert settings and the content of messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alert	Alert Failed to Stabilize Sensor Your sensor has failed to stabilize. Please remove your sensor and start a new one. Close Alert Sensor Error Your sensor is not working. Please remove your sensor and start a new one. Close
- If you are using your smart device after closing the app - If the smart device screen is locked	Notification	CareSens Air Failed to Stabilize Sensor Disconnected 6:00 PM CareSens Air Sensor Error Disconnected 6:00 PM

Follower addition notification

When a new follower is registered, a notification like the one below occurs.

On the table below, you can check the follower addition notification methods and the content of messages based on what mode the app is running in.

Situation	Alert type	Screen
With app running	Popup alarm	Follower Added Jerry has been added as a follower. OK
- If you are using your smart device after closing the app - If the smart device screen is locked	Notification	CareSens Air Follower Added OK

6.4 Changing alert settings

In the 'Alert settings', you can choose whether to receive alerts for the following categories:

- Glucose level alert
- Rapidly changing glucose level alert
- Alert type
- Voice alert

 Note

Consult with a medical professional to find the best glucose level alert settings for you. A medical professional can help you find the best settings for managing your diabetes.

Follow the steps below to change your alert settings:

- 1 Tap  on the home screen.
- 2 On the settings screen, change the alert settings as follows. See the table below:

Alerts		
1	 Very Low 54 mg/dL, Sound + Vibration	>
2	 Low 70 mg/dL, Sound + Vibration	>
3	 High 250 mg/dL, Sound + Vibration	>
4	 Rapidly Changing 3 mg/dL/min, Sound + Vibration	>
5	 System	>
6	 Voice Do Not Receive	>

No.	Icon	Name	Description
1		Very low	Set the threshold value to very low. The values entered are displayed on the target range of the glucose trends on the home screen.
2		Low	Set the threshold value for low. The values entered are displayed on the target range of the glucose trends on the home screen.
3		High	Set the threshold value for high. The values entered are displayed on the target range of the glucose trends on the home screen.
4		Rapidly Changing	Choose between above 2 mg/dL/min (0.1 mmol/L/min) or higher and 3 mg/dL/min (0.2 mmol/L/min) or higher to receive the rapid change alerts.
5		System	You can set the notifications for calibration, signal loss, sensor expiration, sensor battery, and error notification.
6		Voice	You can receive an additional voice alert when a change in glucose concentration is detected or another alert occurs.

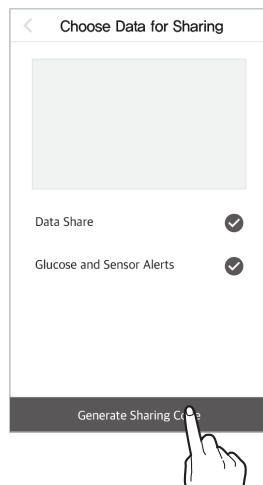
- | Followers | | |
|---|-------|---|
|  | Kyle |  |
|  | Jerry |  |
|  | Kim |  |
| | | |



- 4 On the 'Choose Data For Sharing' screen, select the data and permissions you want to share and tap **Generate Sharing Code**.

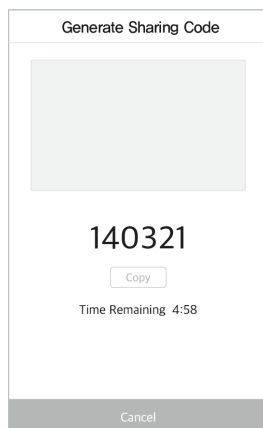
Data for sharing include.

- Data share
- Glucose and Sensor Alerts

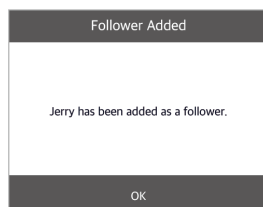


- 5 Send the generated sharing code to a Sens365 app user (health care manager) who will share your data.

- The time limit for entering the generated sharing code is 5 minutes. If the code expires, please create a new sharing code.
- You can share the sharing code to other media by tapping **Copy**.
- Health care managers can share the user's blood glucose data by entering the sharing code into the Sens365 app. Refer to the Sens365 app manual for details.



- 6 When the follower is added, a follower addition completion notification is displayed on the CareSens Air user app.



 Note

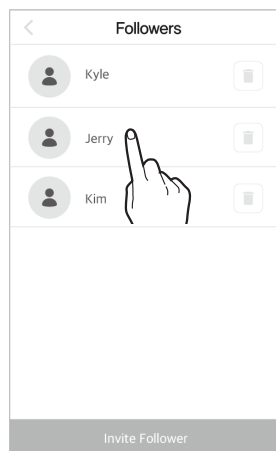
For more details on using the Sens365 app, refer to the Sens365 app user guide.

7.2 Changing sharing options

You can temporarily stop sharing your blood glucose data with your followers or change your options.

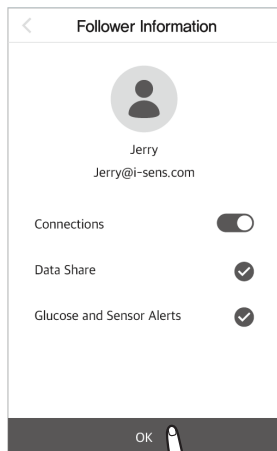
Follow the steps below to change the sharing options.

- 1 Tap  at the bottom of the home screen.
- 2 Tap **Manage Followers**.
- 3 On the 'Manage Followers' screen, tap the follower whose options you want to change.



4 Change your sharing options and tap **OK**.

- Data sharing can be enabled/disabled with the enable sharing option.
- You can cancel sharing by unchecking each item.



Note

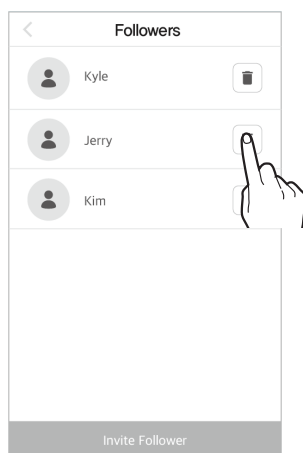
When CareSens Air users change their sharing options, followers are notified of the change in sharing options.

7.3 Removing followers

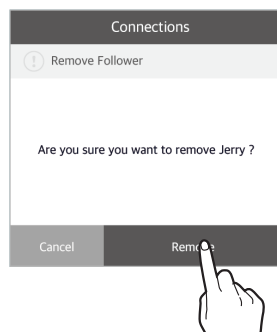
If you no longer want to share data with your followers, you can turn off data sharing.

Follow these steps to turn off data sharing.

- 1 Tap  at the bottom of the home screen.
- 2 Tap **Manage Followers**.
- 3 On the 'Manage Followers' screen, tap  to the right of the **Followers** you want to stop sharing data with.



- 4 On the 'Remove follower' pop-up window, tap **Remove**.



It has a built-in battery and transmits the glucose concentration value measured through the sensing part to the user app.

8 Maintenance

Learning and following these guidelines for how to take care of CareSens Air will allow you to use it more effectively.

This section will help you to:

- Maintain and take care of the sensor effectively.
- Safely store the sensor.
- Safely dispose of CareSens Air.

Warning

Do not use a damaged or defective sensor. This may lead to infection.

Caution

The sensor has been sterilized with EO after packaging. Do not clean the product with water or any other solution before use.

Note

This manual only covers the maintenance of the CareSens Air sensor. For how to maintain your smart device, refer to the manufacturer documentation.

8.1 Taking care of the sensor during use

Follow these instructions to take care of the sensor during use.



Caution

Do not wash the sensor. Using an unsuitable solution could damage the device.

Method	Every day	Before and after use	When needed
Inspecting the sensor	• Make sure that the sensor is stably secured to the point where it is attached. • Take caution that solid objects smaller than 1.0 mm in diameter do not enter the sensor.	If a skin care product such as sunscreen or insect repellent gets on the sensor, wipe it immediately with a clean cloth.	An alert will occur when the battery begins to run out. Replace the sensor if you receive this alert.

8.2 Storing a sensor

Storing sealed sensor packages properly can keep CareSens Air from malfunctioning.

- Keep sensors sealed (sterilized) until you are ready to attach them.
- Before and after storing a sensor, check the expiration date on the package label.
- Store the sensor package at a temperature of 5–30 °C.
- Store the sensor package at a relative humidity of 15–85 %.

8.3 Disposing of this product

When disposing of a medical device, you must comply with your countries regulations for handling and managing medical waste. Regulations concerning the disposal of the sensor and of products that have been in contact with bodily fluids may vary by country.

9 Warranty

i-SENS provides the following limited warranty if problems occur while using this product.

i-SENS guarantees quality during the product lifespan labelled on the exterior of the CareSens Air package. However, quality is not guaranteed in the following cases, even during the product lifespan:

- If damage is caused by the user not following the instructions and cautions listed in the manual
- If damage is caused by using an accessory or separate product not approved by the manufacturer
- If the product is disassembled or assembled by someone not authorized by i-SENS
- If the surface is scratched or damaged through regular use
- Lifespan exceeded

Warranty period



If a material or manufacturing defect is discovered during normal use of the sensor, the following limited warranty is guaranteed for the original purchaser within the warranty period listed below for the period from the shipping date until the corresponding date.



- CareSens Air sensor: If a replacement is received for the sensor within the warranty period, the remaining warranty period is transferred to the replacement sensor and the warranty of the replacement becomes invalid.

Warranty exclusions

A warranty is not provided for the following cases in which the user uses the product incorrectly.

- Accidents, misuse, abuse, negligence, abnormal physical, electrical, or electromechanical stress, alteration of product components, or exterior damage
- If the barcode on the sensor package label has been removed or cannot be read
- If there are scratches and damage to the surface or other exposed areas of the product resulting from normal use
- If there is damage caused by the use of an accessory or separate product that is not provided or approved by CareSens Air
- If there are flaws or damage resulting from incorrect testing, operation, maintenance, installation, or adjustment
- If the product is disassembled
- If damage is caused by exposure to water outside of the acceptable range specified in the manual

Warranty obligations

During the warranty period, and at its own discretion, i-SENS will replace a defective CareSens Air sensor without charging the purchaser. The purchaser needs to put the product in an appropriate box and ship it back to the CareSens Air customer service department. When returning the product, a receipt showing the date of purchase, the product serial number, the name and address of the seller, or comparable documentation must be included in the box. To get support regarding the region to which to ship your CareSens Air, contact the nearest authorized distributor. After receiving a defective product, i-SENS will replace it immediately.

If i-SENS decides that a warranty exclusion applies to the product, the purchaser must pay for all return shipping costs.

Appendix A Frequently Asked Questions

This chapter presents situations that may occur while using CareSens Air and how to deal with them.

If any situation which is not presented in this chapter occurs, or if you experience an issue that you are unable to resolve on your own, contact the nearest authorized distributor.

This section will help you to:

- Identify the causes of problems that occur while using CareSens Air.
- Resolve problems that occur while using CareSens Air.

What should I do if I receive a sensor replacement alert?

The sensor's lifespan is 15 days, and the sensor replacement alert will occur 5 days before it expires. Disconnect the sensor within 4–5 days after receiving the alert and replace it. Read '[Disconnecting and removing the sensor](#)' for more information on how to disconnect the sensor.

What should I do if my sensor expires before it is replaced?

A sensor is automatically disconnected when it expires. Remove the sensor from where it is attached.

What should I do if the sensor battery is low?

A low battery alert occurs when the sensor battery is low. Disconnect the sensor and replace it with a new one. Read '[Disconnecting and removing the sensor](#)' for more information on how to disconnect the sensor.

What should I do if the sensor signal is lost?

Check that your smart device's Bluetooth is turned on. If Bluetooth is turned on, refer to '[If the connection between the sensor and the smart device is interrupted](#)'.

My sensor glucose reading does not match a blood glucose reading I took by pricking a finger.

A glucose meter measures glucose concentration in blood from the tip of the finger, and the sensor measures glucose concentration in intracellular fluids. It may take time for glucose in the blood to reach the intracellular fluid, resulting in a difference in glucose readings.

Enter calibration values regularly to minimize this difference. See '[4 Calibration](#)' for more information on the sensor glucose reading calibration feature.

What should I do if my sensor glucose reading does not match my physical condition?

Wash your hands thoroughly with water or an alcohol swab, use your personal glucose meter to obtain a reading by pricking a finger, and compare the result with your physical condition. Consult a medical professional if necessary.

What should I do if the sensor has been discharged, but it does not separate from the applicator?

The sensor cannot be used if it wasn't separated properly. Hold the adhesive tape on the sensor and gently remove the sensor from the applicator. If it cannot be removed, it is a damaged or a defective product. Do not use the sensor, and contact the nearest authorized distributor or customer service center.

What should I do if the place where I attached the sensor is itchy?

Continuously attaching sensors to the same location may cause minor skin irritation. Attach the next sensor to a different location. If the same symptoms persist even after you change the attachment location, stop use and consult a medical professional.

What should I do if I can't hear the alert?

If you can't hear the alerts on your smart device, check the following factors:

- Check your alert settings on the app.
- Check the permissions and alert volume settings on your smart device.

What should I do if the app can't find a signal when I'm trying to connect with the sensor?

Keep the sensor and the smart device within 6 meters of each other, with no obstacles in between them. Connecting may take up to 15 minutes. If the problem persists after 15 minutes, try the following:

- Android: Go to **Settings > Applications** on your smart device and force restart CareSens Air.
- iOS: Force restart CareSens Air.

How can I terminate a sensor early?

Disconnect the sensor, hold the edge of the adhesive tape, and slowly peel it off. Dispose of the sensor after removing it. Read '[Disconnecting and removing the sensor](#)' for more information on how to disconnect the sensor.

Why is there an empty region on my glucose trends?

When the app is unable to receive sensor glucose readings, the status of the signal icon on the home screen will be displayed as **Signal loss**, and new glucose readings will not be displayed. The sensor takes and sends glucose readings every 5 minutes. Any data that hasn't been sent will be stored for 12 hours. It will be sent automatically when the connection is restored.

Can I go in the water with CareSens Air attached?

CareSens Air has been tested as waterproof for 24 hours at a depth of 1 meter. Daily activities within this range will not have an effect on the operation of the sensor. However, the effect on the system of longer periods under water has not been tested.

Appendix B Technical information

B.1 Device features and characteristics

Electromagnetic compatibility

- This product requires special attention relating to EMC (electromagnetic compatibility) and must be installed and serviced according to the EMC information provided in the manual.
- Using an accessory, sensor, or cable that is not supported by the manufacturer may increase or decrease the system's burst size.
- When the sensor is in use, do not put other equipment close to it. If you are using the sensor in such circumstances, check whether it is operating normally.
- Portable RF communication devices (including peripheral equipment such as antenna cables and external antennas) must be kept at least 30 cm (12 inches) away from all parts of the device. Failure to comply may lead to a decrease in product performance.
- This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
 1. This device may not cause interference.
 2. This device must accept any interference, including interference that may cause undesired operation of the device.
- L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
 1. L'appareil ne doit pas produire de brouillage;
 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The table below includes the manufacturer's declaration and additional information required by IEC 60601-1-2:2014 (Fourth Edition).

Testing name	Standard referenced	Part tested	DC main power voltage	Required testing level	Note
Radioactivity disturbance	CISPR 11: 2015 + AMD1:2016 CSV	Enclosure	D.C. 3 V	Group 1, Class B	
Electrostatic discharge immunity test	IEC 61000-4-2:2008	Enclosure	D.C. 3 V	±8 kV/Contact ±2, ±4, ±8, ±15 kV/Air	
Radiated, RF electromagnetic field	IEC 61000-4-3:2006 + AMD1:2007 + AMD2:2010	Enclosure	D.C. 3 V	3 V/m 80 MHz ~ 2.7 GHz 80 %, AM at 1 kHz RF wireless communication	
Power frequency (50/60 Hz) magnetic field	IEC 61000-4-8:2009	Enclosure	D.C. 3 V	30 A/m	
				8 A/m 30 kHz CW Modulation	
Proximity magnetic field immunity	IEC 61000-4-39:2017	Enclosure	D.C. 3 V	65 A/m 134.2 kHz PM 2.1 kHz	
				7.5 A/m 13.56 MHz PM 50 kHz	

Safety

IEC 60601-1:2005 + AMD1:2012

Medical electrical equipment – Part 1: General requirements for basic safety and essential performance

- Protection against electric shock: Internally powered, Type BF applied part
- Mode of operation: Continuous operation
- Not for use in the presence of an oxygen-enriched atmosphere
- Protection against water and particulate matter: IP48

IEC 60601-1-2:2014

Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic disturbances – Requirements and tests

- CISPR 11: Group 1, Class B

IEC 60601-1-6:2010+AMD1:2013

Medical electrical equipment – Part 1-6: General requirements for basic safety and essential performance – Collateral standard: Usability

IEC 62366-1:2015+AMD1:2020

Medical equipment – Part 1: Application of usability engineering to medical devices

IEC 60601-1-11:2015

Medical electrical equipment — Part 1-11: General requirements for basic safety and essential performance — Collateral standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment

Radio regulation compliance

Radio regulation compliance (FCCID: OELCGM-ST-002)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Part15.21 statement:

Changes or modifications not expressly approved by the manufacturer (or party responsible) for compliance could void the user's authority to operate the equipment.

RF exposure statement:

This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

EN 301 489-1

Method of testing common technical EMC for radio equipment

EN 301 489-17

Method of testing EMC for radio equipment of low-output wireless data transmission systems

IC: 21003-CGMST002

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules.

CGM-ST-002 a été testé et jugé conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'ISDE.

B.2 Product specifications

Sensor specifications

ITEM	Specifications
Analysis method	Electrochemical method
Enzyme type	GDH-FAD
Measurement range	40–500 mg/dL (2.2–27.7 mmol/L)
Transmission distance	6 meters maximum
Calibration	• Two calibrations immediately after sensor warmup • The first two calibrations are made at 12-hour intervals, and the third calibration are made at 24-hour intervals.
Operating conditions	Temperature: 10–42 °C Humidity: 10-95 RH%
Storage and transport conditions	Temperature: 5–30 °C Humidity: 15–85 RH%
Sterilization	Ethylene Oxide gas
Number of uses	Single-use
Dimensions (W x L x H)	• Transmitting part: 35.2x19.2x5.0 mm • Applicator: 49.8x51.8x73.3 mm
Weight	• Transmitting part: 4.5 ± 0.5 g • Applicator: 74 ±5 g
Color	• Transmitting part: Gray • Applicator: White
Power supply	Coin battery (CR1632, 3 V) 1 ea
Power consumption	8 mWh
Useful life	Up to 15 days
Shelf life	12 months

ITEM	Specifications
Maximum memory	12 hours of glucose data
Operating altitude	-382–3,011 m
Waterproof protection	IP48: Protected from ingress of dust: Protected from submersion in the water up to depth of 1 m for 24 hours
Data transfer interval	Once every 5 minutes
Communication method	Bluetooth 4.2
Protection against electrical shock	Type BF Applied Part
TX/RX frequency	2.402–2.480 GHz
Maximum Output Power	-5.6 dBm EIRP
Modulation	GFSK
Data Rate	1 Mbps

Performance in terms of accuracy (based on YSI):

- FA (Full Analysis) Set: 84 adults aged 19 or older
- PP (Per-Protocol) Set: 58 adults aged 19 or older

1) Overall accuracy

FA Set	PP Set
MARD (%)	MARD (%)
10.42 %	9.82 %

2) Accuracy according to the number of days worn

Category	FA Set	PP Set
Number of days worn	MARD (%)	MARD (%)
Day 1	10.70 %	10.59 %
Day 3-5	9.70 %	8.42 %
Day 8-10	9.63 %	9.53 %
Day 15	11.74 %	10.75 %

3) Accuracy by blood glucose level

Category	FA Set	PP Set
Reference Glucose Range (mg/dL)	MAD (mg/dL) or MARD (%)	MAD (mg/dL) or MARD (%)
<54	11.88 mg/dL	12.25 mg/dL
54-69	12.38 mg/dL	13.17 mg/dL
70-180	10.53 %	9.96 %
181-250	9.40 %	8.43 %
>250	10.42 %	10.15 %

*69 mg/dL or less is displayed as MAD (mg/dL) and 70 mg/dL or more is displayed as MARD (%).

B.3 Cybersecurity

Cybersecurity

- Install an antivirus software on your smart device to prevent malicious programs from accessing your smart device's information.
- If the app and sensor are not connected even after scanning the barcode written on the sensor package label or manually entering the 6-digit PIN code and 4 digits of the serial number, check if the 6-digit PIN code and 4 digits of the serial number are entered correctly. If the same problem repeats even if you input it correctly, contact the Customer Service via the product website www.caresens.co.kr.
- If the app connects to the sensor and cannot find a signal, place the sensor and the smart device within 6 meters of unobstructed distance. This may take up to 15 minutes for the connection. If the same problem persists after 15 minutes, force quit the CareSens Air app in the settings app of the smart device and then restart it.
- If you're logged out and did not log in from another device, reset your password.
- If you have failed to enter your password more than 5 times, reset your password.
- Accounts that have not been logged in for one year will be converted into inactive accounts. If you have switched to an inactive account, email verification is required for log in.
- In the event of a cybersecurity incident related to a smart device, please contact the nearest authorized distributor or the competent authority.

Appendix C Glossary

Term	Description
High frequency	A radio wave or electromagnetic wave with a high frequency. This usually refers to waves between 3 and 30MHz in frequency.
Focal	This means many devices are integrated in one semiconductor chip.
Hyperglycemia	A symptom in which glucose concentration in the blood is unusually high. In most cases it is related to diabetes.
Graphical user interface	A display type in which features such as inputs and outputs are displayed in a simple graphical form, making the operation of a device simple and convenient.
Metal detector	A machine that is used to locate metal objects or determine whether or not an object is metallic.
Water resistance	The property of being resistant to water.
Diabetes	A disease which results in a high amount of glucose being mixed with the urine. It occurs when the level of insulin, which is a hormone that controls carbohydrate metabolism, decreases. The frequency and volume of urination increases, water consumption increases due to thirst, and general malaise follows, but appetite improves.
Rooting	The process of acquiring administrator rights on a smart device running the Android operating system.
Sterilization	A process which kills bacteria and other microscopic organisms. This can be done using chemicals, or physically using heat.
Backing paper	Paper covered with silicone on one or both sides. It is used to protect adhesive surfaces.
Redness	A symptom in which the skin or mucous membranes swell and become red due to infection. This is caused by enlarging of the capillaries.
BACKUP	To generate additional copies of a file on a location such as a disk in case the file is damaged due to a malfunction.

Term	Description
Calibration	The process of providing a continuous glucose monitoring device with a glucose measurement taken from a finger prick. This adjusts the accuracy of the sensor's glucose readings.
Bluetooth	A wireless communication technology that allows data to be transmitted over a short distance between wireless communication devices, for example a personal mobile device and electronic office equipment such as a computer or a printer.
Ethylene oxide	One type of cyclic ether. It is oxidized ethylene, a colorless oxide gas. It highly soluble in water, alcohol, and ether, is highly inflammable, and is toxic. It is highly reactive and is used as an ingredient in organic compounds. Its chemical formula is C_2H_4O .
Intracellular fluids	A liquid component that exists in between animal tissue cells and acts as a cell environment. It provides nutrients to cells and removes waste products from them. It may also be referred to as interstitial fluid.
Application	A program developed for user convenience to be used on the operating system of a smart device or a tablet PC.
Applicator	A small tool used for application.
Continuous glucose monitoring system	A system which automatically measures glucose values in a continuous way after a user attaches a sensor to their body. The term can be shortened to CGMS.
Inflammation	A defensive response that occurs in the body when tissue is damaged. For example, it appears as a symptom in response to an exterior injury, burn, or microbial invasion, and induces hyperemia, edema, fever, and pain in a part of the body.
Widget	A collection of features which a user can easily access from the home screen of their smart device, with the most used features in one place.
Insulin	A protein hormone that regulates carbohydrate metabolism. It is secreted by the pancreas. It is used as an allopathic medicine to treat diabetes, as it acts to reduce glucose levels in the body.
Insulin pump	A device that is used to continuously administer insulin 24 hours a day. It continuously administers small dosages of fast-acting insulin, and at the same time adjusts insulin dosage administration to account for meals.

Term	Description
Magnetic field	A space in which there is magnetic attraction such as near a magnet or current, or the Earth's surface.
Hypoglycemia	A symptom in which glucose concentration in the blood is unusually low. It can be caused by insulin overdose, liver complications, thyroid gland disorders, adrenopathy, pituitary disease, or gastric resection. Symptoms can include hunger, absent-mindedness, and cold sweat. If severe, it could result in holoprosencephaly and coma.
Rating	The rating of an electrical device or any other device is the specified range the device should be used within.
Diameter	A line segment that connects two points on a circle or sphere while passing through its center.
Finger prick	The act of drawing blood for the purpose of diagnosing a disease or performing a transfusion.
Bodily fluid	Refers to blood inside blood vessels or tissues, lymph, and cerebrospinal fluid as a group.
Cloud	A system that saves files and information such as documents, photos, music, etc. on a personal online server.
Glucose	A type of monosaccharide. It forms white crystals that are sweet and highly soluble in water, and is reducible. It is widely distributed in the biological world, and is consumed as energy by living organisms. Its chemical formula is $C_6H_{12}O_6$. It is also known as glucose.
Glucose	Sugar which is carried in the blood. In vertebrates, blood sugar consists mainly of glucose, which is the energy source for the brain and the red blood cells. The level in the blood varies with exercise and meals. BG (blood glucose) can also be referred to as plasma glucose.
Back	The rear portion of an object
Type BF Applied Part	A type BF applied part is classified as a type F applied part, meaning that it is electrically isolated from Earth. This requires a higher protection rating than a type B applied part. This protection rating is designed to protect the user from shock if an unexpected surge from an external power source is connected to the patient and is applied to the patient contact location and the ground.

Term	Description
CT	Computed tomography. A diagnostic tool in which X-rays or ultrasonic waves are measured from different angles and the images of the reflected internal area are processed by a computer to produce a cross-sectional image. It is a technique used to diagnose various illnesses, including tumors.
EMC	Electro Magnetic Compatibility, testing for immunity to electro magnetic interference from exterior sources.
EU	The European Union (an organization formed by 27 countries in the European community under the Maastricht Treaty).
GSM	The Global System for Mobile Communications. This is the most widely used personal mobile communication system; a communication standard based on TDMA.
IP rating	Ingress protection, a dustproof and waterproof rating regulated by IEC 60529. The first number is a dustproof rating and the second number is a waterproof rating.
MRI	Magnetic resonance device (a piece of equipment for chemical analysis that uses magnetic resonance phenomena).
RF	Radio frequency; the entire field of equipment design and engineering research concerning wireless communication using high frequencies in the electromagnetic frequency band.
RF communication	Wireless communication
RFID	Radio-Frequency Identification uses electromagnetic waves to uniquely identify an ID, and is often referred to as RFID. RFID technology refers to the technology of using electromagnetic waves to process information over a long distance.
WEEE	Waste Electrical and Electronic Equipment. Regulations regarding obligations for recycling household appliances which have been disposed of. An EU environmental guide which requires consumers to pay recycling fees for disposing of electrical or electronic equipment.