

16 Delivering a Bolus

16.4 Canceling a Bolus in Progress

When an immediate bolus is in progress, you must cancel it or allow it to finish before performing any other action.

During an extended bolus, you can use your Omnipod 5 System normally, except that the Bolus button will be disabled (grayed out), preventing you from delivering an additional bolus. You have the options to:

- Cancel the bolus.
- Cancel the bolus in progress and then deliver another bolus.

If you get a communication error message when canceling a bolus, see "Error when canceling a bolus" on page 462.

Cancel a bolus

To cancel an immediate or extended bolus:

1. On the Home screen (immediate bolus) or the Home screen's **DASHBOARD** tab (extended bolus), tap **CANCEL**.
2. Tap **YES** to confirm canceling the bolus. The Pod beeps to confirm that the bolus is canceled.

Tip: To see how much insulin was delivered from a bolus, go to: **Menu button** () > **History Detail** > **Summary**. For more information, see "Immediate and extended boluses" on page 163.

Deliver a new bolus before an extended bolus has ended

To deliver a bolus while an extended bolus is in progress:

1. Cancel the extended bolus as described in the previous procedure, "Cancel a bolus."
2. Find out how much insulin was remaining (not delivered) from the canceled bolus. You can find bolus details at **Menu button** () > **History Detail** > **Summary**.
3. From the Bolus screen, enter the carbs and glucose (or **USE SENSOR**) information.
4. Optional: take into consideration the amount remaining from the canceled bolus and add the amount in the Total Bolus field.
5. Check if the amount entered in the Total Bolus field is correct. Then tap **CONFIRM**.
6. Tap **START**.

CHAPTER 17

Delivering a Bolus with the SmartBolus Calculator

Contents

17.1 About the SmartBolus Calculator262

Compatible Devices for Use with the SmartBolus Calculator262

About Correction Boluses and Meal Boluses263

About Using a Sensor Glucose Value with Trend263

17.2 Entering Meal Information 265

17.3 Creating a Custom Food. 266

17.4 Editing Custom Foods. 266

17.5 Entering Meal Information Using Custom Foods. . . 267

17.6 Entering a Blood Glucose Reading or Using a Sensor Glucose Value 268

Manually Enter Your Blood Glucose Reading268

Import and Use Sensor Glucose Value.269

17.7 Insulin On Board (IOB) 270

17.8 Adjustments to Your Calculation. 271

17.9 Delivering an Immediate Bolus 271

17.10 Delivering an Extended Bolus. 273

17.11 Bolus Settings 274

Impacts to Suggested Bolus Calculations275

Maximum Bolus277

Extended Bolus.277

SmartBolus Calculator Settings.277

Target Glucose and Correct Above.277

Minimum Glucose for Calculations278

Insulin to Carb Ratio (IC Ratio)278

Correction Factor279

Reverse Correction.279

Duration of Insulin Action280

17.1 About the SmartBolus Calculator

A bolus is a dose of insulin taken to cover carbohydrates in a meal, drink, or snack (a meal bolus) or to correct elevated glucose (a correction bolus). The SmartBolus Calculator calculates a suggested bolus amount of insulin to bring down high glucose (a correction bolus) and/or to cover carbohydrates in a meal (a meal bolus).

Compatible Devices for Use with the SmartBolus Calculator

Device Type	Device Manufacturer	Brand Name
Blood Glucose Meter	All FDA-cleared blood glucose meters	
iCGM	Dexcom	Dexcom G6 Continuous Glucose Monitor
		Dexcom G7 Continuous Glucose Monitor
	Abbott Diabetes Care	FreeStyle Libre 2 Plus sensor
		FreeStyle Libre 3 Plus sensor
Alternate Controller Enabled Insulin Pump (Insulin Pump)	Insulet Corporation	Omnipod 5 ACE Pump (Pod)
Interoperable Automated Glycemic Controller software (Automated Insulin Delivery Software)	Insulet Corporation	Omnipod 5 algorithm

About Correction Boluses and Meal Boluses

If you enter a blood glucose reading or sensor glucose value that is above target, but enter no carbs, a correction bolus is calculated. If you enter carbs, but not a blood glucose reading or sensor glucose value, a meal bolus is calculated. If you enter both a blood glucose reading or sensor glucose value and carbs, both factors are used to calculate a suggested bolus.

Value Entered		Type of Bolus Calculated
Blood Glucose Reading or Sensor Glucose Value Above Target	Carbohydrates	
✓		Correction bolus
	✓	Meal bolus
✓	✓	Combined suggested bolus

About Using a Sensor Glucose Value with Trend

Your sensor glucose trend is based on the recent pattern of glucose changes. If you use your sensor glucose value, your sensor glucose value and trend will be used to calculate a suggested bolus amount. The sensor glucose value and trend will be used along with your Correction Factor to determine the correction portion of your bolus. The SmartBolus Calculator will use the sensor glucose trend to adjust the correction bolus amount.

When sensor glucose values are...	The SmartBolus Calculator tries to keep glucose within target range and...
Trending up (increasing)	Adds more insulin to the correction bolus.
Trending down (decreasing)	Subtracts insulin from the correction bolus.
Steady	No adjustment to the correction bolus.

Additional information

You may choose to accept or change the final recommendation before the bolus is delivered.

After opening the SmartBolus Calculator, bolus delivery must be initiated within 5 minutes or values will need to be refreshed. If more than 5 minutes pass, you will see a message that values have

17 Delivering a Bolus with the SmartBolus Calculator

expired. Tap **CONTINUE** to refresh the SmartBolus Calculator, then enter or use your current values.

To change your personal settings used by the SmartBolus Calculator, see "SmartBolus Calculator Settings" on page 277. To use the SmartBolus Calculator, the Omnipod 5 App and the Pod must be communicating. If there is no Omnipod 5 App to Pod communication, you will be prompted to re-establish a Pod connection. To find out what to do when your Omnipod 5 App and Pod have a communication issue, see "Frequently Asked Questions and Troubleshooting" on page 441.

Caution: DO NOT navigate away from the Omnipod 5 App while you are in the process of making changes to your insulin delivery settings. If you leave the app before you are able to save the setting change and before the app is able to put the setting change into effect, the system will continue to use your last saved settings. As a result, you may continue with therapy settings that you did not intend. If you are unsure about whether your changes were saved, review your settings.

Tip: If you already know the number of units for the bolus you want to deliver, tap **Total Bolus**. Enter the bolus amount and tap **Done**. Then go to "17.9 Delivering an Immediate Bolus" on page 271.

17.2 Entering Meal Information

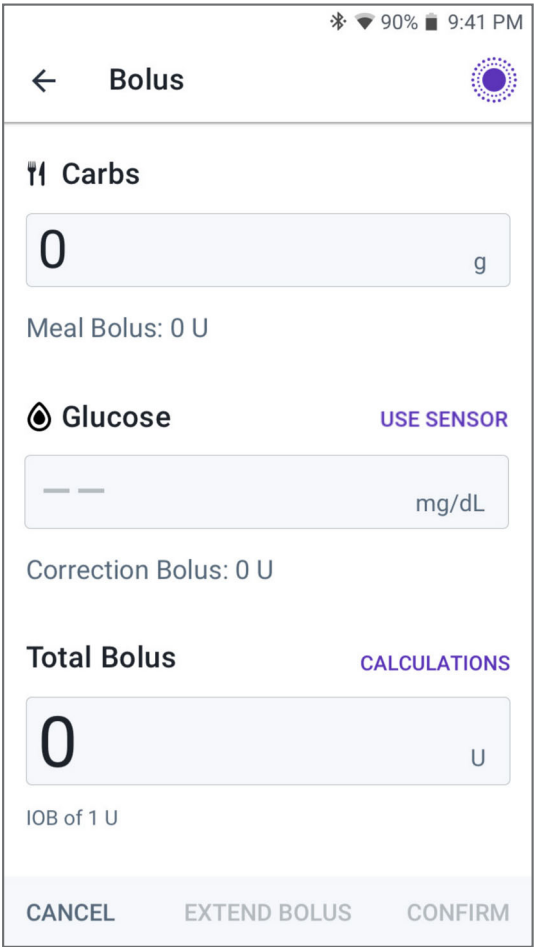
To enter carbohydrates, or "carbs," for your meal:

- 1. On the Home screen, tap the Bolus button ().
Note: The Bolus screen is only valid for 5 minutes. After 5 minutes, if bolus delivery has not started, you must refresh and re-enter new values.
- 2. Tap the **Carbs** field. Enter the grams of carbs and tap **Done**.

Note: Consult your healthcare provider about how to calculate the grams of carbs.

Note: You can also pull the values in from your Custom Foods. See "Entering Meal Information Using Custom Foods" on page 267

- 3. Review the suggested meal bolus, which is shown below the grams of carbs.
- 4. Optional: tap **CALCULATIONS** to see the details of the bolus calculations.



17 Delivering a Bolus with the SmartBolus Calculator

17.3 Creating a Custom Food

The SmartBolus Calculator allows you to save carb information for certain favourite foods, snacks or meals (Custom Foods) that you might eat frequently. You can use these carb values in your bolus calculations.

To create a Custom Food:

1. Tap **Menu** > **Custom Foods**.
2. Tap **ADD**.
3. Enter a name for your Custom Food.
4. Add the total carb count for the entry.
5. Tap **SAVE**. You will see a green badge that reads NEW next to your new entry.

90%

9:41 PM

←

Add Custom Food

Food Name

Enter a Name

0 / 32 Characters

Carbs (g)

0

g

CANCEL

SAVE

17.4 Editing Custom Foods

To edit your list, tap **EDIT** in the upper right-hand corner.

- To move an item up or down in your list, tap and hold the icon to the right of the item and drag the item to your desired location.
- To delete items, tap the (⊗) icon to the left of the item. Tap **YES** to confirm that you'd like to delete the Custom Food.
- To edit the name or carb count of the Custom Food, tap the item name. Edit the item details. Tap **SAVE**.

90%

9:41 PM

←

Custom Foods

DONE

⊗

Coffee

8 g

=

⊗

Banana

24 g

=

⊗

Pizza

98 g

=

CANCEL

ADD

17.5 Entering Meal Information Using Custom Foods

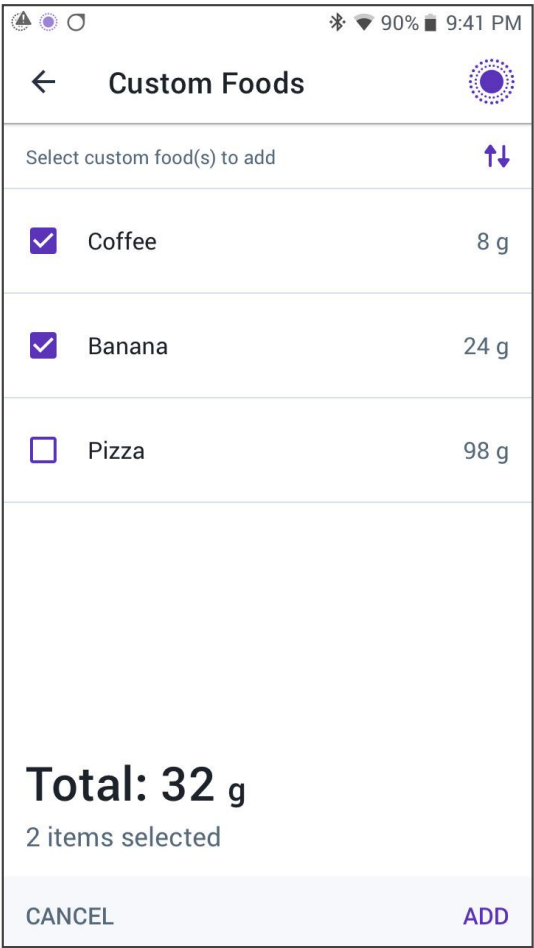
To enter carbs from saved Custom Foods:

- 1. On the Bolus screen, tap **Custom Foods** in the upper right-hand corner above the Carbs field.
- 2. You will see a list of your Custom Foods.

Note: Tapping the up-down arrow button allows you to change how the items are sorted and displayed. You can choose: alphabetically, by recently added, from highest to lowest carbs, or from lowest to highest carbs.

- 3. Select the button(s) next to the food (or foods) you'd like to select. The total amount of carbs will display at the bottom of the screen.

- 4. Tap **ADD**. The SmartBolus Calculator screen will appear.



17 Delivering a Bolus with the SmartBolus Calculator

17.6 Entering a Blood Glucose Reading or Using a Sensor Glucose Value

The SmartBolus Calculator uses your glucose information to calculate a correction portion of your bolus. The following sections describe how to give the SmartBolus Calculator your glucose information by either manually entering a blood glucose reading or by obtaining and using the current sensor glucose value.

Note: The SmartBolus Calculator can generate a suggested bolus dose based on the carbohydrates in a meal and the blood glucose reading, or sensor glucose value with trend. Entering a recent blood glucose reading or using a sensor glucose value with trend can help with safety and accuracy.

Manually Enter Your Blood Glucose Reading

Warning: AVOID entering a blood glucose reading that is older than 10 minutes. If you use a reading older than 10 minutes, the bolus calculator could calculate and recommend an incorrect dose, which could result in over-delivery or under-delivery of insulin. This can lead to hypoglycemia or hyperglycemia.

To enter a blood glucose reading:

1. Tap the **Glucose** field.

If you have manually entered a blood glucose reading from a meter within the past 10 minutes, that value automatically appears in the Glucose field. If you want the SmartBolus Calculator to use that value, skip the next step.
2. Tap the box in the circle and enter the blood glucose reading. Alternatively, slide the indicator along the circle to enter the blood glucose reading.

For the meaning of the colors displayed on the Enter Glucose screen, see "How Blood Glucose Readings are Displayed" on page 135.
3. Tap **ADD TO CALCULATOR**. The SmartBolus Calculator screen appears.
4. Review the suggested correction bolus, which is shown below the blood glucose reading. The correction bolus has been adjusted for any insulin on board (IOB) (see "SmartBolus Calculator Rules" on page 295).

Import and Use Sensor Glucose Value

Warning: ALWAYS be aware of your current sensor glucose value, trust how your body feels, and do not ignore symptoms of high and low glucose. Even though insulin delivery adjusts automatically in Automated Mode with the goal of bringing your glucose level to your defined Target Glucose, severe hypoglycemia or hyperglycemia may still occur.

If your sensor glucose values do not match your symptoms, ALWAYS check your blood glucose using a BG meter, consider treatment and/or sensor calibration (for sensors requiring calibration, if necessary). ALWAYS switch to Manual Mode if you feel you are receiving inaccurate sensor glucose values.

- Erroneously high sensor glucose values can cause excessive insulin delivery, leading to severe hypoglycemia, seizure, loss of consciousness or death.
- Erroneously low sensor glucose values can cause prolonged insulin suspension leading to hyperglycemia, DKA, or death.

If you are having symptoms that are not consistent with your blood glucose readings and you have followed all instructions described in this *Technical User Guide*, contact your healthcare provider.

Caution: During the first 12 hours of use of a Libre 2 Plus or Libre 3 Plus sensor, use a fingerstick reading from a BG meter before making treatment decisions. After the first 12 hours, you can tap “Use Sensor” to use the value and trend in the SmartBolus Calculator.

If a sensor is connected, you can use the current sensor glucose value and trend in both Manual and Automated Modes:

- Tap **USE SENSOR**.

17 Delivering a Bolus with the SmartBolus Calculator

If the current sensor glucose value is below the defined Minimum Glucose for Calculations setting, you will see a message that the SmartBolus Calculator is disabled. If the sensor glucose value displays "HIGH", the SmartBolus Calculator is temporarily disabled.

Note: If your Omnipod 5 System does not have a valid sensor glucose value or trend at the time you open the SmartBolus Calculator, the **USE SENSOR** option is disabled.

Tip: If you want to replace the sensor glucose value with a blood glucose reading, tap the sensor field. See "Manually Enter Your Blood Glucose Reading" on page 268.

17.7 Insulin On Board (IOB)

Insulin on board, also known as IOB or active insulin, is the amount of insulin that is still "active" in the body from a previous bolus or from automated insulin delivery.

The SmartBolus Calculator considers the current IOB when calculating a suggested bolus. Insulin on board may come from:

- Meal IOB—from previous meal boluses
- Correction IOB—can be from previous correction boluses or from automated insulin deliveries

For more information, see "SmartBolus Calculator Rules" on page 295 and "SmartBolus Calculator Equations" on page 293.

In certain circumstances you may decide to enter only carbs or the bolus amount into the SmartBolus Calculator. This may be desired if you want to only bolus for carbs using your programmed insulin to carbohydrate ratio, or you want to deliver an amount of insulin based on your own estimate. If entering only carbs or a bolus amount without a glucose value, IOB is not subtracted from your suggested bolus dose as the calculator is not able to adjust the bolus dose if your glucose value is not known. If you want IOB to be considered, enter a glucose value. Here is an example to demonstrate when you may choose to enter only the carb or bolus amount into the SmartBolus Calculator.

Example: You are about to have lunch and you are unsure of how much you will eat. To avoid taking too much insulin, you deliver a meal and correction bolus based on the carbs you know you will eat and your glucose value. After delivering the bolus and eating the first portion, you decide you want to finish the remaining portion. Since you already delivered a correction with the previous bolus,

Delivering a Bolus with the SmartBolus Calculator 17

and you know glucose values are on the rise, you decide to deliver a second bolus for only the remaining carbs in your meal and not enter another glucose value.

17.8 Adjustments to Your Calculation

A suggested meal bolus that is calculated using your Insulin to Carb (IC) Ratio may be further adjusted for other values entered into and used by the SmartBolus Calculator, including: blood glucose readings, sensor glucose value and trend, and/or IOB. These adjustments can be for the following:

- Insulin on board — either meal or correction IOB.
- Reverse correction, if this feature is turned ON and your glucose is below your Target Glucose.
- Blood glucose reading, if manually entered.
- Sensor glucose value and trend (see "19.5 Sensor Glucose Trend Arrows" on page 311).

17.9 Delivering an Immediate Bolus

The Total Bolus field shows the proposed bolus. The amount of any IOB adjustment appears below the Total Bolus field.

Note: The **EXTEND BOLUS** option is available during meal bolus entry when the system is in Manual Mode and the extended bolus setting is ON.

To review and deliver the immediate bolus:

1. Review the suggested bolus.
 - To adjust it, tap the **Total Bolus** field and enter a revised bolus.
2. To review the specifics of calculations, tap **CALCULATIONS**. You may need to swipe up or down to see all of the calculations. Tap **CLOSE** when done. See "SmartBolus Calculator Equations" on page 293 for details.
3. To deliver the entire bolus immediately, tap **CONFIRM**.
4. Review the bolus details on the Confirm Bolus screen.
5. Optional: Set up a reminder to check your glucose:
 - a. Tap **CREATE BG REMINDER**.

17 Delivering a Bolus with the SmartBolus Calculator

- b. Tap the **Check BG in** field and select the number of hours you want to be reminded in.
 - c. Tap **SAVE**.
6. Review the bolus details on the Confirm Bolus screen.

90% 9:41 PM

Confirm Bolus

Carbs

27 g

BG (12:34 PM)

192 mg/dL

Total Bolus

11 U

Adjusted for IOB of 2 U

START

CREATE BG REMINDER

CANCEL

Grams of carbs

Blood glucose or sensor glucose value

The total bolus includes any IOB adjustments and any adjustments you made to the calculated bolus

Adjusted for IOB of x U means the SmartBolus Calculator took IOB into account

7. Tap **START** to begin the bolus.
- The Home screen tracks the delivery of an immediate or extended bolus (see "16.3 Tracking the Progress of a Bolus" on page 258).

17.10 Delivering an Extended Bolus

Warning: ALWAYS check your glucose frequently when you use the extended bolus function to avoid hypoglycemia or hyperglycemia.

Note: You can extend a bolus only while in Manual Mode.

To review, extend and deliver the bolus:

- 1. Review the suggested bolus.
 - a. To adjust it, tap the **Total Bolus** field and enter a revised bolus.
- 2. To review the specifics of calculations, tap **CALCULATIONS**. You may need to swipe up or down to see all of the calculations. Tap **CLOSE** when done. See "SmartBolus Calculator Equations" on page 293 for details.
- 3. Tap **EXTEND BOLUS**.
- 4. Tap the **Now** field and enter the percentage of the bolus to be delivered immediately. Alternatively, tap the **Extended** field and enter the percentage to be extended.

The number of units to be delivered now and over the extended period appear below the percentage (%).

Note: You can extend only the meal portion of the bolus. A correction portion of the bolus, if any, is always delivered immediately.

- 5. Tap the **Duration** field and enter the duration for the extended portion of the bolus.
- 6. Tap **CONFIRM**.

The extended bolus screen shows how much of the bolus will be delivered immediately and how much will be extended.

←Extended Bolus

Now

45

%

6 U

Extended

55

%

0 U

Duration

(0.5 to 8 hrs)

1.5

hrs

Total Bolus

2.95

U

Meal Bolus

2.2 U

Correction Bolus

0.75 U

CANCEL

CONFIRM

17 Delivering a Bolus with the SmartBolus Calculator

7. Review the bolus details on the Confirm Bolus screen.

The entire correction bolus is delivered immediately

Only the meal bolus can be extended

← Confirm Bolus

🍴 Carbs

27 g

📍 BG (12:34 PM)

172 mg/dL

Bolus Now

45 %

Meal: 3 U

Correction: 0 U

Bolus Extended

55 % (1.5 hrs)

Meal: 3 U

Total Bolus

2.95 U

CALCULATIONS

Adjusted for IOB of 0 U

START

CREATE BG REMINDER

CANCEL

% of meal bolus to be given immediately

% of meal bolus to be given over the extended period

8. Review the bolus details, then tap **START** to begin the bolus.

17.11 Bolus Settings

Warning: DO NOT start to use your system or change your settings without adequate training and guidance from your healthcare provider. Initiating and adjusting settings incorrectly can result in over-delivery or under-delivery of insulin, which could lead to hypoglycemia or hyperglycemia. Settings that impact insulin delivery mainly include: Pod Shut-Off, basal rate(s), Max Basal Rate, Max Bolus, Correction Factor(s), Insulin to Carb (IC) Ratio(s), Minimum Glucose for Calculations, Target Glucose and Correct Above, and Duration of Insulin Action.

These settings allow you to change your Maximum Bolus, extended bolus, and SmartBolus Calculator settings.

274

Impacts to Suggested Bolus Calculations

The following table describes what each SmartBolus Calculator setting does, how you can adjust them and how they are used to calculate a suggested bolus.

Omnipod 5 Setting and Range	How to Enter the Setting	Impacts to Suggested Bolus Calculations
Carbs (grams) 0.1–225 g (0.1 g increments)	Enter in SmartBolus Calculator.	Increase in carb amount value increases amount of suggested bolus dose. Decrease in carb amount value decreases amount of suggested bolus dose.
Sensor Glucose Value (mg/dL) 40–400 mg/dL (1 mg/dL increments)	Select USE SENSOR within SmartBolus Calculator. (Value comes from your connected sensor)	Increase in sensor glucose value increases amount of suggested bolus dose. Decrease in sensor glucose value decreases amount of suggested bolus dose.
Blood Glucose Reading (mg/dL) 20–600 mg/dL (1 mg/dL increments)	Enter in SmartBolus Calculator. (Value comes from your blood glucose meter)	Increase in BG Reading increases amount of suggested bolus dose. Decrease in BG Reading decreases amount of suggested bolus dose.
Maximum Bolus 0.05–30 U (0.05 U increments)	Enter in Omnipod 5 App Settings or during First Time Setup.	Limits amount of single bolus dose.
Extended Bolus (Manual Mode only) ON/OFF	Enter in Omnipod 5 App Settings or during First Time Setup.	Allows for bolus delivery over a user-selected period of time.

17 Delivering a Bolus with the SmartBolus Calculator

Omnipod 5 Setting and Range	How to Enter the Setting	Impacts to Suggested Bolus Calculations
Target Glucose & Correct Above Target Glucose: 100–150 mg/dL Correct Above: Target Glucose to 200 mg/dL (10 mg/dL increments, up to 8 segments/day)	Enter in Omnipod 5 App Settings or during First Time Setup. Note: The 100 mg/dL Target Glucose setting is available only when using a Pod with a software version of 12.0 or greater.	Increase in setting value decreases amount of suggested bolus dose. Decrease in setting value increases amount of suggested bolus dose.
Minimum Glucose for Calculations 50–70 mg/dL (1 mg/dL increments)	Enter in Omnipod 5 App Settings.	Disables SmartBolus Calculator when glucose is at or below setting value.
Insulin to Carb Ratio 1–150 g (0.1 g increments, up to 8 segments/day)	Enter in Omnipod 5 App Settings or during First Time Setup.	Increase in setting value decreases amount of suggested bolus dose. Decrease in setting value increases amount of suggested bolus dose.
Correction Factor 1–400 mg/dL (1 mg/dL increments, up to 8 segments/day)	Enter in Omnipod 5 App Settings or during First Time Setup.	Increase in setting value decreases amount of suggested bolus dose. Decrease in setting value increases amount of suggested bolus dose.
Reverse Correction ON/OFF	Enter in Omnipod 5 App Settings.	If “On,” suggested bolus is decreased when glucose is below Target Glucose value.
Duration of Insulin Action 2–6 hours (0.5 hour increments)	Enter in Omnipod 5 App Settings or during First Time Setup.	Increase in setting value may decrease amount of suggested bolus dose for longer periods.

Delivering a Bolus with the SmartBolus Calculator 17

Note: The Extended Bolus feature can only be used in Manual Mode. All other therapy settings are used similarly in both Manual and Automated Modes.

Maximum Bolus

The Maximum Bolus setting defines the upper limit for a bolus. The SmartBolus Calculator prevents you from entering a bolus over this amount. It also prevents you from entering a carb amount that will cause your calculated bolus to exceed this amount. The largest allowed value of the Maximum Bolus is 30 units.

To change your Maximum Bolus:

- 1. Navigate to: **Menu button (≡) > Settings > Bolus > Maximum Bolus.**
- 2. Tap the **Max Bolus** field and enter the new Maximum Bolus value.
- 3. Tap **SAVE.**

Extended Bolus

An extended bolus is delivered over a user specified period of time. Only the meal portion of a bolus can be extended. A correction bolus cannot be extended. To turn OFF the extended bolus feature or to change your extended bolus configuration:

- 1. Navigate to: **Menu button (≡) > Settings > Bolus.**
- 2. Tap the toggle next to **Extended Bolus** to turn ON or OFF the ability to extend a bolus.

SmartBolus Calculator Settings

This section describes how to adjust the settings used by the SmartBolus Calculator to calculate meal and correction boluses.

Tip: Write a list of all of the desired settings and segments to guide you through re-entering the values for each segment.

Target Glucose and Correct Above

In both Automated and Manual Mode, the SmartBolus Calculator aims to bring your glucose to your Target Glucose. However, the SmartBolus Calculator only calculates a correction bolus if your glucose is above your Correct Above setting. In Automated Mode, the

17 Delivering a Bolus with the SmartBolus Calculator

Omnipod 5 System will adjust your automated insulin delivery with the goal of bringing you to your Target Glucose.

To edit Target Glucose or Correct Above values:

1. Navigate to: **Menu button (≡) > Settings > Bolus > Target Glucose & Correct Above.**
2. Tap **NEXT.**
3. To edit a segment, tap the row containing the segment you want to edit.
 - a. Tap the **End Time** field to enter a new end time.
 - b. Tap the **Target Glucose** field to enter a new **Target Glucose.**
 - c. Tap the **Correct Above** field to enter a new **Correct Above** value.
 - d. Tap **NEXT.**
4. Repeat the previous step as needed for the remaining segments.
5. After confirming that all segments are correct, tap **SAVE.**

Note: You can add and delete segments by editing the existing segments.

Minimum Glucose for Calculations

Your Minimum Glucose for Calculations is used to prevent you from delivering a bolus when your glucose is too low. If your glucose is below your Minimum Glucose for Calculations, the SmartBolus Calculator is disabled and does not calculate a bolus. To edit this value:

1. Navigate to: **Menu button (≡) > Settings > Bolus > Minimum Glucose for Calculations.**
2. Tap the **Minimum Glucose for Calculations** field and enter the desired value.
3. Tap **SAVE.**

Insulin to Carb Ratio (IC Ratio)

The Insulin-to-Carbohydrate ratio (IC Ratio) defines how many grams of carbohydrates are covered by one unit of insulin. The SmartBolus Calculator uses your IC Ratio to calculate a meal bolus when you are going to eat. To edit this value:

1. Navigate to: **Menu button (≡) > Settings > Bolus > Insulin to Carb Ratio.**
2. Tap **NEXT.**

Delivering a Bolus with the SmartBolus Calculator 17

3. To edit a segment, tap the row containing the segment you want to edit.
 - a. Tap the **End Time** field to enter a new end time.
 - b. Tap the **1 Unit of Insulin Covers** field and enter a new IC Ratio.
 - c. Tap **NEXT**.
4. Repeat the previous step as needed for the remaining segments.
5. After confirming that all segments are correct, tap **SAVE**.

Note: You can add and delete segments by editing the existing segments.

Correction Factor

The SmartBolus Calculator uses your Correction Factor to calculate a correction bolus when your glucose is above your Correct Above setting. See "Target Glucose and Correct Above" on page 277. To edit this value:

1. Navigate to: **Menu button (≡) > Settings > Bolus > Correction Factor**.
2. Tap **NEXT**.
3. To edit a segment, tap the row containing the segment you want to edit.
 - a. Tap the **End Time** field to enter a new end time.
 - b. Tap the **1 Unit of Insulin lowers glucose by** field and enter a new Correction Factor.
 - c. Tap **NEXT**.
4. Repeat the previous step as needed for the remaining segments.
5. After confirming that all segments are correct, tap **SAVE**.

Note: You can add and delete segments by editing the existing segments.

Reverse Correction

The Reverse Correction setting determines how the SmartBolus Calculator handles meal boluses when your glucose is below your Target Glucose.

To turn Reverse Correction ON or OFF:

1. Navigate to: **Menu button (≡) > Settings > Bolus**.
2. Tap the toggle on the **Reverse Correction** line to turn it ON or OFF.

17 Delivering a Bolus with the SmartBolus Calculator

Duration of Insulin Action

The SmartBolus Calculator uses your Duration of Insulin Action setting to calculate the amount of insulin on board (IOB) from a previous bolus.

To edit this value:

1. Navigate to:
Menu button () > Settings > Bolus > Duration of Insulin Action
2. Tap the **Duration of Insulin Action** field and enter the new value.
3. Tap **SAVE**.

Note: While in Automated Mode, the Omnipod 5 algorithm does not use this Duration of Insulin Action setting to calculate automated basal insulin delivery. See "17.7 Insulin On Board (IOB)" on page 270.

CHAPTER 18

Understanding SmartBolus Calculator Calculations

Contents

18.1 The SmartBolus Calculator282

SmartBolus Calculator Boluses282

 Extended boluses282

 Maximum Bolus282

 Controlling the bolus amount282

When the SmartBolus Calculator Does Not Work283

Factors Used in the SmartBolus Calculator Calculations284

 Sensor glucose trend284

 Target Glucose284

 Correct Above threshold284

 Insulin on board284

 Duration of Insulin Action285

 Minimum Glucose for Calculations285

 Reverse Correction285

 Boundaries of the SmartBolus Calculator suggestions289

Considerations about SmartBolus Calculator Recommendations290

Insulin on Board (IOB)291

 Bolus IOB depletion292

SmartBolus Calculator Equations293

SmartBolus Calculator Rules295

Overview of the Bolus Calculations Screen296

18.2 SmartBolus Calculator Examples 297

18 Understanding SmartBolus Calculator Calculations

18.1 The SmartBolus Calculator

Your Omnipod 5 System's SmartBolus Calculator can do a lot of the work of calculating a bolus for you. The SmartBolus Calculator uses your personal settings and also takes into account any insulin that remains (referred to as insulin on board or IOB) from automated insulin delivery and from recent boluses.

SmartBolus Calculator Boluses

When calculating a bolus, the SmartBolus Calculator considers a bolus to be made up of the following two components:

- **Correction bolus:** Used to lower glucose when it gets too high.
- **Meal bolus:** Used to cover carbs in a meal.

Extended boluses

When using the SmartBolus Calculator, you can extend some or all of a meal bolus in Manual Mode, but a correction bolus cannot be extended. A correction bolus is always delivered immediately. In the following example, three units of insulin are extended:

Total bolus = 5 units (1 unit correction bolus + 4 units meal bolus)

→ Deliver now	= 2 units (1 unit correction + 1 unit meal bolus)
→ Extend	= 3 units (3 units meal bolus)

Maximum Bolus

The Omnipod 5 System does not allow you to enter a bolus that is above your Maximum Bolus setting. If the SmartBolus Calculator calculates a bolus amount greater than your Maximum Bolus, you will only be able to deliver up to the Maximum Bolus amount. To adjust it, tap the Total Bolus field and enter a revised bolus.

Controlling the bolus amount

The SmartBolus Calculator is a useful tool, but you have the ultimate control over the amount of a bolus to be delivered. After the SmartBolus Calculator suggests a bolus amount, you can confirm the suggested bolus or increase or decrease it. Always check the **Calculations** to confirm the amount of insulin before it is delivered.

When the SmartBolus Calculator Does Not Work

The SmartBolus Calculator does not work when it is disabled or when there is no Pod communication. Being "disabled" means that the SmartBolus Calculator is temporarily unable to calculate a suggested bolus. Your Omnipod 5 System may disable the SmartBolus Calculator in a few situations.

Conditions that disable the SmartBolus Calculator:	The SmartBolus Calculator is disabled until:	While the SmartBolus Calculator is disabled:
Your glucose is below your Minimum Glucose for Calculations setting.	Ten minutes pass. or A new glucose reading is above your Minimum Glucose for Calculations setting.	IOB is displayed on the Home screen.
Your manually-entered blood glucose reading is greater than 600 mg/dL or “HIGH.”	Ten minutes pass. or A new blood glucose reading is lower than “HIGH.”	IOB is displayed on the Home screen.
There is an unconfirmed bolus when you discard a Pod.	A complete Duration of Insulin Action period passes. For example, if your duration of insulin action is set at “2 hours”, and you receive an unconfirmed bolus at 8 am you will be unable to use the SmartBolus calculator until 10 am (2 hours after the unconfirmed bolus).	IOB is not displayed on the Home screen.

18 Understanding SmartBolus Calculator Calculations

Factors Used in the SmartBolus Calculator Calculations

The SmartBolus Calculator accounts for the following when it calculates a bolus:

- Your current glucose (manually entered or from sensor), sensor glucose trend (if sensor glucose value is used), Target Glucose, Correct Above threshold, and Correction Factor.
- The carbs you are about to eat or drink and your IC Ratio.
- Your Duration of Insulin Action and insulin on board (IOB).
- Your Minimum Glucose for Calculations.
- Reverse Correction, if it is enabled.

Note: In both Automated and Manual Mode, if using a sensor glucose values and trend in the Calculator, the SmartBolus Calculator may reduce the suggested insulin dose, even if your reverse correction setting is OFF.

Sensor glucose trend

The sensor glucose trend is used to suggest up to 30% more correction insulin when your values are rapidly rising, or up to 100% less correction insulin when your values are rapidly falling, compared to the bolus amount suggested with just a blood glucose reading alone.

Target Glucose

When calculating a correction bolus, the SmartBolus Calculator aims to bring your glucose down to your Target Glucose.

Correct Above threshold

The SmartBolus Calculator only suggests a correction bolus if your glucose is above your Correct Above setting. This feature can prevent corrections to glucose that is only slightly higher than your Target Glucose.

Insulin on board

Insulin on board (IOB) is the amount of insulin still active in your body from basal insulin delivery and from earlier boluses. IOB from previous correction boluses is referred to as correction IOB. IOB from previous meal boluses is referred to as meal IOB. Additionally, in Manual or Automated Modes, the Omnipod 5 algorithm constantly calculates IOB from your basal delivery.

Understanding SmartBolus Calculator Calculations 18

When calculating a new bolus, the SmartBolus Calculator may reduce the suggested bolus based on the IOB.

Note: The SmartBolus Calculator only subtracts IOB from a suggested bolus if your current glucose is known. You should always check your glucose prior to delivering a bolus.

Duration of Insulin Action

The SmartBolus Calculator uses your Duration of Insulin Action setting to calculate the insulin on board from prior boluses.

The Duration of Insulin Action setting represents the amount of time that insulin remains "on board" or "active" in your body.

Minimum Glucose for Calculations

The SmartBolus Calculator does not suggest a bolus if your glucose is below your Minimum Glucose for Calculations level. You can adjust this level down to 50 mg/dL.

Reverse Correction

If the Reverse Correction setting is turned ON and your glucose is below your Target Glucose, the SmartBolus Calculator reduces the meal bolus. This allows part of the meal to be used to raise the glucose towards the Target Glucose.

If the Reverse Correction setting is turned OFF, the SmartBolus Calculator suggests the full meal bolus even if your glucose is below your Target Glucose.

Note: In Automated Mode, if using a sensor glucose value and trend in the Calculator, the SmartBolus Calculator may subtract insulin even if your Reverse Correction setting is OFF in situations with a decreasing sensor glucose trend.

18 Understanding SmartBolus Calculator Calculations

The below table shows how each value is used in the SmartBolus Calculator to calculate the total bolus volume:

	Accepted Value	How does the SmartBolus Calculator use this value?
Using Omnipod 5 System with an FDA-Cleared Blood Glucose Meter		
Blood Glucose Reading from a BG Meter	20–600 mg/dL	To calculate total bolus volume. You can enter a blood glucose reading directly into the SmartBolus Calculator. If 5 or more minutes have passed since entering the reading, it will expire. A reading saved to the Omnipod 5 System history may be used for up to 10 minutes after entry.
Omnipod 5 Insulin Pump		
Minimum Glucose for Calculations	50–70 mg/dL	Disables bolus delivery when glucose is below this value. You can adjust this value in your Omnipod 5 System settings.
Correction Factor	1–400 mg/dL	To calculate total bolus volume. You can adjust this value in your Omnipod 5 System settings. The value indicates how much one unit of insulin will lower your blood glucose.
Correct Above	Target Glucose to 200 mg/dL	To calculate total bolus volume. You can adjust this value in your Omnipod 5 System settings. The value indicates the minimum glucose at which a Correction Bolus will be included in the total bolus volume.
Carbohydrates	0.1–225 grams	To calculate total bolus volume. You can enter your Carbohydrates value directly into the calculator to inform the Meal Bolus.

Understanding SmartBolus Calculator Calculations 18

Insulin to Carb Ratio	1–150 grams	To calculate total bolus volume. You can adjust this value in your Omnipod 5 System settings. The value indicates the grams of carbohydrate covered by one unit of insulin.
Duration of Insulin Action	2–6 hours	To calculate total bolus volume. You can adjust this value in your Omnipod 5 System settings. The value indicates how long insulin remains in effect after the bolus has been delivered.
Meal IOB Portion	0–X Units	To calculate total bolus volume. The value is known by the Omnipod 5 System and used by the Calculator to indicate any previously delivered Meal Boluses that may still be in effect.
Target Glucose	100–150 mg/dL	To calculate total bolus volume. You can adjust this value in your Omnipod 5 System settings. In Automated Mode, basal insulin delivery will be adjusted automatically to bring you towards your Target Glucose. The value informs the Correction Bolus volume. Note: The 100 mg/dL Target Glucose setting is available only when using a Pod with a software version of 12.0 or greater.

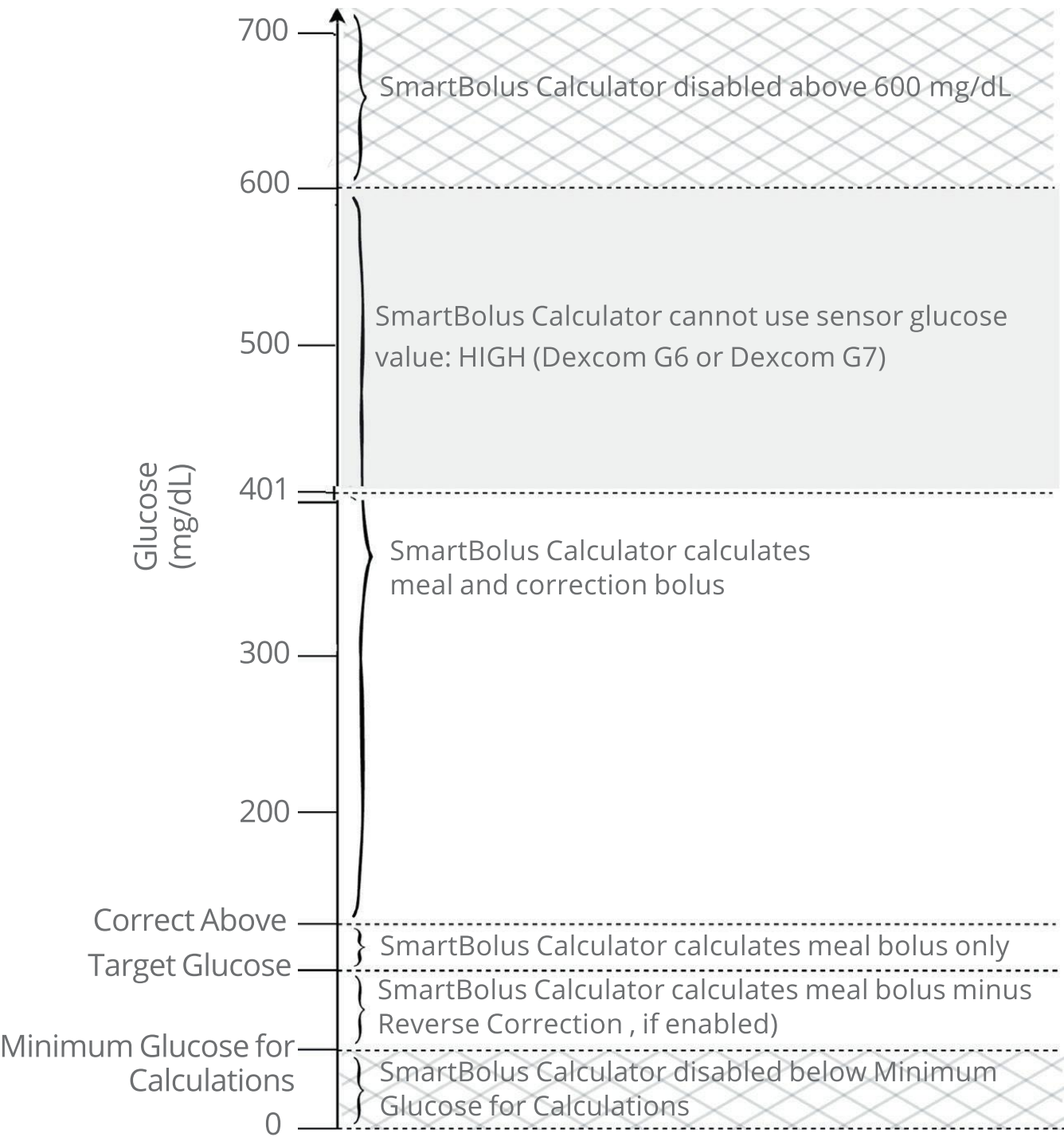
18 Understanding SmartBolus Calculator Calculations

Omnipod 5 algorithm (Automated Mode)		
Target Glucose	100–150 mg/dL	To calculate total bolus volume. You can adjust this value in your Omnipod 5 System settings. In Automated Mode, basal insulin delivery will be adjusted automatically to bring you towards your Target Glucose. The value informs the Correction Bolus volume. Note: The 100 mg/dL Target Glucose setting is available only when using a Pod with a software version of 12.0 or greater.
Correction IOB Portion	0–X Units	To calculate total bolus volume. This value is known by the Omnipod 5 System and used by the Bolus Calculator to indicate any previously delivered Correction Boluses that may still be in effect.
Using Omnipod 5 with a compatible iCGM		
Sensor Glucose Value	40–400 mg/dL	To calculate total bolus volume. If you elect to use a sensor, you can select USE SENSOR directly in the Bolus Calculator. As a safety constraint, the Calculator will only accept sensor glucose values that are on trend with previous sensor glucose values.

Boundaries of the SmartBolus Calculator suggestions

The following figure shows the boundaries between the types of calculations performed by the SmartBolus Calculator depending on your glucose. Some examples of how to read the figure are provided below:

- When your glucose is between your Target Glucose and your Correct Above the SmartBolus Calculator calculates a meal bolus only.
- When your sensor glucose value is over 400 mg/dL the value is recorded as “HIGH” and cannot be used for bolusing.
- When your blood glucose reading is above 600 mg/dL the reading is recorded as “HIGH” and the SmartBolus calculator is disabled.



18 Understanding SmartBolus Calculator Calculations

Considerations about SmartBolus Calculator Recommendations

Keep the following in mind when using the SmartBolus Calculator and reviewing its recommendations:

- The SmartBolus Calculator uses your SmartBolus Calculator settings for the time you are requesting a bolus (See "SmartBolus Calculator Settings" on page 277).
- The SmartBolus Calculator refreshes values every 5 minutes. If you do not start your bolus within 5 minutes of entering the SmartBolus Calculator, the Omnipod 5 System will need to clear the screen so that it has the latest IOB and sensor information.
- When changing time zones, always check your IC Ratio and Correction Factor settings for the new time to ensure it still meets your body's true insulin needs.
- The SmartBolus Calculator will suggest doses depending on the carbs you enter and the glucose at that time. Check the nutritional content of your meals to ensure the carbs entered is as accurate as possible. Only enter BG readings that have been obtained within the last 10 minutes or tap **USE SENSOR**. These factors will make sure that the SmartBolus Calculator suggests a bolus dose that is suitable for you.

If your sensor glucose value or trend does not match your symptoms or expectations, use a fingerstick blood glucose reading in the SmartBolus Calculator.

When programming and delivering boluses, always confirm that the values you enter and the suggested bolus dose you receive are what you intend and align with what you want at that time. The Omnipod 5 System has features that help with preventing unintended delivery amounts.

Delivery Limitations	Description
Maximum Bolus Setting	The SmartBolus Calculator will not deliver boluses that exceed the Maximum Bolus Setting you entered (0.05 -30 U). For example, if you rarely deliver more than 5 U boluses, and you set the Maximum Bolus Setting at 5 U, the system will prevent you from delivering anything greater than this amount.

Understanding SmartBolus Calculator Calculations 18

Blood Glucose Reading Time Out	The SmartBolus Calculator will not calculate a suggested bolus dose using a blood glucose reading you entered from the Main Menu (≡) that is older than 10 minutes. You will need to enter a more recent blood glucose reading within the SmartBolus Calculator.
SmartBolus Calculator Time Out	The SmartBolus Calculator considers the values you input for a given bolus calculation valid for up to 5 minutes from initial entry of the value into the SmartBolus Calculator. If 5 minutes or more have elapsed, you will be notified that you must refresh the SmartBolus Calculator and input the values again.
Time Zones	The SmartBolus Calculator relies on accurate, updated insulin delivery history and data logging from your Omnipod 5 System. If a time zone change is detected by the Controller or smartphone, the system will notify you. Update time zones on your Omnipod 5 App according to your healthcare provider’s guidance.

Insulin on Board (IOB)

After a bolus is delivered, the amount of insulin that is active in the body decreases over several hours. The IOB from a bolus decreases based on your defined Duration of Insulin Action value within your profile settings.

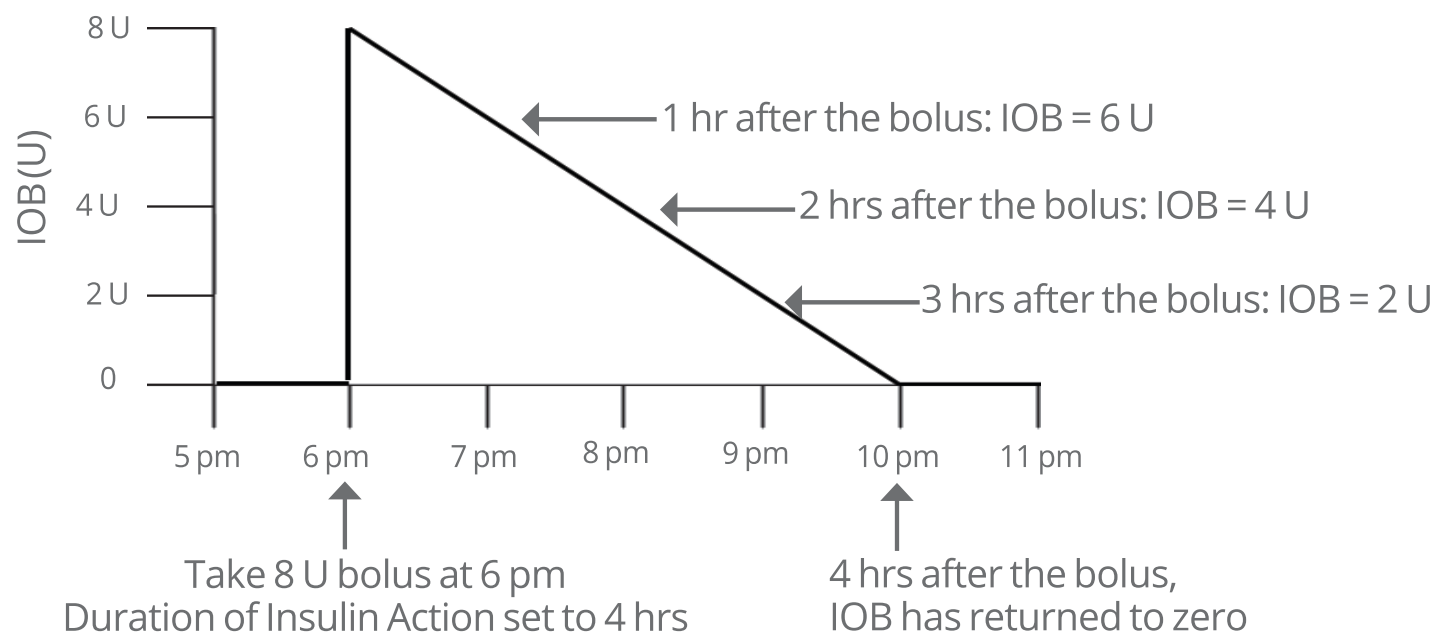
When using the SmartBolus Calculator, your Omnipod 5 System may, due to IOB, decrease your suggested bolus amount to help prevent giving too much insulin.

Note: You must bring your Controller or smartphone running the Omnipod 5 App near the Pod to get the most recent IOB value on your Omnipod 5 App Home screen.

18 Understanding SmartBolus Calculator Calculations

Bolus IOB depletion

The graph below shows the IOB from an 8 unit bolus depleting over the set Duration of Insulin Action of 4 hours.



In the Omnipod 5 System, the correction IOB can also change depending on the Omnipod 5 algorithm calculations. It can increase or decrease automatically.

Insulin on board (IOB) calculations

$$\frac{\text{Duration of Insulin Action} - \text{time since previous bolus}}{\text{Duration of Insulin Action}} \times \text{previous bolus}$$

IOB from a previous correction bolus is called a “correction IOB.”

IOB from a previous meal bolus is called a “meal IOB.”

Correction IOB example

Duration of Insulin Action: 3 hours
Time since previous correction bolus: 1 hour
Previous correction bolus: 3 U

$$\frac{3 \text{ hours} - 1 \text{ hour}}{3 \text{ hours}} \times 3 \text{ U} = 2 \text{ U correction IOB}$$

Final IOB shown to you:

$$2\text{U correction IOB} + 1\text{U automatic adjustment} = 3\text{U overall IOB}$$

In other words, one hour after your previous correction bolus, your body has used up 1 unit from the correction bolus. The remaining 2 units of insulin are still working in your body to lower glucose. Additionally, the system can automatically adjust the correction IOB based on its estimate of your insulin needs. In this example, the automatic adjustment added 1 unit for a total of 3 units working to lower your glucose.

Understanding SmartBolus Calculator Calculations 18

Correction Meal IOB example

Duration of Insulin Action: 3 hours
Time since previous meal bolus: 2 hours
Previous meal bolus: 4.5 U

$$\frac{3 \text{ hours} - 2 \text{ hours}}{3 \text{ hours}} \times 4.5 \text{ U} = 1.5 \text{ U meal IOB}$$

In other words, two hours after your previous meal bolus, your body has used up 3 units from the meal bolus. The remaining 1.5 units of insulin are still in your body, working to cover your meal.

SmartBolus Calculator Equations

The SmartBolus Calculator first calculates a preliminary correction and meal bolus. It adjusts these values for IOB, if necessary. It then suggests a final total bolus that includes the adjusted correction bolus and meal bolus.

Note: Your adjustments from the sensor glucose trend can add or subtract insulin from the correction and/or the meal portion.

$$\text{Preliminary correction bolus} = \frac{\text{Current BG or Sensor-Target Glucose}}{\text{Correction Factor}}$$

Example: Current BG or sensor: 200 mg/dL,
Target Glucose: 150 mg/dL
Correction Factor (CF): 50

$$\frac{200 \text{ mg/dL} - 150 \text{ mg/dL}}{50} = 1 \text{ U prelim. correction bolus}$$

$$\text{Preliminary meal bolus} = \frac{\text{Carb intake}}{\text{Insulin-to-Carb (IC) ratio}}$$

Example: Carb intake: 45 grams of carb, IC ratio: 15

$$\frac{45}{15} = 3 \text{ U prelim. meal bolus}$$

$$\text{Correction bolus} = (\text{prelim. correction bolus} - \text{meal IOB}) - \text{correction IOB}$$

The meal IOB is subtracted first. If the preliminary correction bolus is still above zero, then the correction IOB is subtracted.

$$\text{Meal bolus} = \text{prelim. meal bolus} - \text{remaining correction IOB}$$

Meal IOB is never subtracted from a meal bolus. Only a remaining correction IOB is subtracted from a meal bolus.

$$\text{Calculated bolus} = \text{correction bolus} + \text{meal bolus}$$

18 Understanding SmartBolus Calculator Calculations

Reverse Correction bolus calculation: If the Reverse Correction feature is turned ON and if your current glucose is below your Target Glucose but above your Minimum Glucose for Calculations, the SmartBolus Calculator subtracts a correction amount from the preliminary meal bolus.

Meal bolus with Reverse Correction = Reverse Correction + prelim meal bolus

Example: Current BG or sensor: 75 mg/dL,
Target Glucose: 150 mg/dL
Correction Factor: 50, Preliminary meal bolus: 2.5 U

$$\frac{75 \text{ mg/dL} - 150 \text{ mg/dL}}{50} = -1.5 \text{ U Reverse Correction}$$

- 1.5 U (Reverse Correction) + 2.5 U (prelim meal bolus) = 1.0 U meal bolus

A Reverse Correction is only applied to the meal bolus. In this example, the meal bolus is reduced by 1.5 units, resulting in a meal bolus of 1.0 U.

SmartBolus Calculator Rules

The SmartBolus Calculator applies the following rules to the suggested bolus doses:

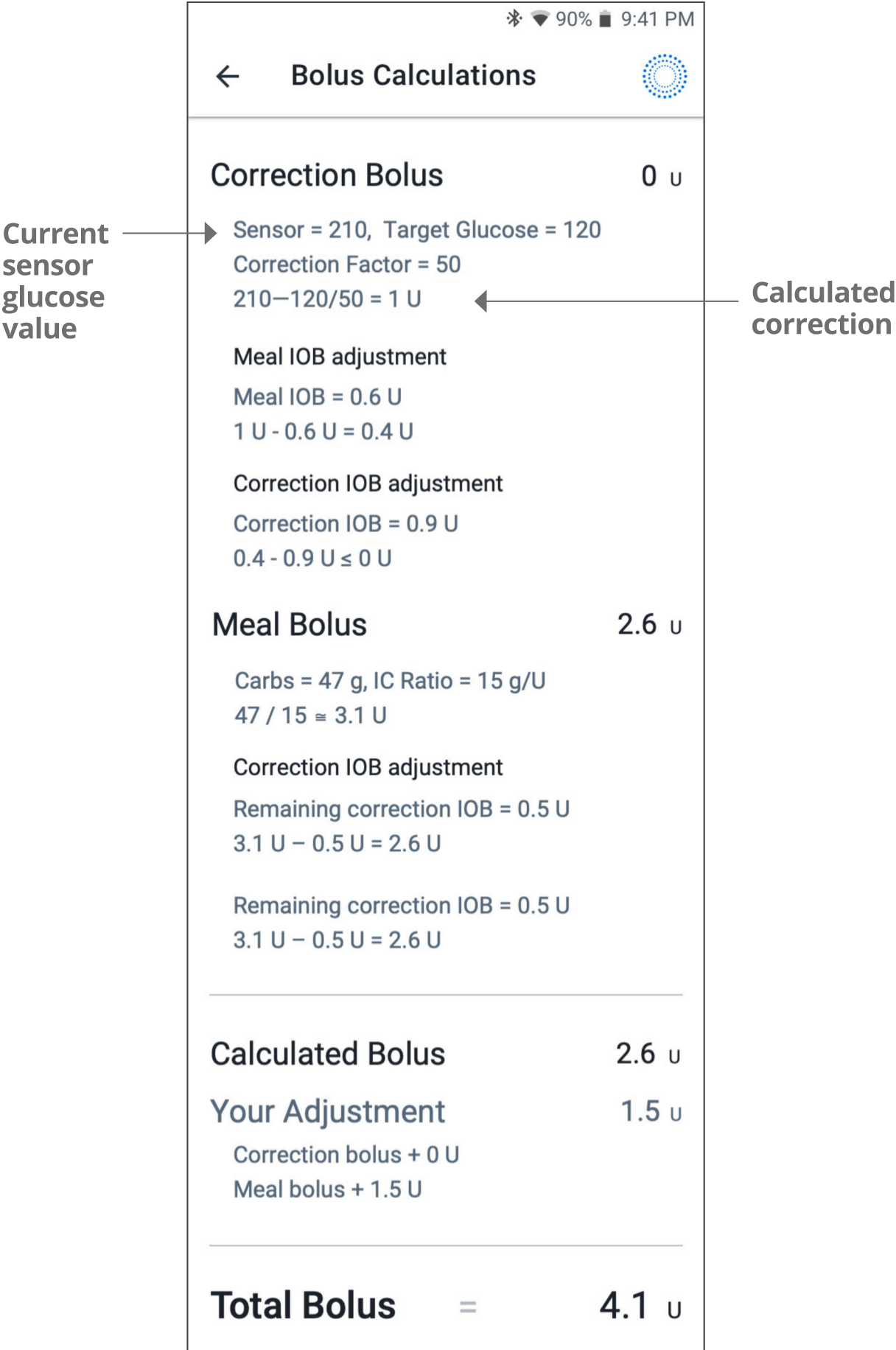
Rule	Detail		
Rounding	Boluses will always be rounded <i>down</i> to the nearest 0.05 U and will never be below 0 U. IOB will always be rounded <i>up</i> to the nearest 0.05 U and will never be below 0 U.		
Factors that influence the size of your bolus	Factor	Increase	Decrease
	Carbs entered	✓	
	Sensor glucose or BG value	✓	✓
	IOB		✓
	Sensor glucose trend (if using sensor)	✓	✓
	Target Glucose	✓	✓
	Reverse Correction setting		✓
Correction IOB	Correction IOB is subtracted from both meal and correction boluses.		
Meal IOB	Meal IOB is subtracted only from the correction boluses.		

18 Understanding SmartBolus Calculator Calculations

Overview of the Bolus Calculations Screen

You can tap **VIEW BOLUS CALCULATIONS** from the Insulin & BG history screen or tap **CALCULATIONS** from the SmartBolus Calculator screen if you want to view bolus calculation details.

When a sensor glucose value and trend are used for a bolus, the SmartBolus Calculator will not only consider the value but may also adjust the bolus amount for the trend. You will see these adjustments labeled in the Bolus Calculations Screen.



18.2 SmartBolus Calculator Examples

Example 1

Eating 50 g carbs, and 0.6 U meal IOB and 0.5 U correction IOB from previous meal and correction boluses. Sensor glucose is not available and a blood glucose reading is not entered.

Correction Bolus	-- U	
BG = N/A, Target Glucose = N/A Correction Factor = N/A		
Meal IOB adjustment		← The SmartBolus Calculator does not adjust your correction bolus by the meal IOB since there is no glucose information.
Meal IOB = 0.6 U		
N/A: No BG reading		
Correction IOB adjustment		← The SmartBolus Calculator also does not adjust your correction bolus by the correction IOB since there is no glucose information.
Correction IOB = 0.5 U		
N/A: No BG reading		
Meal Bolus	5 U	
Carbs = 50 g, IC Ratio = 10 g/U		← You are eating 50 g carbs. With your IC ratio at 10, you will need a 5 U meal bolus.
50 / 10 = 5 U		
Correction IOB adjustment		← Your meal bolus is not adjusted by your IOB when there is no blood glucose reading or sensor glucose value.
IOB is subtracted from a bolus only when BG is known.		
Calculated Bolus	5 U	← The calculated bolus is just the meal bolus since there is no correction bolus.
Your Adjustment Meal bolus + 2U	2 U	← You can make manual adjustments to your bolus by tapping on the Total Bolus field at the bottom of the SmartBolus Calculator screen.
Total Bolus	= 7 U	← The Total Bolus is the sum of the calculated bolus and any adjustments you made.

18 Understanding SmartBolus Calculator Calculations

Example 2

Eating 30 g carbs, no meal or correction IOB. Used sensor glucose value of 180 mg/dL, with a rising trend.

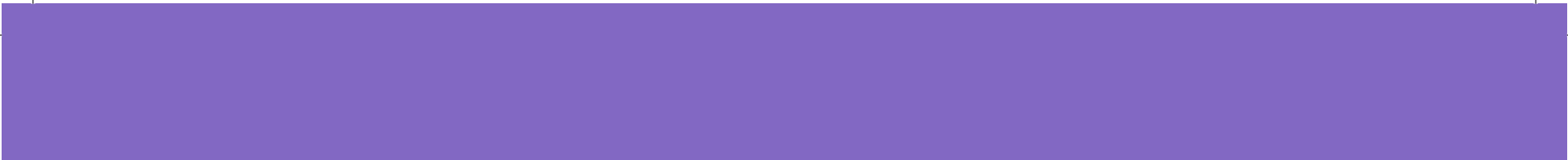
Correction Bolus	1.2 U	
Sensor = 180, Target Glucose = 130 Correction Factor = 50 $(180 - 130) / 50 = 1 \text{ U}$		← Your glucose is 180 mg/dL which is 50 mg/dL over your target. Because your correction factor is 50, the initial correction bolus is 1 U.
Meal IOB adjustment Meal IOB = 0 U $1 \text{ U} - 0 \text{ U} = 1 \text{ U}$		← The SmartBolus Calculator does not adjust your correction bolus by the meal IOB since there is no meal IOB.
Correction IOB adjustment Correction IOB = 0 U $1 \text{ U} - 0 \text{ U} = 1 \text{ U}$		← The SmartBolus Calculator also does not adjust your correction bolus by the correction IOB since there is no correction IOB.
Adjusted correction bolus = 1.2 U Adjusted for sensor: Rising		← The correction bolus is increased to account for your rising sensor glucose trend.
Meal Bolus	3.6 U	
Carbs = 30 g, IC Ratio = 10 g/U $30 / 10 = 3 \text{ U}$		← You are eating 30 g carbs. With your IC ratio at 10, you will need a 3 U meal bolus. The SmartBolus Calculator does not adjust your meal bolus by the correction IOB since there is no correction IOB.
Correction IOB adjustment Remaining correction IOB = 0 U $3 \text{ U} - 0 \text{ U} = 3 \text{ U}$ Adjusted meal bolus = 3.6 U Adjusted for sensor: Rising		← The SmartBolus Calculator does not adjust your meal bolus by the correction IOB since there is no correction IOB.
		← The meal bolus is increased to account for your rising sensor glucose trend.
Calculated Bolus	4.8 U	← The calculated bolus is the sum of your correction bolus and meal bolus that has been adjusted for rising sensor glucose value.
Total Bolus	4.8 U	← The total bolus is the sum of the calculated bolus and any adjustment you made.

Understanding SmartBolus Calculator Calculations 18

Example 3

No carbs entered, used sensor glucose value of 180 mg/dL with decreasing trend. There is 0.8 U meal IOB and 0.5 U correction IOB from the previous meal and correction boluses.

Correction Bolus	0 U	
Sensor = 180, Target Glucose = 130 Correction Factor = 50 $(180-130) / 50 = 1 \text{ U}$		← Your glucose is 180 mg/dL, which is 50 mg/dL over target. Because your correction factor is 50, the initial correction bolus is 1 U.
Meal IOB adjustment Meal IOB = 0.8 U $1 \text{ U}-0.8 \text{ U} = 0.2 \text{ U}$		← Since you have 0.8 U of meal IOB remaining from a previous meal bolus, this is subtracted from the initial correction bolus of 1 U, and you have 0.2 U of correction bolus remaining.
Correction IOB adjustment Correction IOB = 0.5 U $0.2 \text{ U}-0.5 \text{ U} \leq 0 \text{ U}$		← You also have 0.5 U of correction IOB from previous insulin action. This is subtracted from the remaining correction bolus of 0.2 U, driving the final calculated correction bolus to 0 U. Note that 0.3 U of correction IOB still remains after driving correction bolus to 0 U, and this is used in the meal bolus calculations.
Meal Bolus	0 U	
Carbs = 0 g, IC Ratio = 10 g/U $0/10 = 0 \text{ U}$		← You did not enter any carbs, so you do not receive any calculated meal bolus dose.
Correction IOB adjustment Remaining correction IOB = 0.3 U $0 \text{ U}-0.3 \text{ U} \leq 0 \text{ U}$		← Although there is a remaining correction IOB of 0.3 U, your initial meal bolus is already at 0 U, so it is not adjusted further, and your meal bolus remains at 0 U.
Calculated Bolus	0 U	← Even though your glucose is above target, you have enough IOB. As a result, the SmartBolus Calculator recommends that you do not deliver any additional insulin.
Total Bolus	0 U	



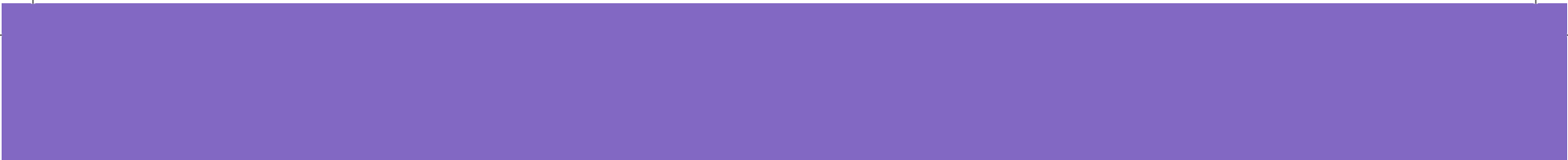
This page intentionally left blank.

USING A SENSOR WITH OMNIPOD 5

Sensor Important Safety Information

- 19 Using a Dexcom Sensor with Omnipod 5
- 20 Connecting a Dexcom Sensor
- 21 About the Libre Plus Sensor
- 22 Connecting a FreeStyle Libre Sensor





This page intentionally left blank.

Sensor Important Safety Information

Sensor Warnings

Warning: ALWAYS be aware of your current sensor glucose value, trust how your body feels, and do not ignore symptoms of high and low glucose. Even though insulin delivery adjusts automatically in Automated Mode with the goal of bringing your glucose level to your defined Target Glucose, severe hypoglycemia or hyperglycemia may still occur.

If your sensor glucose values do not match your symptoms, ALWAYS check your blood glucose using a BG meter, consider treatment and/or sensor calibration (for sensors requiring calibration, if necessary). ALWAYS switch to Manual Mode if you feel you are receiving inaccurate sensor glucose values.

- Erroneously high sensor glucose values can cause excessive insulin delivery, leading to severe hypoglycemia, seizure, loss of consciousness or death.
- Erroneously low sensor glucose values can cause prolonged insulin suspension leading to hyperglycemia, DKA, or death.

If you are having symptoms that are not consistent with your blood glucose readings and you have followed all instructions described in this *Technical User Guide*, contact your healthcare provider.

Warning: ALWAYS make sure you are using the sensor per manufacturer's instructions. Do not extend the sensor wear beyond the recommended duration and do not start a sensor past its Use By date. The Omnipod 5 System relies on accurate, current sensor glucose values to determine your insulin needs. Incorrect use of the sensor could result in over-delivery or under-delivery of insulin, which can lead to hypoglycemia or hyperglycemia.

Warning: ALWAYS confirm the Dexcom G6 Transmitter serial number (SN) or Dexcom G7 pairing code and serial number you save in the Omnipod 5 App matches the one you are wearing. In cases where more than one person in the household uses a Dexcom sensor, mis-matching numbers could result in over-delivery or under-delivery of insulin, which can lead to hypoglycemia and hyperglycemia.

Important Safety Information

Warning: ALWAYS remove and dispose of the Pod before X-ray, Magnetic Resonance Imaging (MRI), or Computed Tomography (CT) scan (or any similar test or procedure). In addition, place the Controller or smartphone outside of the procedure room. Exposure to X-ray, MRI, or CT treatment can damage these components. Check with your healthcare provider for Pod removal guidelines.

If your sensor's instructions for use indicate that the sensor is approved for X-rays, MRIs, or CT scans, and you do not remove the sensor during these procedures, DO NOT use Automated Mode and ALWAYS use a blood glucose reading when bolusing after the procedure. For information about when you can once again use sensor glucose values after the procedure, see your sensor's instructions for use.

Warning: DO NOT use Omnipod 5 System with a Dexcom sensor if you are taking hydroxyurea, a medication used in the treatment of diseases including cancer and sickle cell anemia. Your Dexcom sensor glucose values may be falsely elevated and result in over-delivery of insulin that can result in severe hypoglycemia.

Warning: DO NOT use the Omnipod 5 System with the Libre 2 Plus or Libre 3 Plus sensor if you are taking ascorbic acid (Vitamin C), a substance found in supplements like multivitamins

or cold remedies such as Airborne and Emergen-C. Your FreeStyle Libre 2 Plus sensor glucose values may be falsely elevated at levels of more than 1000 mg of ascorbic acid per day and result in over-delivery of insulin that could result in severe hypoglycemia.

Sensor Precautions

Caution: Dexcom G6 and Standard Dexcom G7 sensors cannot communicate with a Dexcom receiver while paired with a Pod. The Dexcom G7 15 Day sensor can communicate with a display device (either a Dexcom receiver or a smartphone using the Dexcom app) while paired with a Pod.

Caution: During the first 12 hours of use of a Libre 2 Plus or Libre 3 Plus sensor, sensor glucose values are not available for use with the SmartBolus Calculator. You will need to enter a blood glucose reading from a BG meter during those first 12 hours and any time the [VSV] icon appears.

CHAPTER 19

Using a Dexcom Sensor with Omnipod 5

Contents

19.1 Dexcom Sensor Overview306

19.2 Dexcom Sensor Placement 307

 Adult placement examples308

 Pediatric placement examples308

19.3 Using a Dexcom Sensor with Omnipod 5 309

19.4 Sensor Glucose Values 309

 High and Low Sensor Glucose Values310

 Urgent Low Glucose310

19.5 Sensor Glucose Trend Arrows 311

19.6 Dexcom G6 Communication Messages 312

19.7 Dexcom G7 Communication Messages 313

19 Using a Dexcom Sensor with Omnipod 5

19.1 Dexcom Sensor Overview

Warning: ALWAYS be aware of your current sensor glucose value, trust how your body feels, and do not ignore symptoms of high and low glucose. Even though insulin delivery adjusts automatically in Automated Mode with the goal of bringing your glucose level to your defined Target Glucose, severe hypoglycemia or hyperglycemia may still occur.

If your sensor glucose value do not match your symptoms, ALWAYS check your blood glucose using a BG meter, consider treatment and/or sensor calibration (for sensors requiring calibration, if necessary). ALWAYS switch to Manual Mode if you feel you are receiving inaccurate sensor glucose values.

- Erroneously high sensor glucose values can cause excessive insulin delivery, leading to severe hypoglycemia, seizure, loss of consciousness or death.
- Erroneously low sensor glucose values can cause prolonged insulin suspension leading to hyperglycemia, DKA, or death.

If you are having symptoms that are not consistent with your blood glucose readings and you have followed all instructions described in this *Technical User Guide*, contact your healthcare provider.

The Omnipod 5 System is designed to connect with the Dexcom G6 or Dexcom G7 CGM Systems. When connected to the Dexcom sensor, the Pod receives glucose values and trends from the Dexcom sensor. In Automated Mode, the Pod uses sensor glucose values to make automated insulin dosing decisions every 5 minutes. In both Manual Mode and Automated Mode, a sensor glucose value and trend can be used in the SmartBolus Calculator to calculate a suggested bolus.

Read and follow all Dexcom product instructions, including Safety Statements, in the *Dexcom CGM System Instructions for Use*.

Note: All sensor and Transmitter-specific actions and alerts are controlled through your display device. See your *Dexcom CGM System Instructions for Use* for additional information.

Note: The Dexcom display device and Omnipod 5 App do not directly communicate with each other. They have their own separate communication channels to acquire sensor glucose values. As a result, you may notice that, at times, the sensor glucose values may slightly differ in each App.

When connecting and using a sensor, be aware of the following:

- Always check the Dexcom expiration dates for the sensor and Transmitter. Do not start a sensor past its Use By date.
- Adhere to Dexcom's approved site placements for Dexcom sensor wear.
- All Dexcom alerts are configured and driven by your display device. Set your Low and High alerts, as well as any other alerts in your display device before using the Omnipod 5 System.

Note: The Omnipod 5 System also alerts you when your sensor glucose values are at or below 55 mg/dL.

- Always ensure the Dexcom G6 Transmitter serial number (SN) or Dexcom G7 pairing code and serial number entered in the Dexcom G6 and Omnipod 5 Apps match the one you are wearing.

19.2 Dexcom Sensor Placement

The Bluetooth connection between the sensor and the Pod is optimal when the signal does not pass through the body. Keeping both devices at least 3 inches (8 cm) apart and within line of sight allows for consistent sensor communication with the Pod.

Note: Line of sight means that the Pod and sensor are worn on the same side of the body in a way that the two devices can "see" one another without your body blocking their communication.

Consider these Pod placements to find the locations that work best for your body:

Sensors indicated for the abdomen:

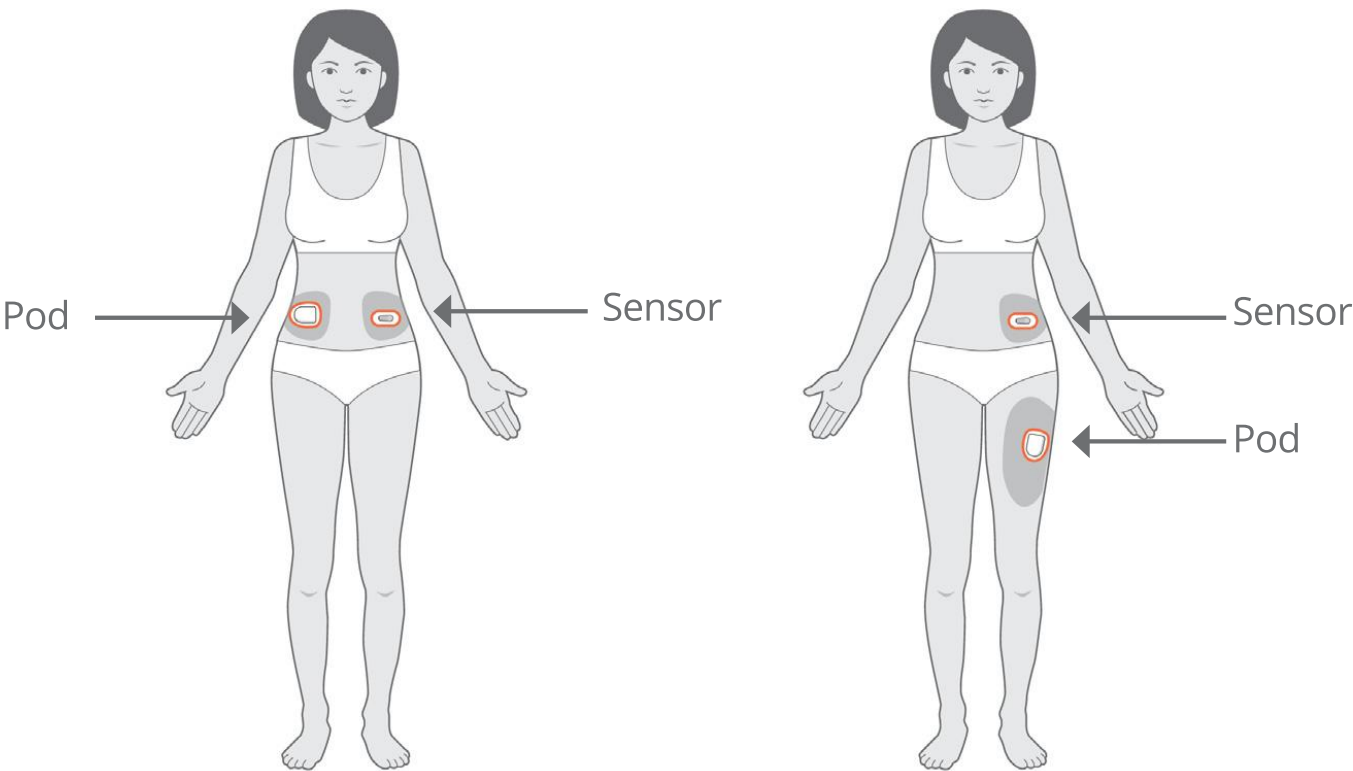
- Abdomen, on the same side, 3 inches (8 cm) apart
- Abdomen, opposite side
- Lower back, same side
- Thigh, front sides or outer same side
- Lovehandles, same side
- Upper buttocks, same side
- Back of arm, same side

Sensors indicated for the back of the upper arm:

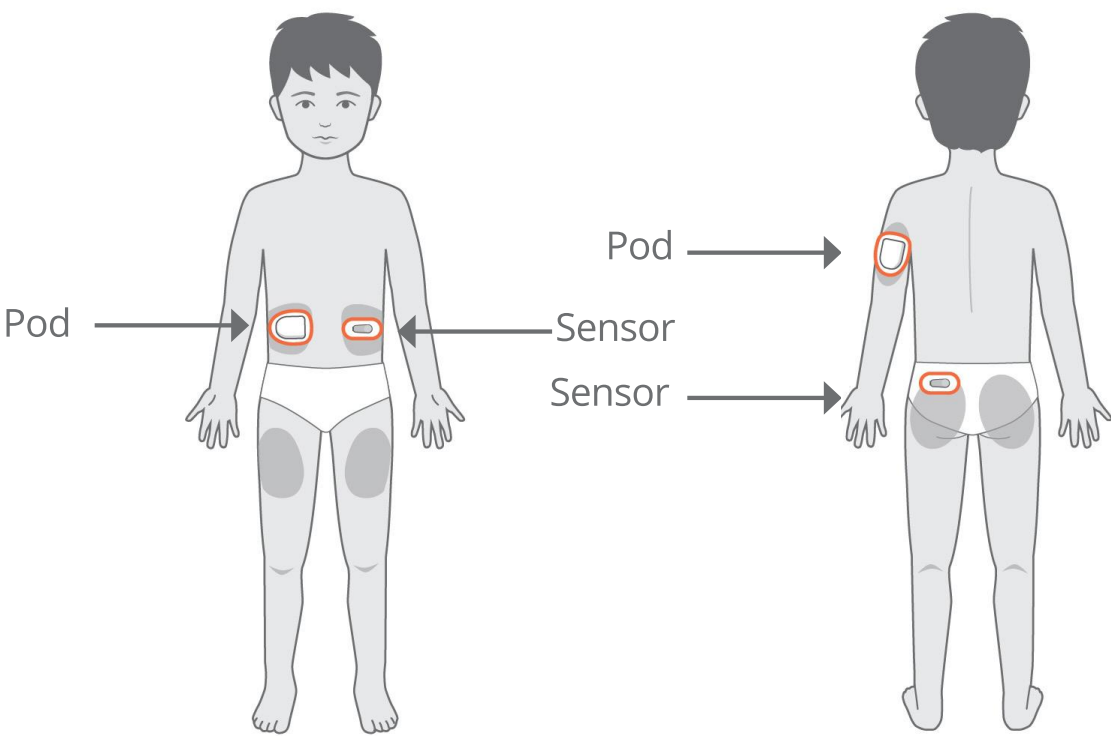
- On the same arm, 3 inches (8 cm) apart
- Abdomen, same side
- Lower back, same side
- Thigh, same side
- Lovehandles, same side
- Upper buttocks, same side
- Back of the opposite arm

19 Using a Dexcom Sensor with Omnipod 5

Adult placement examples



Pediatric placement examples



Consult the *Dexcom CGM System Instructions for Use* for more information on approved sensor placement locations. Images show Dexcom G6 examples only.

19.3 Using a Dexcom Sensor with Omnipod 5

When using Omnipod 5 System with the Dexcom CGM System, you need to use the Dexcom G6 or Dexcom G7 App to control your sensor.

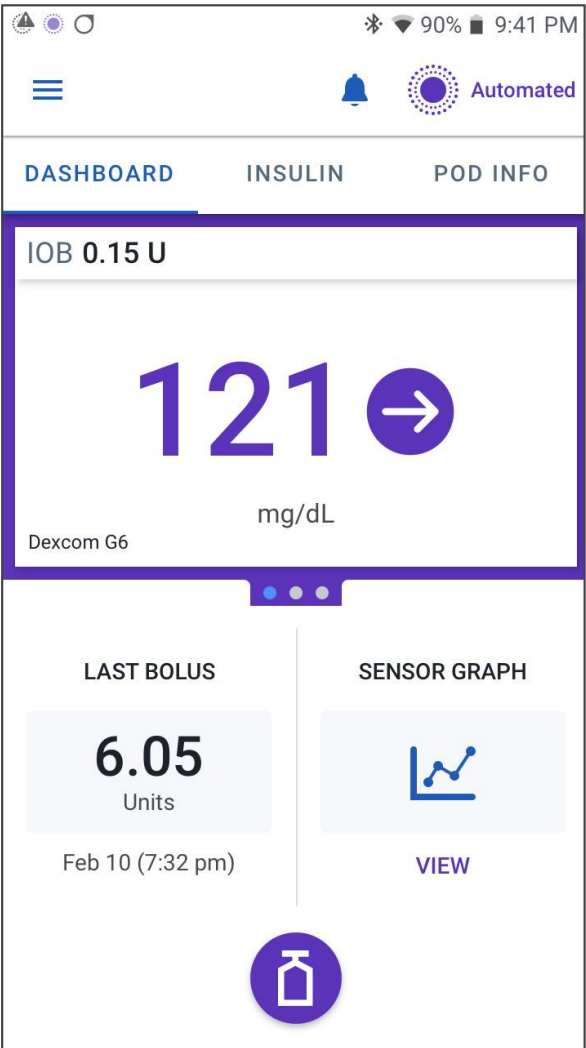
When using the Omnipod 5 System with the Dexcom G7 15-Day CGM System, you can use a display device (either a Dexcom receiver or smartphone) with the Dexcom G7 app.

Caution: Dexcom G6 and Standard Dexcom G7 sensors cannot communicate with a Dexcom receiver while paired with a Pod. The Dexcom G7 15 Day sensor can communicate with a display device (either a Dexcom receiver or a smartphone using the Dexcom app) while paired with a Pod.

19.4 Sensor Glucose Values

Sensor glucose values are displayed on the **DASHBOARD**. The **DASHBOARD** also displays a sensor glucose trend arrow to indicate whether sensor glucose values are trending up, down, or holding steady. In Automated Mode, the system takes your sensor glucose trend into account every 5 minutes when making automated insulin delivery decisions.

In Manual Mode and Automated Mode, the sensor glucose value and trend can be used in the SmartBolus Calculator. The SmartBolus Calculator can increase or decrease your bolus as needed based on your sensor glucose value and trend.



19 Using a Dexcom Sensor with Omnipod 5

High and Low Sensor Glucose Values

The Omnipod 5 App indicates high and low sensor glucose values as follows.

Sensor Glucose Value	Screen display
Above 400 mg/dL	HIGH
Below 40 mg/dL	LOW

Note: Sensor glucose values are automatically recorded on the Omnipod 5 System and do not need to be entered on the Enter BG screen.

Urgent Low Glucose

Warning: ALWAYS promptly treat low glucose. Glucose at or below 55 mg/dL indicates significant hypoglycemia (very low glucose). If left untreated, this could lead to seizure, loss of consciousness or death. Follow your healthcare provider's recommendations for treatment.

When your sensor glucose value is at or below 55 mg/dL, your Dexcom sensor will send the value to your Pod. The Pod will sound an Advisory Alarm to let you know that your glucose is very low. You can acknowledge the alarm from your Controller or smartphone. See "13.6 Advisory Alarm List" on page 193.

Note: This Alarm will occur again if another sensor glucose value of 55 mg/dL or lower is received after the initial Advisory Alarm was acknowledged.

Note: This Advisory Alarm will only stop repeating after a glucose value of 56 mg/dL or greater is received. You may silence this Advisory Alarm for 30 minutes by acknowledging the on-screen message.

Note: Use a BG meter to confirm your glucose. Treat low glucose as needed.

Note: The Urgent Low Glucose Advisory Alarm has to do directly with your body’s current glucose, while other alarms have to do with the Pod or Omnipod 5 App state.

19.5 Sensor Glucose Trend Arrows

Trend arrows display per Dexcom specifications. The arrow color matches the sensor glucose value color. For more information, refer to the *Dexcom CGM System Instructions for Use*.

The color of the sensor glucose value and trend arrow can vary as follows:

Sensor Glucose Value Color	Description
Purple	Sensor glucose value is within Glucose Goal Range. (Automated Mode)
Blue	Sensor glucose value is within Glucose Goal Range. (Manual Mode)
Red	Sensor glucose value is below Glucose Goal Range.
Orange	Sensor glucose value is above Glucose Goal Range.

The following table describes the sensor glucose trend arrows. The trend arrows are shown in blue for example purposes only.

Sensor Glucose Trend Arrows	Description
	Steady; decreasing/increasing less than 1 mg/dL per minute.
	Slowly falling/rising; glucose could decrease/increase 30–60 mg/dL in 30 minutes.
	Falling/rising; glucose could decrease/increase 60–90 mg/dL in 30 minutes.
	Rapidly falling/rising; glucose could decrease/increase more than 90 mg/dL in 30 minutes.

19 Using a Dexcom Sensor with Omnipod 5

19.6 Dexcom G6 Communication Messages

Communication Message	Description
CONNECTING TRANSMITTER	Occurs after you have entered a Transmitter serial number (SN) and the Pod is attempting to connect with the Transmitter.
DEXCOM ISSUE DETECTED	When sensor glucose values are not available due to a sensor error (including sensor expiration). See the Dexcom G6 App for details. No action is required within the Omnipod 5 App.
SEARCHING FOR POD	When Pod communication was not established within the most recent 5-minute update interval. Tap MORE INFORMATION for potential causes and recommended actions.
SEARCHING FOR SENSOR	When the sensor is active and connected to the Omnipod 5 Pod but the most recent sensor glucose value was not acquired within the 5-minute window. There may be no valid sensor glucose value available due to a Pod/sensor communication issue or a temporary sensor issue (recoverable without any user action). Tap MORE INFORMATION for recommended action. Review Pod and sensor placement. Pod and sensor should be at least 3 inches (8 cm) apart and within line of sight.

TRANSMITTER ERROR	When the Transmitter connected with the Omnipod 5 System has expired or experienced a non-recoverable error. Tap NEED HELP for potential causes and recommended actions. To set up a new transmitter, see "20.3 Connecting the Dexcom G6 Transmitter" on page 320.
TRANSMITTER NOT FOUND	When the Pod tried to connect with a Transmitter but after 20 minutes was unable to do so. This can also happen when a Transmitter is still connected to a discarded Pod. Tap NEED HELP for potential causes and recommended actions. See "28.3 Sensor FAQs" on page 451 for additional information.
WAITING FOR DEXCOM SETUP	When the Transmitter is connected but sensor glucose values are unavailable because the Dexcom G6 is in sensor warm-up or requires calibration. See the Dexcom G6 App for details. No action is required within the Omnipod 5 App.

Note: For all sensor-related issues, refer to your *Dexcom G6 CGM System Instructions for Use*.

19.7 Dexcom G7 Communication Messages

Communication Message	Description
CONNECTING SENSOR	Occurs after you have entered a pairing code and serial number from the Dexcom G7 applicator and the Pod is attempting to connect with the sensor.

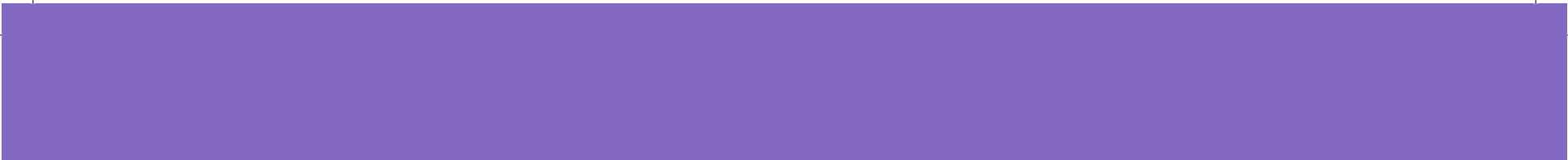
19 Using a Dexcom Sensor with Omnipod 5

Communication Message	Description
DEXCOM ISSUE DETECTED	When sensor glucose values are not available due to a sensor error. See the Dexcom display device for details. No action is required within the Omnipod 5 App.
SENSOR ERROR	When the sensor connected with the Omnipod 5 System has experienced a non-recoverable error. Tap NEED HELP for potential causes and recommended actions. To set up a new sensor, see "20.6 Connecting the Dexcom G7 Sensor" on page 324.
SENSOR EXPIRED	When the sensor has reached the end of its wear. Remove the sensor from your skin and dispose of it. Start a new Dexcom G7 sensor using your display device. To connect the new sensor to your Omnipod 5 App, see "20.6 Connecting the Dexcom G7 Sensor" on page 324.
SEARCHING FOR POD	When Pod communication was not established within the most recent 5-minute update interval. Tap MORE INFORMATION for potential causes and recommended actions.

Using a Dexcom Sensor with Omnipod 5 19

Communication Message	Description
SEARCHING FOR SENSOR	When the sensor is active and connected to the Omnipod 5 Pod but the most recent sensor glucose value was not acquired within the 5-minute window. There may be no valid sensor glucose value available due to a Pod/sensor communication issue or a temporary sensor issue (recoverable without any user action). Tap MORE INFORMATION for recommended action. Review Pod and sensor placement. Pod and sensor should be at least 3 inches (8 cm) apart and within line of sight.
SENSOR NOT FOUND	When the Pod tried to connect with a sensor but after 25 minutes was unable to do so. Tap NEED HELP for potential causes and recommended actions. See "28.3 Sensor FAQs" on page 451 for additional information.
WAITING FOR DEXCOM SETUP	When the sensor is connected but sensor glucose values are unavailable because the Dexcom G7 sensor warm-up is not complete. See the Dexcom display device for details. No action is required within the Omnipod 5 App.

Note: For all sensor-related issues, refer to your Dexcom G7 CGM System Instructions for Use.



This page intentionally left blank.

CHAPTER 20

Connecting a Dexcom Sensor

Contents

20.1 About Connecting a Dexcom Sensor to the Pod318

20.2 Connecting the Dexcom G6 during Initial Pod Setup 319

20.3 Connecting the Dexcom G6 Transmitter. 320

20.4 Disconnecting the Transmitter from the Pod 321

20.5 Switching to Dexcom G6 from Another Sensor 321

20.6 Connecting the Dexcom G7 Sensor 324

20.7 Disconnecting the Dexcom G7 from the Pod 327

20.8 Switching to the Dexcom G7 from another Sensor . 328

20 Connecting a Dexcom Sensor

20.1 About Connecting a Dexcom Sensor to the Pod

The Omnipod 5 System is designed to work with the Dexcom G6 or Dexcom G7 CGM. To use a Dexcom G6 or Standard G7 sensor with the Omnipod 5 System, you will need to obtain the Dexcom G6 sensor and Transmitter or Dexcom G7 sensor, *Dexcom CGM System Instructions for Use*, and download the Dexcom G6 or Dexcom G7 App on your personal smartphone. To use a Dexcom G7 15 Day sensor, you will need to obtain the Dexcom G7 sensor, *Dexcom CGM System Instructions for Use*, and either obtain a Dexcom G7 receiver or download the Dexcom G7 app to a smartphone.

Before you can view and use sensor glucose values in the Omnipod 5 System, you must first set up the Omnipod 5 System to allow the Pod to communicate with the sensor. Once connected, you will be able to use the system in Automated Mode, view sensor glucose values in the Omnipod 5 App, and use sensor glucose values in the bolus calculator in both Manual and Automated Modes.

Note: Always confirm that the Pod you are activating is compatible with the sensor you intend to use. The Pod tray lid and Pod box will show the sensor compatibility.

Before you begin, do the following:

- The Omnipod 5 System will not connect with the Dexcom G6 or Standard G7 sensor if you are using the Dexcom receiver. If you have an existing Dexcom G6 or Standard G7 sensor or Transmitter that is connected to your receiver, turn off your receiver. You will need to use the Dexcom G6 or Dexcom G7 App on your display device. For instructions about using a Dexcom CGM System, see the *Dexcom CGM System Instructions for Use*.

20.2 Connecting the Dexcom G6 during Initial Pod Setup

To connect the Transmitter during initial Pod setup:

1. After activating your Pod during initial setup, tap **CONNECT SENSOR**.

Note: If you tap **NOT NOW** after activating your Pod during initial setup, you can connect the sensor and Transmitter at a later time. See "Connecting the Dexcom G6 Transmitter" in the next section.

2. Go to step 3 of "Connecting the Dexcom G6 Transmitter" in the next section.

20 Connecting a Dexcom Sensor

20.3 Connecting the Dexcom G6 Transmitter

Warning: ALWAYS confirm the Dexcom G6 Transmitter serial number (SN) or Dexcom G7 pairing code and serial number you save in the Omnipod 5 App matches the one you are wearing. In cases where more than one person in the household uses the Dexcom sensor, mis-matching numbers could result in over-delivery or under-delivery of insulin, which can lead to hypoglycemia and hyperglycemia.

If you had previously connected a Transmitter and your Transmitter has expired, or you have deleted the Transmitter serial number (SN) and wish to reconnect, you must enter a new SN. You must be in Manual Mode to manage your Transmitter SN.

To connect the Dexcom G6 Transmitter:

1. From the Home screen, tap **Menu button** () > **Manage Sensor**.

The Manage Sensor screen displays the saved SN.

Note: If the Transmitter SN was previously deleted, the SN field is empty. (See "20.4 Disconnecting the Transmitter from the Pod" on page 321).

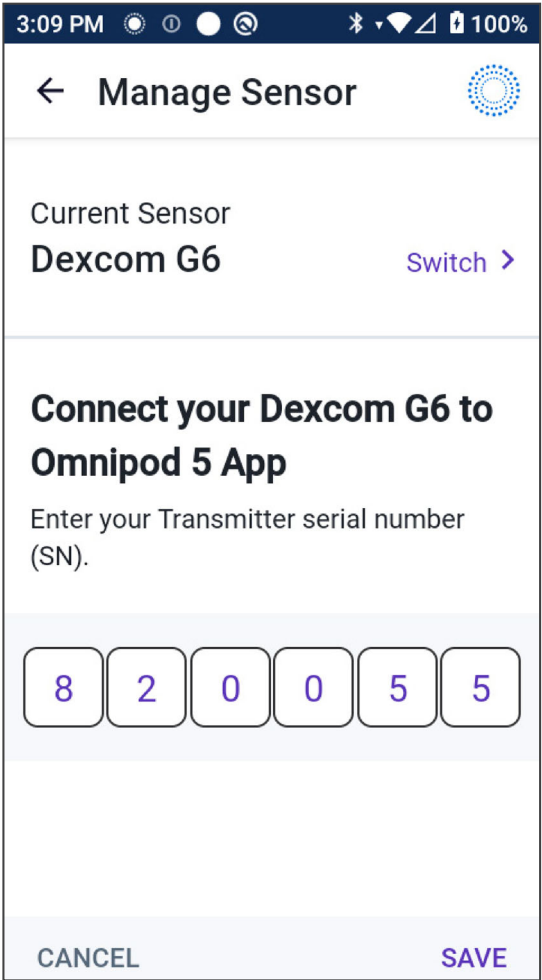
2. Tap **ENTER NEW**.
3. Tap the SN field to display the alphanumeric keypad.
4. Enter the SN printed on the back of your Transmitter or on the Transmitter box, then tap **Done**.
5. Tap **SAVE**.

Note: If you tap **CANCEL** or exit the current screen (by pressing the back arrow), the SN is not saved.

6. Tap **CONFIRM** to start connecting your Transmitter to your Pod. The connection process can take up to 20 minutes.

When Pod communication is successful, the screen displays "Connecting Transmitter."

If the Pod is unable to connect with the Transmitter within 20 minutes, the message "Transmitter Not Found" displays.



Tap **NEED HELP** for more information. See "28.3 Sensor FAQs" on page 451 for additional information.

If you do not have an active Pod or you are changing your Pod, the Transmitter serial number (SN) will be saved and sent to the next Pod that is activated.

20.4 Disconnecting the Transmitter from the Pod

To stop the Pod from communicating with the Transmitter, delete the SN. If you delete the SN, you will no longer be able to enter Automated Mode until a new Transmitter SN is added.

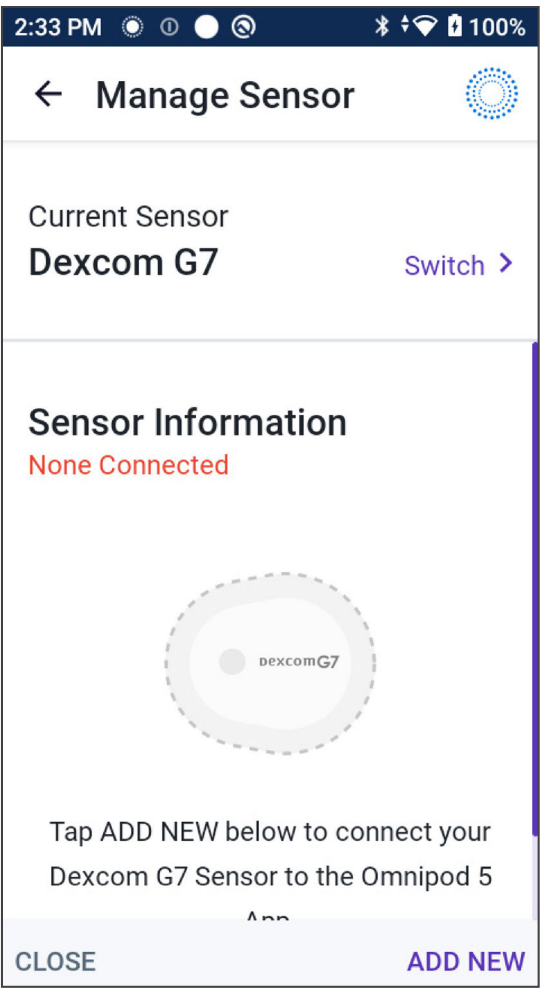
To delete the serial number (SN):

1. From the Home screen, tap **Menu button (≡) > Manage Sensor.**
The Manage Sensor screen displays the saved SN.
2. Tap **DELETE.**
3. Tap **OK, DELETE** to confirm.

20.5 Switching to Dexcom G6 from Another Sensor

The Omnipod 5 System is compatible with more than one brand or model of sensor. If you want to switch to using the Dexcom G6 sensor with your Omnipod 5 System from another type of compatible sensor, you can switch sensors in the Omnipod 5 App.

Note: Switching sensors must be done between Pod changes. A single Pod cannot connect with more than one brand or model of sensor during its wear.



20 Connecting a Dexcom Sensor

To switch from another sensor to Dexcom G6, follow the steps below:

1. Navigate to the **Menu button** () > **Manage Sensor**.

Note: You cannot switch sensors while wearing an active Pod. If you have an active Pod, Wait for next Pod change will display on the screen when you try to switch.

2. The Manage Sensor screen shows your current sensor.

Tap **Switch** > to switch to a different (or to no) sensor.

For example, you may have been using a Dexcom G7 sensor and would now like to switch to a Dexcom G6 sensor.

3. The Sensor Selection screen shows your options with your current sensor selected.

4. To switch to the Dexcom G6 sensor, select Dexcom G6.

Tap **SAVE**.

 **Sensor Selection**



Select your Sensor:

☐

Dexcom G6

☒

Dexcom G7

☐

FreeStyle Libre 2 Plus

☐

No Sensor

CANCEL

SAVE

 **Sensor Selection**



Select your Sensor:

☒

Dexcom G6

☐

Dexcom G7

☐

FreeStyle Libre 2 Plus

☐

No Sensor

CANCEL

SAVE

Connecting a Dexcom Sensor 20

5. Confirm your switch to Dexcom G6.
Tap **CONFIRM** to acknowledge.
6. The Omnipod 5 App will ask: **Do you want to add the Dexcom G6 sensor to Omnipod 5 now?**
 - a. Tap **ADD** to begin the process of adding your Dexcom G6 sensor to Omnipod 5.
 - b. Tap **NOT NOW** to add a Dexcom G6 sensor to Omnipod 5 later.
7. Add your Dexcom G6 Transmitter by entering your Transmitter serial number (SN) into the Omnipod 5 App. The SN must match the SN of the Transmitter connected to the Dexcom G6 mobile App. See "20.3 Connecting the Dexcom G6 Transmitter" on page 320.
8. Activate a new Pod. Check the Pod tray lid and Pod box for compatibility with the Dexcom G6 sensor.

When Pod communication is successful, the screen displays "**Connecting Transmitter**".

If the Pod is unable to connect with the Dexcom G6 Transmitter within 20 minutes, the message "**Transmitter Not Found**" displays. Tap **NEED HELP** for more information. See "28.3 Sensor FAQs" on page 451.

If you do not have an active Pod, the Transmitter serial number (SN) will be saved and sent to the next Pod you activate.

Confirm switching to Dexcom G6

You are switching from Dexcom G7 to Dexcom G6.

If you have an active Sensor, remove and discard the old Sensor because the Omnipod 5 App will no longer be able to communicate with it.

CANCEL CONFIRM

20 Connecting a Dexcom Sensor

20.6 Connecting the Dexcom G7 Sensor

If you had previously connected a Dexcom G7 sensor and your sensor has expired, or you have deleted the sensor pairing code and serial number (SN) and wish to reconnect, you must enter the Dexcom G7 sensor information from the applicator for your current sensor.

To connect the Dexcom G7 sensor:

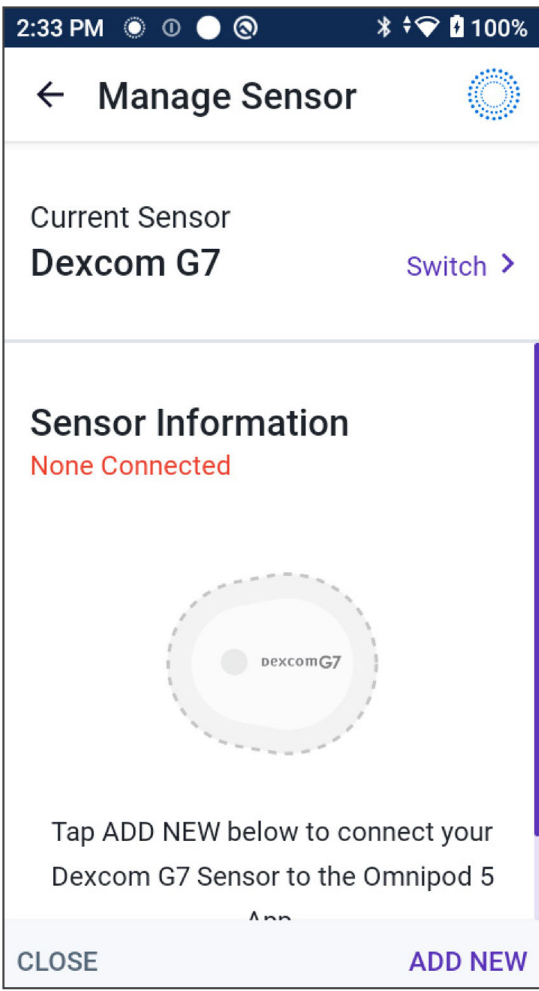
1. From the Home screen, tap **Menu button** () > **Manage Sensor**.

Note: If you are starting the Omnipod 5 System for the first time, you will be prompted to enter the sensor information during first-time setup.

The Manage Sensor screen displays the saved pairing code and serial number.

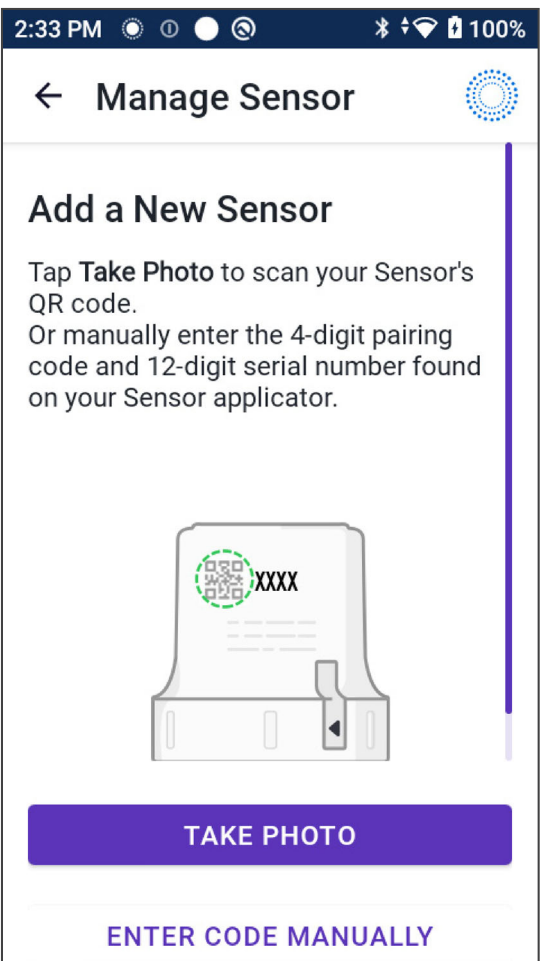
Note: If the sensor information was previously deleted, the pairing code and serial number fields are empty. (See "20.7 Disconnecting the Dexcom G7 from the Pod" on page 327).

2. Tap **ADD NEW**.

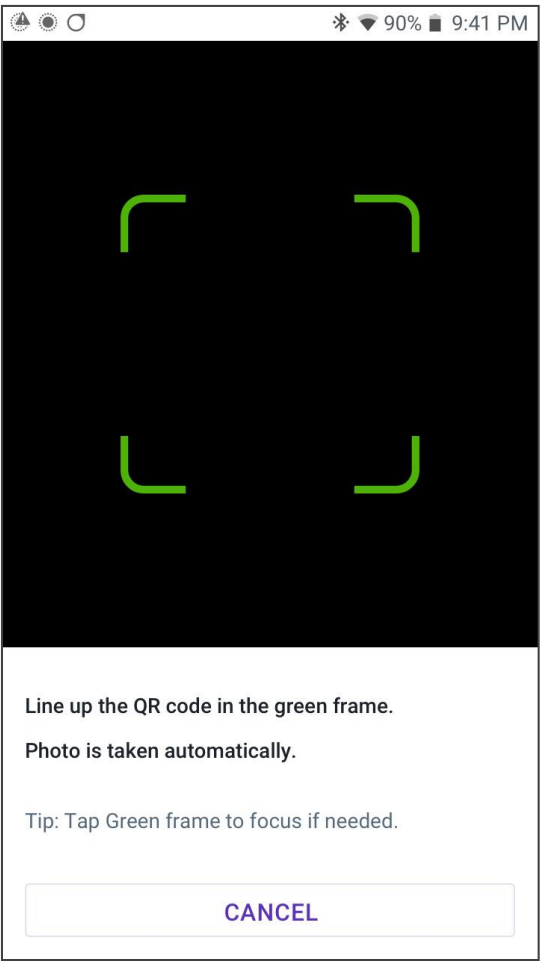


Connecting a Dexcom Sensor 20

3. To use the Take Photo option to connect, tap **TAKE PHOTO**.
To enter the numbers, tap **ENTER CODE MANUALLY**.
Note: You will need to connect each new Dexcom G7 sensor to both the Omnipod 5 App and Dexcom display device for your Pod and sensor to stay connected.



4. If taking a photo, line up the QR code in the green frame. The photo is taken automatically. The photo will not be stored.
Note: If you tap **CANCEL**, the information is not saved.
Note: Check that the camera lens is not blocked by your smartphone case or Controller gel skin. You will also need to have camera permission enabled.



20 Connecting a Dexcom Sensor

OR

If entering manually, enter the 4-digit pairing code printed on your applicator:

Tap **SAVE**.

Tap **CONFIRM**.

Note: Note: You can find both the 4-digit pairing code and the 12-digit serial number in your Dexcom G7 display device.

Next, enter the 12-digit serial number printed on your applicator.

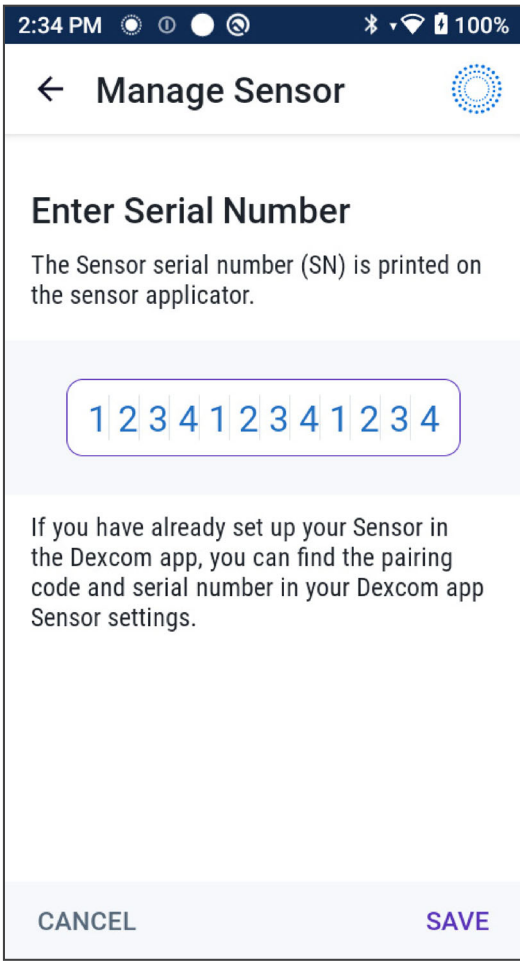
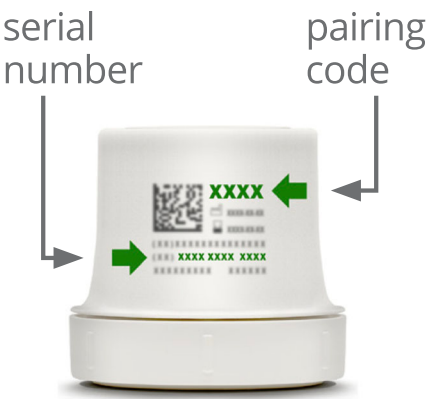
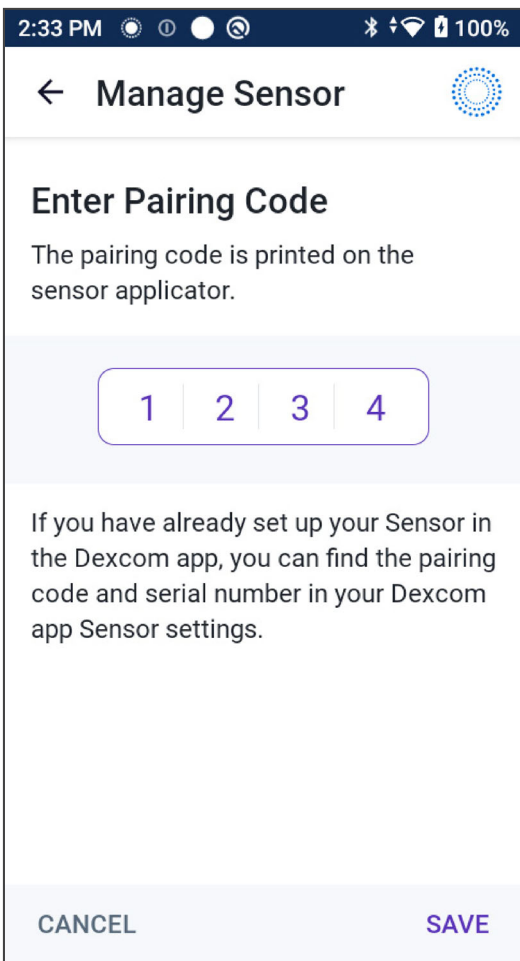
Tap **SAVE**.

Note: If you tap **CANCEL** or exit the current screen (by pressing the back arrow), the information is not saved.

5. Tap **CONFIRM** to start connecting your sensor to your Pod. The connection process can take up to 25 minutes.

When Pod communication is successful, the screen displays "**Connecting Sensor**".

If the Pod is unable to connect with the sensor within 25 minutes, the message "**Sensor Not Found**" displays. Tap **NEED HELP** for more information. See "28.3 Sensor FAQs" on page 451 for additional information.



20.7 Disconnecting the Dexcom G7 from the Pod

To stop the Pod from communicating with the sensor, delete the sensor information. If you delete the pairing code and serial number, you will no longer be able to enter Automated Mode until a new sensor pairing code and serial number are added.

To delete the sensor:

1. From the Home screen, tap **Menu button** () > **Manage Sensor**.
2. The Manage Sensor screen displays the saved sensor information.
Tap **DELETE**.
3. Tap **OK, DELETE** to confirm.

20 Connecting a Dexcom Sensor

20.8 Switching to the Dexcom G7 from another Sensor

The Omnipod 5 System is compatible with more than one brand or model of sensor. If you want to switch to using the Dexcom G7 sensor with your Omnipod 5 System from another type of compatible sensor, you can switch sensors in the Omnipod 5 App.

Note: Switching sensors must be done between Pod changes. A single Pod cannot connect with more than one brand or model of sensor during its wear.

To switch from another sensor to Dexcom G7, follow the steps below:

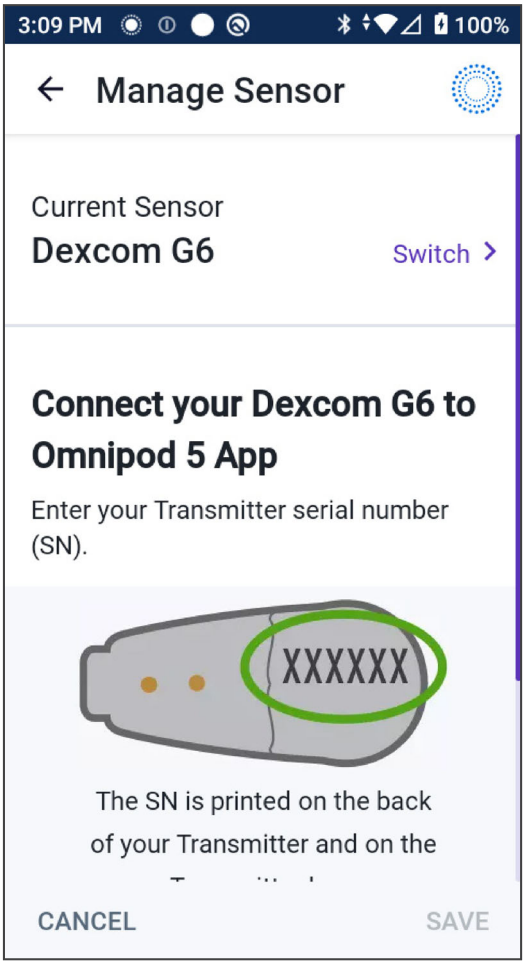
1. Navigate to the **Menu button** () > **Manage Sensor**.

Note: You cannot switch sensors while wearing an active Pod. If you have an active Pod, Wait for next Pod change will display on the screen when you try to switch.

2. The Manage Sensor screen shows your current sensor.

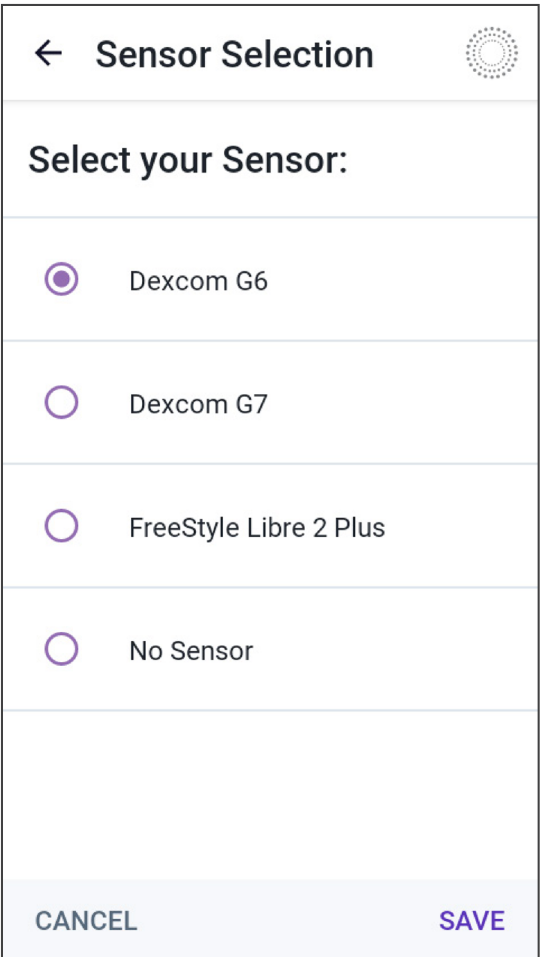
Tap **Switch** > to switch to a different (or to no) sensor.

For example, you may have been using a Dexcom G6 sensor and would now like to switch to a Dexcom G7 sensor.

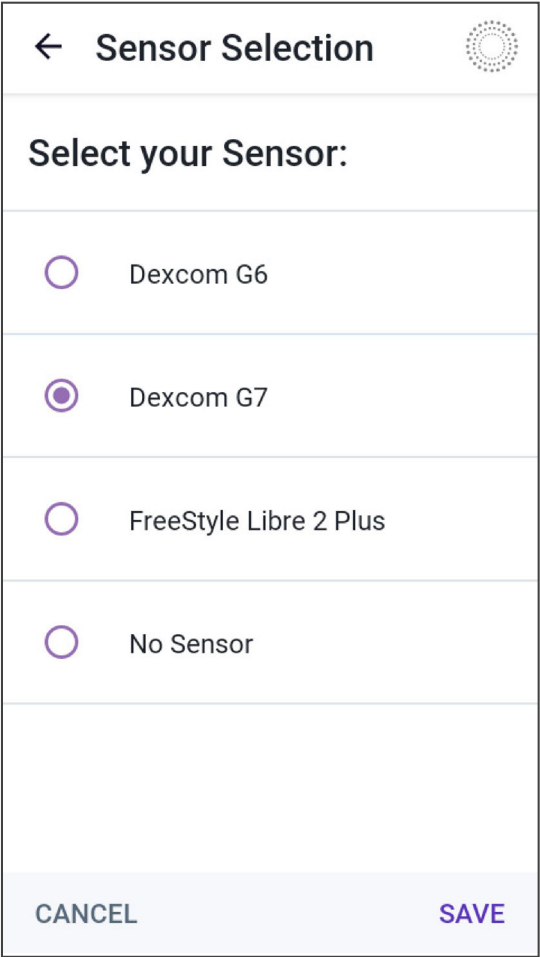


Connecting a Dexcom Sensor 20

3. The Sensor Selection screen shows your options with your current sensor selected.



4. To switch to the Dexcom G7 sensor, select Dexcom G7. Tap **SAVE**.



20 Connecting a Dexcom Sensor

5. Confirm your switch to Dexcom G7.
Tap **CONFIRM** to acknowledge.

6. The Omnipod 5 App will ask: **Do you want to add the Dexcom G7 sensor to Omnipod 5 now?**
- Tap **ADD** to begin the process of adding your Dexcom G7 sensor to Omnipod 5.
 - Tap **NOT NOW** to add a Dexcom G7 sensor to Omnipod 5 later.

7. Add your Dexcom G7 sensor to Omnipod 5 by selecting **TAKE PHOTO** and taking a photo of the QR code on the side of the Dexcom G7 applicator. Or you can manually enter the pairing code and serial number into the Omnipod 5 App. See "20.7 Disconnecting the Dexcom G7 from the Pod" on page 327.

The pairing code and serial number must match the numbers on the Dexcom G7 applicator. The pairing code must match the pairing code of the sensor connected to the Dexcom G7 display device.

8. Activate a new Pod. Check the Pod tray lid and Pod box for compatibility with the Dexcom G7 sensor.

When Pod communication is successful, the screen displays "**Connecting Sensor**".

If the Pod is unable to connect with the Dexcom G7 sensor within 25 minutes, the message "**Sensor Not Found**" displays. Tap **NEED HELP** for more information. See "28.3 Sensor FAQs" on page 451.

If you do not have an active Pod, the sensor pairing code and serial number will be saved and sent to the next Pod you activate.

Confirm switching to Dexcom G7

You are switching from Dexcom G6 to Dexcom G7.

If you have an active Dexcom G6 Sensor, remove and discard the old Sensor because the Omnipod 5 App will no longer be able to communicate with it.

CANCEL **CONFIRM**

CHAPTER 21

About the Libre Plus Sensor

Contents

21.1 Libre 2 Plus and Libre 3 Plus Sensor Overview 332

 Libre 2 Plus Sensor334

 Libre 3 Plus Sensor334

21.2 Libre Plus Sensor Placement. 335

 Adult placement examples336

 Pediatric placement examples336

21.3 Using a Libre Plus Sensor with the Omnipod 5 App 337

 Using a sensor without an active Pod (Sensor-only state)337

 Sensor Glucose Values337

 High Glucose Alarm338

 Low Glucose Alarm339

 Missing Sensor Glucose Values Alarm340

 Urgent Low Glucose341

21.4 Sensor Glucose Trends and Indicators 342

 Glucose Trend Arrows342

 View Sensor Glucose Graph343

21.5 Libre Plus Sensor Communication and Problem Messages 344

 Communication Messages344

 Problem Messages346

21 About the Libre Plus Sensor

21.1 Libre 2 Plus and Libre 3 Plus Sensor Overview

Warning: ALWAYS be aware of your current sensor glucose value, trust how your body feels, and do not ignore symptoms of high and low glucose. Even though insulin delivery adjusts automatically in Automated Mode with the goal of bringing your glucose level to your defined Target Glucose, severe hypoglycemia or hyperglycemia may still occur.

If your sensor glucose values do not match your symptoms, ALWAYS check your blood glucose using a BG meter, consider treatment and/or sensor calibration (for sensors requiring calibration if necessary). ALWAYS switch to Manual Mode if you feel you are receiving inaccurate sensor glucose values.

- Erroneously high sensor glucose values can cause excessive insulin delivery, leading to severe hypoglycemia, seizure, loss of consciousness or death.
- Erroneously low sensor glucose values can cause prolonged insulin suspension leading to hyperglycemia, DKA, or death.

If you are having symptoms that are not consistent with your blood glucose readings and you have followed all instructions described in this *Technical User Guide*, contact your healthcare provider.

The Omnipod 5 System is designed to connect with the FreeStyle Libre 2 Plus and FreeStyle Libre 3 Plus sensors.

When connected to a sensor, the Pod receives glucose values and trends directly from the sensor. In Automated Mode, the Pod uses sensor glucose values to make automated insulin dosing decisions every 5 minutes. In both Manual Mode and Automated Mode, a sensor glucose value and trend can be used in the SmartBolus Calculator to calculate a suggested bolus.

Read and follow all Libre Plus sensor instructions, including Safety Statements, in the *Libre Plus Sensor Instructions for Use*.

Note: All sensor-specific actions and alerts are controlled through your Omnipod 5 App.

Note: If you are using the FreeStyle Libre 2 Plus sensor with Omnipod 5, you must use the Insulet-provided Controller and not a smartphone.

About the Libre Plus Sensor 21

When connecting and using a sensor, be aware of the following:

- Do NOT use if the Sensor Kit package, Sensor Pack, or Sensor applicator appear to be damaged or already opened due to risk of no results and/or infection.
- Do NOT use if Sensor Kit contents are past their expiration date.
- For Libre 2 Plus sensors, check that the sensor codes match on the Sensor Pack and Sensor applicator before using. Different sensor codes will result in incorrect sensor glucose values.
- The sensor is worn on the back of the upper arm.
- All sensor alerts are configured and driven by your Omnipod 5 App. You will set your Low and High Glucose and Missing Sensor Values alerts during first-time setup of your sensor with your Omnipod 5 System.

The sensor continuously monitors glucose and, when used with the Omnipod 5 System, sends glucose values and trends wirelessly to your Pod. The sensor requires no fingersticks.

The Libre Plus sensor includes:

- **Sensor Pack:** Contains one sterile sensor. For the Libre 2 Plus sensor only. The Libre 3 Plus sensor includes the sensor inside the applicator.
- **Sensor:** Circle-shaped sensor worn on the back of the upper arm. The sensor has a thin, flexible filament that is painlessly inserted just under the skin.
- **Applicator:** Used to apply the sensor to your arm. For the Libre 2 Plus sensor, the applicator is also used to pick up the sensor from the Sensor Pack.
- **Omnipod 5 App:** Sensors are started and managed using the Omnipod 5 App.

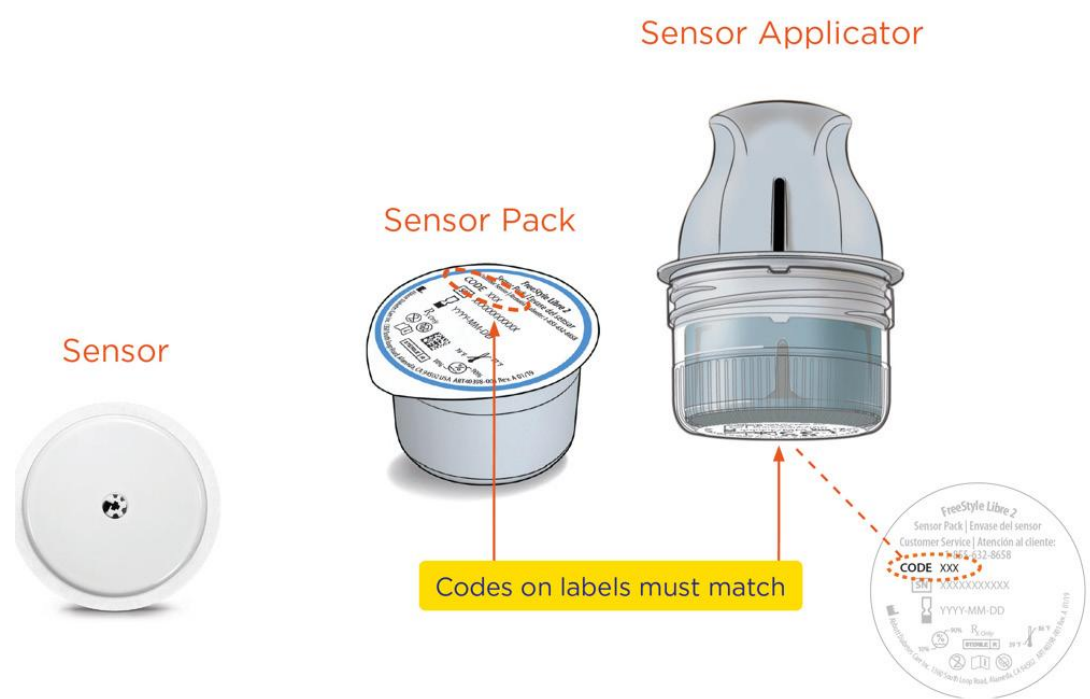
Note: You must start and manage the Libre 2 Plus sensor with the Insulet-provided Controller. You cannot use a Libre 2 Plus sensor with the Omnipod 5 App on a personal smartphone.

When used with an active Pod: Sensor glucose values and trend are sent directly to the Pod for use in automating insulin delivery. The value and trend are displayed in the Omnipod 5 App.

21 About the Libre Plus Sensor

When used without an active Pod: If you choose to use your Omnipod 5 App without a Pod, such as if you're returning to injections for a few days, you can still use the Omnipod 5 App to manage your glucose. Without an active Pod, the sensor will send sensor glucose values and trend directly to the app. You can use the app in this way for up to 30 days.

Libre 2 Plus Sensor



Libre 3 Plus Sensor



21.2 Libre Plus Sensor Placement

The Bluetooth connection between the sensor and the Pod is optimal when the signal does not pass through the body. Keeping both devices within line of sight allows for consistent sensor communication with the Pod.

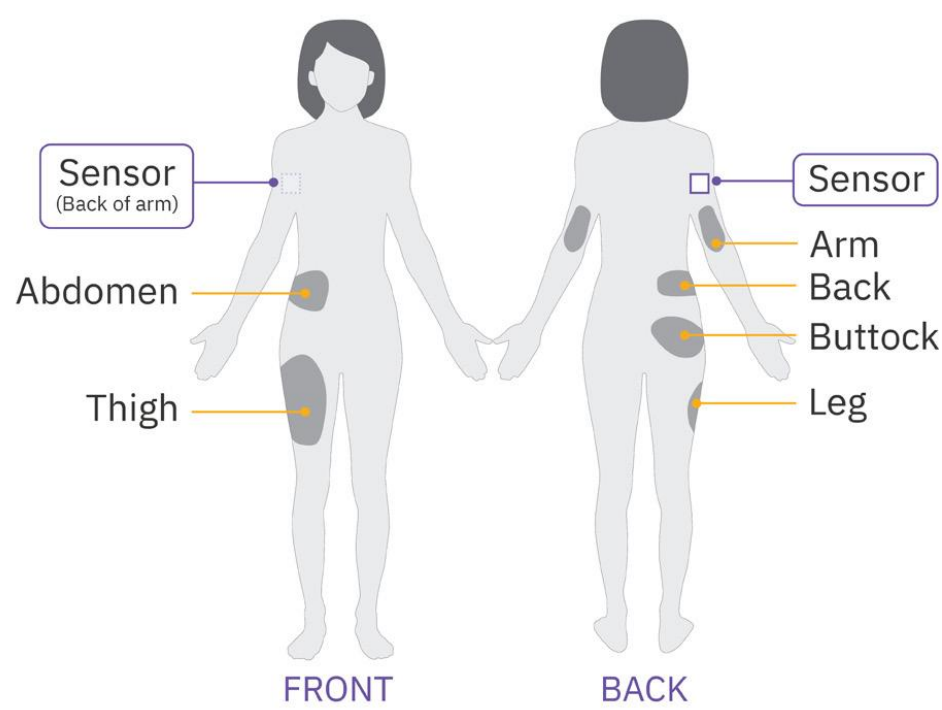
Note: Line of sight means that the Pod and sensor are worn on the same side of the body in a way that the two devices can "see" one another without your body blocking their communication.

For sensors indicated for the back of the upper arm, for example, consider these Pod placements to find the locations that work best for your body:

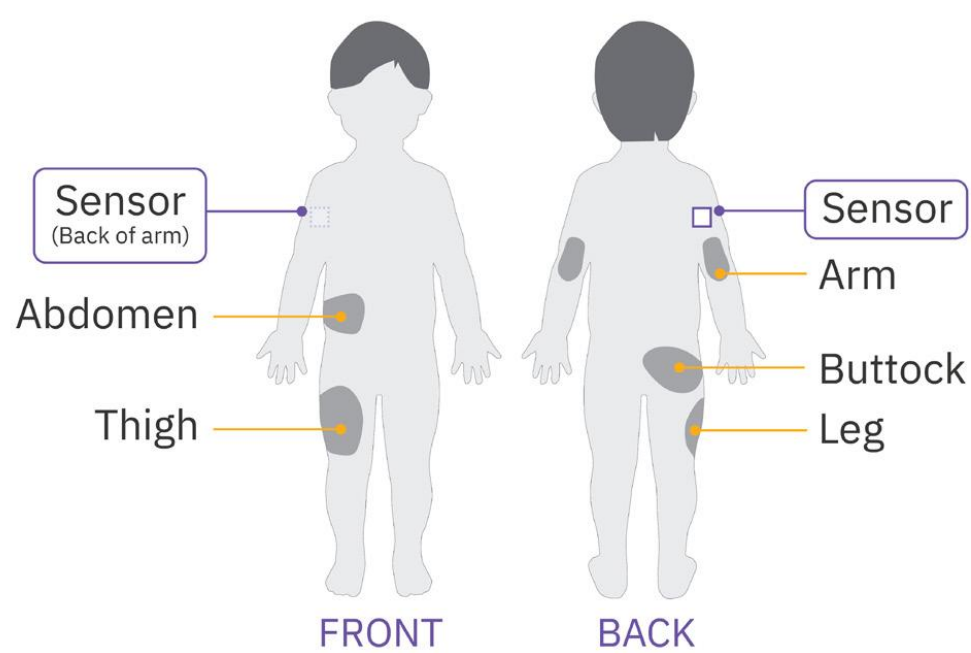
- On the same arm 1 inch (2.5 cm) apart
- Abdomen, same side
- Sides of abdomen, same side
- Lower back, same side
- Thigh, same side
- Upper buttocks, same side
- Back of the opposite arm

21 About the Libre Plus Sensor

Adult placement examples



Pediatric placement examples



21.3 Using a Libre Plus Sensor with the Omnipod 5 App

After you have connected a sensor to the Omnipod 5 System, the Pod will receive a sensor glucose value from the sensor every 5 minutes. These values are sent from the Pod to the Omnipod 5 App, allowing you to monitor your glucose and insulin delivery. If you use the sensor without an active Pod, the app receives glucose values directly from the sensor.

Using a sensor without an active Pod (Sensor-only state)

There may be times when you want to continue using a sensor but take a break from using a Pod in favor of another insulin therapy, like injections. Since you typically use the Omnipod 5 App to start your sensor and view your sensor glucose information, you can continue to do that even without an active Pod.

For the sensor-only state (no active Pod), the Omnipod 5 App will update sensor glucose values every 5 minutes directly from the sensor, rather than from a Pod. You will be able to view your sensor graph, as well as alerts about high or low glucose. You will not receive information on insulin status until you activate a new Pod.

Note: You can use the Omnipod 5 App in the sensor-only state for up to 30 days. If you plan to use an alternative insulin therapy, like injections, for more than 30 days, ask your healthcare provider about moving to a standalone FreeStyle Libre system. Remember that to use a sensor with the Omnipod 5 App, it must be scanned and started by the Omnipod 5 App.

Note: In the sensor-only state, your Omnipod 5 Controller or smartphone must be nearby and in line of sight with the sensor for sensor glucose values to appear on the screen. Bring your device closer to the sensor if you don't see values displayed.

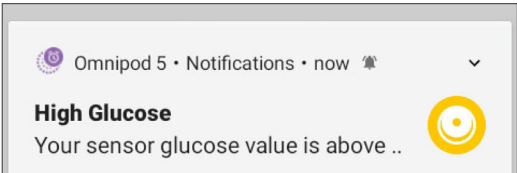
Sensor Glucose Values

The Omnipod 5 App is where you can review and adjust your settings for high and low sensor glucose value alarms.

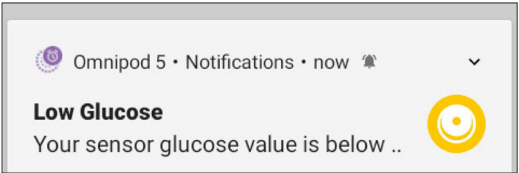
There are 3 optional, adjustable sensor alarms to alert you to out-of-range glucose.

21 About the Libre Plus Sensor

High Glucose Alarm

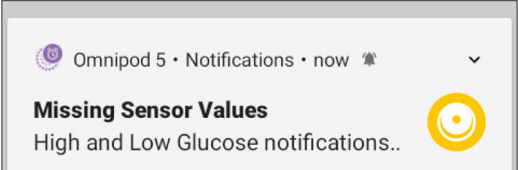
Screen Displayed:	 A screenshot of a smartphone notification for 'High Glucose' from the 'Omnipod 5' app. The notification text reads 'Your sensor glucose value is above ..' and includes a yellow circular icon with a smiley face.
Cause:	The notification is set to ON and your sensor glucose value is above your High Glucose setting.
Controller/Smartphone sound and vibration:	• 1 second tone • 1.5 second vibration if reminder is set to override volume. 1 second vibration if not. • Alarm repeats every 5 minutes until your sensor glucose value is below your High Glucose setting or you acknowledge the notification.
What to do:	1. Acknowledge the alarm by viewing the notification in the Notification bell or by dismissing the notification from the lock screen. 2. Check your blood glucose with a meter to confirm your glucose value.

Low Glucose Alarm

Screen Displayed:	
Cause:	The notification is set to ON and your sensor glucose value is below your Low Glucose setting.
Controller/Smartphone sound and vibration:	• 1 second tone • 1.5 second vibration if reminder is set to override volume. 1 second vibration if not. • Alarm repeats every 5 minutes until your sensor glucose value is above your Low Glucose setting or you acknowledge the notification.
What to do:	1. Acknowledge the alarm by viewing the notification in the Notification bell or by dismissing the notification from the lock screen. 2. Check your blood glucose with a meter to confirm your glucose value.

21 About the Libre Plus Sensor

Missing Sensor Glucose Values Alarm

Screen Displayed:	
Cause:	The notification is set to ON and sensor glucose values have not been received for 20 minutes. It may indicate that there has been a signal loss or a problem with your sensor, and the Omnipod 5 App is not able to display your sensor glucose values or notify you when your sensor glucose is high or low.
Controller/Smartphone sound and vibration:	• 1 second tone • 1.5 second vibration if reminder is set to override volume. 1 second vibration if not. • Alarm repeats every 5 minutes for a total of 5 repeats until sensor glucose values are restored or you acknowledge the notification.
What to do:	1. Acknowledge the alarm by viewing the notification in the Notification bell or by dismissing the notification from the lock screen. 2. Check that your sensor is still applied to your skin. 3. To minimize the risk of interruption, make sure your sensor and Pod are worn on the same side of the body. Wireless communications do not travel well through the body. If you experience frequent connectivity loss between the Pod and sensor, see "28.3 Sensor FAQs" on page 451.

Urgent Low Glucose

Caution: ALWAYS promptly treat low glucose. Glucose at or below 55 mg/dL indicates significant hypoglycemia (very low glucose). If left untreated, this could lead to seizure, loss of consciousness and death. Follow your healthcare provider's recommendations for treatment.

When your sensor glucose value is at or below 55 mg/dL, your sensor will send the value to your Pod. The Pod will sound an Advisory Alarm to let you know that your glucose is very low. You can acknowledge the alarm from your Omnipod 5 App.

If you do not have an active Pod, the Omnipod 5 App will issue the Advisory Alarm. See "21.3 Using a Libre Plus Sensor with the Omnipod 5 App" on page 337.

Note: This Alarm will occur again if another sensor glucose value of 55 mg/dL or lower is received after the initial Advisory Alarm was acknowledged. You may silence (snooze) this Advisory Alarm for 30 minutes by acknowledging the on-screen message.

Note: This Advisory Alarm will stop repeating only after a glucose value of 56 mg/dL or greater is received.

Action to Take: Use a blood glucose meter to confirm your glucose. Treat low glucose as needed.

21 About the Libre Plus Sensor

21.4 Sensor Glucose Trends and Indicators

Colors and trend arrows display on the Home Screen to show your sensor glucose value and trend. They will change depending on your Glucose Goal Range.

- 121

Trending steady

→

Sensor glucose value is within your Goal Range (in Manual Mode).
- 121

Trending steady

→

Sensor glucose value is within your Goal Range (in Automated Mode).
- 68

Rapidly falling

→

Sensor glucose value is below Goal Range.
- 258

Slowly rising

↗

Sensor glucose value is above Goal Range.

Glucose Trend Arrows

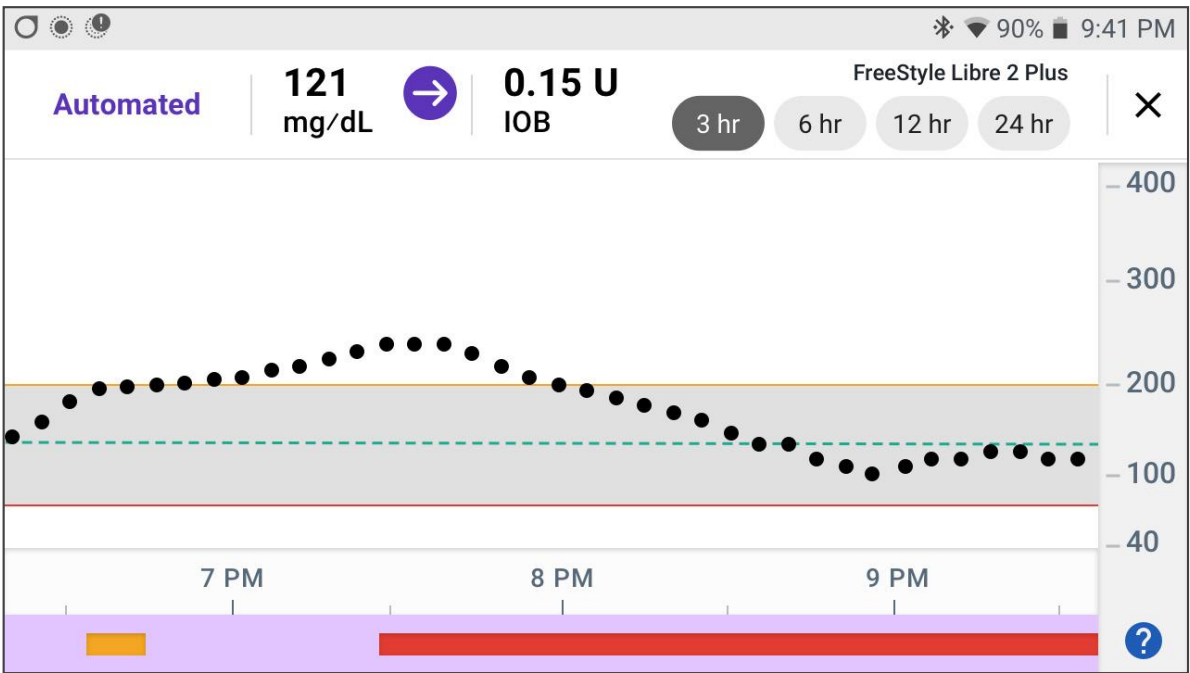
The following table describes the sensor glucose trend arrows. The trend arrows are shown in blue for example purposes only.

Trend Arrows	Description
	Glucose is rising quickly. (more than 2 mg/dL per minute)
	Glucose is rising. (between 1 and 2 mg/dL per minute)
	Glucose is changing slowly. (less than 1 mg/dL per minute)
	Glucose is falling. (between 1 and 2 mg/dL per minute)
	Glucose is falling quickly. (more than 2 mg/dL per minute)

View Sensor Glucose Graph

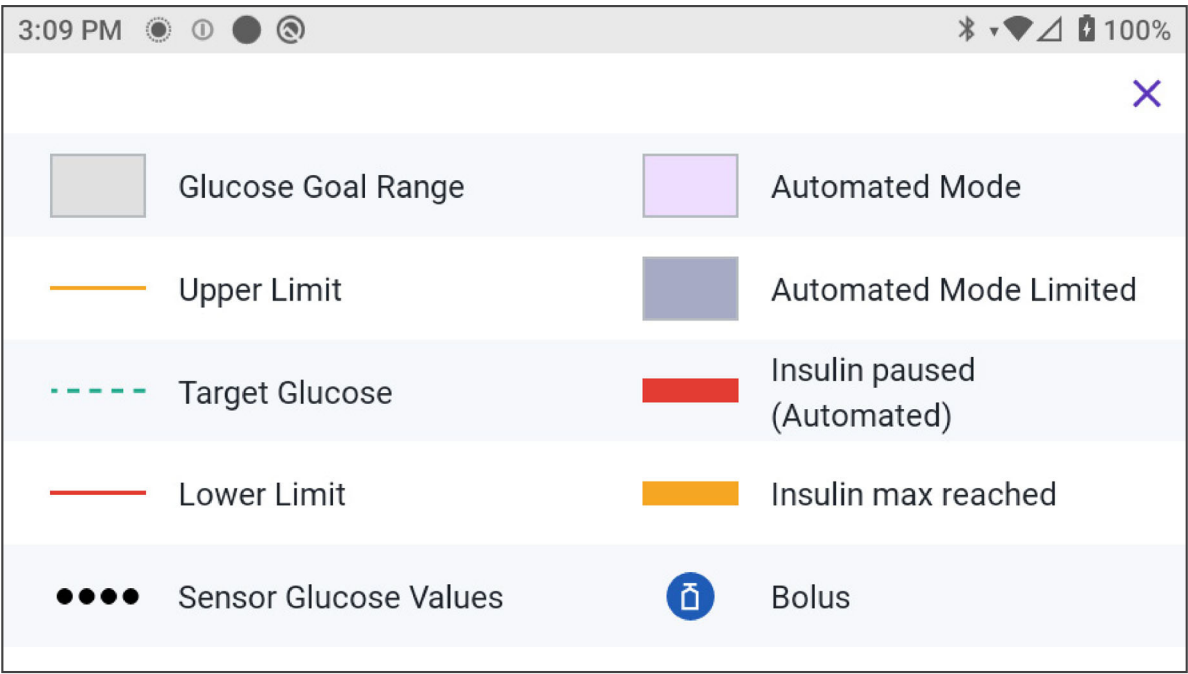
You can view the Sensor Graph from the Home Screen by tapping VIEW under the Sensor Graph icon in the lower right side of the Home screen.

When you tap **VIEW**, the Sensor Graph will display.



To display the Sensor Graph legend, tap the question mark icon in the lower right of the graph.

The Sensor Graph Legend will show:



The Sensor Graph Legend explains the colors and use of lines on the graph which show your sensor glucose values and insulin delivery over the past few hours.

21 About the Libre Plus Sensor

21.5 Libre Plus Sensor Communication and Problem Messages

Communication Messages

The following are the communication messages that show on the Dashboard of the Omnipod 5 App that are associated with the FreeStyle Libre sensors.

Communication Message	Description
CONNECTING SENSOR	Appears after you have applied and scanned a sensor and your device or Pod are connecting to the sensor.
WARMING UP SENSOR	Appears when the sensor is connected and warming up, so sensor glucose values are not available yet. No action is required within the Omnipod 5 App.
SENSOR CONNECTED	Sensor has recently completed warm-up and glucose values will be available in a few minutes.
SEARCHING FOR POD	Appears when Pod communication was not established within the most recent 5-minute update interval. Tap MORE INFORMATION for potential causes and recommended actions.

Communication Message	Description
SEARCHING FOR SENSOR	Appears when a sensor is being used with or without a Pod and the most recent sensor glucose value was not acquired within a 5-minute window. There may be no valid sensor glucose value available due to a communication issue between Pod and sensor, or it could be a temporary sensor issue that will resolve itself. Tap MORE INFORMATION for recommended action. Review Pod and sensor placement. Pod and sensor should be at least 1 inch apart and within line of sight.

21 About the Libre Plus Sensor

Problem Messages

The following is a summary of the sensor problem messages associated with the Libre Plus sensors that display on the Home screen Dashboard and indicate a problem and a need for action. These messages show with a red alarm icon and are in red text.

Problem Message	Description	Action to Take
Sensor Too Cold	Your sensor is too cold to provide a glucose value.	Move to a warmer location and try again in a few minutes.
Sensor Too Hot	Your sensor is too hot to provide a glucose value.	Move to a cooler location and try again in a few minutes.
Temporary Sensor Problem	Your sensor is temporarily unable to send sensor glucose values to the Pod or Omnipod 5 App.	Check again in 10 minutes.
Sensor Error	Sensor glucose value is unavailable. Occurs early in sensor wear when values might be less accurate.	Tap Need Help to see when to check back for sensor glucose values.
Sensor Ended	Your sensor has ended. Your Omnipod 5 Pod and App will receive no further information from this sensor.	Remove your current sensor, and add a new sensor. For detailed instructions, see "22.2 Connecting a Libre 2 Plus or Libre 3 Plus Sensor" on page 351.
No Sensor	No sensor is detected.	Add a new sensor. For detailed instructions, see "22.2 Connecting a Libre 2 Plus or Libre 3 Plus Sensor" on page 351.

Problem Message	Description	Action to Take
Replace Sensor	The System has detected a problem with your sensor that cannot be fixed. Your Omnipod 5 Pod and App will receive no further information from this sensor.	Remove your current sensor, and add a new sensor. For detailed instructions, see "22.2 Connecting a Libre 2 Plus or Libre 3 Plus Sensor" on page 351.
Failed to Connect	Your Pod and sensor were not able to connect.	Try connecting again. If the problem continues, reboot your Controller or smartphone, or replace the recently applied Pod or sensor. Keep your Pod and sensor close to each other on your body.

How to respond to Problem Messages

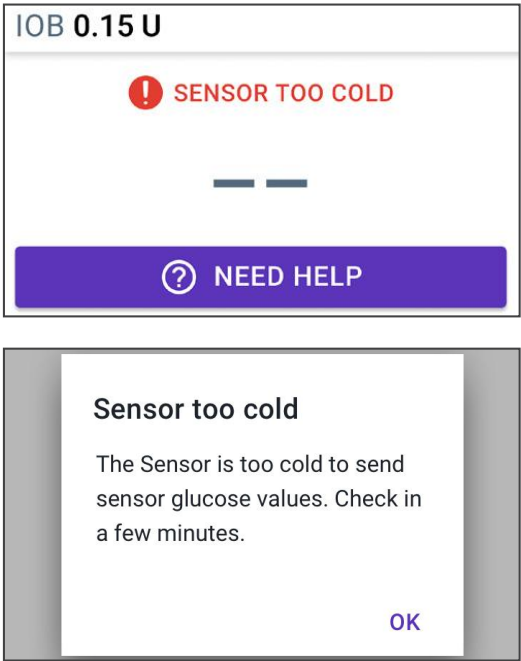
Respond to these problems as soon as possible.

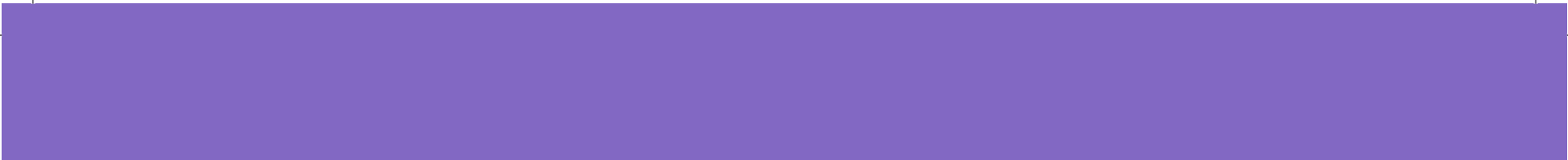
- When a message displays, follow the on-screen instructions.

For example, for the **SENSOR TOO COLD** alarm, tap the **NEED HELP** button.

- When you tap the **NEED HELP** button, an explanation of the issue will show, with a recommendation of what to do next, e.g., Check in a few minutes.

If a problem continues and you receive multiple messages on your device, contact Customer Care.





This page intentionally left blank.

CHAPTER 22

Connecting a Libre Plus Sensor

Contents

22.1 About Connecting a Libre Plus Sensor to the Pod 350

22.2 Connecting a Libre 2 Plus or Libre 3 Plus Sensor. . . 351

 Apply and scan a Libre 2 Plus Sensor. 351

 Apply and scan a Libre 3 Plus Sensor. 354

 Using Sensor Glucose Values in the First 12 Hours 356

22.3 Edit Sensor Settings 357

22.4 Disconnect a Libre Plus Sensor 359

 Removing a Sensor. 359

 Sensor Ending 359

 Disconnecting a Sensor 359

22.5 Switching to a Libre Plus Sensor from Another Sensor 361

 Automated: Limited State 363