A REFERENCE GUIDE FOR SCHOOL NURSES

The MiniMed 630G Insulin Pump and Continuous Glucose Monitoring System
This guide is intended to assist school nurses with the basic operations of Medtronic insulin pumps and continuous glucose monitoring (CGM) systems while the student is at school.

It is recommended that signed orders from the student’s healthcare provider include a back up plan if the insulin pump* is not able to be used or deliver insulin. This backup plan should include:

- Long-acting insulin pens (or syringes), and dosage
- Rapid-acting insulin pens (or syringes), and doses for food and correcting high blood glucose

The responsibilities of the parents/guardian, school nurse, and other school personnel should also be established.

*Pump systems are only approved for use with rapid-acting insulin.
# A Reference Guide for School Nurses

## Reference Guide for Insulin Pump

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REFERENCE GUIDE FOR INSULIN PUMP
The insulin pump uses only rapid-acting insulin to deliver insulin in two ways:

**Bolus** – press the pump buttons to deliver insulin for meals or to correct a high BG

**Basal** – the pump automatically delivers small amounts of insulin every hour

During school hours, the feature used most often is giving a bolus.
Pump Buttons

Backlight
When you are not pressing buttons on your pump, you will notice that the Backlight will soon turn off. The pump is still on; it is just saving battery life. You can simply press any button to make the screen reappear.

Unlocking the Pump
After the Backlight has been off for a few minutes, the pump goes into Sleep mode and the pump is locked. When you begin using your pump again, you will see a screen like the one shown here when you leave the Home screen. You will need to press the arrow key that is highlighted to unlock the pump.
HOME SCREEN

Current time

Active insulin: displays any insulin still active from a previous bolus

BG reading: displays a BG taken in the last 12 minutes

Status bar: provides a quick look at the pump’s status

Bolus: gives you access to the bolus delivery screen and other bolus insulin options

Active insulin: displays any insulin still active from a previous bolus

Basal: gives you access to basal insulin options
Press ▲ to the Status Bar and press ○.

Notifications
- Alerts, alarms and reminders that happened in last 24 hours
- Select each for further detail

Quick Status
- Last bolus, last BG, current basal, units left, battery level

Need more Bolus info? Go to...

Daily History — verify and review boluses given
1. Press Menu.
2. Select History.
4. Select the day you want to view.
The Bolus Wizard calculator makes it easy to estimate the amount of insulin needed in order to cover food, a high blood glucose, or both at the same time. The Bolus Wizard calculator uses personal settings as well as the student’s current blood glucose reading and carbohydrate intake to calculate an estimated bolus amount. The Bolus Wizard calculator also takes active insulin into account.

**NOTE**

Active insulin is insulin from a previous bolus that is still working to lower glucose levels.
Deliver Food and Correction Bolus
1. Test BG. Select Boltus. Select Boltus Wizard.
2. If using link meter, BG is on screen. If not, select BG. Use ↑ to enter BG and press O.
3. Select Carbs. Use ↑ to enter grams of carb and press O.
4. Select Next.
5. Select Deliver Boltus.

Deliver Correction Bolus – No Food
1. Test BG. Select Boltus. Select Boltus Wizard.
2. If using link meter, BG is on screen. If not, select BG. Use ↑ to enter BG and press O.
3. Press √ to Next.
4. Select Deliver Boltus.

Deliver Food Bolus – No Correction
2. Press √ to Carbs and press O. Press ↑ to enter grams of carbs and press O.
3. Select Next.
4. Select Deliver Boltus.

The Bolus Wizard is the most commonly used feature that you’ll use when your student needs insulin for eating and giving corrections.
MANUAL BOLUS & STOP BOLUS

Manual Bolus – Giving a set amount of insulin without using Bolus Wizard Calculator

1. Select Bolus.

2. If using link meter, BG is on screen. If not, select BG. Use ⬆ to enter BG and press ⬇.
3. Select Deliver Bolus.

Stop Bolus – Stop a bolus while a bolus is delivering

1. Select Stop Bolus.

2. Press ⬤ to Yes and press ⬇.

3. Review Bolus Stopped screen to see how much bolus delivered.
4. Select Done.
Students might suspend delivery when removing their pump for activity, or on accident. Here’s how to suspend and resume delivery:

**Suspend Delivery**

1. From Home screen, press ✅.
2. Select **Suspend Delivery**.
3. Press ✅ to Yes and press ✅.

**Delivery Suspended Successfully** message appears.

**Resume Delivery**

1. Select **Resume**.
2. Press ✅ to Yes and press ✅.

**Delivery Resumed Successfully** message appears.
Set a Temp Basal

1. From Home screen, select Basal.
2. Select Temp Basal.

3. Press ▲ to set duration and press ○.
4. Select Percent.
5. Press ▲ or ▼ to enter the desired percent of basal rate.
6. Select Begin.

NOTE Home screen will show Basal (T). At the end of the Temp Basal, the normal basal rate resumes.

Cancel a Temp Basal

This is if you decide you don’t need the temp basal any longer.

1. From Home screen, select Basal (T).
2. Select Cancel Temp Basal.
<table>
<thead>
<tr>
<th>ALERT</th>
<th>REASON</th>
<th>STEPS TO TAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low battery Pump 12:00 PM  Replace battery soon.</td>
<td>Low battery</td>
<td>Change battery when possible. See next page for how-to instructions.</td>
</tr>
<tr>
<td>Battery failed 12:00 PM  Insert new AA battery.</td>
<td>Failed battery test</td>
<td>Try again, or change battery and use new battery.</td>
</tr>
<tr>
<td>Low reservoir 12:00 PM  5.0 units remaining.  Change reservoir.</td>
<td>Low Reservoir</td>
<td>Change reservoir when possible.</td>
</tr>
<tr>
<td>Insulin flow blocked 12:00 PM  Check BG. Consider injection and testing ketones.  Change reservoir.</td>
<td>Insulin Flow Blocked</td>
<td>Read message on screen to understand the alarm and choose the desired option.</td>
</tr>
</tbody>
</table>

Clear Alert or Alarm
Press ✕ then ○
CHANGING THE BATTERY

The pump is powered by a AA battery. A brand new Lithium, Alkaline, or fully-charged rechargeable battery can be used.

1. Unscrew the battery cap using the edge of the belt clip. (if belt clip is not available, use a thick coin.)
2. Place battery into the battery compartment with negative (flat) end going in first.
3. Place battery cap into the pump and use the edge of the belt clip to screw the cap back on. Be sure not to overtighten the battery cap.

NOTE Do not under-tighten or try to over-tighten the battery cap. It should be aligned horizontally with the pump case as shown here.

Battery Alerts

- Low battery pump alert — 8-10 hours of battery life remains
- Replace battery alarm — 30 minutes of battery life remains
- Replace battery now alarm — if battery isn’t changed in 10 minutes, pump will shut down

NOTE To clear an alert or alarm, read the message, press \( \checkmark \) and \( \odot \).
Using CGM

The benefit of wearing continuous glucose monitors is that the student and you see their glucose values in real-time on their pump screen. Students still must test their BGs even while wearing CGM. Keep in mind that CGM should be used to focus on the **speed** and **direction** of sensor glucose values. Do not use sensor glucose values to make therapy decisions such as giving a bolus. Check the blood sugar with a meter and use the fingerstick value to treat.

To access more CGM graphs:

From the CGM Home screen, press \( \wedge \) button to highlight the graph on the Home screen. Press \( \odot \) to access the 3, 6, 12, and 24 hour graphs.

To see historical glucose data, press the \( \leftarrow \) button.
What is Calibration?
Calibration is essential for optimal CGM performance and to display CGM information. To calibrate, test with a BG meter, and then enter that value into the pump.

When to Calibrate?
Calibrate 3–4 times a day.

<table>
<thead>
<tr>
<th>3-4 TIMES PER DAY</th>
<th>Upon waking or Before Meal 1</th>
<th>Before Meal 2</th>
<th>Before Meal 3</th>
<th>Before Bed</th>
</tr>
</thead>
</table>

Skip Calibration if you see 2 or 3 up or down arrows on the pump screen.

How do I know when a calibration is due?
Look at Sensor Status screen

Tips for Calibrating
- Wash hands before checking BG
- Calibrate before meals & before taking insulin (when glucose is stable)
- If you see arrows on the pump, wait to calibrate
- After testing, calibrate with BG value right away
- Do no more than 3-4 calibrations a day (but you can test BG as often as you like)
Once you have entered a calibration BG, the Home screen will show you that the system is calibrating.

You will start seeing updated sensor glucose readings in about 10-15 minutes.

**WAYS TO CALIBRATE**

<table>
<thead>
<tr>
<th>OPTION 1</th>
<th>OPTION 2</th>
<th>OPTION 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the CONTOUR® NEXT LINK 2.4 Meter</td>
<td>Using the Bolus Wizard® Calculator</td>
<td>Using the Home Screen Graph</td>
</tr>
</tbody>
</table>

Select **Calibrate Sensor** after BG is sent from meter.

Select **Yes** to calibrate sensor after bolus is delivered.

Highlight sensor graph, press and hold select. Enter BG and select **Calibrate**.

When I see a “Calibrate Now” alert:
C = Clear the Alert
A = Accurate BG (enter right away)
L = Look for arrows (if arrows, don’t calibrate)
**ALARMS & ALERTS | CGM SUSPEND ON LOW**

**Suspend on Low**

The pump will temporarily stop delivering insulin if the sensor glucose has reached or fallen below the low limit.

1. Select **Suspended on low**.
2. Press ⬆️ to **Resume Basal**.
3. Press ⏩ and select **Yes**.

Insulin will stay suspended for 2 hours if you do not choose to Resume Basal.

**WARNING** Do not use the Suspend on low feature to prevent or treat low glucose. The Suspend on low feature is designed to suspend insulin delivery when the student is unable to respond to the Suspend on low alarm. Always confirm the sensor glucose using a BG meter, and follow the instructions of a healthcare professional. Using Suspend on low to prevent or treat low glucose may result in prolonged hypoglycemia.

Press ⬇️ then ⏭️ to clear the alarm.
<table>
<thead>
<tr>
<th>ALERT</th>
<th>REASON</th>
<th>STEPS TO TAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A calibration is needed in order to receive sensor glucose readings.</td>
<td>Enter BG value into the pump to calculate.</td>
<td></td>
</tr>
<tr>
<td>Communication between pump and transmitter has been lost for 30 minutes during or after warm up.</td>
<td>Check that the sensor is still inserted in the skin and the transmitter and sensor are still connected. Move the pump closer to the transmitter. It can take up to 15 minutes for the pump and transmitter to start communicating.</td>
<td></td>
</tr>
<tr>
<td>The BG meter value could not be used to calibrate; it was too different from the SG value.</td>
<td>Wait at least 15 minutes. Then wash hands and repeat the BG test. Use this value to calibrate again.</td>
<td></td>
</tr>
<tr>
<td>Sensor glucose value is equal to or higher than the high limit set.</td>
<td>Do not treat glucose based on SG. Confirm it using a BG meter. Treat if necessary based on instructions from a healthcare professional and continue to monitor.</td>
<td></td>
</tr>
<tr>
<td>Sensor glucose value is equal to or lower than the low limit set.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ADDITIONAL RESOURCES

Medtronic 24 Hour HelpLine
- Call 1-800-646-4633, option 1

myLearning Classes
- Online interactive classes for pump and CGM, and diabetes basics
- Professional.medtronicdiabetes.com/mylearning

Medtronic Diabetes Website
- Info on products, product Support, and living with diabetes
- www.medtronicdiabetes.com

Other Helpful Resources
- National Association of School Nurses – www.nasn.org
- Juvenile Diabetes Research Foundation – www.jdrf.org

Need help? You can reach Medtronic’s helpline 24 hours a day, 7 days a week with any questions.
SAFETY INFORMATION

MINIMED®630G SYSTEM WITH SMARTGUARD™ TECHNOLOGY

The MiniMed 630G system with SmartGuard™ technology requires a prescription. It is intended for continuous delivery of basal insulin and administration of insulin boluses for the management of diabetes mellitus in persons 16 years of age or older, requiring insulin as well as for the continuous monitoring and trending of glucose levels in the fluid under the skin. The SmartGuard feature allows one to program the pump to temporarily suspend delivery of insulin for up to two hours when the sensor glucose value falls below a predefined threshold value.

The MiniMed 630G system is not intended to be used directly for making therapy adjustments or preventing or treating hypoglycemia. Therapy to prevent or treat hypoglycemia should be administered according to the recommendations of the user’s healthcare professional. The information provided by CGM systems is intended to supplement, not replace, blood glucose information obtained using a blood glucose meter (BGM). A confirmatory finger stick test via the CONTOUR®NEXT LINK 2.4 blood glucose meter is required prior to making adjustments to diabetes therapy. Always check the pump display to ensure the glucose result shown agrees with the glucose results shown on the CONTOUR®NEXT LINK 2.4 Meter. Do not calibrate the CGM device or calculate a bolus using a blood glucose meter result taken from an Alternative Site (palm) or from a control solution test. Do not calibrate the CGM device when sensor or blood glucose values are changing rapidly, e.g., following a meal or physical exercise. If a control solution test is out of range, please note that the result may be transmitted to the pump when in the ‘Always’ send mode. Pump therapy is not recommended for people who are unwilling or unable to perform a minimum of four blood glucose tests per day, or who are unwilling or unable to maintain contact with their healthcare professional, or whose vision or hearing does not allow recognition of pump signals and alarms.

Insulin pumps use U100 rapid-acting insulin. If insulin delivery is interrupted for any reason, you must be prepared to replace the missed insulin immediately. WARNING: The SmartGuard Suspend on low feature will cause the pump to temporarily suspend insulin delivery for two hours when the sensor glucose reaches a set limit. Under some conditions of use the pump can suspend again resulting in very limited insulin delivery. Prolonged suspension can increase the risk of serious hyperglycemia, ketosis, and ketoacidosis. Before using the SmartGuard Suspend on low feature, it is important to read the SmartGuard Suspend on low information in the Getting Started Guide and the MiniMed 630G System User Guide and discuss proper use of the SmartGuard Suspend on low feature with a healthcare professional.

Insertion of a glucose sensor may cause bleeding or irritation at the insertion site. Consult a physician immediately if the patient experiences significant pain or if you suspect that the site is infected. Please visit www.medtronicdiabetes.com/importantstepsafetyinformation for more details.