Medtronic CareLink®

Therapy Management Software for Diabetes
Clinical Support Version
User Guide







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EC REP

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Contents

Chapter 1	1	Introduction		
	1	Reports		
	2	Logbook		
	2	Secure access		
	2	User safety		
	4	Assistance		
Chapter 2	5	Getting started		
	5	Synchronizing dates and times		
	6	Changing the date and time on Windows		
	6	Changing the date and time on Mac		
	6	Changing the date and time on your device		
	6	Setup for uploading your meter on Mac		
	7	Setup for LifeScan meters on Mac		
	8	Setup for all other meters or ComLink on Mac		
	9	Enabling JavaScript		
	9	Transport Layer Security (TLS) and encryption		
	9	Upgrading Internet Explorer		
	10	Setting Internet Explorer for secure browsing		
	10	Setting Safari for secure browsing		
Chapter 3	11	Upload screen		
	11	What is uploaded from your device		
	12	Required plug-ins and drivers for Windows users		
	13	Logging in to Windows as an administrator		
	14	Opening the Upload screen		
	15	Connecting devices to the computer		
	16	Uploading data from your device		
	19	Verifying your device upload		
	19	Downloading the Java Plug-in		

	20	Installing the Bayer USB driver
	21	Installing the BD USB interface cable driver
	21	Installing the CareLink USB Driver
Chapter 4	23	Logbook screen
Chapter 4	23	Opening the Logbook screen
	24	Displaying logbook entries for a specific date
	24	Adding a logbook entry
	24	Adding Carbohydrates entries
	25	Adding Exercise entries
	25	Adding HbA1c entries
	25	Adding Infusion Set Change entries
	25	Adding Urine Ketone entries
	26	Adding Sensor Insertion entries
	26	Adding Sensor Removal entries
	26	Adding Other entries
	26	Editing a logbook entry
	27	Deleting a logbook entry
	_,	
Chapter 5	29	Reports screen
	30	Overview of available reports
	36	Opening the Reports screen
	37	Setting BG target range and hypo threshold preferences
	37	Generating a single report
	38	Generating multiple reports
	40	Saving a report
Chapter 6	41	Understanding reports
•	41	Conventions
	42	Quick View Summary report
	43	Glucose Distribution bar
	43	Glucose averages and ranges
	45	BG and Sensor Values
	46	Daily insulin totals and type
	46	Hypo events (readings below the hypo line)
	47	Infusion set changes
	47	Exercise
	48	Daily Summary report
	49	Blood glucose reading outside target range
	49	Sensor glucose values
	50	SG tracing above or below target
	50	Glucose readings far outside of your target range
	51	Insulin totals
	52	Carbohydrate amounts

Downloading the SerialPort driver

20

53	Comparing carbs, insulin and glucose readings
55	Exercise and blood glucose readings
55	Logbook Diary report
56	Data Table report
56	Modal Day Periods report
57	High/Low/Average graph
59	Modal Day Hourly report
59	High/Low/Averages graph
60	Distributions and Statistics chart
60	Trends Summary report
61	Daily Glucose graph
62	Sensor data
63	Total Daily Insulin graph
63	Daily insulin averages
64	Device Settings report
64	Sensor Daily Overlay report
65	Repeating patterns
66	What else was going on
66	Sensor Weekly Logbook report
67	Compare table to tracings
68	Sensor Overlay by Meal report
68	Patterns and differences
69	Averages and distribution
69	Data Export (CSV)
70	Compliance report
71	Compliance Report Preferences
71	Weekly Mean Sensor graph
72	Weekly Hypoglycemic/Hyperglycemic Average Area Under the
	Curve graph
73	Average Daily Number of Distinct Hypo/Hyper per Week graph
73	Weekly Mean Total Daily Insulin Usage graph
74	Weekly Bolus vs. Basal Delivery graph
75	Weekly Bolus Wizard Usage graph
76	Average Monthly Infusion Set Change graph
76	Adherence report
77	Special issues affecting report results
77	Device Settings report date and time
78	Changing device time affects report results
79	My Info screen
79	Opening the My Info Screen
79	Changing My Info
79	Changing your password

Chapter 8 81 Preferences screen

Chapter 7

	81 81	Changing your Preferences Guidelines for setting Advanced Intraday Period
Glossary	83	
Index	87	

Introduction

The Medtronic CareLink® Therapy Management Software for Diabetes is a Web-based system designed to help you manage your diabetes. It has many key features:

- It copies (uploads) data from your devices: insulin pump, continuous glucose monitor, and supported blood glucose meters.
- Device data is stored on a centralized database.
- It provides an online logbook where you can record self-reported information, such as how many carbohydrates you consumed.
- Uploaded data and other information stored on the system can be viewed through several different types of treatment reports.
- Access to data and personal information on this system is secure.

NOTE: This document shows samples of the software screens. The screens of the actual software may be slightly different.

Reports

Reports show you data gathered from your device uploads, and from what you directly entered into the system. Examples of the report data you can get include:

- Pump operation, such as alarm settings and maximum allowed bolus amount.
- Insulin delivery rates, types, times, and suspensions.
- Blood glucose reading levels and times.
- Sensor glucose reading levels and times.
- Bolus Wizard® or online logbook entry data.

Reports are displayed in PDF format. They can be viewed online, saved, or printed.

You can share your reports with your healthcare professional. They can use reports to determine if and how your treatment regimen should be adjusted.

NOTE: Because the standard used for units of glucose measurement varies by country, the scale and range of numbers shown in the report images herein may differ from the scale and range on your reports. Also, report types and configuration may vary according to what is supported on a given device platform. You can access the supported device list through the CareLink software by clicking FAQ located at the bottom of every page.

Logbook

The logbook allows you to enter the following self-reported information:

- Carbohydrates consumed
- Exercise activity
- Urine ketone results
- HbA1c results
- Infusion set changes
- Sensor insertions
- Sensor removals
- Other events

The data from your logbook is used in the reports you create. You can see how, for example, your carbohydrate intake compares to blood glucose levels for the same day or time. You can also use it as an online diary of your diabetes management.

Secure access

Entry into the system is secure. It requires the use of a username and password that is unique to you. Do not give away your username and password. This way, no one else will be able to log in and see your information.

Ensure your browser is compatible with Transport Layer Security (TLS), a protocol that ensures a secure link between your computer and the server. TLS is the successor to Secure Sockets Layer (SSL) technology.

User safety

Indications for use

The Medtronic CareLink Therapy Management Software for Diabetes is intended for use as a tool to help control diabetes. The purpose of this system is to take information transmitted from insulin pumps, continuous glucose monitors and glucose meters, and logbook data entered by the patient, and turn it into The Medtronic CareLink Therapy Management Software for Diabetes reports. The reports provide information that can be used to identify trends and track daily activities; such as carbohydrates eaten, meal times, insulin delivery, and blood glucose readings.

Warnings

- This product should only be used with supported devices. You can access the supported device list through the CareLink software by clicking FAQ located at the bottom of every page.
- This system is intended to be used together with advice from a healthcare professional familiar with the diagnosis and treatment of diabetes.
- You should be monitoring your blood glucose levels at least 4 6 times a day.
- This system is not intended to provide medical advice and should not be relied upon for such purpose.
- Do not make any changes to your treatment without talking to your healthcare professional first.

Contraindications

None known

Assistance

Medtronic Diabetes provides a number to call for residents of the United States and Canada for guidance with software problems.

Department	Telephone number	
24 Hour HelpLine within the United States	800 646 4633	
(Monday through Friday from 5:00 a.m. to 5:00 p.m. PST)	818 576 5555	
24 Hour HelpLine within Canada	800 284 4416	
(Monday through Friday from 5:00 a.m. to 5:00 p.m. PST)	800 284 4416	
Medtronic Diabetes Web site	www.medtronicdiabetes.com	

Getting started

To get started with Medtronic CareLink Therapy Management Software for Diabetes, you need to ensure your computer and browser have the required settings, and you need to synchronize the dates and times on your computer and on your device. After you have done that, you will be ready to use the system.

If you are using a Mac® computer, you may need to get a new cable and install a software driver so that you can upload your blood glucose meter. For details, see Setup for uploading your meter on Mac on page 6.

IMPORTANT: If you are using a CareLink USB, do not connect it to your computer until you are instructed to during the upload process.

NOTE: This product should only be used with approved system and browser requirements. You can access the system and browser requirements through the CareLink software by clicking FAQ located at the bottom of every page.

Synchronizing dates and times

Incorrect dates or times affect the accuracy of the CareLink reports. Multiple device uploads and manually entered information will not compare correctly if your devices and computer have different dates and times.

It is very important that you make sure all of the following are displaying the current date and time. They should also be within one minute of one another.

- computer
- insulin pump
- continuous glucose monitor

• glucose meter(s)

A warning message appears during device uploads if the difference between your device and computer time is more than 10 minutes.

Changing the date and time on Windows

- 1 Click (or double-click for Windows XP) on the time that is displayed on your computer desktop.
- 2 Use the menu options, tabs and controls to change the date and time as needed.

Changing the date and time on Mac

You will need to enter an Administrator username and password in order to change the date and time settings on a Mac.

- 1 Click on the time that is displayed on your computer desktop, or select **System Preferences** > **Date & Time** from the Apple® menu.
- 2 Use the menu options, tabs and controls to change the date and time as needed.

Changing the date and time on your device

See the appropriate Medtronic MiniMed pump or continuous glucose monitor user guide for instructions on changing the date and time on those devices.

For your glucose meter, see the user guide from the meter manufacturer for instructions on changing the date and time.

Setup for uploading your meter on Mac

If you want to upload a supported Bayer meter that has a USB connector on a Mac computer, you can select your meter and complete the upload procedure. No additional setup is needed.

If you want to upload any other blood glucose meter on a Mac computer, please follow the instructions below for your meter and operating system version. After you have set up your computer for uploading your meter, you do not need to complete these steps again.

NOTE: Medtronic Diabetes cannot guarantee the availability of cables, adapters, and software drivers from other manufacturers. Web sites of other manufacturers may change.

You can access the supported device list through the CareLink software by clicking **FAQ** located at the bottom of every page.

Setup for LifeScan meters on Mac on page 7

Setup for all other meters or ComLink on Mac on page 8

Setup for LifeScan meters on Mac

The setup for uploading your LifeScan meter depends on the version of your operating system. Please refer to the instructions for your version.

Setup for LifeScan meters on Mac OS 10.7 or greater

- 1 Get a serial cable from the meter manufacturer. You will need a serial cable because at the time of this publication, the USB cable from LifeScan does not work with Mac OS 10.7, 10.8, 10.9, or 10.10.
- 2 Get a USB-to-serial adapter that is compatible with your Mac operating system, such as the USBGEAR™ RS-232 Serial Adapter DB-9 Male. You will need a USB-to-serial adapter because Mac computers do not have serial ports.



Important: If you have a different adapter, you should install the driver provided by the adapter manufacturer. Do not continue with these driver installation steps.

- If you have the USBGEAR RS-232 Serial Adapter, click the following hyperlink to install the software driver: http://www.ftdichip.com/Drivers/VCP/MacOSX/FTDIUSBSerialDriver_v2_2_18.dmg
 - Select the driver called FTDIUSBSerialDriver_10_4_10_5_10_6_10_7 and follow the on-screen instructions.
- **4** When prompted, enter your Mac username and password. The username you enter must be an Administrator on your computer.
- **5** Restart your computer when you are instructed to do so.

Setup for LifeScan meters on Mac OS 10.6

You can use the OneTouch USB interface cable to upload your meter after you have completed the following steps to install the recommended driver.

NOTE: The driver that comes with the OneTouch USB interface cable only works on Windows operating systems. The driver described here works on Mac operating systems at the time of this publication.

1 If you do not have the OneTouch USB interface cable, click this hyperlink for information about ordering it:

http://www.lifescan.com/healthvault/

- **2** Click the following hyperlink to install the software driver:
 - http://serialio.com/download/Drivers/PL2303 Driver 1.2.1R2 MaxOSX.dmg
- 3 When prompted, enter your Mac username and password. The username you enter must be an Administrator on your computer.
- Restart your computer when you are instructed to do so.
- The first time you connect the USB-to-serial cable after installing the driver, you may see a screen that tells you that a new network interface has been detected. Do the following:
 - Click **Network Preferences**. The Network window is displayed.
 - 2 Click Apply.
 - **3** Close the Network window.

Setup for all other meters or ComLink on Mac

- 1 Get a serial cable from the meter manufacturer. You will need a serial cable because most meter manufacturers that provide USB cables do not provide support for Macintosh computers.
- 2 Get a USB-to-serial adapter that is compatible with your Mac operating system, such as the USBGEAR™ RS-232 Serial Adapter DB-9 Male. You will need a USB-to-serial adapter because Mac computers do not have serial ports.



Important: If you have a different adapter, you should install the driver provided by the adapter manufacturer. Do not continue with these driver installation steps.

- 3 If you have the USBGEAR RS-232 Serial Adapter, click the following hyperlink to install the software driver: http://www.ftdichip.com/Drivers/VCP/MacOSX/ FTDIUSBSerialDriver_v2_2_18.dmg
 - Select the driver called FTDIUSBSerialDriver_10_4_10_5_10_6_10_7 and follow the on-screen instructions.
- 4 When prompted, enter your Mac username and password. The username you enter must be an Administrator on your computer.
- Restart your computer when you are instructed to do so.

Enabling JavaScript

The software uses JavaScript to perform some of its functions. JavaScript is enabled by default for most Internet browsers. If the JavaScript setting for your Internet browser is disabled, you need to enable this setting in order to use the system.

Enabling JavaScript in Internet Explorer

Take the following steps if you need to enable JavaScript or want to check the setting.

- 1 From the Internet Explorer menu options, select **Tools** > **Internet Options**. The Internet Options page is displayed.
- 2 Click the **Security** tab. The Security tab page is displayed.
- 3 Select the **Internet** icon and click the **Custom Level** button. The Security Settings page is displayed.
- 4 Use the scroll bar on the right of the Settings box to scroll down to **Active scripting**.
- 5 Underneath Active scripting, select **Enable**.
- 6 Click OK.

Enabling JavaScript in Safari®

Take the following steps if you need to enable JavaScript or want to check the setting.

- 1 From the Safari menu options, click **Preferences**.
- **2** Click the **Security** icon. The Security page is displayed.
- 3 Select the **Enable JavaScript** check box.
- 4 Close the Preferences window.
- **5** Close and restart Safari.

Transport Layer Security (TLS) and encryption

Transport Layer Security (TLS) refers to a security protocol designed to protect your Web browser sessions. This protocol establishes a private, reliable, and encrypted connection between your browser and the CareLink system.

If you are receiving an error message about your browser configuration you probably need to upgrade to the latest version of your browser.

Upgrading Internet Explorer

If you need to upgrade your Internet Explorer to the latest version, you can go to the Microsoft Internet Explorer Web site at http://www.microsoft.com.

Follow the instructions provided by Microsoft to download and install the latest version of Internet Explorer.

Setting Internet Explorer for secure browsing

To keep your therapy management information private, always remember to log off of the system by clicking the **Log-Off** hyperlink.

In addition, if you want to prevent others from seeing that you visited this therapy management web site, you can disable the Back button in your Internet browser. The following instructions describe how to disable the Back button in Internet Explorer.

NOTE: If you disable the Back button, it will be disabled for all web sites that you visit.

- 1 Select **Tools** > **Internet Options** from the Internet Explorer main menu.
- **2** Click the **Advanced** tab.
- **3** Scroll down to the Security check items.
- 4 Make sure there is a check mark in the box next to "Do not save encrypted pages to disk." (If need be, click in the box to place a check mark in it.)
- 5 Click **OK**.

Setting Safari for secure browsing

To keep your therapy management information private, always remember to log off of the system by clicking the **Log-Off** hyperlink.

In addition, if you want to prevent others from seeing that you visited this therapy management web site, you can enable the Private Browsing mode in Safari so that all of your activity will be removed each time you close Safari.

- 1 In your Safari browser window, select **Private Browsing** under the **Safari** menu.
 A message is displayed asking if you want to turn on private browsing.
- 2 Click OK.

Upload screen

Use the Upload screen to copy information from your device to the system. This information is then ready for use in reports.

Frequently uploading data has two advantages. First, it takes less time for each upload to be completed because less data is being copied. Second, because your device cannot hold more than three months of information, frequent uploads will help you avoid gaps in your data over time. Your healthcare professional may recommend how often you should upload data from your device.

You can only upload devices that are listed in the supported device list. You can access the supported device list through the CareLink software by clicking **FAQ** located at the bottom of every page. Device uploads will not be successful unless your computer hardware and devices are connected properly to one another. Diagrams for connecting your computer and devices are provided in this topic. For further instructions, you should refer to the appropriate hardware user quide (e.g., the CareLink USB User Guide).

If you are using a Mac and want to upload your blood glucose meter, see *Setup for uploading your meter on Mac on page 6*.

What is uploaded from your device

Here are some of the types of information the system gathers from your insulin pump during an upload:

- Pump name and serial number
- · Various settings on the pump, such as the alert mode, the beep volume and the time
- Basal insulin amounts delivered
- Bolus insulin types and amounts delivered
- Priming amounts
- Suspend periods

Sensor glucose readings over a period of time

The information the system gathers from your blood glucose meter includes the following:

- Your various blood glucose readings over a period of time
- Control solution tests
- Check strip tests
- Blood ketone values. Blood ketone values are uploaded only from the following supported Abbott glucose meters: Precision Xtra, Precision Xceed, and Optium Xceed. Blood ketone values are reported in the Data Table report only.

The information the system gathers from your continuous glucose monitor includes the following:

- ISIG values
- Sensor Glucose (SG) readings
- Sensor coefficient values
- Sensor Calibration factors
- Meal Markers
- Insulin Injections

Certain data, such as meter BG reading, exercise, boluses given, and carbohydrates eaten, can be entered manually in multiple places: on the MiniMed insulin pump, the Guardian REAL-Time monitor, or in the CareLink Logbook. For example, you can enter data using the Capture Event feature, the Event Marker feature, or the Bolus Wizard Calculator. For details on which features are available on your device and how to use them, see the appropriate pump or monitor user guide. For details on making entries in the Logbook, see *Adding a logbook entry on page 24*.

NOTE: If you enter certain data in multiple places, you may see duplicate information in reports.

Required plug-ins and drivers for Windows users

When uploading devices for the first time, the therapy management system may require certain components, called software drivers. These must be installed so that you can upload devices. If your computer is running the Windows Vista, Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, you must log in to Windows as an administrator to complete the installation. For details, see *Logging in to Windows as an administrator on page 13*.

For uploads, the system requires your Internet browser to have the Oracle Java Plug-in. The plug-in allows your web browser to run the device upload program (applet). If the plug-in is not installed, the system detects this and lets you know. The system then gives you the option of installing it before your first device upload. For more information about installing the plug-in, see *Downloading the Java Plug-in on page 19*.

The system also requires a driver, called the SerialPort package file, to be installed. This driver extends the capabilities of the plug-in so it can gather data from the serial communications port on your computer. You will be given the option of installing this driver before your first device upload. For more information, see *Downloading the SerialPort driver on page 20*.

If you are uploading a supported Bayer meter that has a USB connector, the system may need to install a software driver for it. This may occur the first time you perform an upload with this device. For more information, see *Installing the Bayer USB driver on page 20*.

NOTE: For all supported Bayer meters that require a USB cable to upload data, you need to perform the driver installation procedure yourself, using the cable, driver installation CD, and instructions provided by the manufacturer. It is a one-time procedure that you must complete before uploading the meter to CareLink.

If you are using CareLink USB, you may need to install a software driver for it. This may occur during your first upload when you select CareLink USB for your communication device. See *Installing the CareLink USB Driver on page 21* for detailed steps.

In addition, if you are using the BD USB interface cable, the system may require installation of the driver for it. This may occur during your first upload when you select the BD USB interface cable for your communication device. For more information, see *Installing the BD USB interface cable driver on page 21*.

NOTE: Over time, the system may periodically need to update these software drivers on your computer. When this occurs, you will be prompted during the upload process. Log out and log back in to Windows as an administrator, so that the system can install the updated drivers.

Logging in to Windows as an administrator

If your computer is running the Windows Vista, Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, there are some additional steps to follow in order to prepare your computer for uploading device data. You only need to perform these steps for the first device upload with a CareLink USB or BD USB cable.

- 1 Make sure that User Account Control is enabled. By default, User Account Control is already enabled, so it is likely that you do not have to enable it. For details, please see the Microsoft documentation.
- **2** Close Internet Explorer.
- **3** If you are using the Windows 7 or Windows Vista operating system:
 - a. Navigate to Start > All Programs.
 - **b.** Right-click on the Internet Explorer menu item.

If you are using the Windows 8 or Windows 8.1 operating system:

- a. From the Start screen, click the Desktop tile and make sure you are viewing the desktop.
- **b.** Right-click on the Internet Explorer icon in the task bar.
- **c.** In the menu that appears, right-click again on Internet Explorer.

If you are using the Windows 10 operating system:

- a. Navigate to Start > All Apps > Windows Accessories.
- **b.** Right-click on the Internet Explorer menu item.
- 4 Select Run as Administrator.
- **5** When the User Account Control window is displayed, click **Allow** or **Yes**.

NOTE: If you are not logged in as an administrator on your computer, you may be asked to enter an administrator user's password.

6 Sign in to Medtronic CareLink Therapy Management Software for Diabetes.

Opening the Upload screen

- 1 If your computer is running the Windows Vista[™], Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, and you have not yet uploaded a device with this operating system, see *Logging in to Windows as an administrator on page 13*.
- 2 Click the **Upload** tab.

or

Click the 🔀 Upload Data from My Device hyperlink on the Home screen.

The Upload screen begins displaying.

Before the first Upload screen is displayed, a security warning is displayed.

This is asking if you trust that the content of this system is safe. Your trust is based on the fact that Medtronic Diabetes has stated that it is safe. You can choose Yes, No or Always.

- If you choose **Yes**, you can proceed with the Upload. However, you will see this warning again the next time you select the Upload screen.
- If you choose **No**, you will not be able to proceed with the upload.
- If you choose **Always**, you can proceed with the upload. Plus, you will no longer see this warning when you select the Upload screen.

If you want to view more information about the security certificate, click on the **More Details** button.

Connecting devices to the computer

The hardware connection diagrams that follow show you how to connect your device to your computer for uploads.

Do not connect your device to your computer until the system instructs you to connect it.

During the system upload process, detailed connection instructions are displayed, such as whether the device should be on or off.

NOTE: Some devices supported by this system may not be available in all countries where this system is approved for use.

Connection example for devices with a USB connector:

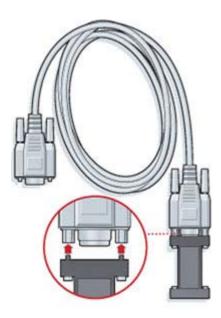
This example shows a Bayer CONTOUR® NEXT LINK 2.4 meter used as the communication device between a pump and a computer. You can access the supported device list through the CareLink software by clicking FAQ located at the bottom of every page.



Serial and USB cable connection examples:



Optional ComLink for use with MiniMed Paradigm series pumps:



Uploading data from your device

To use the Upload screen to copy device data, first connect your device to your computer, unless you are using CareLink USB. In that case, do not connect CareLink USB to your computer until you are instructed to do so by the system.

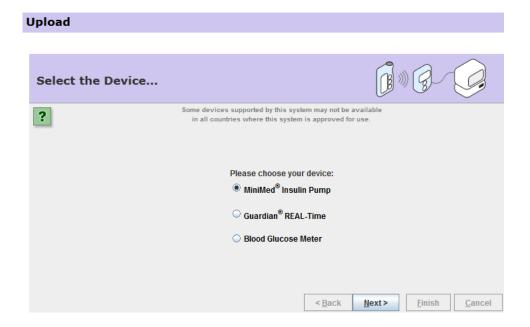
If you click on another system tab or hyperlink during an upload, the upload will be cancelled.

WARNING: If a bolus or temp basal is being delivered, allow it to finish before uploading the pump.

CAUTION: The pump may be in SUSPEND mode during an upload. Make sure the pump is taken out of SUSPEND mode when the upload is complete. If, for some reason, the pump does not resume delivery after the upload, the pump will beep or vibrate about every 15 minutes on the hour to remind you that it is not delivering insulin.

The following steps take you through the process of a device upload:

- 1 If your computer is running the Windows Vista[™], Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, and you have not yet uploaded a device with this operating system, see *Logging in to Windows as an administrator on page 13*.
- 2 Make sure you are on the Upload screen.
 Once the applet loads, the first device upload window is displayed:



Follow the instructions on the window. When you are ready to go to the next step, click **Next** > to display the next window.

If you see screens for installing the SerialPort driver, see *Downloading the SerialPort driver on page 20*.

If you see screens for installing the Bayer USB driver, see *Installing the Bayer USB driver on page 20*.

If you see screens for installing the CareLink USB driver, see *Installing the CareLink USB Driver on* page 21.

If you see screens for installing the BD USB interface cable, see *Installing the BD USB interface* cable driver on page 21.

If you do not see the name of your device listed on the screen, see supported device list to make sure that your device is supported. You can access the supported device list through the CareLink software by clicking **FAQ** located at the bottom of every page.

Follow the instructions on each window, making sure to click **Next** > when you are ready to move on.

To skip steps in the process, wait until the **Finish** button is highlighted, and click on it instead of **Next** >.

4 When you see the Verify Connections window, read the steps. This is to ensure you have properly set up communication between your computer and device.

If you are uploading a supported Bayer meter with a USB connector, you must make sure that the GLUCOFACTS® DELUXE software is closed before continuing. If you are using a Windows computer, you must also make sure to exit GLUCOFACTS DELUXE from your Windows system tray, as shown here. Right click on the GLUCOFACTS DELUXE icon, and select **Exit**.



5 When you are ready to complete the upload, click **Finish**.

A progress bar appears to show the status of your device upload, and the message displayed changes to describe each step in the upload.

Tip: To stop the upload, click CANCEL.

If there are differences between the device you are uploading and one you uploaded before, or if there is a difference in the time settings between your device and your computer, a Checking Conditions window appears.

6 Read and follow the instructions on the screen.

When the upload completes successfully, a SUCCESS screen appears with a list of options for how to make use of the uploaded data. It also reminds Paradigm Link users to disconnect the device from the computer to conserve battery life.

If you get an error message and cannot fix the issue, contact the 24 Hour HelpLine for assistance.

CAUTION: Once the upload is complete, make sure the pump is no longer in suspend mode.

Verifying your device upload

If you want to make sure your device upload was entered into the system database, check the Home screen:

- 1 Click the **Home** tab.
 - The Home screen is displayed.
- **2** Look at the Recent Activity—Last 5 Uploads section of the screen.
 - The upload you just performed should be listed at the top of the list as the most recent upload. It will have the current date and the name of the device you uploaded data from.

Downloading the Java Plug-in

If you do not have the Java plug-in installed, you will be notified on the Upload screen.

NOTE: After installing the Java Plug-in on some of the latest browser versions on both Windows and Mac operating systems, you may also need to change security settings on your browser to allow the Java Plug-in to run. For assistance with running the Java Plug-in on your browser, go to http://java.com/.

On Windows:

- 1 Click the button **Download and Install the Java™ Plug-in**. A pop-up window displays, asking if you want to install the plug-in.
- **2** Follow the on-screen instructions to install Java.

NOTE: Some operating systems may require that you have Administrative privileges in order to install the Java plug-in.

- 3 If you see any security questions in the information bar (above the Medtronic logo) or security pop-ups, click Allow or Continue.
 - Also, check the task bar at the bottom of your screen for new items. The Java installation popup may sometimes be hidden behind your current browser window.

NOTE: In the Java installation screen, you may see a check box asking if you want to install a toolbar. If you do not want to add any toolbars to your Internet browser, make sure to de-select that option by clicking the check box.

4 You may be prompted to restart your computer in order for the Java installation to take effect. If so, close any open programs and restart your computer.

On Mac OS 10.7 and higher:

- 1 When a pop-up message appears on the Upload Screen prompting you to click the **Missing** Plug-in link, click **OK**.
- 2 On the Upload screen, click the Missing Plug-in link.
- 3 In the next pop-up message, click the **More Info** button. A new tab appears in your browser window, with the information on how to download and install the latest version of the Java plug-in.
- **4** Follow the instructions to install the plug-in.
- **5** Restart the browser for the Java plug-in installation to take effect.

Downloading the SerialPort driver

This procedure is for Windows users only.

During your first device upload, you must install a driver called the SerialPort package onto your computer.

If your computer is running the Windows Vista[™], Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, and you have not yet uploaded a device with this operating system, see *Logging in to Windows as an administrator on page 13*.

When you are ready to download and install the driver, click Next >.

The installation is complete when the Upload device selection screen is displayed. If you want further information about the SerialPort package file, go to http://www.serialio.com.

Installing the Bayer USB driver

This procedure applies only to Windows users and the supported Bayer meters that have a USB connector.

NOTE: For all supported Bayer meters that require a USB cable to upload data, you need to perform the driver installation procedure yourself, using the cable, driver installation CD, and instructions provided by the manufacturer. It is a one-time procedure that you must complete before uploading the meter to CareLink.

During your first upload with a Bayer meter that has a USB connector, the system will need to install the Bayer USB driver. Follow the steps below to install the driver.

1 Make sure that your Bayer meter is not connected to your computer.

- 2 If your computer is running the Windows Vista[™], Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, and you have not yet uploaded this device with this operating system, see *Logging in to Windows as an administrator on page 13*.
- **3** When you see the Installation Needed screen in the Medtronic CareLink Therapy Management Software for Diabetes upload wizard that tells you to install the Bayer USB driver, click the **Next** button.
 - After the driver has been copied to your computer, the Finish Installation screen is displayed, instructing you to connect the meter.
- **4** Connect your Bayer meter to your computer and wait a few seconds for your computer to recognize your device.

The installation is complete.

Installing the BD USB interface cable driver

This procedure is for Windows users only.

If you have a BD blood glucose meter, the system may require installation of the BD USB interface cable driver. During the first upload in which you select the BD USB interface cable as your communication device, you may see a message that the driver for the USB cable needs to be installed. If so, take the steps that follow to download the required driver.

- 1 If your computer is running the Windows Vista[™], Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, and you have not yet uploaded this device with this operating system, see *Logging in to Windows as an administrator on page 13*.
- 2 Make sure you do not have the BD USB interface cable connected to your computer, and click **Next>**.
- **3** Follow the instructions on each window, making sure to click **Next**> when you are ready to move on.
- 4 Connect the BD USB interface cable to your computer, wait a few seconds, and click **Next**>.

 The installation is complete.

Installing the CareLink USB Driver

This procedure is for Windows users only.

During your first CareLink USB upload, you will need to install the CareLink USB driver. Follow the steps below to install the driver.

NOTE: You may not see some of the wizard screens described in these steps.

1 Make sure that CareLink USB is NOT connected to your computer.

- 2 If your computer is running the Windows Vista[™], Windows 7, Windows 8, Windows 8.1, or Windows 10 operating system, and you have not yet uploaded this device with this operating system, see *Logging in to Windows as an administrator on page 13*.
- 3 When you see the screen in the Medtronic CareLink Therapy Management Software for Diabetes upload wizard that tells you to install the CareLink USB driver, click the **Next** button. The system copies the driver to your computer.
- **4** After the driver has been copied to your computer, the Finish Installation screen is displayed, instructing you to connect the CareLink USB device. Connect the CareLink USB to your computer.
- **5** The Found New Hardware Wizard opens. If you do not see the Found New Hardware Wizard, go to step 9.
- **6** If the Found New Hardware Wizard asks whether you want to connect to Windows Update to search for software, you can select any option.
- 7 Click **Next** on each page of this wizard, leaving the default options selected, until the wizard informs you that you have finished installing the software for Medtronic CareLink USB.
- 8 Click **Finish** to close the Found New Hardware Wizard.
- **9** The Medtronic CareLink Therapy Management Software for Diabetes upload wizard screen displays a message that the CareLink USB device is ready. Click Finish to upload data as described in *Uploading data from your device on page 16*.

Logbook screen

The Logbook screen is where you can record events related to your diabetes therapy. Display this screen to view, add, edit or delete logbook entries. Your logbook information is included in many of the CareLink reports.

Here are the types of logbook entries you can make:

- **Carbohydrates:** date, time and number of grams/exchanges of carbohydrates you consumed for a meal or snack.
- **Exercise:** date, time, duration and intensity level of your exercise.
- **HbA1c results:** date, time and results of your HbA1c test.
- **Infusion set change:** date and time you changed your infusion set.
- **Urine ketones:** date, time and results of your urine ketone test.
- Sensor Insertion: date and time of your sensor insertion.
- Sensor Removal: date and time of your sensor removal.
- Other: date and time of other types of events that you may need to enter into the logbook.

You can also add comments to provide details about your entries. For example, your comment for a carbohydrate entry might be "Dinner: pasta with meat sauce, salad and bread."

Opening the Logbook screen

- **1** Make sure you are logged in.
- 2 Click the **Logbook** tab.

or

Click the **[III]** Enter Data into My Logbook hyperlink on the Home screen.

The Logbook screen is displayed.

If you have not yet made any logbook entries, there will be no entries listed.



Displaying logbook entries for a specific date

Once you have logbook entries for various dates, take the following steps to display the date you want.

- 1 Click the calendar next to the date field in the upper left of the Logbook screen.
- **2** Select the date you want to see.
- 3 Click the **Change** button.

Any logbook entries you have made for the date you selected are displayed.

Adding a logbook entry

The following steps are for adding any type of logbook entry for any date and time.

NOTE: If you enter certain data in multiple places, such as on your insulin pump and in the CareLink Logbook, you may see duplicate information in your reports. For details, see What is uploaded from your device on page 11.

- 1 If you want to select a different date for the new entries, click the calendar next to the date field, and click the **Change** button.
- 2 Click the drop-down arrow next to the **Add** button. Select the type of entry you want to add from the list by clicking on it.
- 3 Click the Add button on the Logbook screen.
 The Add screen for the type of entry you selected is displayed.

Adding Carbohydrates entries

1 Click the drop-down arrows in the Time fields to set the time for the entry.

- 2 Type the number of carbohydrate grams or exchanges for the entry in the grams or exchanges field. (The range you can enter is 1 to 1,000 grams or 0.1 to 50 exchanges.)
- 3 Type details you want to include with the entry in the Comment field (e.g., type of food or meal).
- 4 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding Exercise entries

- 1 Click the drop-down arrows in the Time fields to set the time for the entry.
- 2 Type the number of minutes you exercised in the Minutes field. (The range you can enter is from 1 to 1440.)
- **3** Click the drop-down arrow in the Intensity field. Select low, medium or high to describe how hard you were exercising.
- **4** Type details you want to include with the entry in the Comment field (e.g., the kind of exercise or how you felt).
- 5 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding HbA1c entries

- 1 Click the drop-down arrows in the Time fields to set the time for the entry.
- 2 Type the results of your HbA1c test in terms of percentage in the HbA1c test result field. But, do not type the '%' symbol. (The range you can enter is from 3.0 to 19.9.)
- Type details you want to include with the entry in the Comment field (for example, conditions relating to the test).
- 4 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding Infusion Set Change entries

- 1 Click the drop-down arrows in the Time fields to set the time for the entry.
- 2 Type details you want to include with the entry in the Comment field (for example, difficulties with the change).
- 3 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding Urine Ketone entries

1 Click the drop-down arrows in the Time fields to set the time for the entry.

- 2 Click the drop-down arrow in the Urine ketone measurement field. Select negative, trace, small, moderate, or large—whichever best describes your results.
- **3** Type details you want to include with the entry in the Comment field (for example, any action the results may require).
- 4 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding Sensor Insertion entries

- 1 Click the drop-down arrows in the Time fields to set the time for the entry.
- **2** Type details you want to include with the entry in the Comment field (for example, difficulties with the sensor insertion).
- 3 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding Sensor Removal entries

- 1 Click the drop-down arrows in the Time fields to set the time for the entry.
- 2 Type details you want to include with the entry in the Comment field (for example, difficulties with the sensor removal).
- 3 Click the Add button.

You are returned to the main Logbook screen where you can verify your new entry.

Adding Other entries

- 1 Click the drop-down arrows in the Time fields to set the time for the entry.
- 2 Click the drop-down arrow in the **Event type** measurement field, and then select the event type.
- **3** Type details you want to include with the entry in the Comment field.
- 4 Click the Add button.

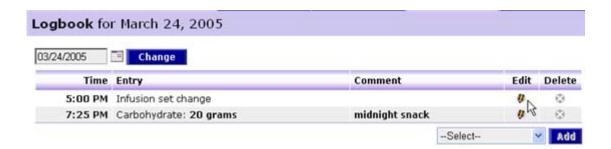
You are returned to the main Logbook screen where you can verify your new entry.

Editing a logbook entry

You can go back and edit a logbook entry at any time by taking the following steps:

- 1 Make sure you are on the main Logbook screen.
- **2** Select the date of the entry you want to change.

In the row containing the entry you want to edit, click the Edit uicon, as shown in the following picture.



The Update Entry screen appears.

- 4 Make the changes you want, using drop-down arrows or text-entry as appropriate for each field.
- **5** If you are ready to finalize your changes, click the **Update** button.

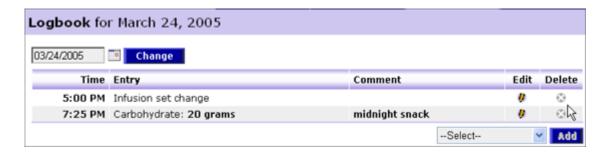
Your logbook is updated to reflect the changes you made.

NOTE: If you decide not to make any changes, you can click the Cancel button instead of the Update button. You will return to the main Logbook screen without making any edits.

Deleting a logbook entry

If you decide to remove an entry from the logbook, take the following steps:

- 1 Make sure you are on the main Logbook screen.
- **2** Select the date of the entry you want to delete.
- 3 In the row containing the entry you want to delete, click the Delete Solicon, as shown in the following picture.



The Delete entry screen is displayed.

4 If you are sure you want to delete the entry displayed, click the **Delete** button.

You are returned to the main Logbook screen where you can verify the entry no longer appears in the logbook.

NOTE: If you decide not to delete the entry displayed, click Cancel. You are returned to the Logbook screen without deleting the entry.

Reports screen

The Reports screen allows you to display and print several different report types. The report type you select depends upon the data you want to display and the duration you want reported.

The list of report types you can select from varies depending on the device(s) you have uploaded.

All reports (except Data Export) are generated as PDF files. They are viewable in a separate window, and can be saved, printed or given to your healthcare professional.

The information included in these reports comes from your device uploads and from the logbook entries you have made. It is also affected by information you have provided on the Preference screen. For example, time formats, units of measurement, and BG target ranges in the reports are taken from your settings on the Preference screen, not from your pump.

NOTE: Some devices supported by this system may not be available in all countries where this system is approved for use. Certain report types only produce data if you are using a specific device.

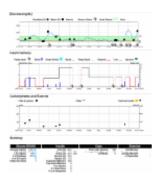
NOTE: Because the standard used for units of glucose measurement varies by country, the scale and range of numbers shown in the report images herein may differ from the scale and range on your reports. Also, report types and configuration may vary according to what is supported on a given device platform. You can access the supported device list through the CareLink software by clicking FAQ located at the bottom of every page.

Overview of available reports

• Quick View Summary: shows graphical summaries of insulin as well as sensor and blood glucose for the two weeks you select. It also shows statistical and logbook information in tables. It is designed to assist your healthcare professional with a one-page summary of the most important information about your therapy. To learn more about the Quick View Summary report, see Quick View Summary report on page 42.



• **Daily Summary:** shows glucose readings, number of manual injections (if supported by your device), insulin delivered by the pump, different types of suspend events (if supported by your device), and important pump changes. It also shows carbohydrate and exercise events recorded in the Logbook, Capture Event feature, or Bolus Wizard for the day selected. It is designed to allow you to see a "graphical logbook" of the interaction of your pump with the other events in your day to assist you in using your pump for optimal control. To learn more about the Daily Summary report, see *Daily Summary report on page 48*.



• **Logbook Diary:** displays blood glucose readings, carbohydrates consumed, and boluses delivered by your pump in chronological order for the selected date range. The report displays BG/Carb and bolus information in five time periods: Sleeping, Breakfast, Lunch, Dinner, and Evening. Each row in the report represents one day (24 hours) of information. To learn more about the Logbook Diary report, see *Logbook Diary report on page 55*.

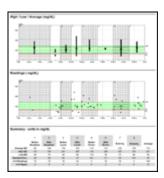


• **Data Table:** provides a table of information that covers a range of days. It includes meter and sensor glucose readings, insulin values, blood ketones (for Precision Xtra, Precision Xceed, and Optium Xceed meter uploads only), carbohydrates consumed, exercise duration, pump events, and miscellaneous information. It is intended to allow you to see all the collected data to help you understand other reports. To learn more about the Data Table report, see *Data Table report on page 56*.



• **Modal Day Periods:** plots individual and average blood glucose readings for a range of days analyzed over a standard or typical day. The data is grouped over specified time periods of the day. It also displays the graph information in tabular form. It is designed to assist you in seeing

how well your glucose stayed within your target range before and after meals, in the evening and during sleeping time. To learn more about the Modal Day Periods report, see *Modal Day Periods report on page 56*.

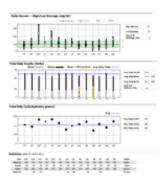


• **Modal Day Hourly:** plots individual and average hourly blood glucose readings for a range of days analyzed over a standard or typical day. The data is grouped by hour. It also displays a pie chart representing percentages of glucose readings at, above and below your target BG range, as well as hypo events. It is designed to assist you in seeing patterns in your blood glucose related to the time of the day, and also to provide an overall summary of your blood glucose readings. To learn more about the Modal Day Hourly report, see *Modal Day Hourly report on page 59*.

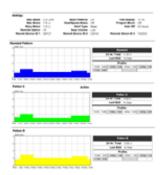


• Trends Summary: graphs daily sensor and blood glucose readings, insulin delivery, and carbohydrate intake. These are shown as one, two, four or six day averages and totals, depending on the duration selected. It also displays the graphical information in tabular form. It is designed to show trends and interactions of this information. This is to assist you and your healthcare professional in understanding how well your therapy management is working. More

long-term trends can be shown than with the Quick View Summary because the duration can be much longer. To learn more about the Trends Summary report, see *Trends Summary report* on page 60.



• **Device Settings:** displays pump or monitor settings in effect for the date and time you select (for example, Max Basal and Alert Mode). For pumps, it also graphs the active basal insulin pattern and any other basal insulin pattern that has been defined. It is designed to give you a complete report of your device settings at a particular point in time. This is to assist you in understanding other reports or to simply document your settings. You should not select a date or time for this report that is earlier than the first upload of this device or later than the last upload. Otherwise, the system reports the settings of the nearest device upload to the date and time you selected. To learn more about the Device Settings report, see *Device Settings report on page 64*.



• **Sensor Daily Overlay:** provides seven days of sensor glucose tracings placed on top of one another to help show repeating patterns and differences from day to day. The tracing for each day has its own color. It includes a table with sensor glucose information about each day, such as highs, lows, averages, and number of calibrations. There are also tables and pie charts

showing information about glucose control based on a target range, such as number and type of excursions. To learn more about the Sensor Daily Overlay report, see *Sensor Daily Overlay* report on page 64.



• Sensor Weekly Logbook: presents sensor data and logbook information in the context of preand post-meal target ranges, as well as targets for evening and sleeping time periods. Time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. It is designed to help you to see impacts to your glucose control based on delivered Bolus insulin and external events documented in the system Logbook. To learn more about the Sensor Weekly Logbook report, see Sensor Weekly Logbook report on page 66.

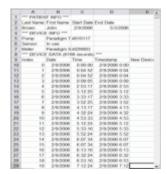


• **Sensor Overlay by Meal:** displays snapshots of seven days of sensor glucose tracings placed on top of one another during meal events—one hour before, during, and a time period after breakfast, lunch and dinner. It is intended to help show repeating patterns and differences during meal periods from day to day. Time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. The tracing for each day has its own color. It includes tables and pie charts with a description of glucose

before and after meals and sleeping time, and information about keeping your glucose in target ranges before and after you eat. To learn more about the Sensor Overlay by Meal report, see *Sensor Overlay by Meal report on page 68*.



• **Data Export (CSV):** provides a listing of all collected data in the order in which it occurred. The exported information is placed in a comma separated value (CSV) format, which you can open in a spreadsheet program such as Microsoft[®] Excel[®]. Use this report to export your data from the system for further analysis. To learn more about Data Export, see *Data Export (CSV) on page 69*.



• **Compliance report:** displays charts for long range statistics for up to 52 weeks after the study start date. It is designed to assist you in seeing how well the patient is following the study guidelines. To learn more about the Compliance report, see *Compliance report on page 70*.



The Adherence Report: presents data that describes how insulin pumps and sensors are used and the patient's behavior relevant to their therapy. It answers the question, "Was there enough data to provide an accurate picture of how the patient uses their insulin pump and sensor, if applicable" It also answers the question, "Do patients adhere to the therapy as instructed?" It also indicates whether you may need to speak to your patient about the way they are managing their diabetes. To learn more about the Adherence report, see Adherence report on page 76.



WARNING: The reports produced by Medtronic CareLink Therapy Management Software for Diabetes are intended to be used together with the consultation of a healthcare professional familiar with the diagnosis and treatment of diabetes. Prior to any adjustment of insulin therapy, please review the report data with your healthcare professional. This is to ensure that the historical data from your pump, continuous glucose monitor, and meter is analyzed and interpreted by a professional trained in diabetes care.

Opening the Reports screen

- Make sure you are logged in.
- Click the **Reports** tab.

or



The Reports screen displays.

NOTE: You must have a minimum of version 7.0 of Adobe Reader on your computer in order to view reports. If you do not have Reader, or need to update your version, go to http://www.adobe.com/reader where you can download a free copy from Adobe.

Setting BG target range and hypo threshold preferences

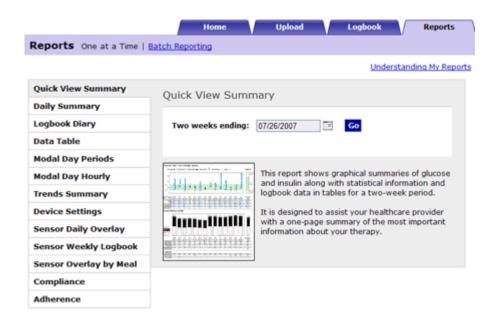
Before generating reports, you should set all of your preferences on the **Preferences** screen (with the help of your healthcare professional). These include BG Target Range High, BG Target Range Low, and Hypo Threshold preferences. The target glucose range and hypo threshold displayed on various reports are determined by settings you enter on the **Preferences** screen in CareLink Therapy Management Software for Diabetes, not by what you may have set on your pump.

By default, the target range is 70 to 140 mg/dL. Any glucose reading between these two settings is reported as "within target range." By default, the hypo threshold is 60 mg/dL. The hypo threshold is shown on reports as a horizontal red line beneath the target range.

Generating a single report

The following steps apply to generating reports one at a time.

1 Open the Reports screen. The following is displayed:



- 2 From the list on the left, click the name of the report you want to generate. (The selection varies according to the devices you have uploaded.)
- 3 Click in the Date field, and select the year, month and date for the report. This may be the date for the day you want to see reported (Device Settings or Daily Summary). Or, it may be the start date of the period you want to see reported.

NOTE: You should not select the current day as the end date for a duration report, such as Trends Summary. These reports require a full day of data to be meaningful.

- 4 If there is no other field to set, go to the next step. Otherwise, complete the part of this step that applies to the type of report you are generating:
 - **Duration:** Click the drop-down arrow in the Duration field at the top of the screen. Select the length of time for which you want to generate report data.
 - **End:** Click in the End Date field at the top of the screen. Select the last date in the period you want to see reported (the end date).
 - **Time (only applies to Device Settings report):** Click the drop-down arrows in the Time fields at the top of the screen. Select the time for which you want to view pump setting data.
 - Data Table Input (only applies to Data Table report): Check the check box next to each data category you want to display in the Data Table report.
- **5** Click the **Go** button.

Your report is generated and is displayed as a PDF file in a separate window, unless you generated a Data Export.

If you generate a Data Export, the report generates as a .csv file, which you can open in a spreadsheet program such as Microsoft[®] Excel. In that case, select whether you want to open or save the file.

If Adobe Reader is not installed, you will not be able to view the file. Go to http://www.adobe.com/reader to download and install Adobe Reader.

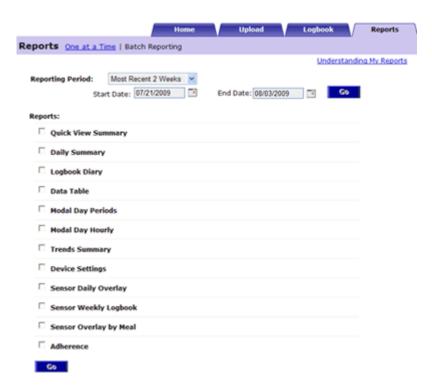
NOTE: If you are generating a report with several weeks worth of data, the PDF will take longer to display.

Generating multiple reports

The following steps apply to generating more than one report at a time. All of the reports that you generate will be included in one PDF file.

1 Open the Reports screen.

2 Click Batch Reporting. The following is displayed.



- **3** Select the check box for each report you want to generate. (The selection varies according to the devices you have uploaded.)
- 4 You can set the reporting period for all the selected reports at once by filling in the fields for the **Reporting Period** at the top of the screen. Or, you can set the reporting period for each report individually. The remaining steps guide you in setting reporting period information.
- 5 Click in the Date field, and select the year, month and date for the report. This may be the date for the day you want to see reported (Device Settings or Daily Summary). Or, it may be the start date of the period you want to see reported.

NOTE: You should not select the current day as the end date for a duration report, such as Trends Summary. These reports require a full day of data to be meaningful.

- 6 If there is no other field to set, go to the next step. Otherwise, complete the part of this step that applies to the type of report you are generating:
 - **Reporting Period:** Click the drop-down arrow in the Reporting Period field. Select the length of time for which you want to generate report data.
 - **End:** Click in the End Date field. Select the last date in the period you want to see reported (the end date).
 - **Time (only applies to Device Settings report):** Click the drop-down arrows in the Time fields. Select the time for which you want to view pump setting data.
 - Data Table Input (only applies to Data Table report): Check the check box next to each data category you want to display in the Data Table report.

7 Click the **Go** button.

Your reports are generated and are displayed as a single PDF file in a separate window.

If Adobe Reader is not installed, you will not be able to view the file. Go to http://www.adobe.com/reader to download and install Adobe Reader.

NOTE: If you are generating reports with several weeks worth of data, the PDF will take longer to display.

Saving a report

To save a report that has been generated as a PDF file, take the following steps:

- 1 Once the report you generated is displayed, click 📔 (SAVE) on the Adobe Acrobat® toolbar.
- 2 In the Save As window, use the drop-down menu in the Save in field to select where to save. Type a name for the report in the File name field.
- 3 Click **Save**. Your report is saved.

Understanding reports

The following sections describe each report that you can generate and what you should be looking for in the results.

- Quick View Summary report on page 42
- Daily Summary report on page 48
- Logbook Diary report on page 55
- Data Table report on page 56
- Modal Day Periods report on page 56
- Modal Day Hourly report on page 59
- Trends Summary report on page 60
- Device Settings report on page 64
- Sensor Daily Overlay report on page 64
- Sensor Weekly Logbook report on page 66
- Sensor Overlay by Meal report on page 68
- Data Export (CSV) on page 69
- Compliance report on page 70
- Adherence report on page 76

Conventions

CareLink Therapy Management Software for Diabetes uses several conventions throughout your reports. Statistics in black are Blood Glucose (BG) values from your BG meter. Statistics in blue are Sensor Glucose (SG) values from the sensor. Readings above the high setting are reported as high excursion events. A BG hypo excursion is reported when a BG reading falls below the red hypo

line. An SG hypo excursion is reported when there is at least one sensor reading below the red hypo line. If at least 30 minutes pass between hypo sensor readings, they are reported as separate excursions. The hypo threshold is shown on reports as a horizontal red line beneath the target range.

Quick View Summary report

This report provides you with a summary of the following for the two-week period you select:

- glucose control (including averages, highs and lows, number of readings, and hypo events)
- insulin usage (including totals, percent basal and bolus, number and average of boluses, and priming/filling information)
- number of Suspend before low and/or Suspend on low events (on some insulin pump models with a SmartGuard™ feature)
- number of low glucose suspend events (on some insulin pump models)
- number of threshold suspend events (on some insulin pump models)
- carbohydrate intake (if entered on your insulin pump or in your logbook)
- exercise (if entered in your logbook)
- infusion set changes (if entered in your logbook).

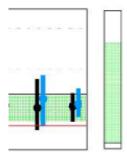
If you are using a sensor-augmented pump or a Guardian REAL-Time device, this report may include glucose data captured by the sensor. This is in addition to blood glucose information captured by a glucose meter.

NOTE: If you enter certain data in multiple places, such as on your insulin pump and in the CareLink Logbook, you may see duplicate information in your reports. For details, see What is uploaded from your device on page 11.

If you generate the Quick View Summary report for the Guardian REAL-Time device only, the Insulin Delivery graph will display information from the Guardian Monitor insulin injection markers rather than basal/bolus data.

Glucose Distribution bar

To the right of the Glucose graph, there is a Distribution bar. It shows you the total number of glucose readings and the percentage you were above, below and within your target glucose range during the two-week period. The green segment represents the percentage of the total readings that were within target range—this makes it easy to tell if you had more readings within target range or more readings that were either above it or below it.



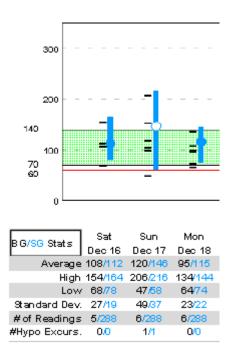
What it means

Ideally, you should mostly be in your target range. If you are not, check the modal day reports. Find out what times of the day you tend to be out of your range.

Glucose averages and ranges

On the Glucose graph, circles indicate your average glucose for the day. Small black lines identify Blood Glucose (BG) values from your BG meter. The vertical line, extending above and below each circle, shows your range of glucose values for the day. Do you have any days where the range is significantly large?

Are your insulin amounts set correctly? On the Glucose graph, you can check to see if your average daily glucose tends to be outside of your target range.

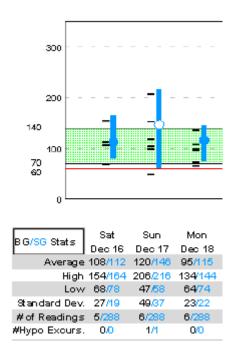


What it means

If the range is large on any day, you may have had many potentially dangerous highs and lows that day. Check the Daily Summary Report for those days to get more detail about your glucose range. If your glucose levels tend to be outside of your target range daily, ask your healthcare professional if your insulin amounts are set appropriately.

BG and Sensor Values

On the Glucose graph, small black circles, lines, and statistics in black are Blood Glucose (BG) values from your BG meter. Each black line represents an individual BG meter reading. Circles, lines, and statistics in blue are Sensor Glucose (SG) values from the sensor. If you are using a sensor-augmented pump you should see both BG and SG information. Do you have days where you thought you should have sensor data but you do not?

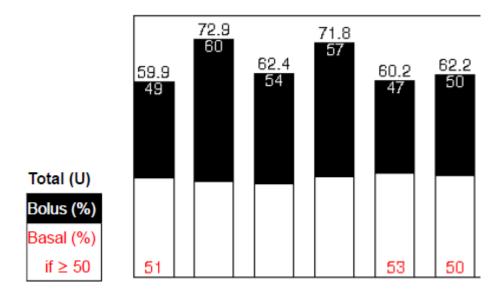


What it means

If you do not see sensor glucose data for the days you are using a sensor, check the Data Table Report and the Daily Summary Report.

Daily insulin totals and type

The Insulin Delivery graph shows the total amount of insulin you received each day. It also shows the breakdown between bolus (solid black bar) and basal (solid white bar) insulin.



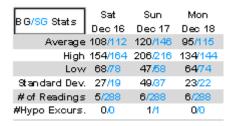
What it means

Many people find that they are close to half basal and half bolus on most days. However, ask your healthcare professional to assess your rates to determine what the relationship should be for you.

Hypo events (readings below the hypo line)

The statistics below the Glucose graph show the number of blood glucose and sensor glucose hypo excursions that occurred. Check the statistics below the Glucose graph to see how many hypo events you had during this period.

Statistics in black are Blood Glucose (BG) values from your BG meter. Statistics in blue are Sensor Glucose (SG) values from the sensor. A BG hypo excursion is reported when a BG reading falls below the red hypo line. An SG hypo excursion is reported when there is at least one sensor reading below the red hypo line. If at least 30 minutes pass between hypo sensor readings, they are reported as separate excursions. The value for the red hypo line is defined on your **Preferences** screen.



What it means

See if you have had one or more hypo events during the two-week period. To prevent future hypo events, review the Daily Summary report with your healthcare professional.

Infusion set changes

At the bottom of the page, the last line of the Logbook table shows you when you changed your infusion set. Are you changing every two to three days? Check the Blood Glucose graph. Look at how your glucose control was the day before versus the day after you changed your infusion set.

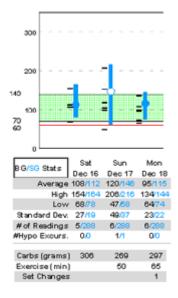
Carbs (grams)	306	269	297
Exercise (min)		50	65
Set Changes			1

What it means

Sometimes, if you don't change your infusion set often enough, insulin will not be absorbed properly, or your insulin may not be working as well after being exposed to extreme temperatures for longer than recommended. See if you tend to have high blood glucose levels the day before you change your set. And then see if your glucose levels are back in your target range the day after your set change. Maybe try changing your infusion set more frequently to see if that helps you stay in better control.

Exercise

On the bottom of the page, in the Logbook table, note the days that you exercised. Did your exercise affect your glucose control (see the glucose graph and statistics for each day you exercised)?



What it means

When exercising, your insulin needs may change. Talk to your healthcare professional about suspending your pump, or using a temporary basal rate, which may help you stay in better control while you are exercising. Do not suspend your pump for more than one hour during exercise without asking your healthcare professional about how to manage your glucose while your pump is suspended.

Daily Summary report

This report centers around only one day—whatever day you have selected. It shows you three graphs:

- meter and sensor glucose readings
- insulin usage
- the carbohydrates you have eaten and your exercise information (if you recorded these)

A table at the bottom summarizes the information displayed in the three graphs.

If you look down the page, you will see that on all three graphs, the time of day is aligned. So, looking from graph to graph, you see exactly what was happening at the same time for all the elements.

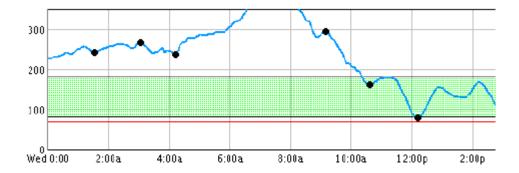
If you are using a sensor-augmented pump or Guardian REAL-Time device, this report will include any sensor glucose data available for the day. Additionally, if your device has a Threshold Suspend, Low Glucose Suspend, or SmartGuard feature, the corresponding threshold, low glucose, or Suspend before low and Suspend on low suspend events will be identified in the Insulin Delivery chart.

NOTE: If you enter certain data in multiple places, such as on your insulin pump and in the CareLink Logbook, you may see duplicate information in your reports. For details, see What is uploaded from your device on page 11.

If you generate the Daily Summary report for the Guardian REAL-Time device only, this report will look slightly different where insulin is shown than what is described here.

Blood glucose reading outside target range

Check the Glucose graph. The green bar represents your glucose target range. Are any of your blood glucose readings outside of your target range? If so, how many?



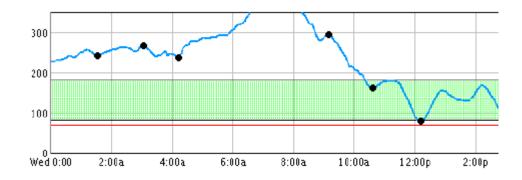
What it means

What else was occurring that day that might have caused you to be out of range?

- Check the Insulin Delivery and Carbohydrate and Exercise graphs. Look at how your boluses, basal rate and meals correlate to your blood glucose readings.
- Look at the Modal Day glucose reports. Are there certain periods of the day when your Blood Glucose (BG) readings are repeatedly outside of your target glucose range?
- Ask your healthcare professional about adjusting your insulin amounts to keep you within your target range.

Sensor glucose values

If you are on a sensor-augmented pump, do you see SG values plotted as a blue tracing line? The blue tracing line will give you a picture of your sensor glucose over time. Check to see that three to four BG values are used to calibrate your sensor during every day of use. Also check to see that you do not have too many sensor alerts.



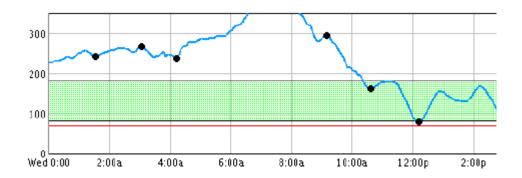
What it means

If you are not seeing sensor glucose data for a day when you thought you were using a sensor, or if there are many alerts or times with no data, check the Data Table Report to see more detail on your sensor events and alerts.

SG tracing above or below target

Look at the blue SG tracing line on the Glucose graph. Does the SG tracing go outside your target range?

Does your SG go above or below your target range for long periods of time or many times during the day?



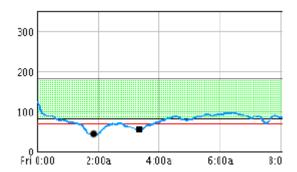
What it means

What else was occurring that day that might have caused you to be out of range?

- Check the Insulin Delivery and Carbohydrate and Exercise graphs. Look at how your boluses, basal rate and meals correlate to your SG tracing.
- Look at the various Modal and Overlay reports. Are there certain periods of the day when your sensor glucose readings are repeatedly outside of your target range?
- Speak to your healthcare professional about the times you are out of range.

Glucose readings far outside of your target range

Look at the Glucose graph. BG readings from a linked meter are identified as black dots, while manually entered Meter BG readings are identified as black squares. Are any of your BG readings below 60 mg/dL (3.3 mmol/L) or above 240 mg/dL (13.3 mmol/L)?



What it means

Review what to do if your glucose readings are high or low.

- Your sensor-augmented pump or Guardian REAL-Time device has the ability to alert you when you are or you are becoming hypoglycemic or hyperglycemic. You may want to ensure that the High and Low alerts on your pump are set correctly to alert you to these events.
- Review the Modal and Overlays reports to see if there is a pattern to being this far out of your target range at a certain time of day.
- If your sensor glucose readings are repeatedly outside of your target range, ask your healthcare professional if you are taking enough (or NOT enough) insulin at that time.
- Be sure to ask your healthcare professional about the many features of your pump, such as basal rates and the Bolus Wizard (which includes insulin to carbohydrate ratios, insulin sensitivity and active insulin), which are designed to help keep you within your target range.

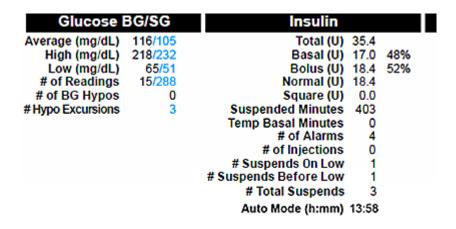
Insulin totals

In the Summary Data chart at the bottom of the page, look at your insulin column. You will see the total amount of insulin delivered that day, as well as the number of manual injections administered (if supported by your device).

Additionally, if your device has a Threshold Suspend, Low Glucose Suspend, or SmartGuard feature, the number of the corresponding pump-initiated suspend events will be listed in the Insulin column, for example, as shown in the image below. The Total Suspends tally all types of suspend events, including the above pump-initiated suspends, programmed auto off, suspends during CareLink uploads, and user-initiated suspends. The Suspended Minutes indicate the total duration of all types of suspend events.

Glucose	BG/SG	Insulin		
Average (mg/dL)	116/105	Total (U)	35.4	
High (mg/dL)	218/232	Basal (U)	17.0	48%
Low (mg/dL)	65/51	Bolus (U)	18.4	52%
# of Readings	15/288	Normal (U)	18.4	
# of BG Hypos	0	Square (U)	0.0	
# Hypo Excursions	3	Suspended Minutes	403	
		Temp Basal Minutes	0	
		# of Alarms	4	
		# of Injections	0	
		# Suspends On Low	1	
		# Suspends Before Low	1	
		# Total Suspends	3	

If your device has Auto Mode feature, it will be listed in the Insulin column, for example, as shown in the image below.



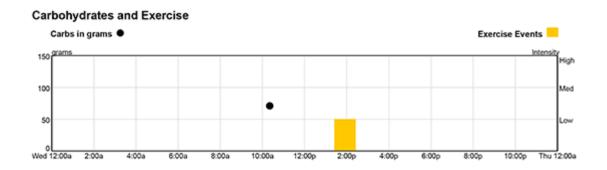
What it means

Many people find that they are close to half basal and half bolus on most days. However, ask your healthcare professional to assess your rates to determine what the relationship should be for you.

During the day, are you giving yourself large amounts of correction insulin in relation to your total bolus insulin? If so, talk with your healthcare professional about adjusting your insulin amounts to keep you within your target range.

Carbohydrate amounts

If you entered carbohydrate amounts in your Logbook, Capture Event feature, or the Bolus Wizard, look at each carbohydrate dot on the Carbohydrates and Exercise graph.



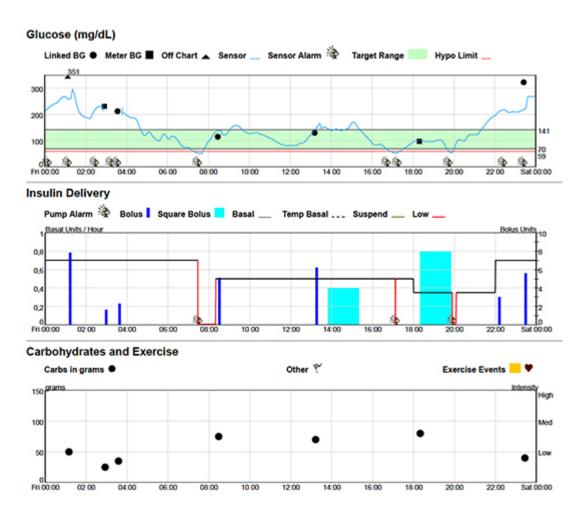
What it means

Your insulin to carbohydrate ratio may need to be adjusted for different meals and time of day. Ask your healthcare professional what is right for you.

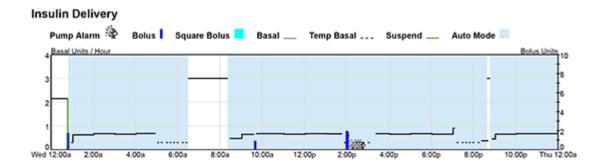
Comparing carbs, insulin and glucose readings

Look at each carbohydrate dot on the Carbohydrates and Exercise graph. Then look at the Insulin Delivery graph to see how much bolus insulin you gave for the amount of carbohydrates consumed. Now look up at the Glucose graph to see what your meter or sensor reading was after that meal. Do this for all carbohydrate dots on the graph. Do you notice that your glucose was too high or too low after a meal?

If your device has a Threshold Suspend or Low Glucose Suspend feature, the corresponding pump-initiated suspend events are displayed on the graph as solid red lines, for example, as shown in the image below. If your device has a SmartGuard feature, the pump-initiated Suspend on low events are also displayed as solid red lines, while the pump-initiated Suspend before low events are displayed as dashed red lines. All other suspend events are shown as solid green lines. Examples include user-initiated suspend events, suspends during CareLink uploads, and programmed auto off.



If your pump has an Auto Mode feature turned on, this will be represented by a solid blue background on your Insulin Delivery graph, for example, as shown in the image below.

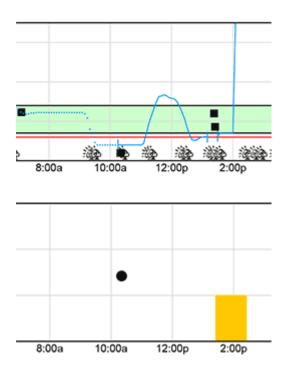


What it means

- Ask your healthcare professional if you are giving yourself appropriate insulin for the carbohydrates you are eating.
- Ask your healthcare professional if you are giving yourself the correct type of bolus for the type of food eaten. For example, certain foods might be better controlled with a Dual Wave Bolus.
- If your pump has a Threshold Suspend, Low Glucose Suspend, or SmartGuard feature, please discuss the use of this feature with your healthcare professional. Refer to your pump User Guide for complete information and instructions on using the Threshold Suspend, Low Glucose Suspend, or SmartGuard feature.

Exercise and blood glucose readings

Did you exercise this day? If so, look up at your Glucose graph to see what your meter or sensor reading was before and after you exercised. Your exercise intensity is identified by the height of an orange bar if you entered your exercise using the Logbook feature. Your exercise is identified with a heart icon if you entered your exercise using the Capture Event feature. Was your glucose too high or too low?



What it means

Discuss with your healthcare professional your insulin and food requirements for exercise.

Logbook Diary report

The Logbook Diary displays blood glucose readings, carbohydrates consumed, and boluses delivered by your pump in chronological order for the selected date range.

The report displays BG/Carb and bolus information in five time periods: Sleeping, Breakfast, Lunch, Dinner, and Evening. Each row in the report represents one day (24 hours) of information.

At the bottom of the report, you can review statistics for the dates shown in the report, according to your five time periods. For example, notice your average blood glucose during your breakfast period, compared to your average carbohydrates consumed and average insulin delivered by your pump.

The time periods in the Logbook Diary are defined by your Intraday Periods preferences. Only certain settings are used to define the periods in the Logbook Diary:

- Sleeping to Before Breakfast = Sleeping period
- Before Breakfast to Before Lunch = Breakfast period
- Before Lunch to Before Dinner = Lunch period
- **Before Dinner** to **Evening** = Dinner period
- **Evening** to **Sleeping** = Evening period

For example, if Before Breakfast is set to 6:00 and Before Lunch is set to 10:00, then the Breakfast period on the Logbook Diary report will be 6:00 to 10:00. You can adjust these times to match your schedule and lifestyle. The After Breakfast, After Lunch, and After Dinner settings are not used by the Logbook Diary to define the periods.

Data Table report

This provides a table of information that covers a range of days. It displays pump and meter history information. This report is designed to show you all data that is useful for understanding and troubleshooting other reports. You choose the type of data you want to see reported.

- Meter glucose
- Sensor data

If your device has a SmartGuard feature turned on, this report will identify the action that you or your pump took to respond to each suspend event.

- Manual logging
- Settings changes
- Pumps and sensor diagnostics information
- Alarms
- Insulin delivery and priming/filling
- Bolus Wizard details
- Control solution tests

If you are using a Precision Xtra, Precision Xceed, or Optium Xceed meter and want to see blood ketones you entered, first you need to upload your meter. Then, select **Meter glucose** when generating the Data Table report.

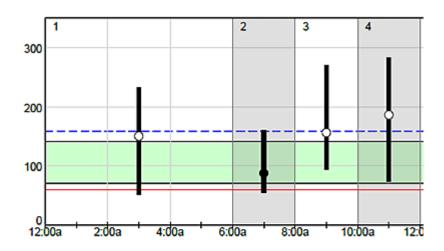
Modal Day Periods report

This report analyzes meter glucose trends by time of day—typically periods revolving around meals. You can adjust the time range of each of these "periods" by going to the Intraday Periods Preferences part of the Preferences screen. In the report, you can learn what time periods of day you tend to be high, low or within your target range.

This report uses your meter values only, and does not use sensor glucose data for its graphs or table.

High/Low/Average graph

Look at the High/Low/Average graph. The target range shown on the graph is based on your **BG Target Range** settings on the **Preferences** screen, which may be different from your pump, as explained in the *Understanding reports* topic. Is there a particular period of the day that you tend to be outside of your target range? If yes, review the information below.

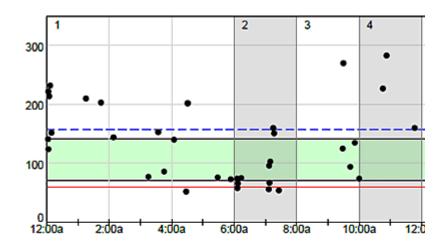


	1	2	3
	Sleeping	Before Breakfast	After Breakfast
Average BG	150	87	156
High BG	232	160	270
Low BG	52	54	94
Standard Dev.	57	35	NA
# of Readings	18	11	4
# of Hypos	1	3	0

What it means

- Check the statistics at the bottom to see if you had a significant number of BG readings at that time. If not, you may want to start testing more during that time.
- Talk with your healthcare professional concerning changes to your insulin therapy to move you into target range for that period.

Look at the second graph. Each dot on this graph represents one meter reading. See how many meter readings you had at the time when the first chart showed you high or low. If there are only one or two readings, you probably do not have enough meter readings to draw any real conclusions. But, you will want to remember to start checking your glucose at this time each day going forward. Then you can refer to this report to determine if there is a real trend.



	1	2	3
	Sleeping	Before Breakfast	After Breakfast
Average BG	150	87	156
High BG	232	160	270
Low BG	52	54	94
Standard Dev.	57	35	NA
# of Readings	18	11	4
# of Hypos	1	3	0

- If there are enough meter readings, you can look at the Data Table report to see if you tend to eat around that time or exercise regularly around that time. Discuss with your healthcare professional why you tend to be high/low during that time of day. He or she can help you adjust your insulin to put you back within range.
- If you tend to be high/low in the morning, you will probably want to know what is happening with your glucose while you are sleeping. Ask your healthcare professional about testing your blood glucose at night for troubleshooting.

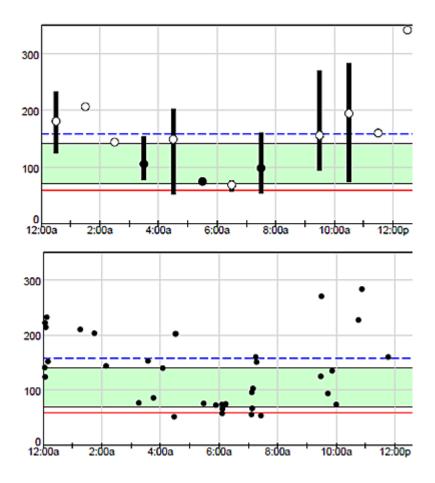
Modal Day Hourly report

This report analyzes blood glucose trends by time of day. Over the range of days you specified, it averages blood glucose readings by hour. So, for example, in a two-week period, you can see what your blood glucose level was at 8:00 a.m., 10:00 p.m., etc. You can learn what times of day you tend to be high, low, or within your target BG range.

This report does not use sensor glucose data for its graphs or table.

High/Low/Averages graph

Look at the High/Low/Averages graph. The target range and red hypo line shown on the graph are based on your settings in the **Preferences** screen, which may be different from your pump, as explained in the *Understanding reports* topic. Is there a particular time of day that you tend to be outside of your target range?



What it means

• First thing to do is to look at the second graph. Each dot on this graph represents one meter reading. Look to see how many meter readings you had at the time when the first chart indicated that you were high or low. If there are only one or two readings, you probably do

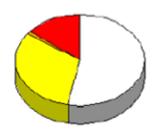
not have enough meter readings to draw any real conclusions. But, you will want to remember to start checking your glucose at this time each day going forward. Then you can refer to this report to determine if there is a real trend.

- If there are enough meter readings, you can look at the Data Table report to see if you tend to eat around that time, or exercise regularly around that time. Discuss with your healthcare professional why you tend to be high or low during that time of day. He or she can help you adjust your insulin to put you back within range.
- If you tend to be high or low in the morning, you will probably want to know what is happening with your blood glucose while you are sleeping.

Distributions and Statistics chart

Look at the Distributions and Statistics pie chart on the bottom of the page. This chart will show how well controlled your diabetes was over the time range you specified. The target range and the hypo threshold are defined on your **Preferences** screen.

	Readings	Percent
In Range (70 - 140)	37	53%
Above (> 140)	23	32%
Below (60 - 69)	1	1%
Нуро (< 60)	10	14%
Total Readings	71	



What it means

- First, look to the left of the pie chart to see how many meter readings you had during that time. Check with you healthcare provider to see if you have enough data to draw any accurate conclusions.
- Look at the top graph to see what times of day are particularly troublesome for you. Discuss
 with your healthcare professional about adjusting your basal rates and possibly your boluses to
 move you into target range. Work with your healthcare professional on adjusting your pump
 settings.

Trends Summary report

This report shows you trends in your glucose control, insulin usage and carbohydrate intake. For whatever time period you specified (2 weeks–12 weeks) you will see graphs with the following:

- Your average glucose reading for each day in that time period.
- Your total insulin usage for each day in that time period.

• The total number of carbohydrates you consumed for each day in that time period.

To the right of the graphs, you will see a summary of the graph data. This includes the number of meter readings you had, your average glucose reading, your average insulin per day, etc.

A summary table at the bottom of the report presents data for 14 different days. The interval at which the data is reported on this table varies according to the length of the reporting period:

- 2-week reporting period: every day
- 4-week reporting period: every 2nd day
- 8-week reporting period: every 4th day
- 12-week reporting period: every 6th day

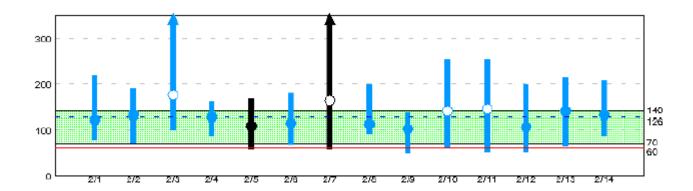
If you are using a sensor-augmented pump or Guardian REAL-Time device, this report will include sensor glucose information in addition to blood glucose information.

NOTE: If you enter certain data in multiple places, such as on your insulin pump and in the CareLink Logbook, you may see duplicate information in your reports. For details, see What is uploaded from your device on page 11.

If you generate the Trends Summary report for the Guardian REAL-Time device only, this report will look slightly different where insulin is shown than what is described here.

Daily Glucose graph

Check the Daily Glucose graph. Were there any days that your average glucose readings were out of your target range?



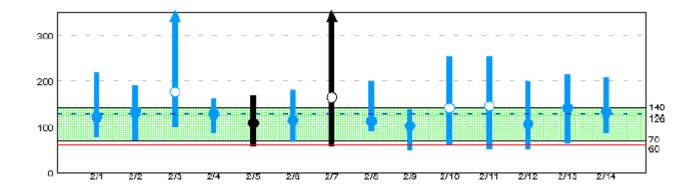
What it means

• First, try the following. If you've been looking at a two-week range, try viewing 4 weeks to see if there are patterns to when you are out of range.

- If there is a pattern, what day of the week are you typically out of range? Does your lifestyle dramatically change each week on that particular day? (For example, do you usually sleep more and eat more on weekends?) Check the carbohydrate graph at the bottom of the page. See if there are days that you tend to eat more than others.
- Ask your healthcare professional if you have different insulin requirements for different days of the week. This might be based on the kinds of activities that you typically perform on those days. They might recommend using different basal rates for certain periods.
- If there is not a pattern, look back in your personal calendar. Were you sick that day? If so, you can work with your healthcare professional to determine your insulin requirements for days that you are sick. Discuss programming a temp basal into your pump for sick days.

Sensor data

On the Glucose graph, the circles, lines and statistics in black are Blood Glucose (BG) values from your BG meter. Circles, lines, and statistics in blue are Sensor Glucose (SG) values from the sensor. On days where you used a sensor, only the SG information is shown (in blue). Do you have days where you thought you should have sensor data but don't?

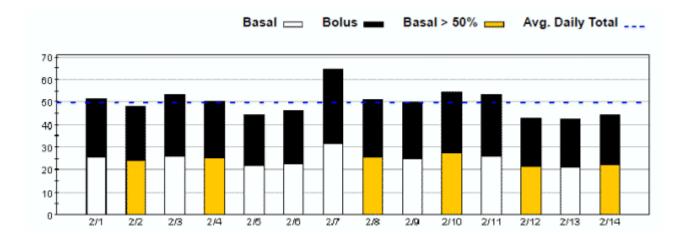


What it means

If you are not seeing sensor glucose data for days when you thought you were using a sensor, check the Data Table Report and the Daily Summary Report for those days to see more detail on your sensor data.

Total Daily Insulin graph

Check the Total Daily Insulin graph. Are there any days during which you took a lot more insulin than others? (The blue dotted horizontal line tells you what your average daily insulin usage was.)



What it means

Each bar represents your total daily insulin use. If your basal insulin use is less than or equal to half of the total, the basal insulin is shown in white. If the basal insulin is greater than half of your total insulin, it is shown in gold. Look carefully at the breakdown between basal and bolus. For that particular day, did you use a lot more bolus insulin than basal insulin? If so, what was happening that day to cause you to need more insulin? Consult with your healthcare professional to discuss your insulin amount.

Daily insulin averages

Next to Total Daily Insulin graph, you will see some numbers showing your average basal insulin compared to average bolus insulin.

Avg. Daily Total	45.4	
Avg. Daily Basal	22.7	50%
Avg. Daily Bolus	22.7	50%
Avg.#of Boluses / Day	4.5	

What it means

Look carefully at the breakdown between basal and bolus. Many people find that they are close
to a half basal and half bolus ratio on most days. However, ask your healthcare professional to
assess your rates to determine what the relationship should be for you.

 Consult with your healthcare professional to come up with basal rate testing to help you fine tune your basal rates. Do not make changes without consulting your healthcare professional first.

Device Settings report

This report shows the settings you have programmed into your pump or Guardian REAL-Time device—alarm volume, the remote serial number, etc. If you are using a sensor-augmented pump, this report includes your sensor alert and alarm settings. If your pump also has a SmartGuard feature or a Low Glucose feature, this report includes your suspend settings.

This report provides a helpful record of your device settings in case of settings loss. You can also protect device settings by using the Save Settings feature in the Utilities > User Settings menu on your pump or Guardian REAL-Time device.

The date and time you select for your Device Settings report affects the data in the report. See *Device Settings report date and time on page 77* for more information.

NOTE: This report does not show actual insulin usage, it only displays the basal rates that have been programmed into the pump. It also shows which basal rate was active at the time of upload.

Sensor Daily Overlay report

You choose the seven days of glucose tracings you want to see, and this report layers them on top of each other for comparison. Each day has a different color tracing so you can tell them apart.

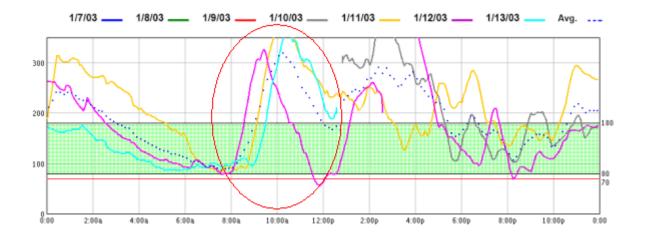
Averages and totals across all days in the report are displayed in a table for statistical items such as Mean Absolute Difference % (MAD %) and Area Under Curve (AUC), excursion and duration data. In addition, pie charts show the duration of time above, below and within target range for each day.

To see BG values together with sensor data, use the Daily Summary report.

NOTE: For definitions of the terms Mean Absolute Difference % (MAD %) and Area Under the Curve (AUC), please refer to the glossary.

Repeating patterns

Check the Sensor Data graph at the top of the report that shows the sensor glucose tracings for 1–7 days. See if you can spot trends across the days.



What it means

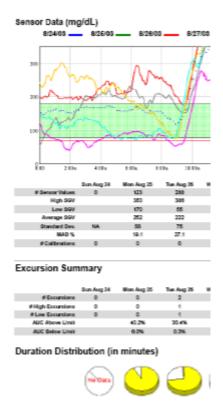
If you see a trend toward overnight drops, it could indicate that your basal is too high or it is a drop off from a correction dose. Discuss this with your healthcare professional to determine if you need to make a basal or bolus adjustment.

If you see repeated glucose rises or falls after a meal, discuss with your healthcare professional whether you need to review carb counting or you need to modify your bolus wizard settings.

Repeated rapid drops can indicate a tendency to over-correct with insulin. Discuss with your healthcare professional how best to determine bolus amounts.

What else was going on

Use the information provided by each table and chart to help determine your overall daily glucose control.



What it means

Look at the number and type of high and low excursions you had on a given day. Then compare that to the pie chart to see how much time was spent above, below and at target. The tracings at the top of the report show you what time of day excursions were occurring and whether they were occurring at about the same time each day. From all this, you can see patterns in your glucose control. Discuss any trends with your healthcare provider to decide if a change therapy should be made.

Sensor Weekly Logbook report

Use this tabular report to help understand the results of other sensor reports. This report shows you up to seven days of sensor glucose readings, insulin usage, carbohydrate intake, and related events from your logbook or pump for time periods that you specify (sleeping and eating).

The time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. See *Guidelines for setting Advanced Intraday Periods on page 81* for more information.

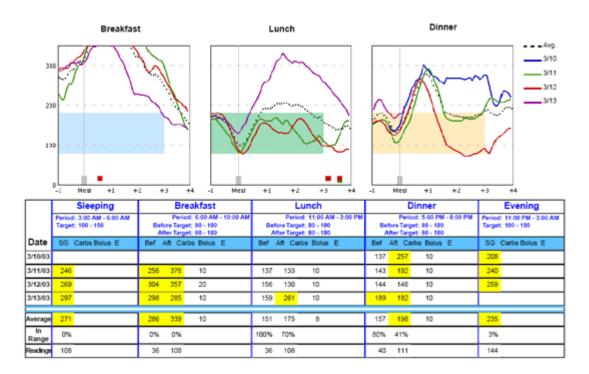
The table lists the following:

- Sensor glucose readings for each day in that time period (including before and after meals).
- Carbohydrate intake for each day in that time period.
- Bolus insulin delivered each day in that time period.
- Events that may affect sensor readings, such as exercise, an infusion set change or pump suspension.

At the bottom of the tables, you will see a summary of the entire period. This includes the average sensor glucose reading over all days for each time period, the percent of sensor glucose readings over the days that were within your target range, and the total number of sensor glucose readings that were taken for all days for each time period.

Compare table to tracings

Create both a Sensor Overlay by Meal and a Sensor Weekly Logbook report for the same period. Use the tracings at the top of the Sensor Overlay by Meal report to spot trends and also the days when something very different happened. Use the table of the Sensor Weekly Logbook to see the details for what was going on during these trends and differences.



The gray vertical bar for each meal period represents the first meal marker that occurs that day during the meal period. A meal marker is defined by either a Capture Event in your Guardian REAL-Time Monitor, or a Bolus Wizard event with a carbohydrate entry in your pump. Meal periods are set in the Advanced Intraday Periods Preferences section on the Preferences screen.

Sensor Overlay by Meal report

Use this report to keep your glucose in range after eating.

You choose up to seven days of glucose tracings you want to see. This report layers the tracings on top of each other so you can compare the days to each other in time blocks associated with Breakfast, Lunch and Dinner. Each day has a different color tracing so you can tell them apart.

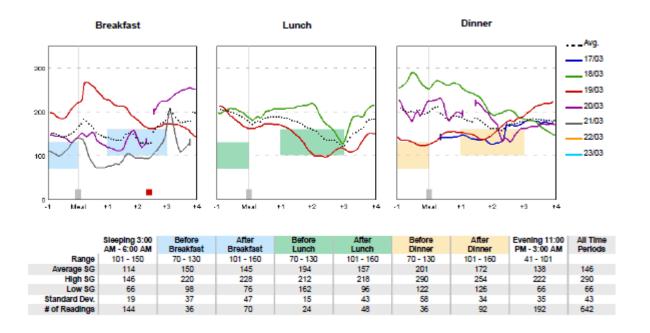
Averages and totals across all days in the report are displayed in tables for each meal, evening and sleep time period. In addition, pie charts show the duration of time above, below and within target range for each time period.

The time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. See *Guidelines for setting Advanced Intraday Periods on page 81* for more information.

Patterns and differences

Check the Overlay by Meal Event graphs at the top of the report. They show the sensor glucose tracings for each day during time periods associated with meals. You determine the length of time shown for each meal period. You also set the range of time for post-meal analysis, depending on when in the time period the meal falls. These settings are made in Advanced Intraday Periods Preferences section on the Preferences screen.

Also look at the table of totals and averages below the graphs. See if you can spot trends across the days. Do you see any big differences on certain days?



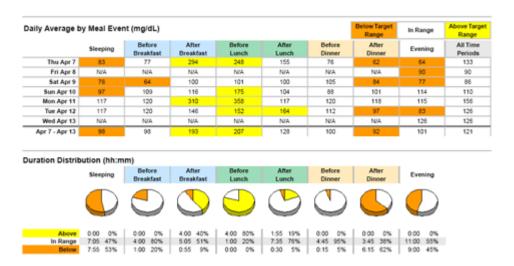
What it means

Review the Average, High and Low sensor glucose listed in the table for each time period associated with meals. You might see patterns of fluctuating readings, such as a high fasting glucose that goes higher still after a meal and then drops or high glucose after dinner followed by a drop. These patterns may indicate the need to better match your food and insulin. Discuss your basal and bolus amounts with your healthcare provider.

Also review your glucose readings after each meal for a particular day, and compare them for the same meal on another day. If you see significantly different glucose readings for the same meals on these days, try to determine what you were doing differently at this time on those days.

Averages and distribution

Check the Daily Average by Meal Event table and the pie charts in the Duration Distribution section. Do you see a lot of yellow or orange?



What it means

Yellow on this table or on the pie charts indicates sensor glucose readings that are above your target range. Orange indicates readings below your target range. White on the chart represents the number of readings that were within target. If you are seeing a lot of yellow or orange, discuss your food and insulin matching with your healthcare provider.

Data Export (CSV)

You can export your report data as a CSV (comma separated values) file for further analysis.

NOTE: The availability of the Data Export Report depends on the configuration of your software.

- 1 Open the Reports screen.
- 2 From the list of reports on the left, click **Data Export (CSV)**.

- 3 Select the date range by clicking on the Calendar icon. From the calendar, click on the desired Start Date and End Date. Alternatively, you can type in the Start Date and End Date within the text box.
- **4** Click the **Go** button.
- **5** A File Download window appears. Click **Open** to open the CSV file in Microsoft[®] Excel. Click **Save** to save the CSV file in a specific location.

Compliance report

The Compliance report displays up to 52 weeks of data. It provides an overview of many daily and weekly averages, such as average sensor glucose values, average daily number of hypoglycemic and hyperglycemic events, and information about insulin usage.

The graphs in the Compliance report all follow a set of conventions:

- The 52 weeks are represented in vertical columns across each graph.
- The date of the last upload is shown at the top of each graph. This is always the last actual upload date, even if the year shown on the report is earlier than the last upload (for example, a prior year).
- At the top right corner above each graph, a statistical average is shown. The value represented by this statistic, such as average sensor glucose, average number of boluses, etc. is different for each graph.
- The date range at the top right corner above each graph represents the dates used to calculate the average shown beneath it. The vertical dashed lines in the graph also represent the date range you are using for the average. This date range is based on the number of recent weeks that you specify in the Compliance Report Preferences for the **Number of weeks in Averages**.
- Across the top of each graph, statistical information is displayed for each week, such as totals, percentages, or averages for each week. If the information corresponds to an element in the graph, it is shown in the same color, such as green or blue.
- Across the bottom of each graph, the black markers represent device uploads.

Compliance Report Preferences

There are several preferences that you must specify for this report. These preferences are in the Preferences screen (for details, see *Changing your Preferences on page 81*). These Compliance Report Preferences apply to all of the graphs in the Compliance report.

Compliance Report Preferences		
Study Start Date	01/01/2005	
Sensor Wear Times	12:00 AM 💌 _	12:00 AM 💌
AUC Thresholds	2.0 (Lower)	25.0 (Upper)
Sensor Wear Threshold	80 %	
Number of weeks in Averages	8	

- **Study Start Date**: This setting determines the starting point of the 52-week period displayed in the report.
- **Sensor Wear Times**: Specifies what time period determines a day of sensor wear for the Weekly Mean Sensor graph. Sensor data outside of this time period will not be used in the graph.
- **AUC Thresholds**: The upper and lower AUC threshold settings appear as red lines on the Weekly Hypoglycemic/Hyperglycemic Average Area Under the Curve graph.
- **Sensor Wear Threshold**: If the percentage of sensor wear is less than the Sensor Wear Threshold setting, the number of days and percentage are shown in red across the top of the Weekly Mean Sensor graph.
- **Number of weeks in Averages**: This setting determines the date range (entered as the number of recent weeks) used to calculate the averages shown at the top right corner on each graph. Only the most recent weeks of available data are included in the average.

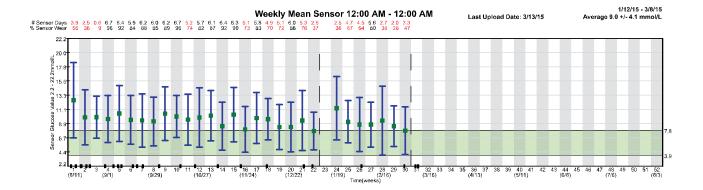
Weekly Mean Sensor graph

The Weekly Mean Sensor Glucose graph provides a weekly summary of how well glucose was controlled (including averages and standard deviations) over the time period. To specify what time period determines a day, you set the **Sensor Wear Times** in the Compliance Report Preferences. Sensor data outside of that time period will not be used in the graph. For details about how to set preferences, see *Changing your Preferences on page 81*.

The numbers that run along the top of the graph, and the markers within the graph, represent:

- # Sensor Days: the number of days that the sensor was worn for that given week.
- **Sensor Wear:** the weekly percentage that the person wore the sensor.
- Weekly average sensor glucose values. These are shown as green squares on the graph.

• Standard deviation values. These are shown as blue bars on the graph.



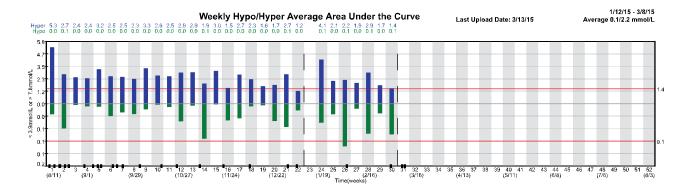
For each week, the number of days, and the percentage that the person wore the sensor, is displayed across the top of the graph. If the percentage of sensor wear is less than the **Sensor Wear Threshold** setting (in the Compliance Report Preferences), the number of days and percentage are shown in red. For details about how to change preferences, see *Changing your Preferences on page 81*.

The solid green horizontal bar that runs across the graph represents the glucose target range that was selected in the Preferences screen. Ideally, you should mostly be in your target range. If you are not, check the modal day report for a given week. Find out what date or time of the week you tend to be out of range. Use this graph to see whether the trend of the average glucose sensor value is going down over time, and whether the fluctuation of your average glucose sensor value is getting smaller over time.

Weekly Hypoglycemic/Hyperglycemic Average Area Under the Curve graph

The Weekly Hypoglycemic/Hyperglycemic Average AUC graph displays weekly mean values for hypoglycemic and hyperglycemic events that were under the curve for a 24 hour period. It is designed to assist you in seeing changes in hypoglycemia and hyperglycemia events over long periods of time. The numbers that run along the top of the graph represent:

- **Hyper (blue bars):** hyperglycemic AUC averages.
- Hypo (green bars): hypoglycemic AUC averages.



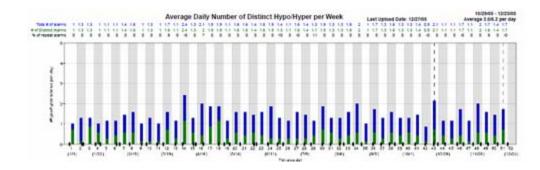
The graph also shows red lines representing the lower and upper **AUC Thresholds** values that you have set in the Preferences screen, under Compliance Report Preferences. For details about setting preferences, see *Changing your Preferences on page 81*.

Area Under the Curve (AUC) displays the average time and severity of excursions outside of the Blood Glucose target range. Ideally, you want to see the number of Hyperglycemic AUC decrease over time. Hypoglycemic AUC may increase over time, and eventually decrease as your therapy allows you to have tighter control. The 52-week representation of Hypoglycemic and Hyperglycemic AUC displays aggressiveness of your therapy and how consistently you maintain glucose control over time.

Average Daily Number of Distinct Hypo/Hyper per Week graph

The Average Daily Number of Distinct Hypo/Hyper per week graph displays the average number of distinct alarms that occurred weekly. The numbers that run along the top of the graph represent:

- **Total # of alarms (blue bars):** each number/bar represents the total number of alarms that occurred during that given week.
- # of Distinct alarms (green bars): each number/bar represents the total number of distinct alarms that occurred during that given week.
- % of repeat alarms: identifies the percentage of repeat alarms.



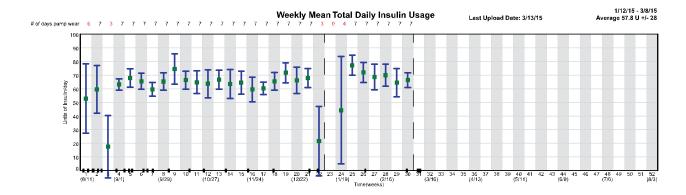
The Hypo/hyper alarms per day range will vary from patient to patient. The range is determined by the number of distinct alarms that the patient has.

Ideally, your graph should show a small percentage of repeat alarms, which means that you were able to respond with appropriate action to an alarm event when it occurs. If you see a high percentage of repeat alarms, check the device settings report to find out if the settings are appropriate. Use this graph to see whether the trend of the average total number of distinct alarms is going down, and the percentage of repeat alarms is reduced over time, to assess whether you are taking advantage of continuous glucose monitoring.

Weekly Mean Total Daily Insulin Usage graph

This graph displays the weekly average of the amount of insulin delivered by the pump per day. The numbers that run across the top of the graph represent:

- # Days of Pump Wear: displays the number of days that the sensor was worn for that given week.
- Green squares on the graph: the weekly average number of units of insulin used.
- Blue bars on the graph: the standard deviation values.



If the number of days that the pump was worn in any given week is less than seven, this number is shown in red above the graph. A day of pump wear is determined by any amount of basal insulin delivered that day.

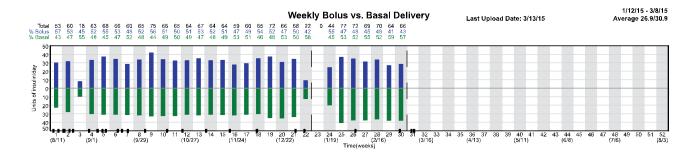
Ideally, you will achieve tighter glucose control when you are using the pump continuously. Therefore, you should see seven days of pump wear. This graph also displays the trend information about your insulin usage.

Weekly Bolus vs. Basal Delivery graph

The Weekly Bolus vs. Basal Delivery graph is designed to assist you in comparing the weekly percentage of bolus versus basal deliveries.

The numbers that run along the top of the graph, and the markers within the graph, represent:

- **Total:** the weekly average of total insulin units delivered.
- % Bolus (blue bars): the percentage of total insulin delivered as boluses.
- % Basal (green bars): the percentage of total insulin delivered as basal insulin.



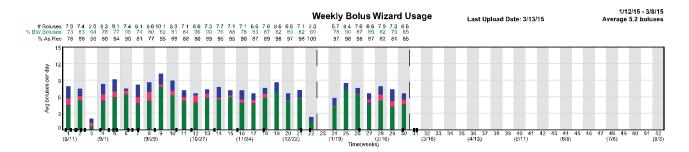
Ideally, you will achieve a tighter glucose control when your basal to bolus ratio is optimized. If your glucose level is out of target range, check the Device Settings report to find out if the basal to bolus ratio settings are appropriate for each time period during the day. You may also want to re-evaluate overnight insulin requirement and post-prandial insulin settings. This graph also displays the trend information about your bolus vs. basal insulin usage. You may see bolus insulin use increased early in your therapy, but gradually decreased over time when optimal basal insulin use is achieved.

Weekly Bolus Wizard Usage graph

The Weekly Bolus Wizard Usage graph displays the weekly average of boluses delivered and the average number of boluses delivered using the Bolus Wizard. It is designed to assist you in summarizing the change in Bolus Wizard usage during the therapy duration.

The graph provides you with a summary of the following for the 52-week period:

- # Boluses: the weekly average of the total number of boluses delivered per day.
- % BW Boluses: the percentage of total boluses that were delivered using the Bolus Wizard.
- **% As Rec:** the percentage of boluses delivered as recommended by the Bolus Wizard.
- Blue bar: Manual boluses (Bolus Wizard was not used).
- **Pink bar:** Boluses delivered with Bolus Wizard where less insulin was delivered than was recommended by the Bolus Wizard.
- **Purple bar:** Boluses delivered with Bolus Wizard where more insulin was delivered than was recommended by the Bolus Wizard.
- **Green bar:** Boluses delivered with Bolus Wizard in the exact amount recommended by the Bolus Wizard.

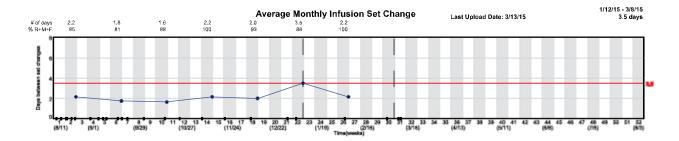


Ideally, you should see all boluses delivered as recommended using Bolus Wizard. This graph also shows the trend of Bolus Wizard usage. If you see less than one hundred percent of boluses delivered using Bolus Wizard or less than one hundred percent of boluses not delivered as recommended, check the device settings report to find out if the basal to bolus ratio and the carbohydrate to insulin ratio are appropriate.

Average Monthly Infusion Set Change graph

This graph helps you see whether the infusion set has been changed regularly. There should be about 2 to 3 days between infusion set changes, depending on the type of infusion set. The graph provides you with a summary of the following for the 52-week period:

- Average number of days between infusion set changes. These are shown as dots on the
 graph for each four-week period. The average is calculated by taking the number of infusion
 set changes in four weeks, and dividing it by 28 days. The dot is plotted on the second week
 of each period.
- # of days: the average number of days between set changes for the four-week period.
- **R+M+F:** the percentage of infusion set changes in the four-week period that consisted of a rewind, manual prime, and fixed prime on the pump. These pump events indicate a proper infusion set change.



Ideally, you should see the average number of days between infusion set change below the horizontal target line at 3.5. You should also see one hundred percent of infusion set changes with a rewind, manual prime and fixed prime as recommended. This graph also shows the trend in infusion set changes, which may also indicate the trend and effectiveness of pump usage.

Adherence report

The Adherence Report presents data from a patient's insulin pump, blood glucose meter(s), and glucose sensor (if used). It can provide insight into the patient's glucose management behavior. The Adherence Report summarizes up to two weeks of data. The sections of the report are described below.

Date column

The Partial Day symbol may appear in this column to indicate that only partial data for the day was obtained. This can occur when a time change was made on the pump or Guardian.

Glucose measurements

The Glucose Measurements section contains columns for the number of meter readings and the duration of glucose sensor use.

Bolus events

The Bolus Events section consists of 5 columns that present total numbers for the following: (1) manual boluses, (2) Bolus Wizard events, (3) Bolus Wizard boluses with a food component, (4) Bolus Wizard boluses with a correction component, and (5) Bolus Wizard calculator overrides.

Priming events/Fill events

Depending on your pump model, one of the following events will be summarized in the Adherence report to match your pump:

- **Priming events:** Includes columns for the number of insulin pump rewinds, the number of fixed primes and fixed primes volumes, manual primes, and manual prime volumes.
- **Fill events:** Includes columns for the number of insulin pump rewinds, the number of cannula fills and cannula fill amounts, tubing fills, and tubing fill amounts.

Pump suspends

The last column in the table shows the duration (hours and minutes) for which the insulin pump was suspended. The Automatic Glucose Suspend symbol may appear in this column. Depending on the features supported by the pump, the Automatic Glucose Suspend symbol could indicate a Threshold Suspend, a Low Glucose Suspend, a Suspend Before Low, or a Suspend On Low. The symbol means that at least one suspend was started on a given day. If more than one suspend was started on a given day, the number per day will also be displayed next to the symbol.

Summary row

The totals or daily averages are listed at the bottom of each column.

Special issues affecting report results

Report results are sometimes affected by certain circumstances, such as overlapping device uploads, or a change to the time setting on your device. The following topics discuss special system reporting conditions.

Device Settings report date and time

This table shows how the system uses date and time you select for Device Settings reports. It shows how that date and time compared to the upload ones affects report data:

Selected versus Upload date and time	What is reported
You select a date and time that falls before the first recorded device upload, or after the last recorded upload.	The system reports the settings of the nearest device upload to the date and time you selected. It uses the upload it reports as the date and time of the report. It also notes the date and time you selected, and says settings not available for that time and date.
You select a date and time that falls between two overlapping device uploads on record.	The system creates a device settings report by starting with the first upload. It then adds all detected changes to the settings up to the date and time you requested. It reports your requested date and time as the date and time of the report.
You select a date and time that falls between two non-overlapping device uploads on record.	The system reports the settings of the later upload. It reports the date and time of the later upload as the date and time of the report.

Changing device time affects report results

Keep in mind, if you change the time setting on your device, it may affect report results. There may be a short period of time in which report results show doubled-up or gapped events.

Determine if this corresponds to the approximate period in which you made a time setting change to your device. If so, you can ignore an anomaly in the report results.

You should not be using CareLink reports to help make adjustments to your diabetes therapy based on a short period. The reports are designed to show more longer term trending.

My Info screen

Use the My Info screen to view or change the information you provided during enrollment. You can make changes to reflect a new address, to change your security question, and so forth. You can also change your password from this screen.

Opening the My Info Screen

To open the My Info screen:

- **1** Make sure you are logged in.
- 2 Click the My Info hyperlink.
 The My Info screen displays.

Changing My Info

To change the information in My Info:

- 1 Edit the fields on the My Info screen.
- When you are ready to submit the changes you have made, and have completed all required fields, click **Update**.

A message displays, confirming that the system database was successfully updated with your new personal information.

Changing your password

If you want to change your password, click the **My Info** hyperlink and take the following steps:

1 Click the **Change password** hyperlink on the My Info screen.

The Change Password screen is displayed.

- 2 In the Current Password field, type in the password you are now using.
- 3 In the New Password field, type the password you would like to start using (from 6 to 20 characters).
- **4** Re-type your new password in the Confirm Password field.
- 5 Click Change.

A message displays, confirming that your new password has been saved to the system's database.

NOTE: If you change your mind about updating your password, click Cancel. This clears your changes and goes back to your previous password.

Preferences screen

You can use the Preferences screen to view or change information that affects how the data in reports is generated. It also affects how information is displayed on the system screens. For example, the Time Format you choose determines how time is displayed in logbook entries and report graphs.

To open the Preferences screen, click the **Preferences** hyperlink.

For more details about the Compliance report preferences, see *Compliance Report Preferences on page 71*.

Changing your Preferences

- 1 Make your changes to the information in the fields on this screen.
 - Some of the fields have question-mark buttons, ②, next to them. Click the question mark to bring up an information window about how to fill in the field.
- 2 Make sure all of the information on the screen is set the way you want.
- **3** Click the **Update** button at the bottom of the screen.
 - A message displays, verifying that the system's database has been successfully updated with your changes.

Guidelines for setting Advanced Intraday Periods

These fields allow you to enter all time periods and target ranges used by the Sensor Overlay by Meal Report and Sensor Weekly Logbook Report. It is important to set these to closely match your eating and sleeping habits.

The SG Target Ranges specify a Before Meal and After Meal target range for each of the three meal periods. The overnight periods of Evening and Sleeping contain a single target range. You may enter a low value and a high value for a target range according to the following rules.

- If you have selected mg/dL as your BG units:
 - The format for entering your target low value is xxx (for example, 70). The range can be from 40 to the Target Range High 2.
 - The format for entering your target high value is xxx (for example, 140). The range can be from 60 to 300.
- If you have selected mmol/L as your BG units:
 - The format for entering your target low value is xx.x (for example, 3.9). The range can be from 2.2 to the Target Range High 0.1.
 - The format for entering your target high value is xx.x (for example, 7.8). The range can be from 3.3 to 16.6.

You may set the Time Periods in any way that makes sense to you so long as they remain in chronological order. The duration of each period must be at least 0.5 hours. The end time of a period need not be the same as the start time of the next period, so gaps between periods may exist. The one exception to this rule is that the end of Evening must be the same as the start of Sleeping.

The Post-Meal Analysis window can extend up to 4.0 hours after a meal event. The duration of the analysis window must be at least 0.5 hours. The start time can range from 0.0 to 3.5 and the end time can range from 0.5 to 4.0.

Glossary

A1C - Glycosylated hemoglobin

- **A1C Test** Hemoglobin A1C test, used to interpret blood glucose level over a period of time.
- **Area Under the Curve (AUC)** Indicates the level of glucose control that is being reported by the sensor. It compliments excursion data. Excursion data indicates the frequency of highs or lows. AUC indicates the magnitude of events by showing how far out of control and for how long.
- **Audio bolus** The pump can be programmed so the user hears a beep when they select a bolus insulin amount (0.5 or 1.0 units) to be delivered. This is useful for situations when it is difficult to see the buttons on the pump.
- **Authenticate** A means by which a user verifies their identity by use of a username and password combination when entering a Web site area that contains sensitive patient information or data.
- **Auto Mode** Auto Mode is an insulin delivery feature that automatically controls basal insulin delivery to regulate blood glucose (BG) levels to a target sensor glucose (SG) value.
- **Basal insulin** An amount of insulin delivered automatically by an insulin pump based on preprogrammed profiles and personalized rates set in the pump. The pump delivers a daily pattern of insulin that typically covers "background" insulin needs during periods of fasting (i.e., overnight and between meals).
- **Basal patterns** The user can program up to three different basal rate patterns into their pump for the delivery of basal insulin: Standard, A, and B. For each pattern there is the option of setting up to 48 basal rates.
- **Basal profile** A basal rate with a start and stop time. The user can program several different profiles into their pump, each with a different basal rate, during a 24-hour period of time to achieve better glucose control.
- **Basal rate** The pump setting that provides a continuous infusion of insulin to keep the blood glucose stable between meals and during the night. Basal insulin mimics pancreatic insulin delivery —which meets all the body's non-food related insulin needs.
- **BG** Blood Glucose
- **Bolus insulin** A dose of insulin given to cover an expected rise in blood glucose (such as the rise after a meal) or to lower a high blood glucose down to target range.
- **Cal Reminder** The pump will trigger a Meter BG By HH:MM alert automatically every 12 hours, signaling that the current calibration value is no longer valid. The value of the Cal Reminder is the amount of time before the current calibration value expires by which the user wants to be

- reminded to calibrate. For example, if the Cal Reminder is set to 2 hours, the Meter BG By HH:MM alert will occur 2 hours before calibration is required.
- **Carb ratio (carbohydrate ratio)** Used when counting carbohydrates in grams. The amount of carbohydrates covered by one unit of insulin. (Also see exch ratio.)
- **Carb units** The food entry when using the Bolus Wizard feature. Entered as (carbohydrate) grams or exchanges.
- **CGM** Abbreviation for continuous glucose monitoring. See *continuous glucose monitoring*.
- **CH** Carbohydrate
- **ComLink** A radio frequency (RF) transceiver device used to download MiniMed series insulin pump or Guardian REAL-Time Monitor data to the computer.
- **Com-Station** A device used to download MiniMed 508 pump and pass-through third-party meter data to the computer.
- **Continuous glucose monitoring (CGM)** A monitoring tool that uses a glucose sensor placed below the skin to continuously measure the amount of glucose in your interstitial fluid.
- **Correction bolus -** The amount of insulin needed to return a high blood glucose level back down to target range.
- **Correction bolus factor** How much 1.0 unit of insulin will lower your blood glucose. This factor is used to calculate a correction bolus amount when your blood sugar is high. (BG level) (BG target) = X. $X \div$ (correction bolus factor) = correction bolus amount
- **CSV (Comma Separated Values) file -** A common text file format that contains comma-delimited values. It can be compiled using any spreadsheet software to generate a database for statistical analysis.
- **Dual Wave® bolus -** Combination of a Normal bolus that is delivered immediately, then followed by a Square Wave bolus. The Square Wave portion is delivered evenly over a period of time.
- **Easy Bolus**[™] A feature that lets you deliver a Normal Bolus in preset increments using only audio or vibrate confirmation.
- **Exch ratio (exchange ratio)** Used when counting carbohydrates as exchanges. The amount of insulin required to cover one (1) carbohydrate exchange. (Also see carb ratio.)
- **Express bolus -** Method of delivery for any bolus type using the express bolus button on the pump.
- **Food bolus** A dose of insulin given to cover the expected rise in blood glucose that occurs after eating.
- **HbA1c** Glycosylated hemoglobin
- **HbA1c Test** Hemoglobin A1C test, used to interpret blood glucose level over a period of time.
- **High Glucose** The pump will alarm if the sensor indicates that the user's sensor glucose is at or above this value. You have the option to turn this feature on or off.
- **Hyperglycemic** Elevated blood glucose as seen by monitoring blood glucose levels with any or all of the following symptoms: nausea, vomiting, blurred vision, headache, gastric distress, frequent urination of large amounts, and lethargy.
- **Hypoglycemic** Low blood glucose as seen by monitoring blood glucose levels, with or without any or all of the following symptoms: excessive hunger, shaking or tremors, perspiration, "dancing" visions, headache, blurred speech, sudden mood swings or personality change.
- **Infusion set** The apparatus used for inserting and securing a cannula below the skin and transporting insulin to the insertion site via tubing from the pump.
- **Insulin concentration** The concentration or type of insulin the doctor has prescribed for the user. This affects the rate of insulin the pump delivers. If the user's insulin concentration changes, the basal profiles, and the maximum basal and bolus rates must be reprogrammed in the pump.

- **Insulin sensitivity** The amount that your blood glucose (BG) level is reduced by one unit of insulin. (Bolus Wizard data).
- **Ketone test** Ketone is a waste product that is produced when the body is forced to burn body fat instead of glucose for energy. It may be a sign of lack of insulin in the body. The Ketone test measures the amount of ketone concentrated in the blood or urine.
- **Link** To turn on and set up the meter option that allows the pump to receive BG readings from the linked meter.
- **Low Glucose** The pump will alarm if the sensor indicates that the user's sensor glucose is at or below this value. You have the option to turn this feature on or off.
- **Low Glucose Suspend -** This feature is set up to stop insulin delivery when your sensor glucose reaches or drops below your Low Suspend limit.
- **Low reservoir warning** Programmable warning that notifies you with an alert when either a specified number of units remain in the reservoir of your pump, or a specified amount of time remains before the reservoir will be empty.
- **Manual bolus** Optional item available in the BOLUS MENU when Bolus Wizard is active. One method of programming a bolus without Bolus Wizard.
- **Manual Suspend** Function that stops all insulin deliveries. Any current bolus and/or prime deliveries are canceled. The basal delivery is paused until you restart the basal insulin delivery yourself.
- **Max basal insulin -** The maximum amount of basal insulin that the pump will deliver at one time. (set by the user).
- **Max bolus** The maximum amount of bolus insulin that the pump will deliver at one time. (set by the user).
- **Mean Absolute Difference** % **(MAD %)** Represents the level of accuracy in calibration of the sensor to BG meter readings. The lower this number, the greater the calibration accuracy. MAD% is calculated by taking the difference between closely occurring pairs of sensor glucose and BG meter readings, dividing by the BG meter reading and then averaging across all pairs.
- **Meter -** A medical device for determining the approximate concentration of glucose in the blood. A small drop of blood is placed on a disposable test strip, which the meter reads and uses to calculate the blood glucose level. The meter then displays the level in mg/dL or mmol/L.
- **Normal bolus -** An immediate delivery of a specified unit amount of insulin.
- **Now -** The "Normal" portion of a Dual Wave bolus. The now portion delivers immediately and is then followed by the Square portion.
- **Pattern feature** Extended pump feature that allows you to program optional basals (Pattern A, Pattern B) that support activities that are not a part of your day-to-day routine, but are usual in your lifestyle. Such activities could be a sport that you do once a week or a change in your sleep pattern over the weekend.
- **Pattern, standard -** Your normal basal that supports your usual day-to-day activity. When the Patterns feature is off, the pump uses your standard (basal) pattern.
- **RF** Radio frequency (RF).
- **SmartGuard™** SmartGuard refers to all automated insulin delivery and suspension actions by Medtronic sensor integrated insulin pump systems.
- Square Wave® bolus Bolus delivered evenly over a specified time period (30 minutes to 8 hours).
- **Square Wave portion -** (Sq) The second part of a Dual Wave bolus. The Square Wave portion delivers evenly over a period of time after the NOW portion delivers.
- **Step** Measurement of insulin that you set and use for Easy Bolus delivery.

Suspend before low - A feature that suspends insulin delivery when the sensor predicts sensor glucose value is approaching your low limit. Refer to your insulin pump user guide for the detailed information of this SmartGuard feature.

Suspend on low - A feature that temporarily suspends insulin delivery when your sensor glucose value reaches or falls below your set low limit. Refer to your insulin pump user guide for the detailed information of this SmartGuard feature.

Temp - Temporary

Temp basal (tmp basal) - Temporary one-time basal insulin with a specified amount and duration. Used to support insulin needs for special activities or conditions that are not part of the normal daily routine.

Threshold Suspend - A feature that temporarily suspends insulin delivery when your sensor glucose value reaches or falls below your set Threshold Suspend limit. Refer to your insulin pump user guide for the detailed information of this SmartGuard feature.

Transmtr ID - The serial number of the transmitter currently in use.

Upload - The process of transferring diabetes device data to the CareLink server.

User - The registered person.

μL - micro liter

Index

Adding a logbook entry 24 Carbohydrates 24 Exercise 25 HbA1c 25 Infusion Set Change 25 Other 26 Sensor Insertion 26 Sensor Removal 26 Urine Ketones 25 Adherence report, understanding 76	Computer changing date and time, Mac 6 changing date and time, Windows 6 connecting devices to computer cables 16 optional components 16 Connecting devices to your computer 15 Connecting meters to your computer 15 Connecting pumps to your computer 15 Contraindications 2 Conventions, reports 41
Back button Internet Explorer secure setting 10 Safari privacy setting 10 Bayer USB driver, installing 20 BD USB interface cable driver, installing 21 BG target range, reports 37	Daily Summary report, understanding 48 Data Export (CSV) report 69 Data gathered during uploads meter 12 monitor 12 pump 11 Data Table report, understanding 56 Date and time synchronizing 5 changing device date & time 6 changing Mac date & time 6 changing Windows date & time 6
cables for connecting devices to computer serial 16 USB 16 CareLink USB driver, installing 21 Changing device date and time 6, 78 inaccurate results 78 Mac date and time 6 My Info screen 79 Preferences 81 Windows date and time 6 your password 79 ComLink 16 Compliance report, understanding 70	Deleting a logbook entry 27 Device data, uploading verifying an upload 19 Device Settings report understanding 64 Device settings report results 77 effects of date and time selection 77 Device time changing inaccurate results 78 Devices changing date and time 6 connecting to your computer 15 uploading 16

devices connecting to computer 16 Displaying logbook entries for a specific date 24 Downloading the Java Plug-in 19 Downloading the SerialPort package file 20 E Editing a logbook entry 26 Exporting data 69 G	Infusion Set Change 25 Other 26 Sensor Insertion 26 Sensor Removal 26 Urine Ketones 25 deleting 27 displaying for a specific date 24 editing 26 Logbook screen adding a logbook entry 24, 25, 26 Carbohydrates 24 Exercise 25
Generating a report 37, 38	HbA1c 25 Infusion Set Change 25 Other 26 Sensor Insertion 26
Н	Sensor Removal 26 Urine Ketones 25
hardware connections cables 16 computer connections 16 optional components 16 USB 16 HelpLine, contacting 4 Hypo threshold, reports 37	deleting a logbook entry 27 displaying entries for a specific date 24 editing a logbook entry 26 opening 23 overview 23
Inaccurate report results changing device time 78 Indications for use 2 Installing the Bayer USB driver 20 Installing the BD USB interface cable driver 21 Installing the CareLink USB driver 21 Internet Explorer back button 10 secure setting 10 secure browser setting 10 upgrading 9	Mac setup, meter uploads 6 Meter data gathered from uploads 12 Meters changing date and time 6 connecting to your computer 15 uploading data 16 verifying an upload 19 meters connecting to computer 16 Modal Day Hourly report, understanding 59 Modal Day Periods report, understanding 56 Monitor data gathered from uploads 12 My Info screen changing 79 changing your password 79 opening 79
Java Plug-in, downloading 19 JavaScript, enabling 9	0
L Logbook overview 2 Logbook Diary report 55 Logbook entries adding 24, 25, 26 Carbohydrates 24 Exercise 25 HbA1c 25	Opening Logbook screen 23 My Info screen 79 Preferences screen 81 Reports screen 36 Upload screen 14 optional devices for communicating with computer 16 Other logbook entry 26

Overview logbook 2 reports 1 secure access 2	Modal Day Periods report 56 Quick View Summary report 42 Sensor Daily Overlay report 64 Sensor Overlay by Meal report 68 Sensor Weekly Logbook report 66 Trends Summary report 60 required browser settings
Password changing 79	enabling JavaScript 9 TLS settings 9
PC connecting devices 16	S
Preferences, reports 37	
Preferences screen	Safari
changing 81 opening 81	secure browser setting 10 Safety 2
overview 81	Secure access
private browsing setting for Safari 10	overview 2
Pump data gathered from uploads 11 Pumps	Secure browser setting for Internet Explorer 10 Security warning on the Upload screen 14
changing date and time 6	Sensor Daily Overlay report, understanding 64
connecting to your computer 15	Sensor Insertion logbook entry 26
uploading data 16	Sensor Overlay by Meal report, understanding 68
verifying an upload 19 pumps	Sensor Removal logbook entry 26
connecting to computer 16	Sensor Weekly Logbook report,
•	understanding 66 serial connections 16
Q	SerialPort package file, downloading 20
Quick View Summary report, understanding 42	Synchronizing date and time of computer and devices 5
R	changing device date & time 6 changing Mac date & time 6 changing Windows date & time 6
Report results	
special issues 77	Т
Reports conventions 41	
generating 37, 38	Time and date synchronizing 5 changing device date & time 6
overview 1	changing Mac date & time 6
setting preferences 37 special issues affecting results 77	changing Windows date & time 6
Reports Screen 55	Transport Layer Security (TLS)
Reports screen	required browser settings 9 Trends Summary report, understanding 60
generating a report 37, 38	Trends Sammary report, anderstanding 60
opening 36 overview 29	U
special issues affecting results 77	
Understanding This Report 41, 42, 48, 56,	Understanding This Report
59, 60, 64, 66, 68, 69, 70, 76 Adherence report 76	Adherence report 76 Compliance report 70
Compliance report 70	Daily Summary report 48
Daily Summary report 48	Data Export (CSV) report 69
Data Export (CSV) report 69	Data Table report 56
Data Table report 56 Device Settings report 64	Device Settings report 64 key information about reports 41
Modal Day Hourly report 59	Modal Day Hourly report 59

Modal Day Periods report 56 Quick View Summary report 42 Sensor Daily Overlay report 64 Sensor Overlay by Meal report 68 Sensor Weekly Logbook report 66 Trends Summary report 60 upgrading Internet Explorer 9 Upload screen connecting devices to your computer 15 downloading the Java Plug-in 19 downloading the SerialPort package file 20 installing the Bayer USB driver 20 installing the BD USB interface cable driver 21 installing the CareLink USB driver 21 opening 14 overview 11 security warning 14 uploading device data 16, 19 verifying an upload 19 Uploading device data 16 verifying an upload 19 USB connections 16 User safety contraindications 2 indications for use 2 warnings 2



Verifying a device upload 19



Warnings 2