

# Medtronic

## CareLink™ iPro™

Therapy Management Software for Diabetes

User Guide

# Medtronic



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# Introduction

## **Welcome to CareLink® iPro® Therapy Management Software for Diabetes**

Thank you for your trust in Medtronic products and services.

- This user guide provides the information that you need for setting up and using the CareLink iPro Therapy Management Software for Diabetes.
- You will find a page like this at the beginning of each chapter. This page gives you a basic overview of that chapter, and the steps you will take to complete each task.

# CareLink iPro Therapy Management Software

CareLink iPro Therapy Management Software for Diabetes, MMT-7340 (CareLink iPro software), is a Web-based system designed to generate reports and store data.

The iPro2 digital recorder, MMT-7741 (iPro2 recorder), collects and stores data from a glucose sensor. The data can be uploaded into CareLink iPro Therapy Management Software for Diabetes. The iPro2 recorder can collect up to seven 24 hour periods of data, after which it shuts off automatically.

## Intended use

CareLink iPro software is intended for use by healthcare professionals, for the purpose of analyzing and displaying uploaded data. The information may allow identification of patterns of glucose-level excursions above and below a desired range, facilitating therapy adjustments, which may minimize these excursions.

## Contraindications

None known.

## Uploading Meter Data

You can upload data to CareLink iPro software from a number of blood glucose meters. You will need a meter cable that is supplied by the meter manufacturer. Meter cables are not supplied as part of the iPro2 system. If you use a meter that is not compatible with CareLink iPro software, you can manually enter the BG meter readings into CareLink iPro software. You can find a list of compatible meters on [www.carelinkipro.com](http://www.carelinkipro.com).

## Computer system requirements

Computers running CareLink iPro software must have the following software installed.

- Operating system:
  - Microsoft® Windows® 7 Ultimate, 32-bit or 64-bit
  - Microsoft® Windows® 8 Enterprise, 32-bit or 64-bit, from the desktop only
  - Microsoft® Windows® 8.1 Enterprise, 32-bit or 64-bit, from the desktop only
  - Microsoft® Windows® 10 Home, 32-bit or 64-bit, from the desktop only
  - Mac OS® 10.10 (Yosemite)
  - Mac OS® 10.11 (El Capitan)
  - Mac OS® 10.12 (Sierra)
- Internet browser:

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**NOTE: On Windows 8 and 8.1, from the Start screen, click the Desktop tile and make sure you are viewing the desktop before you open your browser.**

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- On Windows only: Microsoft® Internet Explorer® 8, 9, 10, or 11, 32-bit or 64-bit
- Mozilla® Firefox® 38 or later
- On Mac OS only: Apple® Safari® 8, 9, or 10
- Adobe® Reader® 5.0 or greater
- Display: 1024x768 resolution (minimum)

Depending on the brand and model of blood glucose meter you have, you may need a serial (COM) port for uploader to communicate with the meter.

- (Windows only) USB device drivers for meters that use a USB cable to connect to the computer for uploading data. For more information, see the instructions provided by the meter manufacturer.

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**NOTE: Some meter manufacturers may not provide a USB device driver for uploading to Windows 7, 8, 8.1, and 10 (32-bit and 64-bit). If your computer is running one of these operating systems, you may need to use the meter's manufacturer's serial cable.**

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CareLink iPro software does not support USB uploads for all meters.

- (Mac OS only) Serial port driver for uploading blood glucose meters. For details, see [Setup for uploading your meter on Mac on page 15](#).

Computers running CareLink iPro software must also be compliant with IEC 60950-1 or an equivalent safety standard.

## Assistance



If you need help, contact one of the following resources:

Support	Contact information
24 Hour HelpLine, Advanced Software Support Monday through Friday, 5 a.m. to 5 p.m. (PST)	800 646 4633 818 576 5555
Medtronic Diabetes Website	<a href="http://www.medtronicdiabetes.com">www.medtronicdiabetes.com</a>

## One-time CareLink iPro software and computer setup

### Key Notes:

- Do not connect the Dock to the computer until specifically told to do so in this procedure. If you connect the Dock before the CareLink uploader application is installed, it may prevent the iPro2 Dock driver from installing properly.
- You may need to perform a setup task on each computer that will be used for uploading sensor data from an iPro2 recorder.
- Usernames for CareLink iPro software must be unique among all clinics in the system, not just your clinic.
- Choose at least two people to be administrative users. One of them should complete the CareLink iPro software setup for the clinic.

## Register clinic and create administrative user

When you access CareLink iPro software for the first time, you will be guided through a process to register your clinic and create an administrative user. The administrative user is the person who will create, add, and delete user accounts for the rest of the clinic's staff.



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**NOTE:** Initially choose one person to be the first administrator for your clinic, and register your clinic one time only using the Register Clinic link. After the initial registration, it is a good idea to give administrative privileges to at least two users to ensure administrative access at all times.

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**CAUTION:** Do not create more than one clinic account for your clinic. If each user registers another clinic, then the patient records will be divided into separate clinic accounts and will not be accessible to all users.

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- 1 On the computer, open your Internet browser and go to <http://www.carelinkipro.com>.

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**NOTE:** On Windows 8 and 8.1, from the Start screen, click the Desktop tile and make sure you are viewing the desktop before you open your browser.

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If you have any trouble accessing the CareLink iPro software, check your web browser settings to verify that JavaScript and Transport Layer Security 1.2 are enabled. See [Required Internet browser settings on page 13](#) for additional information. If you still cannot access the website, check with your network administrator to find out if your Internet access is restricted.

- 2 If necessary, click **Change country/language**, and follow the on-screen instructions.
- 3 Click the **Register Clinic** link near the bottom of the screen and follow the on-screen instructions.
- 4 When prompted, enter the identifying information for your clinic, and click **Continue**.

- 5 When prompted, enter the identifying information for your administrative user account (also known as Admin), and click **Continue**.



You will sign in with this Admin user account to create user accounts for other users at the clinic.

- 6 Click **Finish** to return to the Sign-in screen.

## Sign in

- 1 Go to <http://www.carelinkipro.com>. If you just registered the clinic, you will already be at this web site.
- 2 Enter your username and password, and click **Sign in**.

The Home tab for your clinic appears. The clinic name and clinic ID will be at the top of the screen. The clinic ID is randomly generated by the system. Your clinic's Patient List will be in the middle of the screen, showing one sample patient record. There will be no other patients listed until you have conducted studies using an iPro2 recorder.

If you want to sign out of CareLink iPro software, click **Sign out** near the top right corner of your screen.

## Create user accounts

Each staff member who might upload data from an iPro2 recorder or a blood glucose meter, enter Logbook data, review, or print reports, will need a CareLink iPro software user account.



Any user with administrative privileges, also known as an Admin user, can add and delete user accounts. An Admin user can also access a user account to change the password or other information in the user account.

It is a good idea to give administrative privileges to at least two users. Having two Admin users means that the clinic does not have to rely on only one person for things like setting up new user accounts, or removing users when they no longer need access. As staff changes at a clinic, make sure that two or more staff members have administrative privileges.

- 1 Get a list of names and email addresses for staff members who need CareLink iPro software user accounts.
- 2 In the Clinic Settings tab, click **Users**. The existing user accounts are displayed.  
If you are not logged in as an Admin user, you will not see the Users tab.
- 3 Click the **Create new user** button. The Create New User screen appears.
- 4 Enter the required information about the user.
- 5 If you want this user to have permission to manage user accounts, select the **Administrative Privileges** check box.

**Important:** Always make sure that at least two people have administrative privileges. If an Admin user leaves the clinic, add a new one.

- 6 Click **Save**.

---

**NOTE: Usernames for CareLink iPro software must be unique among all clinics in the system, not just your clinic. If the username you entered is not available, the system informs you that you must try a different username.**

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- 7 Make a note of the username and password so that you can provide them to the user. He or she will need this information to sign in and select a new password.  
Repeat this procedure for each user account that you need to create.

## Set clinic report settings

The Clinic Report Settings are the default settings for each new patient record. They are like a template for new patient records.



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**NOTE: Changing the Clinic Report Settings does not affect any existing patient studies or reports.**

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If a particular patient has unique needs, you will be able to override these settings later for individual patients as needed.

**1** Click the **Clinic Settings** tab. The Report Settings for the clinic are displayed.

If you do not see the **Clinic Settings** tab, click the **Home** tab. You should now see the **Clinic Settings** tab.

**2** In **Report Settings**, set the **General Report Settings** and the **Analysis Reports Settings**.

For more information about these settings, see the following two sections, or click the help icon  in CareLink iPro software for each section.

**3** When you are finished, click **Save**.

The clinic settings take effect for all new patients added to the system after you change the settings. Previously added patients and previously generated reports are not affected.

For more details about how to set different report settings for a particular patient, see [Patient Report Settings on page 30](#).

## General Report Settings

The General Report Settings determine how glucose and time information will be displayed in patient reports.

- **Glucose Target Range** fields: Select a glucose target range to use in the reports.
  - **For High value:** Enter the glucose measurement that is considered to be the upper limit of euglycemia (target) for this patient. The system uses the High value in reports to show the range that is above the euglycemic or glucose target range.
  - **For Low value:** Enter the glucose measurement that is considered to be the lower limit of euglycemia (target) for this patient. The system uses the Low value in reports to show the range that is below the euglycemic or glucose target range.
- **Extreme Glucose Range** fields: Select an extreme glucose range to use in the reports.
  - **For Extreme High:** Enter the glucose measurement that is considered to be extreme hyperglycemia for this patient. The system uses the Extreme High Glucose Range in reports to show the range that is above the high glucose range.
  - **For Extreme Low:** Enter the glucose measurement that is considered to be extreme hypoglycemia for this patient. The system uses the Extreme Low Glucose Range in reports to show the range that is below the low glucose range.
- **Glucose Units:** Select the appropriate units for reporting glucose amounts (mg/dL or mmol/L).
- **Time Display:** Select 12 hour or 24 hour time display format.

## Analysis Reports Settings

The Glucose Target Range fields specify a Before Meal and After Meal glucose 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 high value and low value for a target range according to the following rules.

- If you have selected mg/dL as the Glucose Units:
  - The format for entering the low value for the target range is xxx (for example, 123). The low value can range from at least 10 higher than the extreme low value to 140 mg/dL.
  - The format for entering the high value for the target range is xxx (for example, 123). The high value can range from 80 to 20 mg/dL lower than the extreme high value.
- If you have selected mmol/L as the Glucose Units:
  - The format for entering the low value for the target range is xx.x (for example, 12.3). The low value can range from at least 0.6 higher than the extreme low value to 7.8 mmol/L.
  - The format for entering the high value for the target range is xx.x (for example, 12.3). The high value can range from 4.4 to 1.1 mmol/L lower than the extreme high value.

Time periods are used to identify which meal to associate with each meal marker. For example, if the breakfast time period is set from 6:00 a.m. to 10:00 a.m. and lunch is set from 10:00 a.m. to 3:00 p.m., then a meal marker entered for 9:30 a.m. would be interpreted as a breakfast marker, and a meal marker entered for 12:30 p.m. would be interpreted as a lunch marker.

The duration of each period must be at least 0.5 hours. The end time of a period can be different from 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.

A post-meal analysis is used to generate statistics from data collected following a meal. 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.

## Setup computers for uploading data and reviewing reports

CareLink iPro software needs the uploader application installed to upload patients data from the iPro2 recorder. You also need Adobe Reader installed in order to view reports.



## Before you begin, please note:

- Some operating systems may require that you have administrative privileges for each computer in the office that will upload the installer and meters. Ask a user with administrative privileges, such as your network administrator, to sign into each computer to allow the software to be installed.
- You must do this for each computer that will be used to upload data from an iPro2 recorder.
- If the computer is running Windows 7, Windows 8, Windows 8.1, or Windows 10, see [Required settings for Windows users on page 12](#) before completing this procedure.
- 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 15](#).

---

**CAUTION: Do not connect the Dock to the computer until specifically told to do so when reviewing the on-screen instructions. If you connect the Dock before the CareLink uploader is installed, you may see the Window "Found New Hardware Wizard". Close the wizard screen or click Cancel, and do not follow the instructions in the Wizard. It may prevent the iPro2 Dock driver from installing properly.**

---

- 1 Sign in to CareLink iPro software.
- 2 On the Home screen, a **Patient list** is displayed. Click to select a patient from the **Patient List**. It is highly recommended to choose the **Sample Patient M**. when installing the uploader for the first time on each computer. If you already have a list of patients, type **Sample Patient** in the **Search** box to find the sample patient in the **Patient List**, and click to select.
- 3 Click **Open patient** button at the bottom of the screen. The patient record is displayed on the **Patient** screen.
- 4 Click the **Upload iPro2** button. This will direct you to the required link.

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**NOTE: If you see a message asking you if you want to upload another study for the sample patient, click Yes. This dialogue is to prevent multiple study uploads for the same patient on the same day. This dialogue is not relevant when installing the uploader.**

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- 5 Within 20 seconds you should see the "CareLink uploader installation needed " dialogue box. Click the **Download CareLink Uploader Installer** link. The Uploader installer will need to be installed one time per computer.
- 6 Choose the installation language, and click **OK**.
- 7 You will be prompted to allow the uploader to install on your computer, follow the on-screen instructions to setup the CareLink uploader. Please allow time for the installation process.

- Read the License Agreement, and click "**I accept the agreement**" to continue.
  - You will be prompted to **Disconnect any medical devices from the computer** before moving forward. Confirm all medical devices are disconnected and click **OK**.
- 8 When the installation is complete, click **Finish**. This will return you to the installation dialogue box, click the **Red X** in the top right corner to close this page.
  - 9 Choose the **Sample, Patient M.** record and click **Upload iPro2** button to launch the uploader.

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***NOTE: If you see a message asking you to upload another study for the patient, click Yes.***

---

- 10 You will be prompted by your browser to confirm that you want to launch the CareLink Launcher.

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***NOTE: The prompt will vary depending on your browser. You have the option to remember your preferences on the computer. Do this if you DO NOT want these security prompts to be displayed each time the Uploader is launched, which occurs each time you click the Upload iPro2 button.***

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- 11 When you have confirmed the Uploader launched successfully, click the **Home** tab to close the sample patient record. The computer is now ready for you to upload patient data.
- 12 Repeat this process on each computer that may be used to upload sensor data from an iPro2 recorder.
- 13 On each computer that will be used to view reports only, make sure that Adobe Reader is installed. If Adobe Reader is not installed, go to <http://www.adobe.com/reader> to download and install Adobe Reader, so that you will be able to open and view reports.

## Required settings for Windows users

If your computer is running the Windows operating system, there are some additional steps to follow in order to prepare your computer for uploading device data.

- 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 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** The system will now allow software components to be installed. Complete the procedure described in *Setup computers for uploading data and reviewing reports on page 10*.

## Required Internet browser settings

On all computers where you plan to use CareLink iPro software, your Internet browser must have the following settings enabled:

- JavaScript
- Transport Layer Security (TLS) version 1.2
- Cookies
- Applets
- ActiveX

### 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 Firefox

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

- 1 From the Firefox menu options, select **Tools > Options**. The Options page is displayed.
- 2 Click **Content**.
- 3 On the Content page, make sure that **Enable JavaScript** is selected.
- 4 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)

Transport Layer Security (TLS) refers to a security protocol designed to protect your web browser sessions. The system requires your browser to be enabled for TLS version 1.2. Typically TLS is the default setting for most browsers with the exception of Internet Explorer. If you have any questions contact 24 Hour HelpLine.

## Enabling TLS in Internet Explorer

- 1 Select **Tools > Internet Options** from the Internet Explorer menu options.
- 2 Click **Advanced**.
- 3 Scroll down the list and make sure that **Use TLS 1.2** is selected.
- 4 Click **OK**.

## Upgrading Internet Explorer

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

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

## Upgrading Firefox

If you need to upgrade your Firefox to the latest version, you can go to the Mozilla website at <http://www.mozilla.com>.

Follow the instructions provided by Mozilla to download and install the latest version of Firefox.

## 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 website, you can disable the Back button in your Internet browser. The following instructions describe how to disable the Back button in Internet Explorer.

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

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- 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 website, 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**.

## Setup for uploading your meter on Mac

If you want to upload a supported Ascensia meter (BREEZE®, CONTOUR®, or CONTOUR®NEXT family of products) 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.

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

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Setup of LifeScan meters on Mac on page 16

Setup for all other meters or ComLink on Mac on page 16

## Setup of 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 10.10 , 10.11 or 10.12

- 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 10.10, or 10.11 or 10.12.
- 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](http://www.ftdichip.com/Drivers/VCP/MacOSX/FTDIUSBSerialDriver_v2_2_18.dmg)

Please note that this website is in English only.

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 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](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.

## Download and print resources

After you are finished with setting up CareLink iPro software for the clinic, you can click the **Resources** hyperlink in CareLink iPro software to download document resources such as Patient Log Sheets, Clinic Equipment Log Sheets, and other useful materials.

For example, you can download a sample Patient Consent Form in Microsoft Word format. This form allows you to easily create actual Patient Consent Forms that are appropriate for your office.

These resources are free from Medtronic for your use with your iPro2 system. Medtronic may occasionally update these resources based on feedback from users like you.

## User security advisory

Your patients' safety and the privacy of your patient's information are of highest importance to Medtronic. To help us ensure that our CareLink iPro software products work correctly and securely, please consider these good practices and precautions to help keep your computer system safe and secure:

- Use a supported operating system and browser. Even though CareLink iPro software may let you proceed with an operating system or browser that is not validated, it is better to use one of the fully supported configurations.
- The industry responds to newly discovered security issues with updates. Keep your PC or Mac system up to date with the most current updates for your operating system, browser, plug-ins, and Java run-time environment.
- Use a strong password. The most important factors are length and avoiding common spellings of words. Some password vaults offer the ability to create very strong passwords and provide them on demand.
- Do not disclose your password to anybody.
- Medtronic Customer Service will never ask for your password. If you get a request to disclose your password by email, please contact Customer Service immediately and do not reply to the email.
- Refuse to provide your password and request to speak to a manager immediately if any Medtronic Customer Service representative asks for your password.
- Change your password immediately if you think your password has been compromised.
- It is good practice to change your password every 3-6 months.
- If you suspect your account may have been accessed by somebody you have not shared your password with, please contact Customer Service immediately.
- Use reputable security software on your PC or Mac that provides protection against viruses, “adware” and other forms of malicious software (“malware”).
- Take advantage of “software firewall” features in your security software as added protection for your PC or Mac.
- Consult with your Internet Service Provider about security for your access point (typically your modem) and router. Additional protection, such as firewall features, may be available to you.
- Be aware that many websites and emails are malicious and are designed to compromise your computer system. Always be careful about opening email from somebody you do not know, or going to websites from links in emails.
- Use the strongest settings on your PC or Mac security software that you can to help guard against accidental contact with malicious software.

## Entering data into CareLink iPro software

### Key Notes:

- If the patient used the iPro2 myLog app, look for the patient name in bold to open the patient record. If the patient did not use the iPro2 myLog app you can create a new patient record, or check to see if a record has already been created for that patient. Use your Internet browser in order to upload the iPro2 recorder data for that patient.
- You can upload patient meter data directly into CareLink iPro software. The meter data will be automatically added into the CareLink iPro Logbook. Do not change the time or date on the meter before uploading.
- Enter any additional data that a patient may have recorded on a log sheet into the CareLink iPro Logbook. You may exclude BG meter readings or remove manually entered patient data from the Logbook if necessary.
- BG readings are essential for iPro2 reports. BGs can be automatically uploaded into CareLink software if the patient entered them into the myLog app, or BGs can be manually entered into CareLink software from the patients log sheet.

## Opening the patient record

- 1 On the computer, open your Internet browser and go to <http://www.carelinkipro.com>.
- 2 Sign in to CareLink iPro software using your username and password.

If you are already signed in, click the **Home** tab.

- 3 Type any of the following into the Search box to find the patient record:
  - First name
  - Last name
  - Patient ID
  - Date of birth

As you type, the Patient List displays matching patient records from previous evaluations.

- 4 When you see the patient in the list, select the patient and click the **Open patient** button. You can also double-click the patient in the list.

If your patient is using the iPro2 myLog app, in some cases you will see a screen confirming the information entered into the app. The patient record will have been created, and the patient name will be bold, indicating this is a new patient evaluation.

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**CAUTION: If your patient is using the iPro2 myLog app make sure to confirm the patient record in bold first, and then upload the iPro2 recorder. If the patient data is not uploaded to the pending patient record created through the myLog app you will not be able to merge the iPro2 data. You will need to either upload the meter again or manually enter the data to this separately created record.**

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- 5 If your patient does not use the myLog app, or has never done an iPro study you will not see the patient's name in the Patient List. Click the **New patient** button to add the patient to CareLink software.

The Create new patient record screen is displayed.

---

**CAUTION: Always thoroughly search for the patient in CareLink software before adding a new patient record. If your clinic has already conducted an evaluation for the patient, open the existing patient record. Avoid creating multiple records for one patient, as this will make the patient's data more difficult to find in the software.**

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- 6 Enter the identifying information for the patient. The patient's name or patient ID that you enter will be displayed on reports. Click **Save** when you are finished.

You can modify the patient information later by clicking the **Edit** patient information link on the patient's record.

## Uploading blood glucose meter data

If the patient has been using a supported meter, you can upload meter data directly into CareLink iPro software. The software automatically puts the BG meter readings into the patient's CareLink Logbook. If the patient entered events on the meter, some of these events will also be automatically uploaded into the Logbook.

CareLink iPro software will compare the time and date of the computer to the time and date of the meter. If the meter time is incorrect, CareLink iPro software will use the computer's time to automatically correct the BG meter reading times. Do not change the time or date on the meter before uploading.

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***NOTE: If you have uploaded an evaluation from an iPro2 recorder and there has been a time change, contact the 24 Hour HelpLine for assistance in uploading the meter.***

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If the patient has been using a meter that is not listed, you can enter BG meter readings manually.

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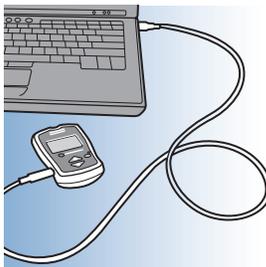
***NOTE: You can upload only one meter per evaluation.***

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- 1 When the uploader completes a successful upload of the iPro2 recorder, you will see "upload successful", click **OK** and the uploader will close. The page will update to reflect the new evaluation.

You can also choose to enter BG meter readings manually using the Logbook. For details, see [Entering Patient Log Sheet data on page 22](#).

- 2 Click **Upload BG readings** button to re-launch the uploader to upload the BG readings from the meter.
- 3 Follow the on-screen instructions.
- 4 When prompted, connect the meter to the computer using the appropriate cable (supplied by the meter manufacturer).



CareLink iPro software tells you when the upload is successfully completed.

- 5 Disconnect the meter from the computer.

## Entering Patient Log Sheet data

The Logbook screen in CareLink iPro software allows you to manually enter BG meter readings and other events that the patient recorded on a Log Sheet, such as meals, medication, exercise, insulin, sleep, and notes. You are able to include details of an event, such as the intensity of the exercise or the size of the meal.

You can exclude BG meter readings from being used for sensor calibration, and update or remove manually entered events from the patient data if necessary.



### Opening the Logbook

If you have just finished uploading the patient's meter, click **Continue** to open the Logbook. You can also open the Logbook by clicking the **Open Logbook** button found on the patient record screen.

If your patient used the iPro2 myLog app, the events entered in the app automatically populate in the Logbook when it is opened.

### Adding Logbook entries

CareLink iPro software calibrates the sensor glucose data using the patient's BG meter readings. If you cannot upload data from the patient's meter, then you must enter BG meter readings manually in CareLink iPro's Logbook. It is easier to use the mouse when entering events.

- 1 Click the **Add** button. A small window appears, where you can make a Logbook entry.
- 2 Enter the date and time. If the entry is a BG meter reading, enter the BG value. If the entry is an event, select the event .

If the patient recorded more than one entry at the same time, such as a meal and a BG meter reading, you must enter them both in one entry.

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***NOTE: If a daylight saving time change occurred during the study, or after the study but before you are entering the data, enter all log sheet events that occurred before the time change according to the new time.***

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- 3 Click **Enter**. The information goes into the Logbook, but a new empty data entry window stays open and is ready for the next entry.
- 4 When you are finished adding Logbook entries, click the X in the upper right corner of the data entry window to close it.
- 5 If you are finished using the Logbook, click **Save** to return to the patient's main record screen.

---

***NOTE: Only BG meter readings between 40 and 400 mg/dL (2.2 and 22.2 mmol/L) will be used for calibration.***

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## Excluding BG meter readings

You can exclude a BG meter reading so that it is not used to calibrate the sensor glucose data and is not included in the reports.

For example, if the patient allowed a different person to use the meter, you would not want these BG meter readings to be used for sensor calibration.

- 1 In the patient's Logbook screen, click the **Exclude** check box for each BG entry that you want to exclude from calibration.
- 2 If you are finished using the Logbook, click **Save** to return to the patient's main record screen. The reports are regenerated automatically.

When you view the patient's reports, the BG meter readings that you excluded will not be shown.

## Editing Logbook entries

You can edit Logbook entries that have been entered manually. You are also able to hover over the icons in the Logbook to see additional details. Events that were uploaded from a meter cannot be edited; you can only exclude them from calibration and reports.

- 1 In the patient's Logbook screen, click on a Logbook entry to highlight it, and then click the **Edit** button. The Logbook entry opens in a small window.
- 2 Edit the information as needed, and click **Enter**.
- 3 If you are finished using the Logbook, click **Save** to return to the patient's main record screen. The reports are regenerated automatically.

## Removing Logbook entries

You may want to remove events from the Logbook so that they do not show up on the patient's reports. You can remove Logbook entries.

- 1 In the patient's Logbook screen, click on a Logbook entry to highlight it, and then click the **Remove** button.

- 2 A small window appears, asking you to confirm that you want to remove the item. Click **Remove**. The event no longer appears in the Logbook. When you view the patient's reports, the events that you removed will not be shown on the reports.
- 3 If you are finished using the Logbook, click **Save** to return to the patient's main record screen. The reports are regenerated automatically.

### **Sorting the Logbook entries**

You can sort the events in the Logbook by clicking on a column heading. This can help you find items in the Logbook. It does not affect how patient data appears on reports.

You may need to click the column heading twice to reverse the sort order.

## CareLink iPro reports

### Key Notes:

- You can modify a patient's Report Settings, such as the glucose target range and meal periods, and re-generate reports from an evaluation.
- Reports show up to seven 24-hour periods of study data.
- The reports are created in PDF format, so they can easily be stored electronically or printed.

## Viewing and printing patient reports

After uploading and entering all of a patient's study data into CareLink iPro software, you have two options for viewing the patient's reports:

- View and print the reports individually
- Print all reports

**1** If you are not currently viewing the patient record, go to the Home tab and use the **Search** box to find the patient record.

If you need more instructions on how to find a patient record, see [Opening the patient record on page 20](#).

**2** On the patient record screen, you can find the dates for all of the studies conducted for this patient. The most recent study is displayed first. You may need to scroll down to find older studies.

**3** When you find the study you want, click the name of the report you want to view, or click **Print all** to print all of the main reports.

If you click on a single report, a new window or tab opens in your browser to display the report.

If you click **Print all**, a new window or tab opens in your browser, with all of the reports in a single PDF document.

**4** To print, use the print functions that are set up on the computer. For example, you may need to click a printer icon, or you may need to select **File > Print**.

## Tips for successful report generation

- Use the Logbook to exclude BG meter readings that do not accurately reflect the patient's blood glucose, such as:
  - BG meter readings from someone other than the patient
  - BG meter readings from a control solution
  - BG meter readings that were taken before the patient changed the meter's time or date. If the patient changed the time on the meter during the study, first exclude all BG meter readings before the time change. Then, use information from the Patient Log Sheets to manually enter the BG meter readings at the correct times into the Logbook in CareLink iPro software.

These inaccurate BG meter readings can cause calibration errors, which may result in gaps in the sensor plot on reports. Excluding these bad BG meter readings will often eliminate data gaps.

- Keep in mind that you need BG meter readings within 12 hours of each other in order to avoid data gaps.

- Modify a patient's Report Settings to change the target range for blood glucose, the patient's meal periods, or other settings.
- There are a few instances in which information collected in iPro2 myLog app will not show up on reports. If your patient is connected to a wearable device, for example wristbands or smartwatches, any carb data that is blank or zero in the app will not show up in reports. If your patient is connected to a wearable device and has a BG reading outside of the range of 20 to 600 mg/dL, that BG reading will not show up on reports. It does not appear in CareLink, and cannot be used for calibrations. Also, although your patient is able to enter specific medication names into iPro 2 myLog app, those details will not show up on reports. Additionally, your patient is able to input into iPro2 myLog app the type of meal consumed, for example a snack. The reports will not capture what was selected in the "What meal?" box, but only show a meal was consumed. Lastly, in the **All** section of the app, when entering a BG reading your patient is able to input that a meal was consumed. That information is not captured in reports. Only meals logged in the **Meal** section will show up on reports.

## About reports

CareLink iPro reports show up to seven 24-hour periods of study data. The reports are created in PDF format, so they can easily be stored electronically or printed. The five main reports are:

- Daily Overlay (one page) - provides an overlay of the sensor traces for each day on a single 24 hour graph, so that you can look for trends or excursions that occur around the same time each day. This report also provides daily statistical information, including an Excursion Summary of highs and lows, and Duration Distribution pie charts. The Duration Distribution charts show what percent of each day the patient spent above, below, and within the target range.
- Overlay by Meal (two pages) - provides an overlay of the sensor traces from each day of the study, broken down into meal and overnight periods. The meal overlay graphs are only created if meal events are entered into the CareLink iPro Logbook. The patient's Report Settings, if different from the clinic Report Settings, determine what the periods are. The sensor traces for each day are overlaid, so that you can look for trends at certain times related to meal or overnight periods. This report lines up glucose sensor traces before and after each meal and is especially useful if patients eat meals at varying times each day.
- Daily Summary (two pages) - provides a summary of each full or partial 24-hour period of the study, including both the sensor trace and events such as meals, medication, and exercise. The report includes details of the events, for example the intensity of the exercise or the size of the meal.
- Pattern Snapshot (one page) - provides a summary of daily glucose information and up to three observed patterns. This report has three sections consisting of general statistics, observed patterns and some possible causes, and an overlay graph.

- Patient Notes - provides a summary of the event markers recorded in the system. This report includes a chronological listing of all patient events for a given time period. Each event is represented by a corresponding icon, and includes event details.

## Optimal accuracy

CareLink iPro software automatically performs certain checks for optimal accuracy of the data in a study. These checks are designed to help you become aware of any data that may be less than optimal for making therapy decisions.

The system evaluates the accuracy of the data on a calendar day basis, from midnight to midnight for each day that sensor glucose values are recorded. There are three measurements to determine the accuracy of the data: number of valid calibrations, mean absolute difference percentage (MAD %), and correlation.

Days that do not meet one of the thresholds are designated as **Use Clinical Judgment**. This designation appears in two places: on the Daily Overlay Report, and on the Daily Summary Report for the individual day graph. On the Daily Overlay Report, those days that do not satisfy the criteria are marked with an **X** in the **Designation** row.

If the Designation area is blank for a certain day on the Daily Overlay Report, then the data for that day passes all optimal accuracy criteria.

- **MAD%:** the threshold for MAD% will vary depending on the range of BG meter values for the calendar day. If the calendar day does not meet this threshold, it will be designated with an X (Use Clinical Judgment).

If the BG meter reading range is greater than or equal to 100 mg/dL (or 5.6 mmol/L), then an MAD% of 28.0 or less is considered optimal.

If the BG meter reading range is less than 100 mg/dL (or 5.6 mmol/L), then an MAD% of 18.0 or less is considered optimal.

- **# Valid Calibrations:** 3 or more is considered optimal. If there are less than 3 valid calibrations in a calendar day, then that day does not meet this threshold and will be designated with an X (Use Clinical Judgment). This commonly occurs on a partial day of sensor wear, such as the last day of the study.

The system evaluates the accuracy of the sensor glucose values in comparison with the BG meter readings used for the calibration. Each BG meter reading used for calibration is paired with the corresponding sensor glucose value generated by the calibration algorithm at the same point in time.

Not all BG meter readings used for calibration are considered valid for purposes of optimal accuracy evaluation. If no other BG meter reading (used for calibration) exists within 12 hours before or after a calibration, then the BG meter reading is not considered valid for purposes of optimal accuracy determination.

Only BG meter readings between 40 and 400 mg/dL (2.2 and 22.2 mmol/L) will be used for calibration.

- **Correlation:** 0.79 or greater is considered optimal. If the Correlation is less than 0.79, then that calendar day does not meet this threshold and will be designated with an **X** (Use Clinical Judgment).

When the BG meter reading range is less than 100 mg/dL (or 5.6 mmol/L) or the number of valid calibrations is less than 3, then the **Correlation** is reported as **N/A** and is not evaluated, for purposes of optimal accuracy.

If the correlation is high (close to 1.0), but the MAD% is high, this can be due to a single outlying BG meter reading. This would cause a Use Clinical Judgment designation.

There are also two other designations that can appear on the Daily Overlay Report: **S: No Sensor Data** and **C: No Calibration BG's**.

- **S: No Sensor Data:** This designation occurs on a calendar day in which there is no sensor data. Therefore, there are no sensor values on the reports for that day. The Daily Summary graph for that day shows only BG meter readings plotted, if there are any, and no sensor data.
- **C: No Calibration BG's:** This designation occurs on a calendar day in which there are sensor values available, but there are no valid BG meter readings with which to calibrate the sensor values. Sensor data that cannot be calibrated will be missing from the reports for that day.

## Area under the curve (AUC)

Area under the curve (AUC) information appears in the Excursion Summary on the Daily Overlay Report. AUC provides more insight into how much time the patient's glucose was high or low, as well as the severity of excursions outside of the target range. A high AUC indicates more excursions or more severe excursions. The closer that AUC is to zero, the more that the patient's glucose stayed within the target range.

AUC calculations are reported in mg/dL per day (or mmol/L per day). The Daily Overlay Report provides two AUC amounts for each day: **AUC Above Limit** and **AUC Below Limit**.

- **AUC Above Limit:** this statistic provides a relative indication of the overall extent and duration of high glucose excursions over the entire day. The calculation is dependent on the patient Glucose Target Range High setting. The High limit value is subtracted from each individual sensor glucose value that exceeds the limit. The differences are added and the sum total is divided by the total number of sensor glucose values that exist for the day.
- **AUC Below Limit:** this statistic provides a relative indication of the overall extent and duration of low glucose excursions over the entire day. The calculation is dependent on the patient Glucose Target Range Low setting. Each individual sensor glucose value that exceeds the limit is subtracted from the Low limit value. The differences are added and the sum total is divided by the total number of sensor glucose values that exist for the day.

## Patient Report Settings

When you first add a patient into CareLink iPro software, the patient's Report Settings are set based on the current Clinic Report Settings that are defined on the **Clinic Settings** tab. The Clinic Report Settings are like a template for creating the Report Settings for each new patient. After a patient record has been created, you can change the Report Settings for that patient's reports.

For example, the patient's meal periods may not match the default meal periods, which were defined for your clinic in the Clinic Report Settings. Or, the target glucose range for the patient may be different from the default range set in the Clinic Report Settings.

In these cases, you can modify a patient's report settings manually.

- If you change the Patient Report Settings before generating reports, future reports will be generated based on the changes you made.
- If you change the Report Settings after generating reports, you must choose whether you want to apply the new settings to the most recent reports. You can also apply the new settings to older studies. Existing study reports will not be updated automatically based on the new settings.

After viewing the first reports you generate for a patient, you may decide to modify the Patient Report Settings, and then generate the reports again based on the new settings.

### Modifying Patient Report Settings

- 1 Click the **Edit** link in the Patient Report Settings section of the patient record screen.  
The patient's General Report Settings and Analysis Reports Settings are displayed.
- 2 Change the settings as needed. For more information about the General Report Settings and Analysis Reports Settings, see [General Report Settings on page 9](#) or [Analysis Reports Settings on page 10](#).
- 3 Click **Save**. A small window appears, asking if you want to apply these report settings to the most recent set of reports.
  - To apply the settings to the most recent reports, click **Yes**. The report settings screen closes, and the patient record screen appears, where you can view and print the updated reports.  
The new Report Settings have been applied to the most recent study. You can then click any of the reports for the most recent study to view and print one of them, or click **Print All** to print all of the reports.
  - To save the Report Settings for the patient but not apply them to any studies yet, click **No**.  
If you want to apply the new Report Settings for the patient to one or more studies, find the study on the patient record screen and select **Regenerate reports** from the **Other Options** drop-down list. The reports are re-generated using the new Reports Settings.

## Restoring the default report settings

If you want to set a patient's report settings to the current default settings for your clinic, you can do this in the Patient Report Settings. You will then have the option to choose which of the patient's studies you want to show the changes to the report settings.

- 1 Click the **Edit** link in the Patient Report Settings section of the patient record screen.  
The patient's General Report Settings and Analysis Reports Settings are displayed.
- 2 Click the **Restore defaults** button on the patient's report settings screen.
- 3 Click **Save**. A small window appears, asking if you want to apply these report settings to the most recent set of reports.
  - To apply the settings to the most recent reports, click **Yes**. The report settings screen closes, and the patient record screen appears, where you can view and print the updated reports.  
The new Report Settings have been applied to the most recent study. You can then click any of the reports for the most recent study to view and print one of them, or click **Print All** to print all of the reports.
  - To save the Report Settings for the patient but not apply them to any studies yet, click **No**.  
If you want to apply the new Report Settings for the patient to one or more studies, find the study on the patient record screen and select **Regenerate reports** from the **Other Options** drop-down list. The reports are re-generated using the new Reports Settings.

## Generating a Data Table report

If necessary, you can generate a Data Table report (about 40 pages or more). This report lets you view detailed sensor glucose readings, and events that are recorded in the Logbook. The Data Table is used by Medtronic employees for troubleshooting purposes. Most of the time, you do not need it in order to understand a study.

- 1 In the patient record screen, select **Generate Data Table** from the **Other Options** drop-down list.  
After a few moments, a new **Data Table** PDF link appears.
- 2 Click the link to view the report. The report opens in a new browser window or tab.  
Or, click **Print** to print the report without viewing it first.

## Exporting data to CSV file

If necessary, you can export report data as a character-separated values (CSV) file for further analysis. A CSV export is raw data, typically for clinical study use. Additional information in the data is used by Medtronic employees for troubleshooting purposes. Most of the time, you do not need it in order to understand a study.

- 1 In the patient record screen, select **Export data** from the **Other Options** drop-down list.  
After a few moments, a dialog box opens, allowing you to save the file on the computer.
- 2 Save the file on your computer or network. You can now open the file directly, for example, in Microsoft® Excel® or Access®.

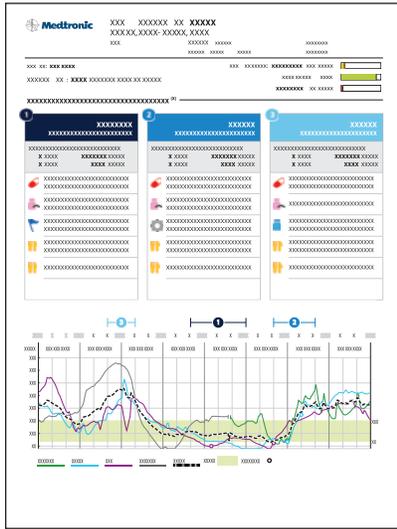
## Pattern Snapshot report

### Key Notes:

- The Pattern Snapshot report displays general statistics, observed patterns and some possible causes, and an overlay graph.
- General statistics includes Avg SG, Estimated A1C, and Time in range.
- The Pattern Snapshot report displays up to three observed patterns.
- The Overlay graph displays information gathered from the study period.

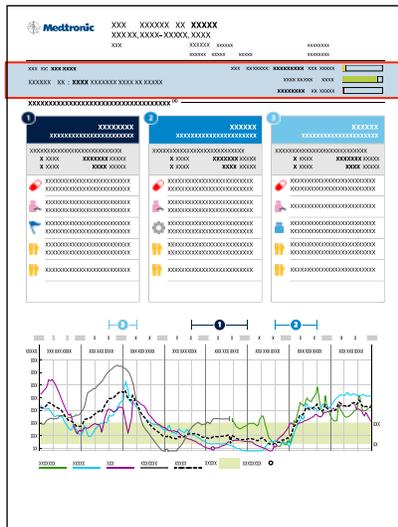
# Overview of the Pattern Snapshot report

The Pattern Snapshot report displays general statistics, observed patterns and some possible causes, and an overlay graph.



## General statistics

This section of the Pattern Snapshot report shows general statistics, including Avg SG (average sensor glucose value), Estimated A1C (glycosylated hemoglobin), and Time in range.



Item	Description
Avg SG	Avg SG is the average of all SG values during the current study. If this patient has a previous study in CareLink iPro software, the most recent previous Avg SG will also be displayed.
Estimated A1C	<p>Estimated A1C is an estimated measurement of glycosylated hemoglobin. Estimated A1C does not replace the lab measurement of A1C and is calculated from limited SG data, from the current evaluation.</p> <p><b>Formula:</b></p> <p><math>A1C\% = (Avg\ SG + 46.7) / 28.7</math></p> <p><math>A1C\ mmol/mol = (10.93 * A1C) - 23.5</math></p>
Time in range	Time in range displays the percentage of time the patient is above, below, or within the high or low thresholds set in clinic settings, during the study.

## Observed patterns and some possible causes

### Observed patterns

The Pattern Snapshot report displays up to three observed patterns. The pattern title consists of glycemic issues and an analysis period in which the issue was observed.

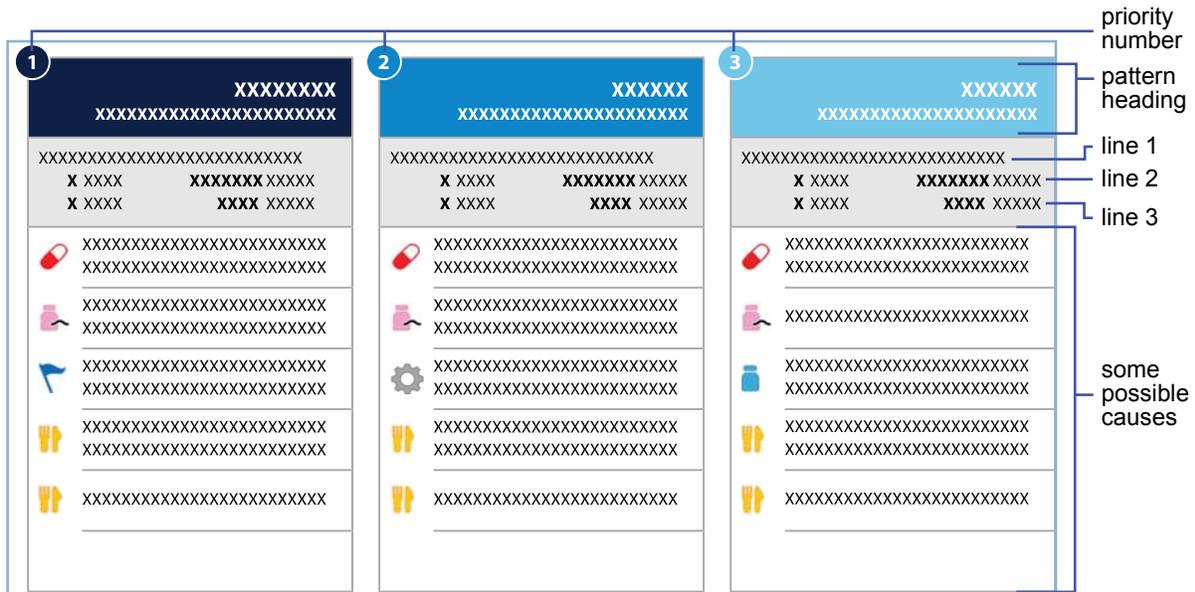
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***NOTE: Time periods in between the selected time ranges will not be analyzed.***

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During a study, if there are at least two days with meal markers occurring in a meal period, pre-meal and post-meal analysis is performed, otherwise an analysis is performed for the time period. When pre-Breakfast analysis cannot be performed because there are not at least two meal markers during the Breakfast period, then the Fasting period is used for analysis in addition to Breakfast time period.

- Post meal analysis period is based on patient settings.
- Pre-meal analysis period is fixed and it is the hour immediately prior to the meal marker.



Data elements displayed	
Priority number	The priority number corresponds to the priority of the pattern and its location on the SG graph. Up to three patterns may be shown.
Pattern heading	The pattern heading displays the SG pattern and corresponding time period. SG patterns will be High, Low, Variable with Low, or Variable. Time periods are defined by meal times, such as Breakfast, Lunch, and Dinner. For more information on time periods, see <a href="#">Analysis Reports Settings on page 10</a> .  <b>NOTE: Overnight time is the combination of Evening and Sleeping time periods.</b>
Line 1	For High SG and Low SG patterns, Line 1 displays the number of days out of the number of evaluation days an excursion or SG variability was observed. The evaluation days are different than study days. For example, fasting may only be seen on two days out of the three days study.  For Variable SG and Variable SG with Low SG patterns, Line 1 displays the number of days excursions occurred within the time range relevant to the pattern and sensor glucose range (extreme low to low).
Line 2	For High SG and Low SG patterns, Line 2 displays the number of days excursions occurred within the time range relevant to the pattern and sensor glucose range (extreme low to low or high to extreme high).  For Variable SG and Variable SG with Low SG patterns, Line 2 displays the number of days excursions occurred below the extreme low limit.
Line 3	For High SG and Low SG patterns, Line 3 displays the number of days excursions occurred above or below an extreme low or extreme high and the SG range (extreme low or extreme high).  For Variable SG and Variable SG with Low SG patterns, Line 3 displays the number of days excursions occurred above the high limit.
Some possible causes	For a list of some possible causes, see <a href="#">Some possible causes on page 37</a> .

## Some possible causes

The tables in this section list the causes that will be shown with each SG pattern observed.

**NOTE: The causes listed are not a complete list of all possible causes and some causes may not apply. Healthcare professionals should use best judgment on other causes that might be relevant.**

Low SG – Overnight
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in evening(s) too high?
Insulin to carbohydrate ratio not optimal in prior evening(s)?
Less food intake in prior evening(s)?
More exercise in prior evening(s)?
Alcohol consumed in prior evening(s)?

High SG – Overnight
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injection in evening(s) too low?
Insulin to carbohydrate ratio not optimal in prior evening(s)?
High calorie or high fat foods in prior evening(s)?
Late evening snack?

Variable SG – Overnight
Inconsistent food intake day before?
Inconsistent exercise schedule day before?
Inconsistent sleep pattern?
Oral medication(s) day before missed or incorrectly timed?
Basal insulin injection missed?
Pre-meal insulin in prior evening(s) incorrectly timed or missed?

Variable SG with Low SG - Overnight
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in evening(s) too high or missed?
Pre-meal insulin in prior evening(s) incorrectly timed or incorrect dose?
Inconsistent food intake day before?
Inconsistent exercise schedule day before?
Alcohol consumed in prior evening(s)?

<b>Low SG - Pre-breakfast*</b>
Oral medication(s) too high or incorrectly timed in evening(s)?
Basal insulin injection in evening(s) too high?
Less food intake in prior evening(s)?
Breakfast delayed?
More exercise in prior evening(s)?
Alcohol consumed in prior evening(s)?

<b>Low SG - Post-breakfast**</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in evening(s) too high?
Pre-breakfast insulin too high?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?
Less food intake than usual?
Exercised around breakfast?

<b>Low SG - Breakfast</b>
Oral medication(s) too high or incorrectly timed in evening(s)?
Basal insulin injections too high?
Pre-breakfast insulin too high?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?
Delayed or less food intake than usual?
Exercised around breakfast?

<b>High SG - Pre-breakfast*</b>
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injection in evening(s) too low?
Rebound hyperglycemia after nocturnal hypoglycemia?
High calorie or high fat foods in prior evening(s)?
Late evening snack?

<b>High SG - Post-breakfast*</b>
Oral medication(s) missed, too low, or incorrectly timed?
Pre-breakfast insulin incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?
High calorie or high carbohydrate foods?

<b>High SG - Breakfast</b>
Oral medication(s) missed, too low, or incorrectly timed?
Pre-breakfast insulin incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?
High calorie or high carbohydrate foods?

<b>Variable SG - Pre-breakfast*</b>
Inconsistent food intake day before? Breakfast time not consistent?
Inconsistent exercise schedule day before?
Inconsistent sleep pattern?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Basal insulin injection missed?
Alcohol consumed in prior evening(s)?

<b>Variable SG with Low SG - Pre-breakfast*</b>
Oral medication(s) too high or incorrectly timed in evening(s)?
Basal insulin injection in evening(s) too high or missed?
Inconsistent food intake day before?
Breakfast time not consistent?
Inconsistent exercise schedule day before?
Alcohol consumed in prior evening(s)?

<b>Variable SG - Post-breakfast*</b>
Inconsistent food intake?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-breakfast insulin incorrectly timed, incorrect dose, or missed?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?

<b>Variable SG with Low SG - Post-breakfast*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in evening(s) too high or missed?
Pre-breakfast insulin incorrectly timed or incorrect dose?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?
Inconsistent food intake?
Exercised around breakfast time?

<b>Variable SG - Breakfast</b>
Inconsistent food intake?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-breakfast insulin incorrectly timed, incorrect dose, or missed?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?

<b>Variable SG with Low SG - Breakfast</b>
Oral medication(s) too high or incorrectly timed in evening(s)?
Basal insulin injection in evening(s) too high or missed?
Pre-breakfast insulin incorrectly timed, incorrect dose, or missed?
Insulin to carbohydrate ratio not optimal for pre-breakfast insulin?
Inconsistent food intake?
Exercised around breakfast time?

<b>Low SG - Fasting</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in evening(s) too high?
Less food intake in prior evening(s)?
Breakfast delayed?
More exercise in prior evening(s)?
Alcohol consumed in prior evening(s)?

<b>High SG - Fasting</b>
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injection in evening(s) too low?
Rebound hyperglycemia after nocturnal hypoglycemia?
High calorie or high fat foods in prior evening(s)?
Late evening snack?

<b>Variable SG - Fasting</b>
Inconsistent food intake day before? Breakfast time not consistent?
Inconsistent exercise schedule day before?
Inconsistent sleep pattern?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Basal insulin injection missed?
Alcohol consumed in prior evening(s)?

<b>Variable SG with Low SG - Fasting</b>
Oral medication(s) too high or incorrectly timed in evening(s)?
Basal insulin injection in evening(s) too high or missed?
Inconsistent food intake day before?
Breakfast time not consistent?
Inconsistent exercise schedule day before?
Alcohol consumed in prior evening(s)?

<b>Low SG - Pre-lunch*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injections in morning(s) too high?
Lunch delayed?
Exercised before lunch?

<b>Low SG - Post-lunch*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injections in morning(s) too high?
Pre-lunch insulin too high?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?
Less food intake than usual?
Exercised around lunch?

<b>Low SG - Lunch</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injections too high?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?
Less food intake than usual?
Lunch delayed?
Exercised around lunch?

<b>High SG - Pre-lunch*</b>
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injections too low?
Pre-lunch insulin incorrectly timed, too low, or missed?
High calorie or high carbohydrate in prior meal?
Previous meal delayed or snacking?

<b>High SG - Post-lunch*</b>
Oral medication(s) missed, too low, or incorrectly timed?
Pre-lunch insulin incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?
High calorie or high carbohydrate foods?

<b>High SG - Lunch</b>
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injections too low?
Pre-lunch insulin incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?
High calorie or high carbohydrate in prior/current meal?
Previous meal delayed or snacking?

<b>Variable SG - Pre-lunch*</b>
Occasional snack between meals?
Inconsistent meal schedule or meal size?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-meal insulin for prior meal(s) incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?

<b>Variable SG with Low SG - Pre-lunch*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in morning(s) too high or missed?
Pre-meal insulin for prior meal(s) incorrectly timed, dosed, or missed?
Inconsistent meal/snack schedule or size?
Inconsistent exercise in morning(s)?

<b>Variable SG - Post-lunch*</b>
Inconsistent food intake?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-lunch insulin incorrectly calculated?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?

<b>Variable SG with Low SG - Post-lunch*</b>
Oral medication(s) too high or incorrectly timed?
Pre-lunch insulin incorrectly timed or incorrect dose?
Insulin to carbohydrate ratio not optimal for pre-lunch insulin?
Inconsistent food intake?
Exercised around lunch time?

<b>Variable SG - Lunch</b>
Occasional snack between meals?
Inconsistent meal schedule or meal size?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-meal insulin for prior meal(s) incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-meal insulin?

<b>Variable SG with Low SG - Lunch</b>
Oral medication(s) too high or incorrectly timed in morning(s)?
Basal insulin injection in morning(s) too high or missed?
Pre-meal insulin for prior meal(s) incorrectly timed, dosed, or missed?
Inconsistent meal schedule or meal size?
Exercised around lunch time?

<b>Low SG - Pre-dinner*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injections too high?
Dinner delayed?
Exercised before dinner?

<b>Low SG - Post-dinner*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injections too high?
Pre-dinner insulin too high?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?
Less food intake than usual?
Exercised around dinner?

<b>Low SG - Dinner</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injections too high?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?
Less food intake than usual?
Dinner delayed?
Exercised around dinner?

<b>High SG - Pre-dinner*</b>
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injections too low?
Pre-dinner insulin incorrectly timed, too low, or missed?
High calorie or high carbohydrate in prior meal?
Previous meal delayed or snacking?

<b>High SG - Post-dinner*</b>
Oral medication(s) missed, too low, or incorrectly timed?
Pre-dinner insulin incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?
High calorie or high carbohydrate foods?

<b>High SG - Dinner</b>
Oral medication(s) missed, too low, or incorrectly timed?
Basal insulin injections too low?
Pre-dinner insulin incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?
High calorie or high carbohydrate in prior/current meal?
Previous meal delayed or snacking?

<b>Variable SG - Pre-dinner*</b>
Occasional snack between meals?
Inconsistent meal schedule or meal size?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-meal insulin for prior meal(s) incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?

<b>Variable SG with Low SG - Pre-dinner*</b>
Oral medication(s) too high or incorrectly timed?
Basal insulin injection in morning(s) too high or missed?
Pre-meal insulin for prior meal(s) incorrectly timed, dosed, or missed?
Inconsistent meal/snack schedule or size?
Inconsistent exercise in morning(s)?

<b>Variable SG - Post-dinner*</b>
Inconsistent food intake?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-dinner insulin incorrectly calculated?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?

<b>Variable SG with Low SG - Post-dinner*</b>
Oral medication(s) too high or incorrectly timed?
Pre-dinner insulin incorrectly timed or incorrect dose?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?
Inconsistent food intake?
Exercised around dinner time?

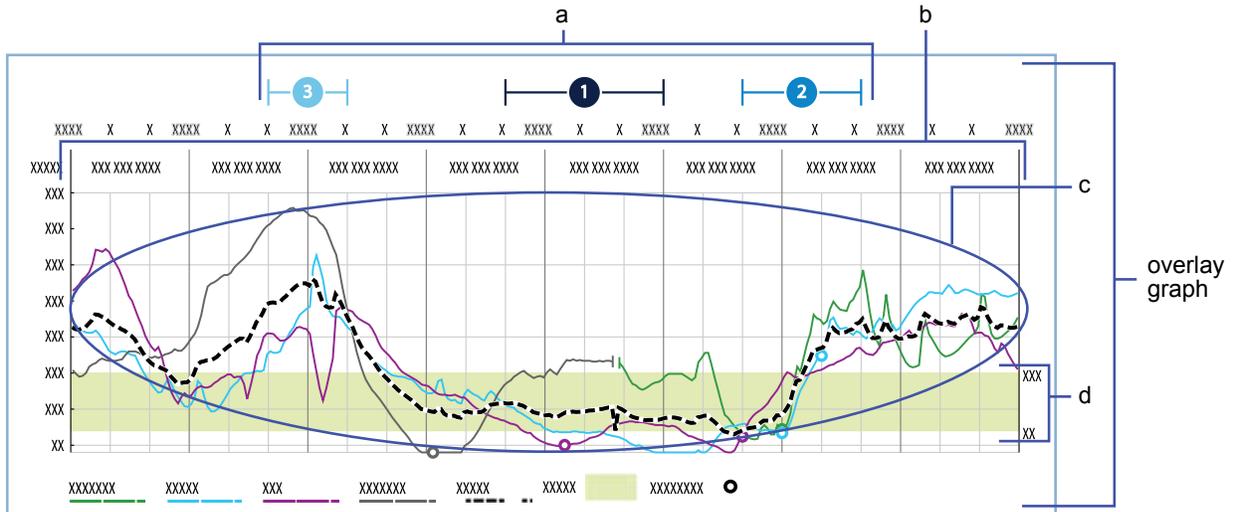
<b>Variable SG - Dinner</b>
Occasional snack between meals?
Inconsistent meal schedule or meal size?
Oral medication(s) intermittently missed, too low, or incorrectly timed?
Pre-meal insulin for prior meal(s) incorrectly timed, too low, or missed?
Insulin to carbohydrate ratio not optimal for pre-dinner insulin?

<b>Variable SG with Low SG - Dinner</b>
Oral medication(s) too high or incorrectly timed in morning(s)?
Basal insulin injection in morning(s) too high or missed?
Pre-dinner insulin incorrectly timed, incorrect dose, or missed?
Inconsistent meal schedule or meal size?
Exercised around dinner time?

\*Patterns with sufficient meal markers.

# Sensor data graph

The Overlay graph displays information gathered from the study period.



Item	Description
a	Priority number indicators for the patterns listed in the Observed patterns & some possible causes section. The horizontal lines indicate the period of the observed pattern (for example, Breakfast).
b	Average SG values are displayed for every 3 hour periods.
c	Solid colored lines trace daily SG values. The dotted line traces the Avg SG for the study period. Open circles on the plot lines represent meal markers.  <b><i>NOTE: Meal markers are plotted on the SG trace line for the day they occur and may not be at the BG value recorded for that marker.</i></b>
d	Light green band represents the target range as defined by the High and Low Glucose Target Range in Patient Report Settings.

## CareLink iPro software ongoing use

### Key Notes:

- Click the **Resources** hyperlink in CareLink iPro software to print the newest log sheets and other forms.
- Only administrative users can add, modify, and delete CareLink iPro software user accounts. Always make sure more than one person has administrative privileges.
- Any CareLink iPro software user can edit patient information when needed.

## User tasks

### Printing more log sheets and other forms

Your original iPro2 system shipment may have included samples of Patient Log Sheets, Clinic Equipment Logs, and other documents that your clinic wants to use regularly. You can easily download and print more of these documents.



- 1 Click the **Resources** link at the bottom of the CareLink iPro software screen.
- 2 Find the document that you want and open it.
- 3 Select the print option in your browser.

### Changing your password or other user information

As a CareLink iPro software user, you can change your own password, email address, and other information in your user account.

- 1 Sign in to CareLink iPro software.
- 2 Click the **My Info** link. The My Info screen is displayed.
- 3 If you want to change your password, select the **Change Password** check box. The password fields become active. Type your new password in the **Password** field, and re-type it in the **Re-enter Password** field.
- 4 Modify the other information as needed.
- 5 Click the **Save** button.

### Editing patient information

You may occasionally need to update patient information, such as the patient's name, therapy type, or physician. Any user can update any patient's information for your clinic.

- 1 On the patient record screen, click the **Edit patient information** link.
- 2 Update the patient's information as needed.
- 3 Click the **Save** button. The changes have been saved, and any information that shows up on reports will be updated the next time you generate reports for the patient.

## Moving a patient study

If you accidentally upload a study to the wrong patient record in CareLink iPro software, you can move the study to the correct patient record.

Use the Clinic Equipment Log if needed, to help you find the dates when each patient wore the iPro2 recorder.

- 1 Confirm that the patient whose study was uploaded incorrectly has been added to CareLink iPro software. If the patient record does not exist yet, you need to create it now. For details, see [Opening the patient record on page 20](#).
- 2 After you have confirmed that the correct patient exists in the system, open the patient record that contains the study that needs to be moved.
- 3 Find the study that you want to move in the list of studies for that patient.
- 4 If you see a message that the study is incomplete, enter the patient's BG meter readings by uploading the meter or using the Logbook.
- 5 In the **Other Options** drop-down list, select **Move this study**.
- 6 Follow the on-screen instructions to find the correct patient and move the study to that patient's record.

When the move is complete, the reports will be regenerated for the correct patient.

## Modifying clinic information

You may periodically need to edit the identifying information of the clinic that was entered when the clinic account was first created. Some of this information appears on patient reports, so it is important to keep the clinic information accurate.

- 1 In the **Clinic Settings** tab, click **Clinic Information**. The clinic information is displayed.  
If you do not see the **Clinic Settings** tab, click the **Home** tab. You should now see the **Clinic Settings** tab.
- 2 Update the information as needed and click the **Save** button.
- 3 When you are finished, click **Close clinic settings** to return to the Patient List.

## Administrator tasks

If you are an administrative user, you will need to create, modify, or delete CareLink iPro software user accounts for your clinic as needed. For details on creating user accounts, see [Create user accounts on page 7](#).



### Modifying user accounts

If you have administrative privileges, you can modify a user account. For example, you may need to change a user password, or grant or remove administrative privileges.

- 1 In the **Clinic Settings** tab, click **Users**. The existing user accounts are displayed.
- 2 Select the user account and click the **Open user** button. The user account information appears.
- 3 If you want to edit the user account information, such as the password, enter the information and click the **Save** button.

### Deleting user accounts

If you have administrative privileges, you can delete a user account. You need to delete user accounts for users who no longer should have access to CareLink iPro software for your clinic, so that they can no longer access patient records.

- 1 In the **Clinic Settings** tab, click **Users**. The existing user accounts are displayed.
- 2 Select the user account and click the **Open user** button. The user account information appears.
- 3 If you want to delete the user account, click the **Delete User** button.
- 4 In the confirmation screen, click **Yes**.

# Troubleshooting

This appendix contains troubleshooting information for the CareLink iPro Therapy Management Software for Diabetes. Please refer to these instructions before contacting the 24 Hour HelpLine.

## Troubleshooting reference

Problem	Possible causes	What to do
<p>The reports only show a partial study. Data ends before study was supposed to end.</p>	<p>A common cause of a partial study is sensor pullout.</p> <p>If the sensor was not pulled out, the iPro2 recorder battery may not have had sufficient power to complete the study. CareLink iPro software checks the battery and displays a message during the upload process to warn you that there might be a problem:</p> <p><b>The iPro2 Recorder battery is not charging properly. Please refer to the User Guide for assistance.</b></p> <p>Also, the Dock displays a solid red warning light when there may be a problem with the iPro2 recorder battery.</p>	<ul style="list-style-type: none"> <li>• If the sensor pulled out, make sure that the sensor is fully inserted and properly taped to the skin for future studies.</li> <li>• If you did not see an error message in CareLink iPro software during the uploading process, it could be that there are not enough BG meter readings for calibration after a certain point in the study.</li> </ul> <p>Make sure that you have entered all of the patient's BG meter readings into CareLink iPro software. CareLink iPro software needs good BG meter readings in order to calibrate sensor data. Less than three BG meter readings per day, or more than 12 hours between BG meter readings, can result in data gaps.</p> <ul style="list-style-type: none"> <li>• If you saw a CareLink iPro software error message, see the troubleshooting steps for that error message in this section.</li> </ul>

Troubleshooting reference		
Problem	Possible causes	What to do
There are gaps in the sensor data in the reports.	<p>A common cause of data gaps is partial sensor pullout.</p> <p>There can also be calibration problems due to an insufficient number of BG meter readings, readings that are more than 12 hours apart, or readings that are out of the expected range.</p>	<ul style="list-style-type: none"> <li>Make sure that you have entered all of the patient's BG meter readings into CareLink iPro software. CareLink iPro software needs good BG meter readings in order to calibrate and report sensor data. Less than three per day can result in data gaps.</li> <li>Also check the sensor trace on reports to see if there are BG meter readings not used for calibration. Bad BG meter readings are identified as calibration errors. These BG meter readings are not used for calibration and cause the sensor plot to stop. The sensor plot starts again at a good BG meter reading. You can eliminate some data gaps by excluding bad BG meter readings using the Exclude feature in the Logbook.</li> <li>Some sensor pullouts can be avoided by applying an adhesive dressing over the iPro2 recorder and sensor.</li> <li>Always advise patients to test their blood glucose at least four times a day.</li> </ul>
I uploaded the wrong meter for a patient. Can I fix this?	The wrong patient meter was uploaded.	<ul style="list-style-type: none"> <li>In the Logbook screen, check the <b>Exclude</b> check box to exclude all of the BG meter readings that came from the wrong meter. The readings from the wrong meter will still be in the Logbook, but they will not affect sensor calibration or reports. If you find the right meter or log sheets for the patient, you can manually enter the BG meter readings from the right meter.</li> <li>Also, you can still upload the meter to the correct patient study.</li> </ul>
I uploaded the wrong study for a patient. Can I fix this?	The wrong patient study was uploaded.	Yes, you can move the entire study from the incorrect patient record to the correct patient record. For details, see <a href="#">Moving a patient study on page 49</a> .
I uploaded the recorder and I do not see the myLog app events that my patient recorded.	iPro2 data was not uploaded to the bold pending patient record.	Please confirm you uploaded the recorder under the same patient record created with the myLog app. Once the recorder is uploaded to a patient record, the data from the recorder is erased, you will not be able to upload the recorder again. If you've uploaded the recorder under the wrong patient record, you must manually enter the events by looking at the patient's mobile device.

## CareLink iPro software error messages

CareLink iPro software error messages		
Problem	Possible causes	What to do
<p>CareLink iPro software displayed this message during the upload process:</p> <p><b>iPro2 Dock not found. Please connect the iPro2 Dock to the computer. If none of the lights on the iPro2 Dock are on, please try connecting the iPro2 Dock to a different USB port on your computer.</b></p>	<p>A Dock is not connected to the computer, it is not securely connected, or it has insufficient power from the computer to operate.</p>	<ul style="list-style-type: none"> <li>If the white Dock power light is on, then the USB cable may not be securely connected. Make sure that the cable is plugged in all the way to the Dock and to the computer.</li> <li>If the white Dock power light is not on, try connecting the Dock to a different USB port on the computer. Wait for all three lights to flash, followed by a solid white light. If the Dock is connected to the computer but none of the lights turn on, there may be other USB devices connected that are using up power. Disconnect other devices. Do not connect more than one Dock at a time to a computer.</li> <li>If you are using a USB hub, it may not be receiving enough power for the Dock to operate. Try using a powered hub, which has its own electrical plug that connects to an electrical socket.</li> </ul>
<p>CareLink iPro software displayed this message during the upload process in the applet or the uploader:</p> <p><b>Device not found in iPro2 Dock. Please connect iPro2 Recorder. If an iPro2 recorder is connected, please try disconnecting and reconnecting the iPro2 recorder to the iPro2 Dock.</b></p> <p>Or</p> <p><b>No device was detected connected to the iPro2 Dock. Please check that the device is properly seated in the iPro2 Dock.</b></p>	<p>The iPro2 recorder is not in the Dock, or it is not properly connected. This message may also appear if the iPro2 recorder connector pins are damaged or corroded, or if there is moisture in the connector opening.</p>	<ul style="list-style-type: none"> <li>If your iPro2 recorder is connected, try disconnecting and reconnecting the iPro2 recorder to the Dock.</li> <li>If the white Dock power light is on, but the three lights do not flash when you connect the iPro2 recorder, the iPro2 recorder may be damaged. Check the iPro2 recorder connector pins for moisture, damage, or corrosion. For assistance in locating the connector pins, see the iPro2 System User Guide.</li> <li>If the iPro2 recorder pins are damaged or corroded, the iPro2 recorder cannot communicate with the Dock or CareLink iPro software. Contact the 24 Hour HelpLine. It may be time to replace the iPro2 recorder.</li> </ul>
<p>CareLink iPro software displayed this message during the upload process:</p> <p><b>iPro2 Recorder is not responding. Please confirm the connected device is an iPro2 Recorder and try again.</b></p> <p>The red warning light on the Dock is on.</p> 	<p>The Dock only works with iPro2 recorders. You may be trying to upload the wrong device. The iPro2 recorder has an "i" on the front of it.</p>	<ul style="list-style-type: none"> <li>If you are sure that the device is an iPro2 recorder, it may not be properly connected. Try disconnecting the iPro2 recorder from the Dock and then reconnecting it.</li> <li>If the problem continues, check the iPro2 recorder connector pins for moisture, damage, or corrosion. For assistance in locating the connector pins, see the iPro2 System User Guide. If the pins are damaged or corroded, contact the 24 Hour HelpLine. It may be time to replace the iPro2 recorder.</li> <li>If the iPro2 recorder connector pins are not damaged, the iPro2 recorder may need to be reset. For instructions, see the iPro2 System User Guide.</li> </ul>

CareLink iPro software error messages		
Problem	Possible causes	What to do
<p>CareLink iPro software displayed this message during the upload process in the applet or the uploader:</p> <p><b>The iPro2 Recorder battery is not charging properly. Please refer to the User Guide for assistance.</b></p> <p>Or</p> <p><b>Possible damage to iPro2 recorder battery. Please refer to User Guide for assistance.</b></p> <p>The red warning light on the Dock is on.</p> 	<p>The iPro2 recorder battery may be reaching the end of its life. However, this message may also appear if the iPro2 recorder connector pins are damaged or corroded, or if there is moisture in the connector opening.</p>	<ul style="list-style-type: none"> <li>• Disconnect the iPro2 recorder and reconnect it to the Dock. Allow the iPro2 recorder to charge for 20 minutes. The green charging light may flash at first, but if the red warning light turns on again, check the iPro2 recorder connector pins for moisture, damage, or corrosion. For assistance in locating the connector pins, see the iPro2 System User Guide.</li> <li>• If the red warning light continues to turn on, perform a reset as described in the iPro2 System User Guide. Please note that if you saw this error message in CareLink iPro software, the recent patient data was successfully uploaded, but you may wish to confirm this before performing the reset. If the Dock displays a solid green charging light, the reset was successful.</li> <li>• If the iPro2 recorder connector pins are damaged or corroded, or the Dock still displays a red warning light for the iPro2 recorder after the reset, contact the 24 Hour HelpLine. It may be time to replace the iPro2 recorder.</li> </ul>
<p>CareLink iPro software displayed this message during the upload process:</p> <p><b>Possible damage to iPro2 Recorder circuitry. Please refer to the User Guide for assistance.</b></p> <p>The red warning light on the Dock is on.</p> 	<p>There may be moisture, damage, or corrosion in the iPro2 recorder connector opening, or the iPro2 recorder may need to be reset.</p>	<ul style="list-style-type: none"> <li>• Disconnect the iPro2 recorder and reconnect it to the Dock. Charge the iPro2 recorder for 20 minutes. If the Dock displays a solid green charging light, the reconnection was successful.</li> <li>• If the green charging light flashes at first, and then the red warning light turns on, check the iPro2 recorder connector pins. For assistance in locating the connector pins, see the iPro2 System User Guide.</li> <li>• If you do not find any problems inside of the connector opening, and the green charging light never remains on without flashing when you connect the iPro2 recorder to the Dock, perform a reset as described in the iPro2 System User Guide, and charge the iPro2 recorder for one hour. Please note that if you saw this error message in CareLink iPro software, the recent patient data was successfully uploaded, but you may wish to confirm this before performing the reset. If the Dock displays a solid green charging light, the reset was successful.</li> <li>• If the red warning light continues to turn on, contact the 24 Hour HelpLine. It may be time to replace the iPro2 recorder.</li> </ul>
<p>CareLink iPro software displayed this message during the upload process:</p> <p><b>Transfer failed: An unrecoverable data error has been detected in the device's data. Please refer to User Guide for assistance.</b></p>	<p>The data on the iPro2 recorder cannot be recovered. CareLink iPro software cannot complete the data upload. There may be a problem with the device.</p>	<p>Contact the 24 Hour HelpLine for assistance. You may be instructed to reset the iPro2 recorder. Please note that resetting the iPro2 recorder erases all data from the iPro2 recorder.</p>

CareLink iPro software error messages		
Problem	Possible causes	What to do
<p>CareLink iPro software displayed this message during the meter upload process:</p> <p><b>An unrecoverable data error has been detected in the device's data. Please refer to the User Guide for assistance.</b></p>	<p>This message is different from the message above. It appears when CareLink iPro software cannot complete the meter data upload.</p>	<p>Enter the BG meter readings manually using the Logbook screen in CareLink iPro software.</p>
<p>CareLink software displayed this message when initiating an iPro2 upload:</p> <p><b>More than one iPro2 Dock is connected to the computer. Please connect only one iPro2 Dock.</b></p>	<p>There may be multiple iPro2 Docks attached to the computer.</p>	<p>Disconnect all Docks except the one containing the iPro2 recorder to upload and try again.</p>
<p>CareLink software displayed this message during an iPro2 upload:</p> <p><b>The iPro2 recorder data could not be cleared. Check the patient record to ensure that the data has been received by the CareLink software. You may reset the iPro2 recorder using the iPro2 Dock. For instructions on how to reset the iPro2 recorder, refer to the User Guide</b></p>	<p>The iPro2 device battery may be damaged.</p>	<ul style="list-style-type: none"> <li>• Disconnect the iPro2 recorder and reconnect it to the Dock. Charge the iPro2 recorder for 20 minutes. If the Dock displays a solid green charging light, the reconnection was successful.</li> <li>• If the green charging light flashes at first, and then the red warning light turns on, check the iPro2 recorder connector pins. For assistance in locating the connector pins, see the iPro2 System User Guide.</li> <li>• If you do not find any problems inside of the connector opening, and the green charging light never remains on without flashing when you connect the iPro2 recorder to the Dock, perform a reset as described in the iPro2 System User Guide, and charge the iPro2 recorder for one hour. Please note that if you saw this error message in CareLink software, the recent patient data was successfully uploaded, but you may wish to confirm this before performing the reset. If the Dock displays a solid green charging light, the reset was successful.</li> </ul>
<p>CareLink software displayed this message during an iPro2 upload:</p> <p><b>The iPro2 recorder does not contain any patient evaluation data. Please verify that the correct iPro2 recorder is connected to the computer. If this iPro2 recorder has been reset using the iPro2 Dock reset button, then all data has been cleared.</b></p>	<p>The iPro2 device contains no patient evaluation data. One of several events may have occurred:</p> <p>The reset button on the iPro2 recorder was pressed.</p> <p>The recorder data has already been read and loaded into CareLink iPro. The recorder data is intentionally cleared by the uploader application after the iPro2 recorder is successfully read and accepted by CareLink.</p> <p>The iPro2 device has not been used in a study; perhaps it is a new device or mistaken for another device that was used in a study.</p>	<ul style="list-style-type: none"> <li>• Confirm the correct iPro2 device has been uploaded.</li> <li>• If you are uploading the correct iPro2 device, confirm that the current evaluation was not already uploaded, as the data would have been erased upon a successful upload. You may want to check to confirm the upload occurred in the correct patient record.</li> </ul>

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**NOTE:** For definitions of symbols displayed on the device and package labeling, please see:  
[www.medtronicdiabetes.com/symbol-definitions](http://www.medtronicdiabetes.com/symbol-definitions)

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# Glossary

**Area Under the Curve (AUC)** - Indicates the amount in high and low excursions as determined by preset values. Excursion data indicates the frequency of highs or lows. AUC indicates the magnitude of events by showing how far out of range and for how long.

**BG** - Blood Glucose

**BG reading** - Blood glucose measurement that is taken by a blood glucose meter.

**Calibrate** - Check, adjust, or set to a standard. Sensor data is calibrated using BG meter readings.

**Docking station (Dock)** - Device that performs two functions: uploading glucose sensor data from an iPro2 recorder to CareLink iPro software; and charging the iPro2 recorder. The Dock can be connected to a computer or to an electrical socket.

**Evaluation** - Also known as "Study", refers to the period of time that a patient wears a glucose sensor and iPro2 or Envision Pro recorder. This word also refers to an upload of glucose sensor data from an iPro2 or Envision Pro recorder into CareLink software, along with any Logbook entries and a meter upload from an iPro2 recorder. Each evaluation/study has its own set of reports.

**iPro2 digital recorder (iPro2 recorder)** - Device that continuously records sensor glucose data while connected to a glucose sensor. You can upload the data to CareLink iPro software by connecting the iPro2 recorder to a Dock, and view the sensor data on reports.

**Logbook** - A screen in CareLink iPro software that lets you manually enter events such as BG meter readings, meals, exercise, and medication taken, so that these events show up on reports. The Logbook also displays BG meter readings, and possibly other events, that you upload from a supported blood glucose meter into CareLink iPro software.

**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.

**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 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.

**Upload** - The process of transferring diabetes device data to the CareLink iPro software.

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