ROBIN WINDSOR HARKER : TYPE 1 DIABETES & CELIAC MANAGEMENT PLAN

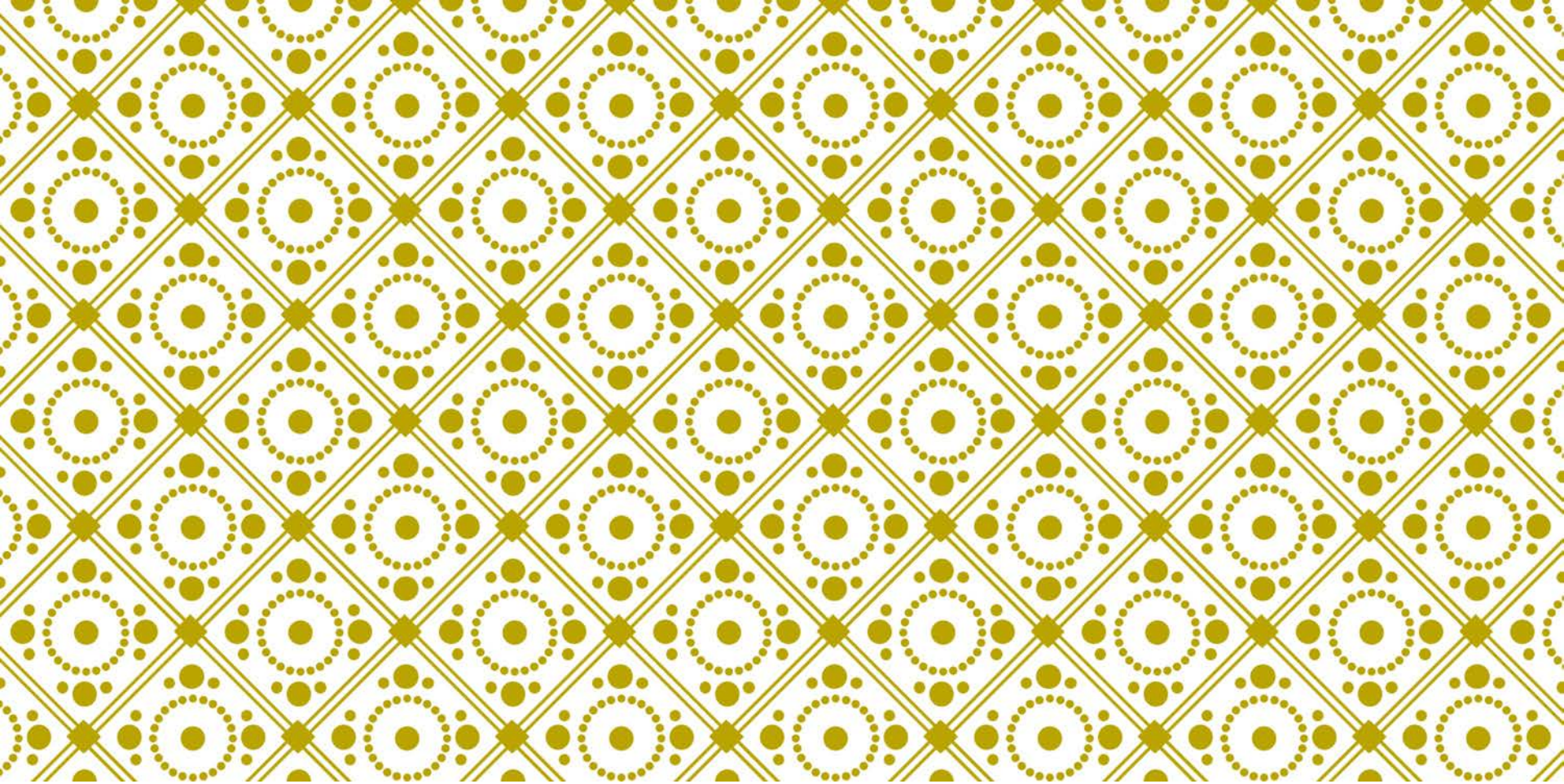
Strathcona Elementary
2021-2022
Sage Grade 1

ROBIN WINDSOR HARKER

- Robin is 6 years old
- He has a big sister, Nora (SAGE Grade 3), and a little sister, June
- He loves LEGO, fishing, superheroes (especially SpiderMan) and sports

DIAGNOSIS

- Robin was diagnosed with Type 1 Diabetes at 19 months of age
- He was diagnosed with Celiac Disease at age 3



CELIAC CARE

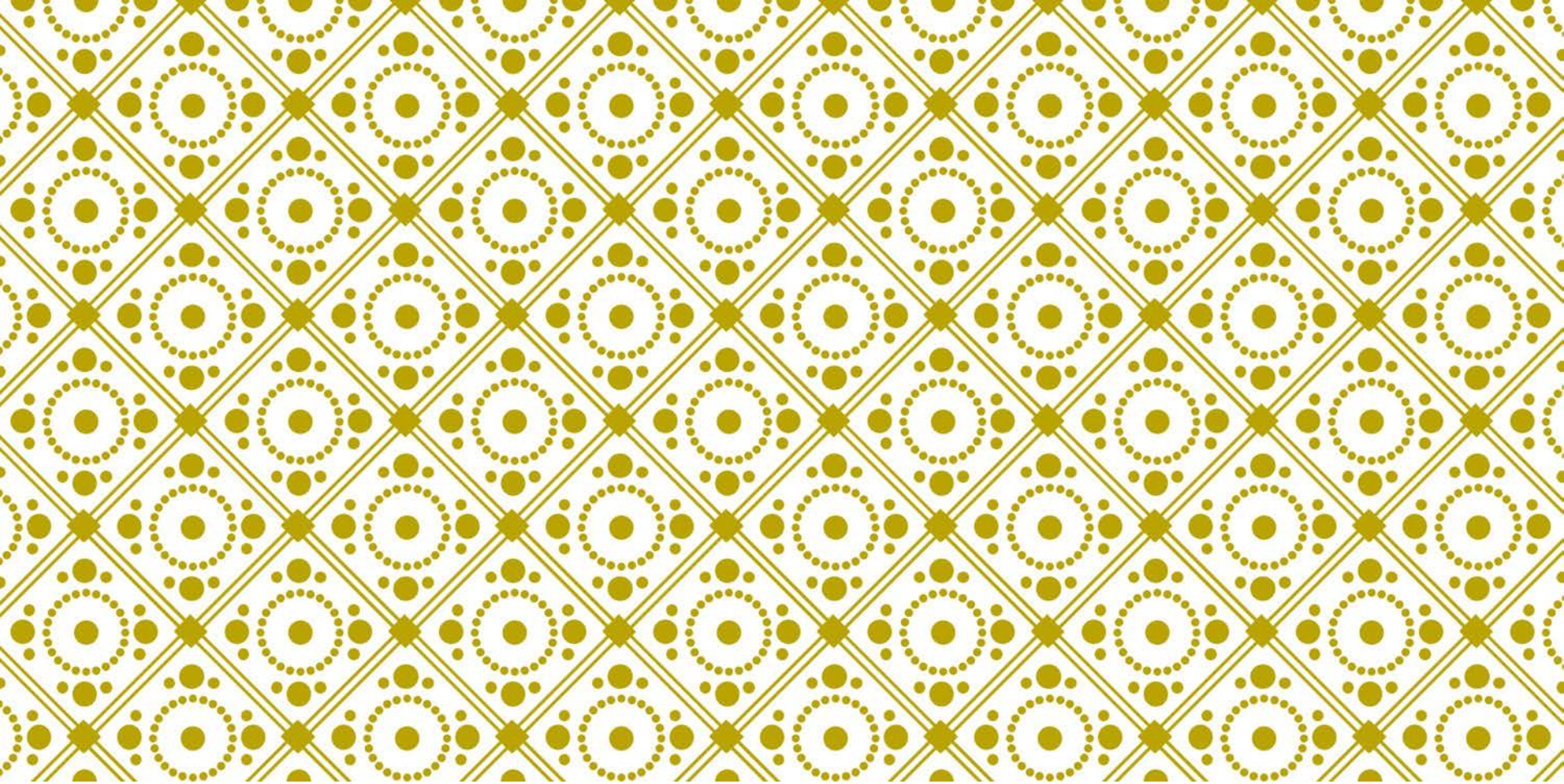
The “easy” part

WHAT IS CELIAC DISEASE?

- **Celiac disease** is an autoimmune disorder in which eating gluten (found in wheat, barley, rye, etc.) triggers an immune response in the body, causing inflammation and damage to the small intestine.
- Gluten is found in a variety of foods, such as most baked goods. It takes a minute amount of gluten to cause an immune reaction.
- If Robin ingests gluten from cross contamination or eats something with gluten in it, he will not need emergency medical attention, but he will experience severe gastrointestinal distress, including vomiting, diarrhea, fatigue, bloating, headache and stomach pain.

CELIAC DISEASE MANAGEMENT

- Please ensure all children wash their hands before and after nutritional breaks
- Kindly wash/wipe down all tables following nutritional breaks
- Please provide a gluten-free playdough recipe for the playdough club
- Please ensure Robin does not eat anything that isn't from his lunchbox or previously approved



DIABETES CARE

The less easy part

WHAT IS TYPE 1 DIABETES (T1D)?

- Type 1 Diabetes is an autoimmune disorder where the insulin producing cells of the pancreas are destroyed.
- Insulin allows your body's cells to absorb and use glucose as energy
- Robin must inject insulin to convert glucose from food into energy

- T1D is not caused by a lack of exercise or eating too much sugar
- T1D is not contagious
- There is no cure for T1D

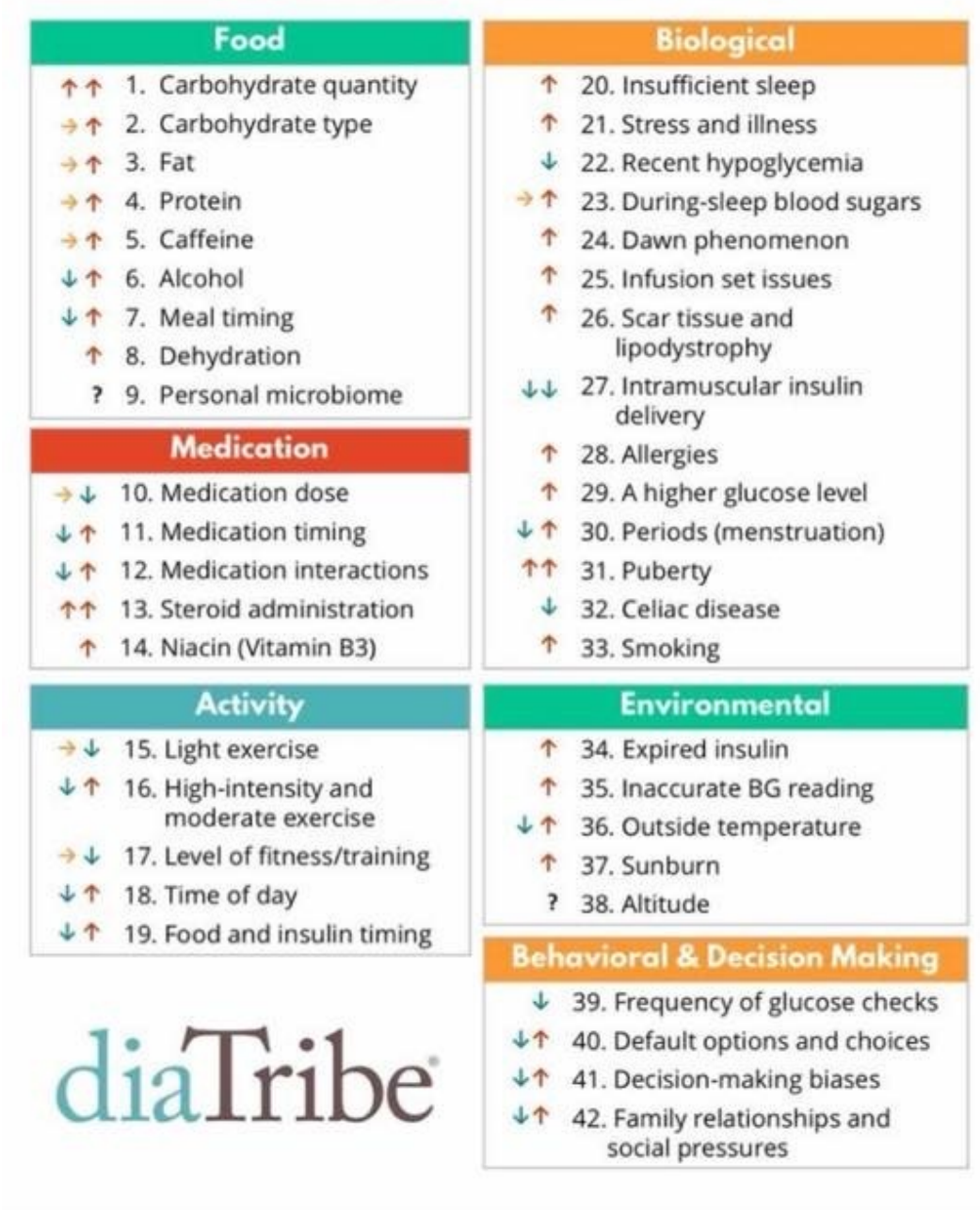
KEEPING BLOOD SUGAR IN RANGE

- Diabetes is managed by controlling the amount of glucose (sugar) in the blood
- This is accomplished by managing several factors:
  - Food
  - Insulin
  - Exercise
  - Eighteen million other things
- The rule of thumb is:
  - Food makes the glucose level rise
  - Exercise and insulin make the glucose level fall
- When the various factors don't balance perfectly:

Hypoglycemia - low blood sugar. If blood sugar gets too low, he can go into a coma and die. UNDER 4.0 IS LOW.

Hyperglycemia - high blood sugar. If blood sugar gets too high, he can go into a coma and die (but less quickly). OVER 9.0 IS HIGH.

42 FACTORS THAT AFFECT BLOOD SUGAR

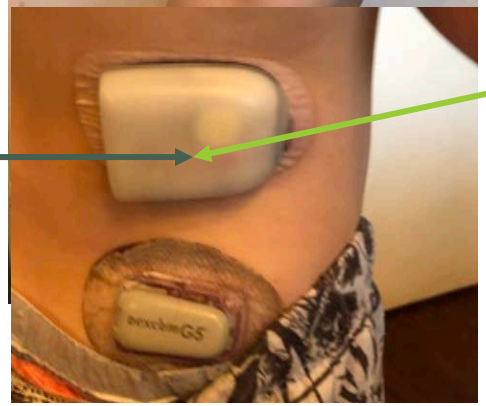


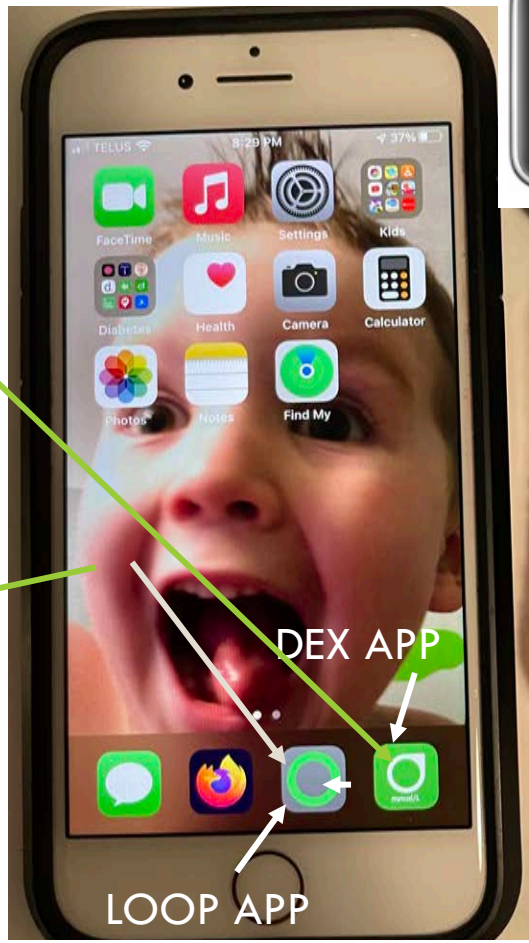
ROBIN'S TECHNOLOGY

APPLE WATCH WITH LOOP APP

DEXCOM CONTINUOUS GLUCOSE MONITOR (G6)

OMNIPOD INSULIN PUMP





ROBIN'S APPLE WATCH

- Robin can monitor his blood sugar and bolus for carbs from his watch.
- It links to his phone and does not work without the phone being near.
- Details on how to operate follow in the bolusing for carbs section.

DON'T PANIC

- Diabetes is a long-term game. Watch and wait.
- Insulin takes minimum 15 minutes to start working and won't stop for 2-6 hours.
- Sugar takes ~15 minutes to start absorbing.
- The glucose monitor can lag behind what he is feeling, so if he says he is low, unless he is above 11, believe him.
- Don't let the data or the beeping freak you out.
- Look at his face and ask him how his sugar feels.
- IF ROBIN IS ACTING FINE, THEN HE IS USUALLY FINE.
- When in doubt (e.g. if his glucose monitor isn't working) and if you're concerned, give him sugar.

- Robin has a bag which contains his phone, sugar, and glucagon. This bag **must be carried by the nurse, or supervising teacher <u>at all times</u>**, including recess, outdoor play, gym, fire drills, etc.

WHEN TO CONTACT PARENTS

- **If you ever have a question or need clarification.**
- Robin is on the Omnipod insulin pump and Dexcom continuous glucose monitor. If the pod(s) comes off his body or alarms continuously, notify parents immediately. This needs to be replaced quickly so insulin delivery can continue.
  - Failure in doing so can quickly cause high blood sugars, ketones and requires hospitalization. This is a very **serious situation**.
- If he is having persistent lows or highs.
- If sick or unwell, especially if throwing up (this is **very serious** for T1D).
- YOU CAN USE ROBIN'S PHONE TO TEXT (Team Robin's Pancreas) OR FACETIME US.

  Mom (Sharon) 647.209.0025
  Dad (Ryan) 289.314.5525

WHAT TO DO WITH GLUCOSE INFORMATION

	<3.0	3.0-3.8	3.8-4.4	4.4-5.5	5.5-6.6	6.6-10.0	10.0-14.0	14.0-19.0	>19.0
⇈	Give 5g Retest~15 min	Check BG Observe	Observe	Observe	Observe	Observe	Check BG Correct w/ pump	Check BG Correct w/ pump	Check site Correct w/ pump if not w/in 1 hr
↑	Give 5g Retest~15 min	Check BG Observe	Observe	Observe	Observe	Observe	Check BG Correct w/ pump	Check BG Correct w/ pump	Check site Correct w/ pump if not w/in 1 hr
↗	Give 5g Retest~15 min	Check BG Observe	Observe	Observe	Observe	Observe	Check BG Correct w/ pump	Check BG Correct w/ pump	Check site Correct w/ pump if not w/in 1 hr
→	Check BG Give 10g Retest~15 min	Check BG Give 5 g	Observe	Observe	Observe	Observe	Check BG Correct w/ pump	Check BG Correct w/ pump	Check BG Correct w/ pump if Check ketones
↘	Check BG Give 10g Retest~15 min	Check BG Give 5 g	Check BG Give 5 g	Check BG Give 5 g	Observe	Observe	Observe	Check BG Correct w/ pump	Check BG Correct w/ pump if Check ketones
↓	Check BG Give 15g Retest~15 min	Check BG Give 10 g	Check BG Give 5 g	Check BG Give 5 g	Check BG Give 5 g	Observe	Observe	Observe	Check BG Correct w/ pump if Check ketones
⇊	Check BG Give 15g Retest~15 min	Check BG Give 10 g	Check BG Give 10 g	Check BG Give 10 g	Check BG Give 10 g	Check BG Give 5 g	Observe	Observe	Check BG Correct w/ pump if Check ketones

SYMPTOMS OF HYPOGLYCEMIA AND HYPERGLYCEMIA

Hypoglycemia (LOW blood sugar <4.0)

- Sudden hyperactivity (DRIVES YOU NUTS)
- Paleness
- Stomach pain
- Hunger
- Mood swings
- Headache
- Inability to concentrate
- Sweating
- Shaking
- Dizziness

Red = Low

Hyperglycemia (HIGH blood sugar >9.0)

- Pale
- Hungry/thirsty
- Request to use washroom
- Drowsiness
- Stomach pain
- Accidents (wetting self)
- Agitation/mood swings
- Excessive energy
- Inability to concentrate
- Sound sensitive

Yellow = High

- **Hypoglycemia unawareness.** Normally, a person will feel warning symptoms when their blood sugar goes low, however, those with hypoglycemia unawareness have reduced warning signals and do not recognize they are low. Even if they happen to do a blood sugar test, they may not realize what they need to do to treat the low.
- Robin is both Hypo and Hyper unaware. We always support and encourage him telling an adult if he feels off. If Robin shows any sudden temperament changes, please check his monitor.

THIS IS WHAT HYPOGLYCEMIA (LOW) LOOKS LIKE

Red = Low

- Low (>4.0)

- Urgent Low (>3.2 mmol)

GIVE ROBIN SUGAR

HOW TO TREAT A LOW BLOOD SUGAR

- Dexcom (Continuous Glucose Monitor) is set to alarm if blood sugar is lower than 4.1.
- If a low BG occurs, Robin needs to treat it by eating sugar according to his rainbow chart (5 – 15 g of fast acting sugar – juice, skittles, rockets, etc.). Acknowledge the low alert on the Dexcom app or it will keep beeping at you.
- If after 15 minutes, he is still low, repeat (more sugar). Dexcom will beep again to let you know when.
- Robin has a container containing emergency low treatments (aka SUGAR) as well as a bag which can be carried by the supervisor wherever they go.
- If Robin is outside for recess, the bag needs to be with the supervisor. Do not have him come to find an adult or walk to the office – this can be very dangerous.
- He is NEVER to be left alone while experiencing a low blood sugar.
- If it is longer than 1 hour until a meal, supplement with a snack containing 15 grams of carbs and protein (usually a Greek yogurt or granola bar)

THIS IS WHAT IN RANGE LOOKS LIKE

- Everyone is happy!
- Enjoy being a normal person for five minutes

THIS IS WHAT HYPERGLYCEMIA (HIGH) LOOKS LIKE

Yellow = High

- High (<9.0 mmol)

- Super High (>14.0)

*If high for more than 3 hours, check for ketones

GIVE ROBIN INSULIN AND WATER

HOW TO TREAT A HIGH BLOOD SUGAR

- Dexcom is set to alarm if blood sugar is higher than 9.6.
- High blood sugars need to be addressed with a "bolus" (delivery) of insulin from the pump **if it has been longer than 2 hours** following a meal. Post-meal spikes are common. Robin needs this to be done for him via the Loop app.
- Use the bolus tool to deliver the recommended bolus. If no bolus is recommended, an override may need to be engaged. Contact parents for further instructions.
- **It can take a long time for a high to return to normal levels.** If, after 2 boluses, blood sugars are not coming down, the pump may need to be replaced.
- If blood sugar is higher than 9.6 for 3+ hours, please check for ketones. If ketones are medium – large (higher than 0.6), please contact parents for instructions.
- Please contact parents if blood sugar is over 14, especially after receiving a bolus.
- Encourage him to drink water. He may also need to use the restroom more frequently when BGs are high.

SEVERE LOW BLOOD SUGAR

Symptoms - Unresponsive or unconscious; having a seizure; or unable to get juice or sugar in by mouth:

1. Place Robin in the recovery position (lying on side with leg bent).
2. Have someone call 911 and advise you have an Insulin Dependent Type 1. Diabetic child who is unresponsive; then call parents.
3. Stay with them until ambulance arrives. Do NOT give food or drink as he may choke.

- THIS IS A LIFE-THREATENING SITUATION
- There will be glucagon kit (intra-nasal and injection) kept in his container and one in the office for emergency use.
  - Glucagon is a hormone that causes the liver to release glycogen to raise blood sugar levels in emergency situations.
  - The nurse will be trained to administer glucagon.

INTRA-NASAL GLUCAGON (BAQSIMI)

Keep tube sealed
until ready to use.

HOW TO ADMINISTER INTRA-NASAL GLUCAGON

Preparing the dose

Remove the Shrink Wrap by pulling on the red stripe.

Open the Lid and remove the Device from the Tube.

Caution: Do not press the Plunger until ready to give the dose.

Giving the dose

Hold Device between fingers and thumb.

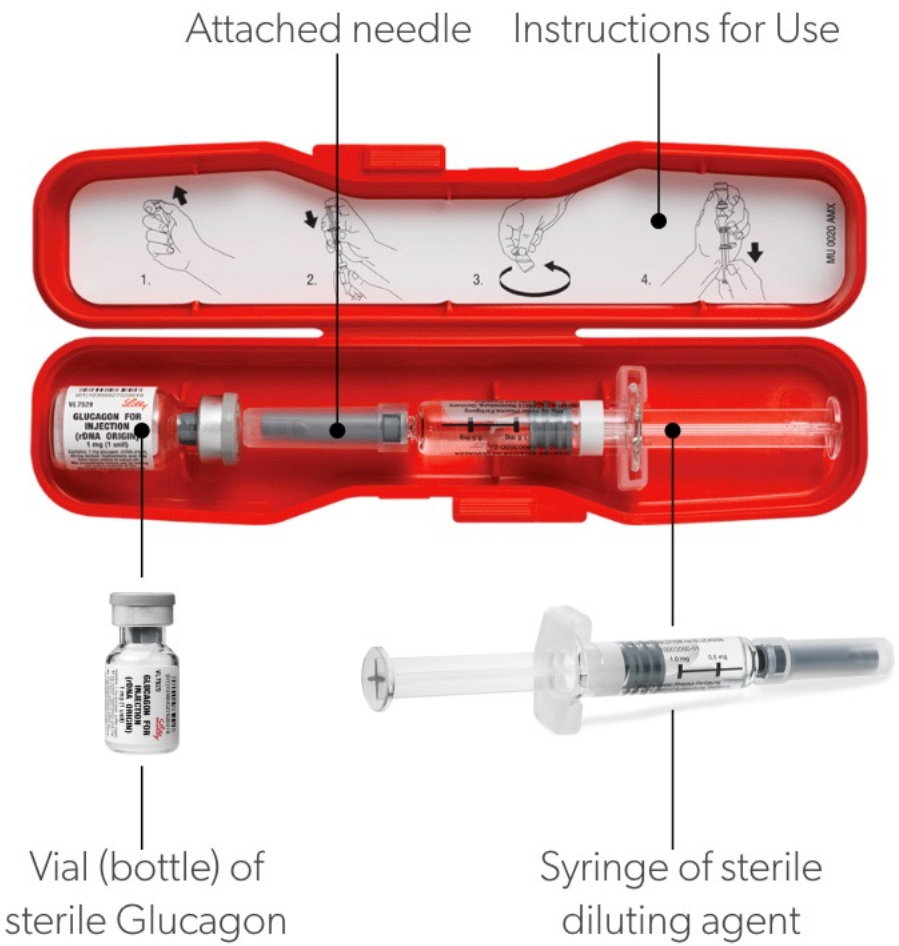
Do not push Plunger yet.

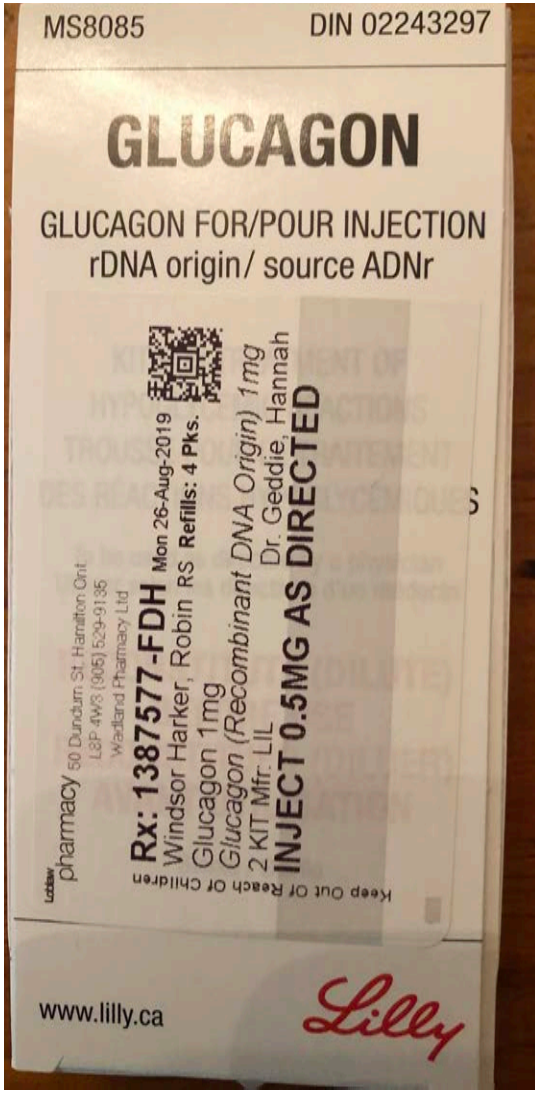
Insert Tip gently into one nostril until finger(s) touch the outside of the nose.

Push Plunger firmly all the way in.

Dose is complete when the Green Line disappears.

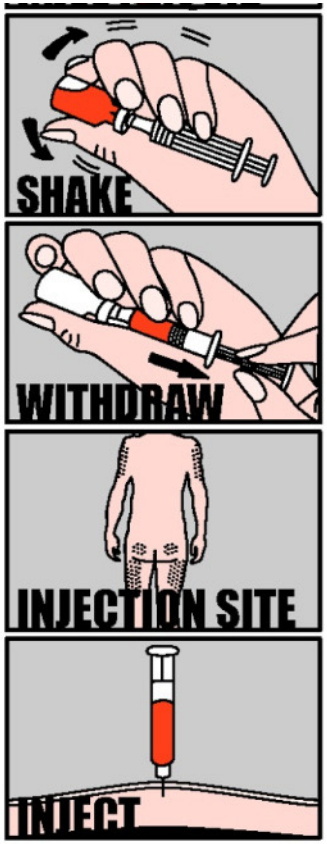
INJECTABLE GLUCAGON





HOW TO ADMINISTER INJECTABLE GLUCAGON

1. Position the student on his or her side.
2. Remove the cap from the glass vial.
3. Pull the needle cover off the syringe.
4. Insert the needle into vial and inject the liquid.
5. Shake to dissolve.



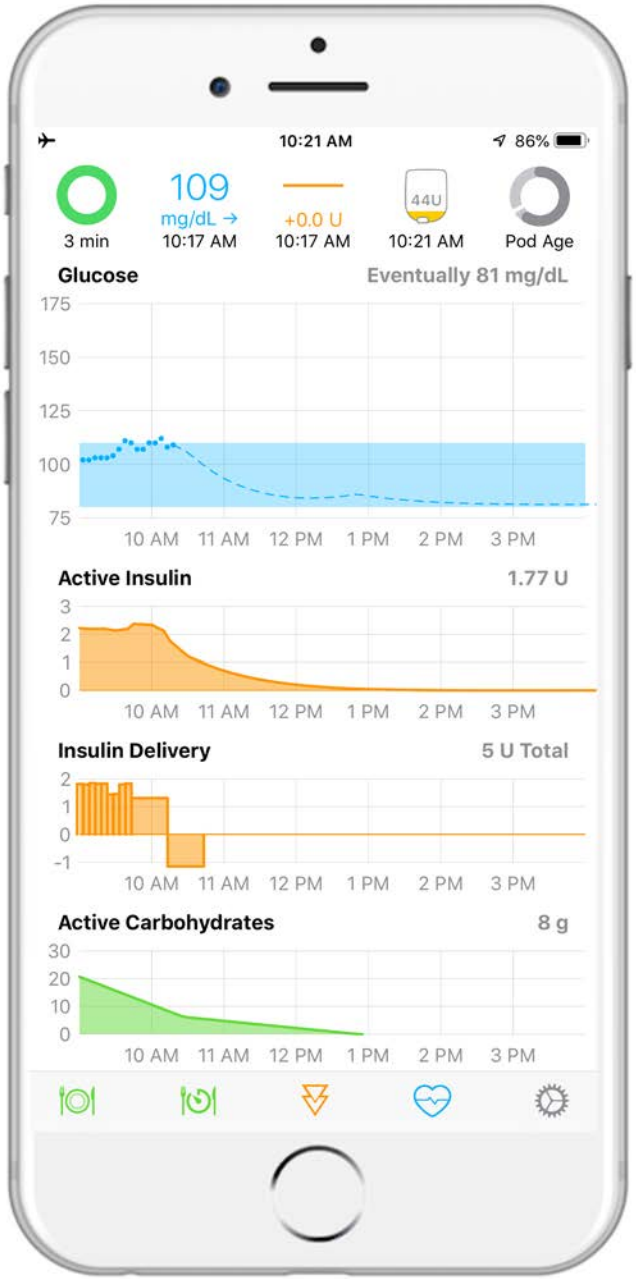
6. Withdraw the glucagon solution back into the syringe and remove the needle from vial.
7. Check for air bubbles in the syringe. Tap any visible air to the top of the syringe and gently push on the plunger until the air is removed.
8. Insert the needle at a 90 degree angle and inject the glucagon into a large muscle (upper arm, thigh, or upper outer area of buttock).
9. Withdraw the needle and apply slight pressure to the injection site.
10. Keep the student positioned on his or her side.
11. Remain with the student until Emergency Medical Services (EMS) assumes control.

Robin would require a HALF dose. If, after 15 minutes, he has not regained consciousness, administer the remaining glucagon.

LOOP APP (LOOPDOCS.ORG)

- Loop is the app used to administer insulin via the Omnipod insulin pump.
- Loop uses CGM data and carb information entered to predict the blood sugar levels and will bolus and modify basal insulin as required.
- Loop uses the phone's Bluetooth connection to talk to the RileyLink, which converts the signal to the Omnipod and provides the commands.

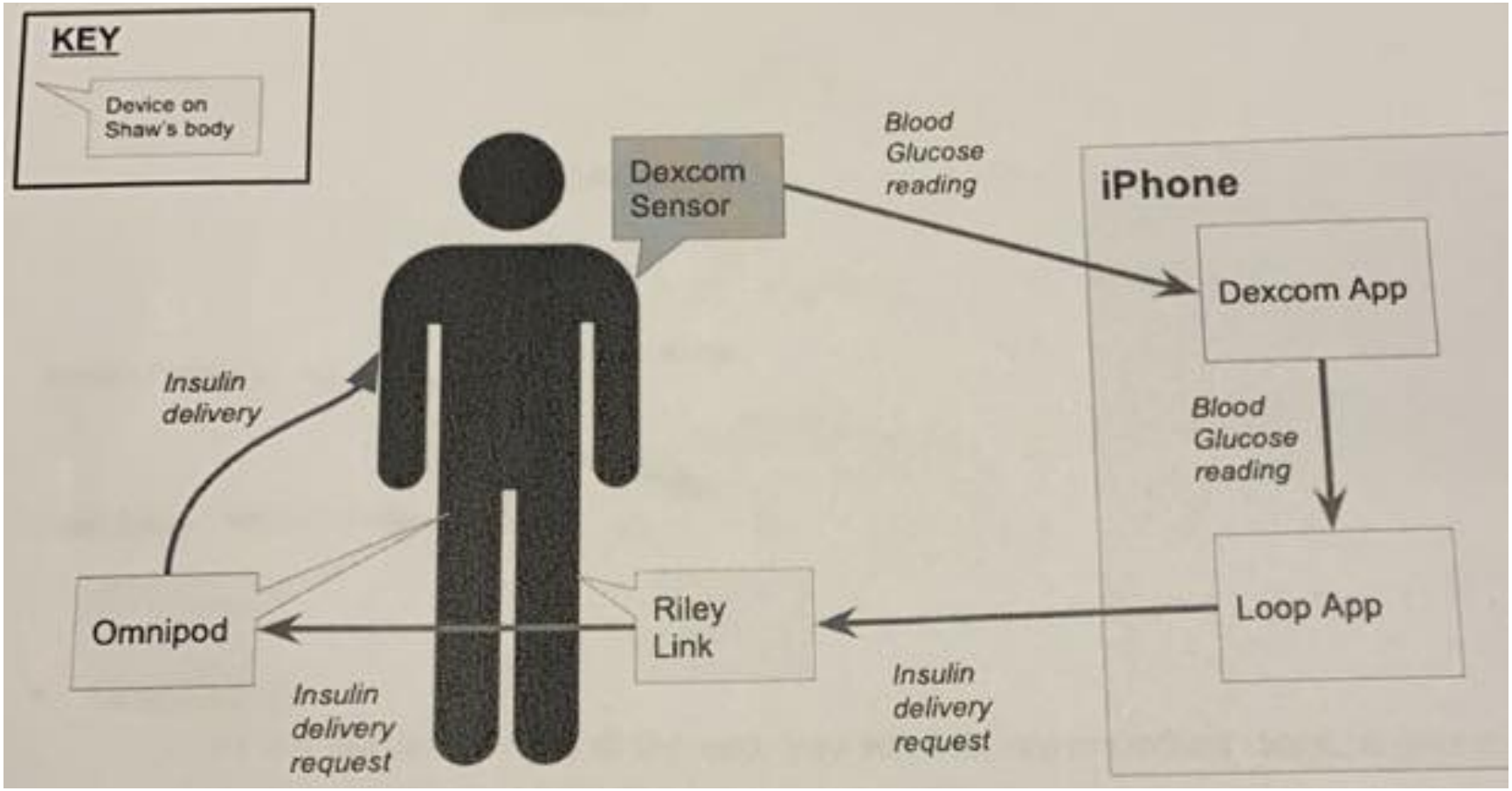
Robin's RileyLink must remain with him at all times. His phone must be carried by the person responsible for him (nurse/teacher) and be within 20 feet of him to maintain the connection.



LOOP APP (LOOPDOCS.ORG)

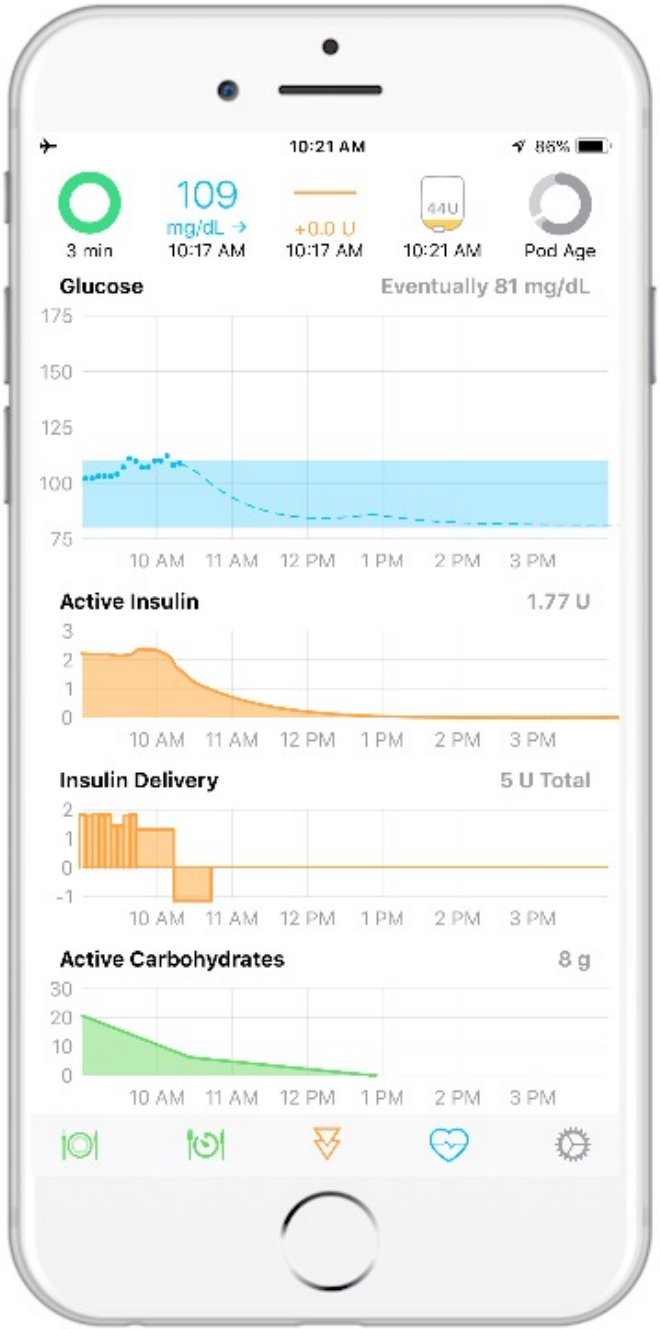
- In order to make those blood glucose predictions, Loop needs a few things:
  - Current Dexcom (CGM) data (Loop gets this automatically so long as Dexcom is working).
  - Meals (carbs) are entered into the Loop app.
  - Boluses and corrections (if needed) are to be per the Loop's recommendation, unless specifically approved differently by myself or an authorized adult.
  - RileyLink is carried by my child (in his pocket, not removed to another storage area).

LOOP COMPONENTS



LOOP SCREEN

- BG = Blood Glucose
- IOB = Insulin on Board
- COB = Carbs on Board



Heads Up Display

predicted BG at end of DIA

Glucose Chart

BG correction range

active IOB

Insulin on Board Chart

total daily insulin delivered

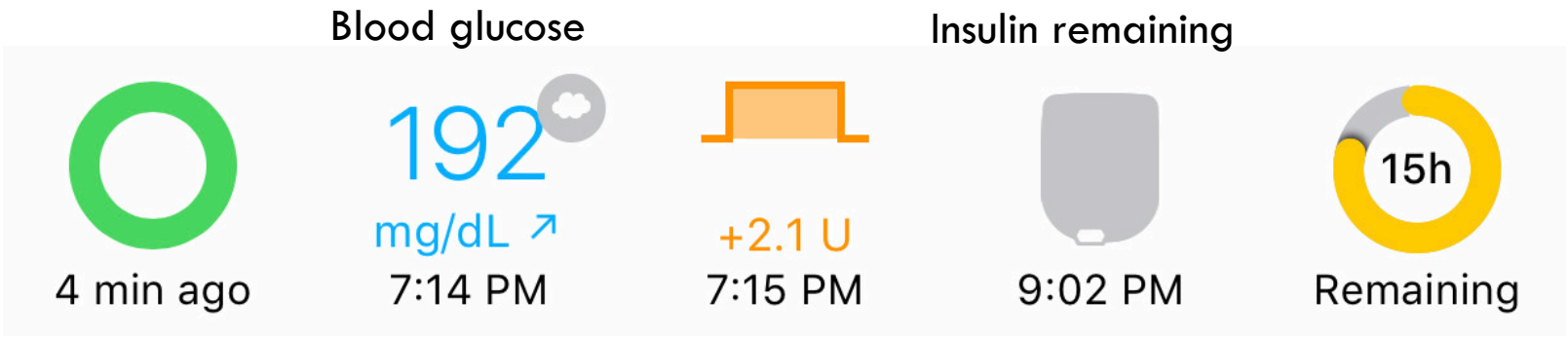
Temp Basal Chart

active COB

Carbohydrate Chart

Toolbar

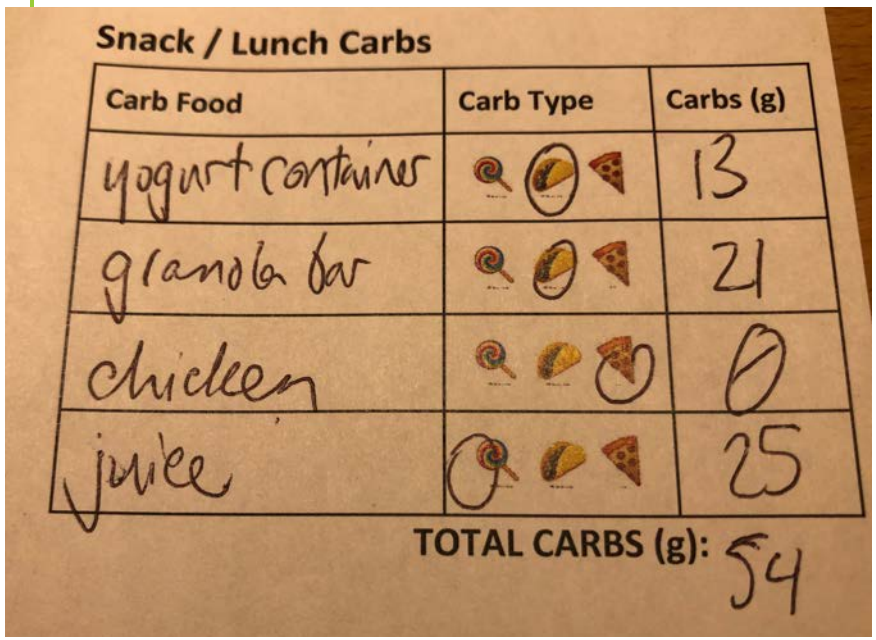
LOOP TOOLBARS



MEALTIME PROCEDURE

1. Prior to eating, ensure Robin washes his hands and his eating area has been wiped down with a disinfectant wipe.
2. 15 minutes prior to nutrition break, check Robin's blood sugar via the Dexcom app on his phone (green and orange icon in bottom right corner).
3. If his blood sugar is 4.2 ->or higher, prebolus Robin for 15 g of carbs via the loop app (green and grey circle next to Dexcom app), as it takes time for insulin to start working.
   - If his blood sugar is lower than 4.2 or 7.0 and dropping, wait until he starts eating to bolus. As Robin is not a consistent eater, bolus him for remaining carbs after he has eaten.
   - Deduct the 15 G from the total amount of carbs to bolus for, or alternately, you can delete the 15G prebolus entry and add all carbs as new entries.
4. All carb counts and absorption rates for each item(s) will be listed on a note included in his lunchbox. Please see Loop slides for bolus procedure.
5. If Robin has not eaten enough carbs to cover his prebolus of 15g, encourage him to do so, or supplement carbs from his stockpile.
6. Following the meal, ensure Robin (and all students) washes his hands and the tables are cleaned again.

COUNTING CARBS



Carbs=

Carbohydrate (15 g)- fibre (0 g) = 15 g divided by serving size

Each cracker = ~2 g

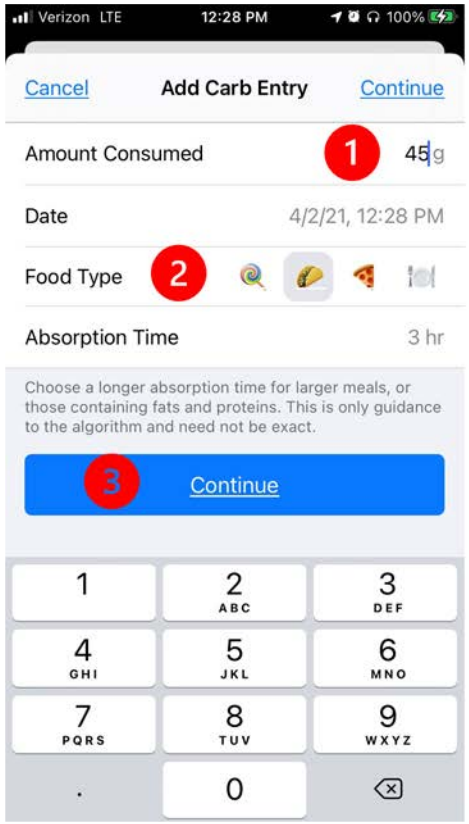
ENTERING CARBS AND BOLUSING

- To start bolus for a meal, please click on the green plate icon in the bottom, far-left corner of the Loop app screen.

ENTERING CARBS

Once you press CONTINUE on the carb entry screen, the Loop's bolus tool will open to provide a recommended bolus. THIS MAY TAKE A FEW MOMENTS.

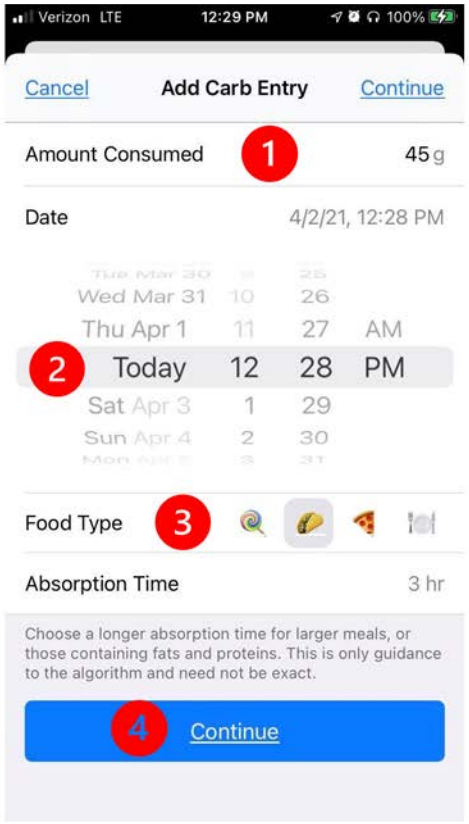
1. Enter # of grams for the "amount consumed" line.
2. Click on the icon as indicated on carb count sheet.
3. After the carbs, food type and time of consumption (in case of pre-bolus) are entered, press the CONTINUE button in the upper right corner.



A simple 3 step Meal entry:
1. Add Amount Consumed
2. Tap Food Type
3. Tap Continue

Rolling the time forward to prebolus for a Meal entry adds 1 more step:

1. Add Amount Consumed
2. Change the Time
3. Tap Food Type
4. Tap Continue



BOLUS CALCULATION

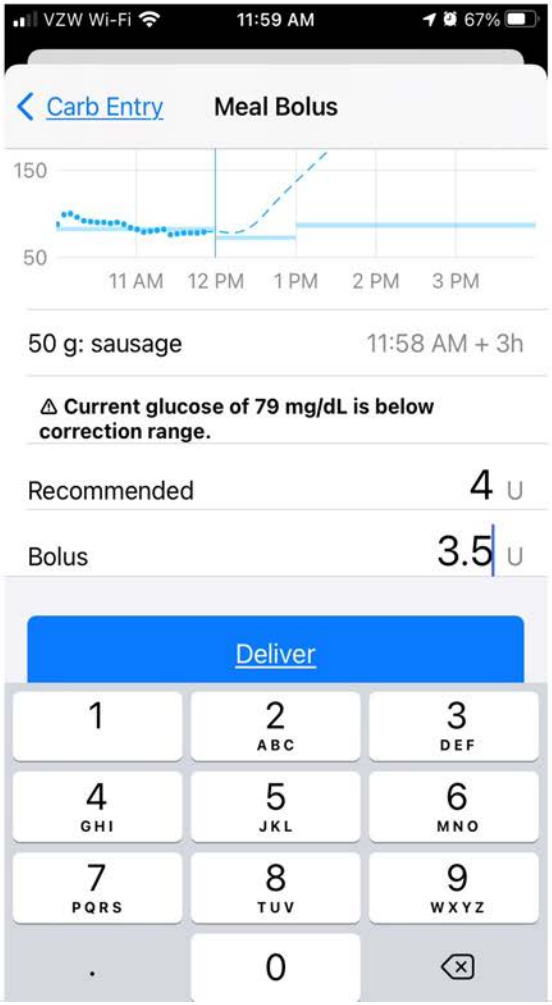
Factors influencing the bolus amount include:

- Insulin to Carbohydrate Ratio (IC Ratio) *(currently 1 unit covers 21 g of carb)*
- Correction Factor or Sensitivity Factor *(currently 1 unit of insulin will lower glucose 25 mmol)*
- Number of carbs
- Rate of absorption of carbs
- Current blood glucose value
- Target blood glucose value *(usually 4.3-7.0 mmol)*
- Insulin on board (IOB)

Once Loop does the math, it will suggest a bolus amount. Please confirm any bolus over 3.0 units with parent prior to delivery, as sometimes multiple carb entries can be logged in error.

BOLUS SCREEN

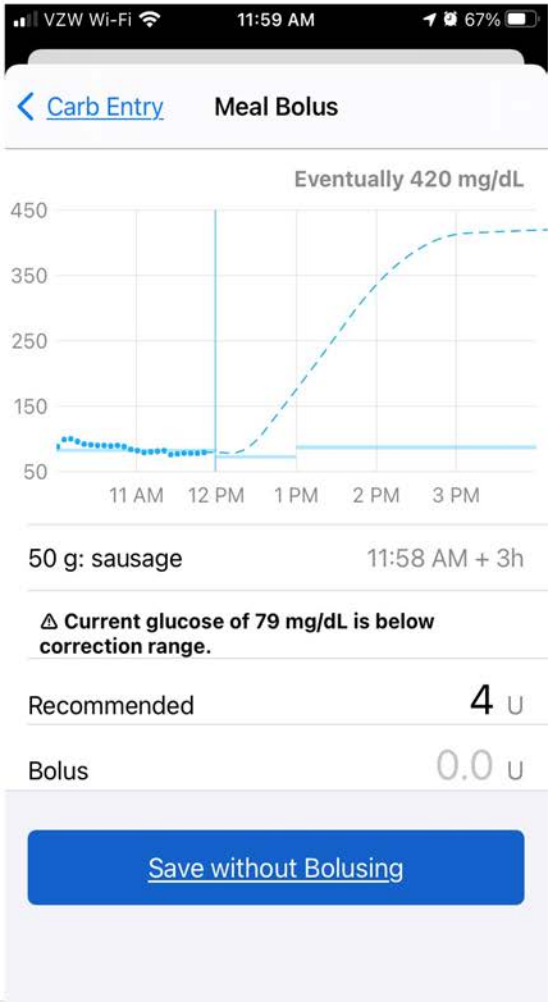
Please confirm any boluses over 1.25 units with parent prior to delivery. Sometimes multiple carb entries will be entered in error.



You can accept the Recommended amount of insulin or input another amount (up to your Max Bolus delivery limit)

Accept by tapping the recommended number. It will autofill with that amount.

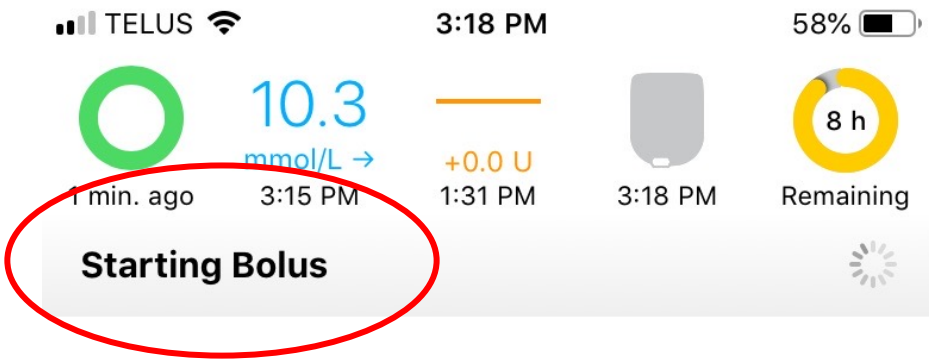
Or you can Save Without Bolusing

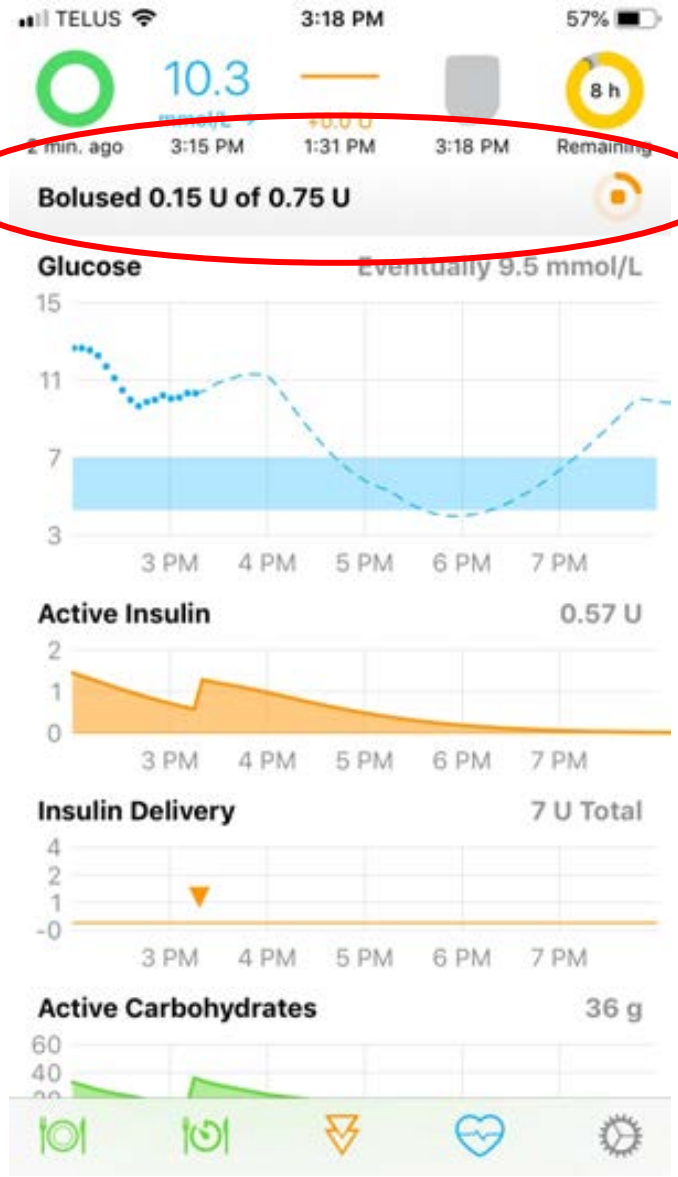


BOLUS DELIVERY

Click the "Deliver" button to start the bolus. Ensure you are within 5 feet of Robin. A new status line will appear when Loop is sending a bolus command to the pump. Just above the main screen's glucose chart, you will see a "starting bolus" indicator.

Listen for the Omnipod's "start" beeps, clicking, and "finished" beeps to confirm insulin delivery.





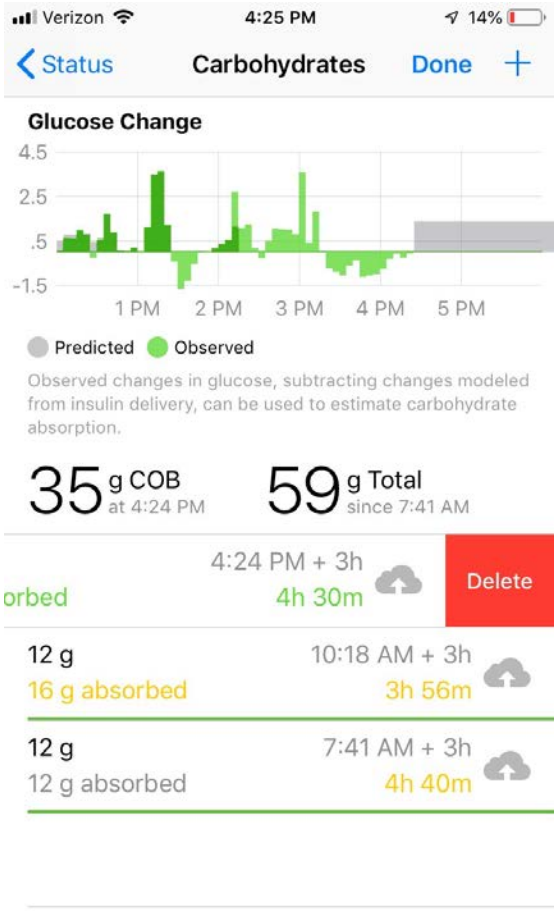
BOLUSING USING APPLE WATCH

- Tell Robin what carbs to enter (e.g. 15 taco).
- Please confirm the bolus amount.
- In general, 1 unit of insulin covers ~25g of carbs, so 15 g example would generally be 0.6 g (but it depends).
- Then he can deliver the bolus.
- Please confirm on the phone that the carbs have been entered correctly (via the carb graph), and that the bolus has been delivered.

HOW TO EDIT OR DELETE A CARB ENTRY

- If you make a mistake in a meal entry, please make sure that you edit or delete the original entry ***before*** bolusing for the meal or adding a new carb entry.

1. Cancel the bolus recommendation screen using the "Cancel" button in upper left corner.
2. Tap the green Active Carbohydrates graph on Loop's main screen to see saved meal entries.
3. Either tap the errant entry (if you want to edit it), or swipe left on the errant entry to bring up a delete button.



POST-MEAL SPIKES ARE NORMAL

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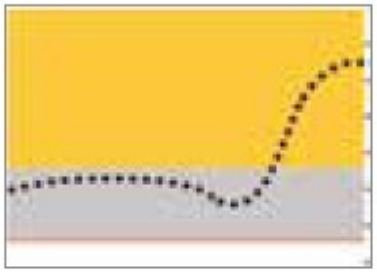


High Carbs + Meal Spike
= Normal

Watch and wait. Do not over-react.

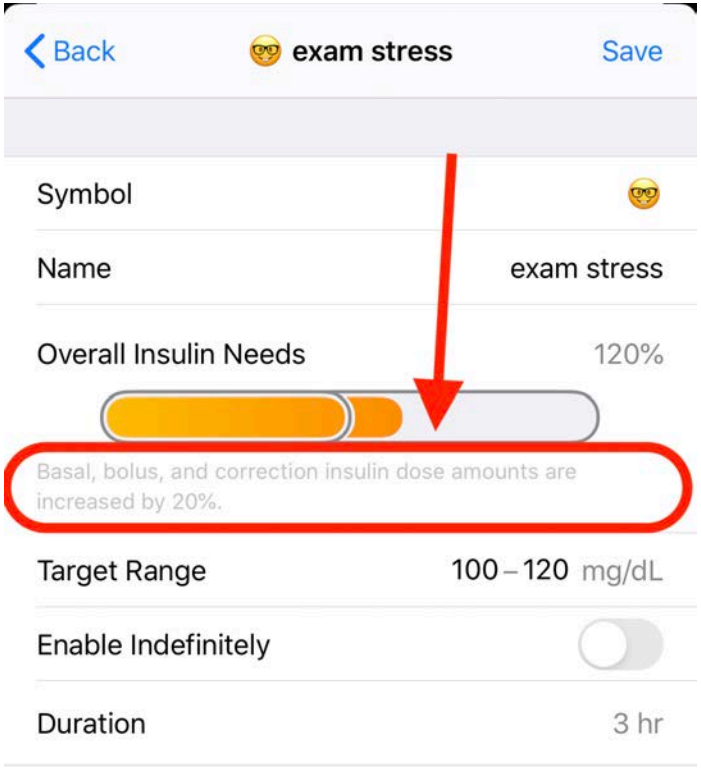
- Do not take multiple insulin doses too close in time
- Do not over-react to sensor information

CORRECTION/AUTOBOLUS

- Occasionally, a recommended bolus will be offered in the bolus tool unrelated to a newly saved carb entry, usually to combat a predicted high.
- Loop will automatically administer 40% of the recommended bolus.
- To deliver the full correction bolus, click the orange arrows and tap “deliver recommended bolus”.
- Loop will also not give an alert when a correction bolus is being offered, the bolus entry tool (double orange arrows at the bottom centre) must be clicked to check for one. Follow the same process for delivering a meal bolus.

OVERRIDES

- Overrides allow you to specify an overall insulin needs adjustment, a target range, and a duration for the override with each preset.
- The overall insulin needs adjustment is an adjustment to your scheduled basal rates, carb ratios, and insulin sensitivities all together.
- Overall insulin needs percent will affect boluses, temp basals, and correction recommendations.
- Useful for Activity, Stuck on High, Pizza, Low Recovery, etc.
- Parent can guide you if an override is needed.



ACTIVITY/GYM PROCEDURES

- BEFORE physical education or recess, check Robin's blood sugar by checking Robin's Dexcom CGM. They can do this 5-10 minutes prior to gym.
- If 7.0 or lower, click the OVERRIDE  icon and put on the ACTIVITY override (70% soccer ball).
- If Robin is LOW, follow with the procedure for treating a low. If he feels ok to participate, let him. Check back in 15 mins.
- If Robin's blood sugar has not come up past 4.1, give him an additional roll of rockets, kool aid, or 5 skittles. Wait another 15 minutes. If he has come up above 4.1, give activity carbs.
- AFTER gym, check his blood sugar again via CGM.
- If he is low, please follow procedures for treating a low.

HOW TO CHECK INSULIN DELIVERY

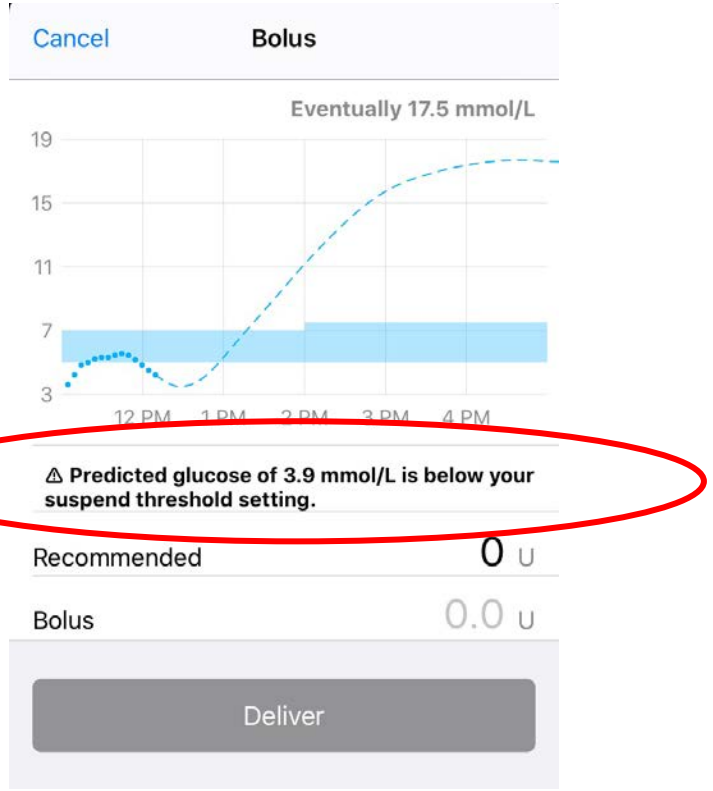
- To check if insulin was delivered:
  - Under the Insulin Delivery screen, look for the triangle, indicating a bolus.
  - Tap the delivery graph to bring up the log, select “Event History”, and look for the bolus log entry.

BOLUS FAILURE NOTIFICATIONS

- On occasion, you will receive notification that a bolus may have failed.
- In some of these cases, the bolus actually will begin delivery. This is why it is important to listen for the beeps and clicks.
- If Loop says it is safe to retry the bolus, click the orange bolus arrows in the toolbar and repeat the process.

BOLUSING WITH PREDICTED LOW

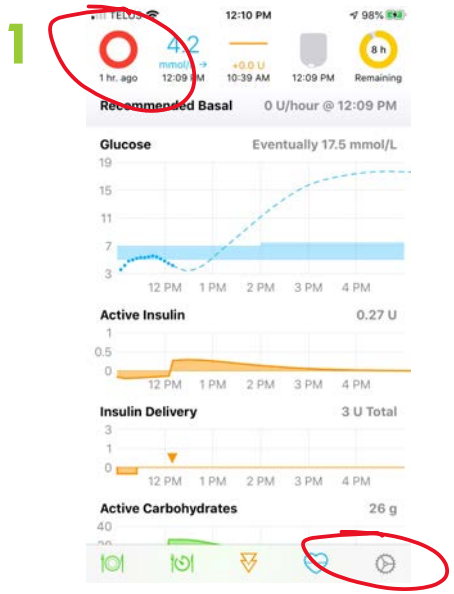
- The bolus tool will not offer a recommended bolus if Robin's BG is predicted to go below Robin's specified suspend threshold.
- A screen will appear letting you know the reason no bolus is being recommended, as well as the status of Robin's active COB and IOB.
- You can choose to override that warning and give a bolus, or treat the low BG and come back to the bolus tool when Robin's BG has recovered.

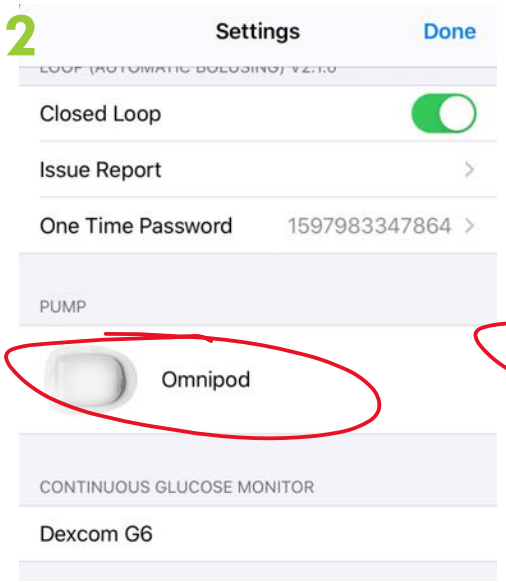


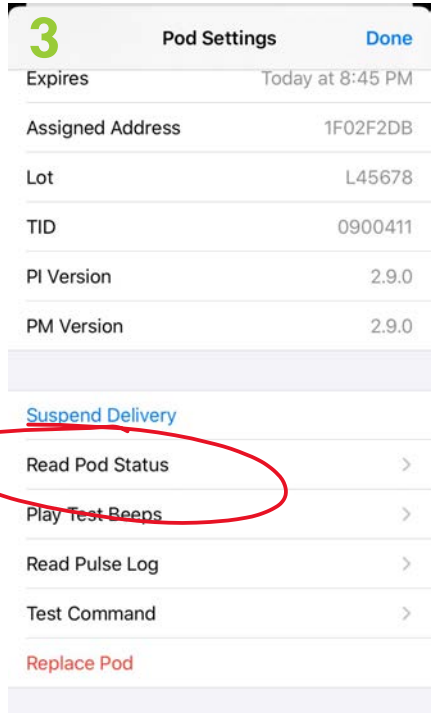
Always enter all carbs consumed (e.g. low treatments). When Robin's blood sugar starts to rise, the suggested bolus may be delivered.

RED/YELLOW LOOP

- Loop will not be able to predict blood sugar or calculate insulin boluses unless it is:
  - Receiving CURRENT blood glucose information
  - Connected to the pump
- Red loop = more than 20 minutes since last connected
- Yellow loop = more than 5 minutes since last connected
- Reconnect loop by going to
  1. SETTINGS
  2. OMNIPOD
  3. READ POD STATUS

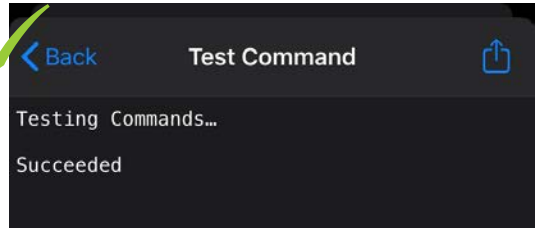


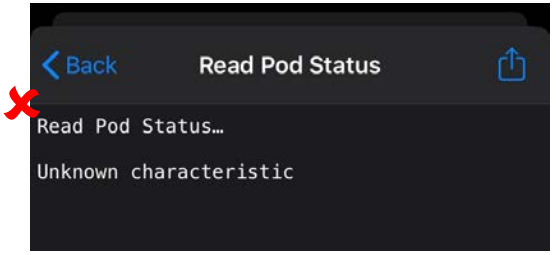




READ POD STATUS

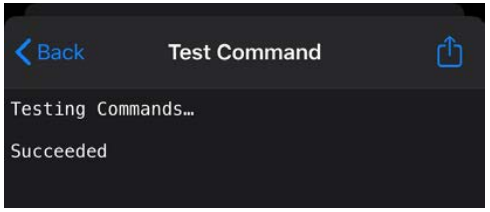
- Reconnect loop by going to SETTINGS, OMNIPOD, and clicking READ POD STATUS
  - ✓ If it says Pod Active: … etc, you're good. Go back and bolus.
  - ✗ **If it says No Rileylink Available**
    - Ensure Robin has his Rileylink in his pocket
      - Make sure you are close enough to him/Rileylink
      - Restart app
      - Put in new batteries (AAA)
    - **If it says: Unknown characteristic**
      - Get very close to Rileylink/Pod
      - Restart app
      - Go to settings, omnipod, and touch "Test Commands". It will provide a message (hopefully successful)
      - As a last resort, turn Rileylink OFF and ON (see slide)

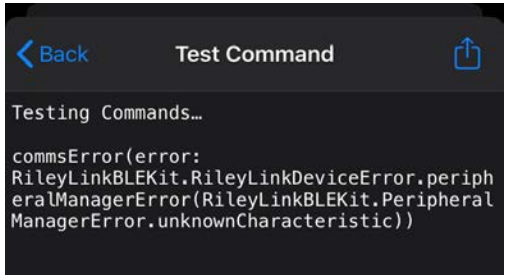




TEST COMMANDS

- Reconnect loop by going to SETTINGS, OMNIPOD, and clicking TEST COMMANDS
  - If it says Peripheral error and a bunch of numbers
    - Restart app
    - Get very close to Rileylink and Omnipod
    - Turn Rileylink off and on





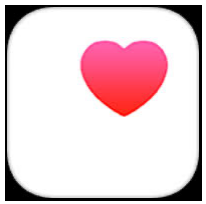
TROUBLESHOOTING RILEYLINK

- Is the Rileylink charged? You can check battery level via nightscout ()
- Is it missing? We have an Air Tag attached. Contact parent to ring the AirTag, and it will play a sound. If it is not close, it will show you the last place it remembers it being.
- Is the Green LED on? This means that it is connected to the LOOP app.
- Is the Blue LED on? This is a problem. Try turning off and on, but generally requires that we do some tech support and switch out Rileylinks.
- If it is lost or broken, we have backup. But it requires parental involvement and a new pod.

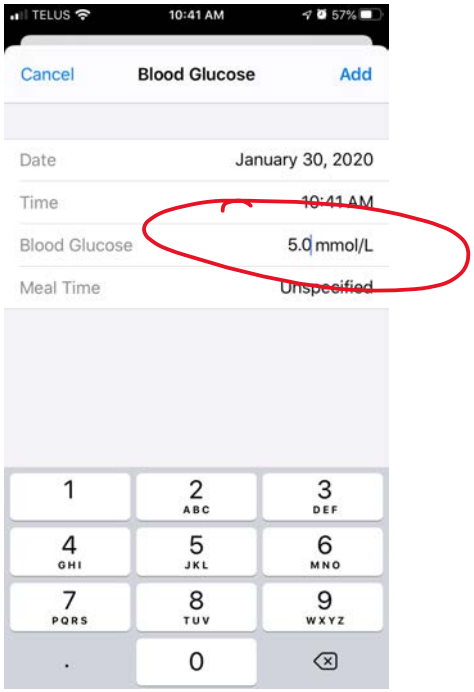
MANUALLY ENTERING CGM DATA

CGM values are not being collected by Loop

- If signal loss in Dexcom, get phone closer until it picks the signal up again (can also try turning Bluetooth off and on).
- If it is hourglass or ???, you can finger poke and enter the number through health kit, where loop can pick up the number for that reading. Open health kit, touch “blood glucose”, add data in top right corner, enter reading from glucose meter.



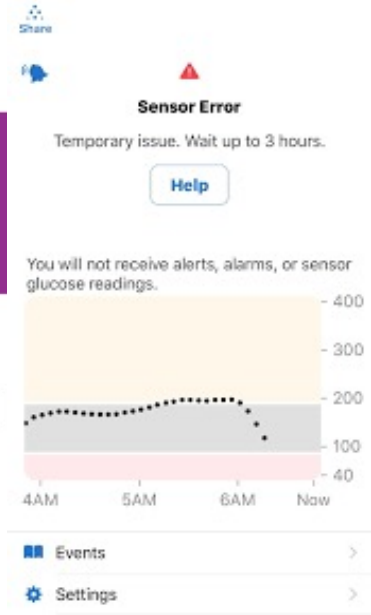
Health Kit Icon
(on home screen)



SILENCING A SCREAMING POD

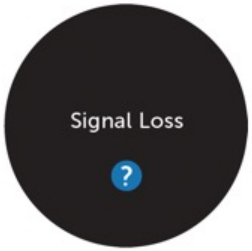
- Deactivate using Loop (BEST!)
- Use a paper clip to poke the green spot (OK! SEE PIC BELOW)
- Put it in the freezer (IT WILL STILL SCREAM BUT YOU WON'T HEAR IT)
- Hit it with a hammer (PROBABLY MOST SATISFYING BUT POSSIBLE INJURY MAY OCCUR)

Troubleshooting



A student may come in for help with a screen they have never seen a meter for treatment decisions if an error is shown.

Unknown Glucose Reading: System will often resolve itself. Check transmitter to make sure it is properly snapped in.



Signal Loss: Make sure display device is within 20 feet of transmitter.

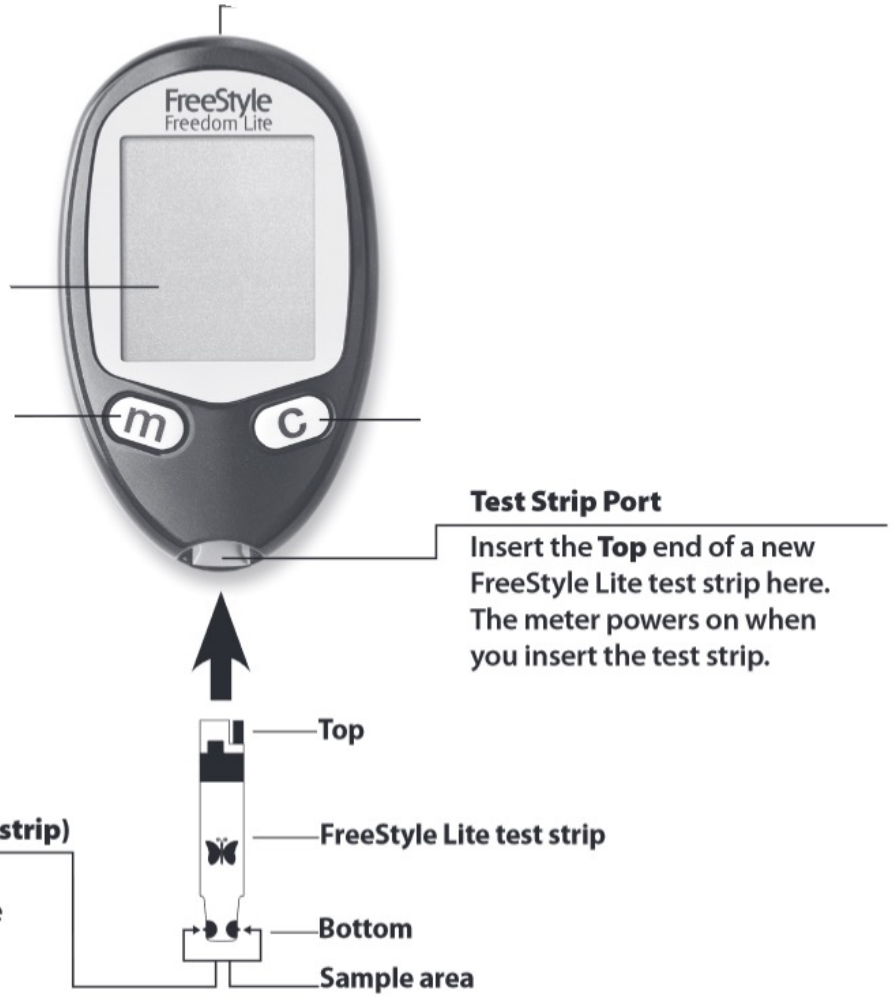
For troubleshooting tips tap the blue question mark in the app for more information or see dexcom.com/faq.

Need additional help? Call the Dexcom Technical Support Team, 24 hours, 7 days a week. Toll Free: **1-888-738-3646**

BLOOD GLUCOSE AND KETONE METERS

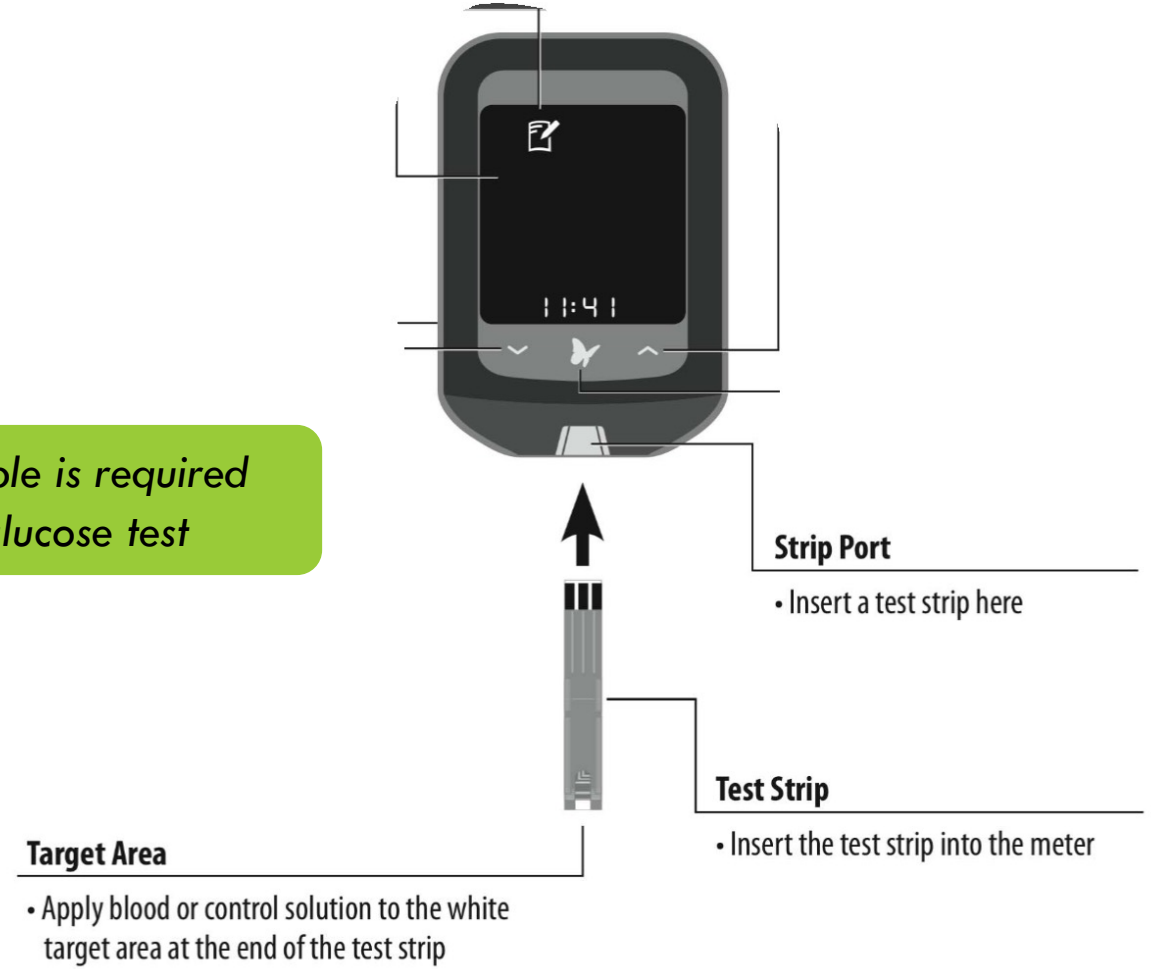
TESTING BLOOD SUGAR

If CGM is signal loss, ???, sensor error, or Robin's behaviour doesn't reflect in the numbers, poke his finger and enter the number manually through Health



TESTING KETONES

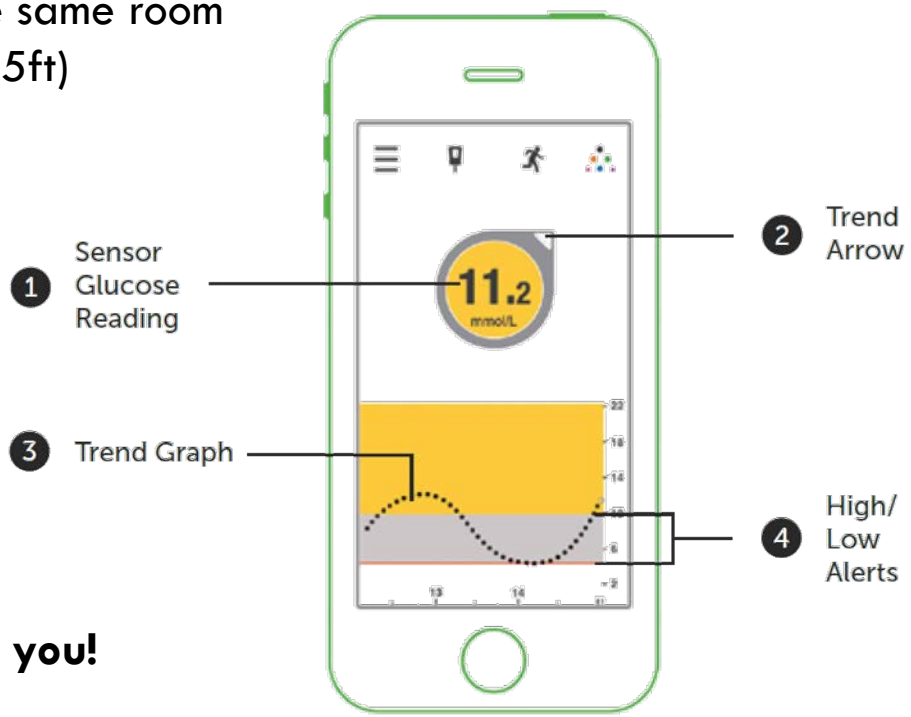
A larger blood sample is required than for the blood glucose test



SO MANY THINGS

DEXCOM CONTINUOUS GLUCOSE MONITOR (CGM)

- The *Dexcom* tracks glucose levels at 5 minute intervals and has a 15 minute delay.
- Do not rely solely on CGM alerts to detect low glucose (the CGM may not detect some lows, or be delayed in alerting of a low.)
- Robin's phone should always be in the same room as Robin to ensure it can get signal (15ft)
- The safe range to be in is steady between <u>4.3 mmol-8.0 mmol</u>.
- Robins phone will vibrate and alarm if he goes above or below his thresholds, or if he starts rapidly rising/falling.



- **Alarms must <u>always</u> be addressed or it will keep beeping at you!**

WHAT DO THE ARROWS MEAN?

If rising/rising rapidly or falling/falling rapidly (DOUBLE ARROWS), take **immediate action.** See action plan.

Glucose rapidly rising more than 0.2 mmol/L each minute or more than 2.5 mmol/L in 15 minutes.

Glucose rising 0.1-0.2 mmol/L each minute or up to 2.5 mmol/L in 15 minutes.

Glucose slowly rising 0.06-0.1 mmol/L each minute or up to 1.7 mmol/L in 15 minutes.

Not increasing/decreasing more than 0.06 mmol/L per minute or up to 0.9 mmol/L in 15 minutes.

Glucose slowly falling 0.06-0.1 mmol/L each minute or up to 1.7 mmol/L in 15 minutes.

Glucose falling 0.1-0.2 mmol/L each minute or up to 2.5 mmol/L in 15 minutes.

Glucose rapidly falling more than 0.2 mmol/L each minute or more than 2.5 mmol/L in 15 minutes.

If slowly rising or slowly falling, **monitor closely** (1-2 readings) in case action is needed.

Also check the rate of change from the last reading. Sometimes the trend arrow will still say double down when he is starting to rise.

Overview

Dexcom G6 app

- Shows glucose information
- For a list of compatible devices see: dexcom.com/compatibility

Applicator with built-in Sensor

- Applicator inserts the sensor wire under your skin
- Sensor gets glucose information
- Wear for 10 days

Transmitter

- Sends glucose information from sensor to Dexcom G6 app
- Use for 3 months

Viewing the App Trend Screen

Difference between CGM and a meter

Dexcom G5 Mobile readings and meter values may not be the same and that's ok.

The Dexcom G5 Mobile and a meter measure glucose from two different types of body fluids: interstitial fluid and blood.

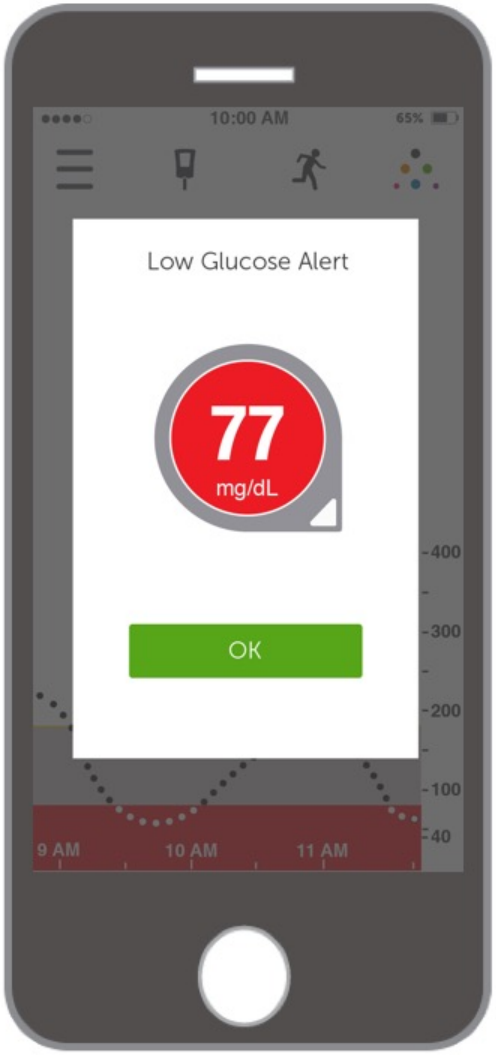
Readings can be different and still be considered accurate.

Responding to Low and High Glucose Alerts

Each student should have a set low and high glucose alert. The display device will either vibrate or beep based on the student's alert settings. Based on the 504 plan a student may come to you to help respond to these alerts.

The steps you should take are:

- Go into the Dexcom G5 Mobile App
- Tap OK to clear the alert
- Take action based on the glucose information shown in the Dexcom G5 Mobile App and 504 plan



ADHESIVE

The sensor should stay securely attached to the skin using its own adhesive. If the patch starts falling off or peeling around the edges, you can use medical tape to secure it to the body.

Tape over the white adhesive patch on all sides for even support

Do not tape over the transmitter, or any plastic parts

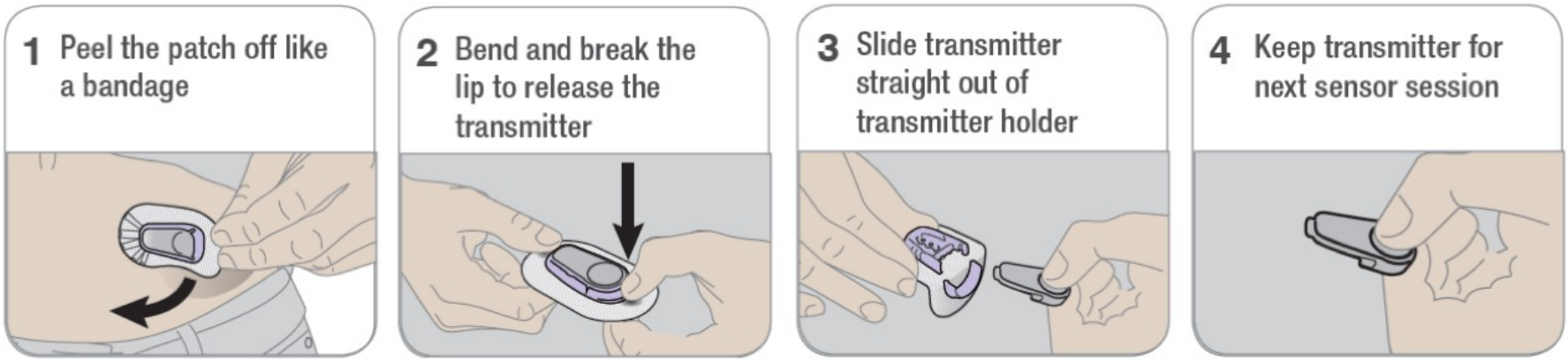
REPLACEMENT “LITTLE” PODS

Dexcom

LBL015820 Rev 002

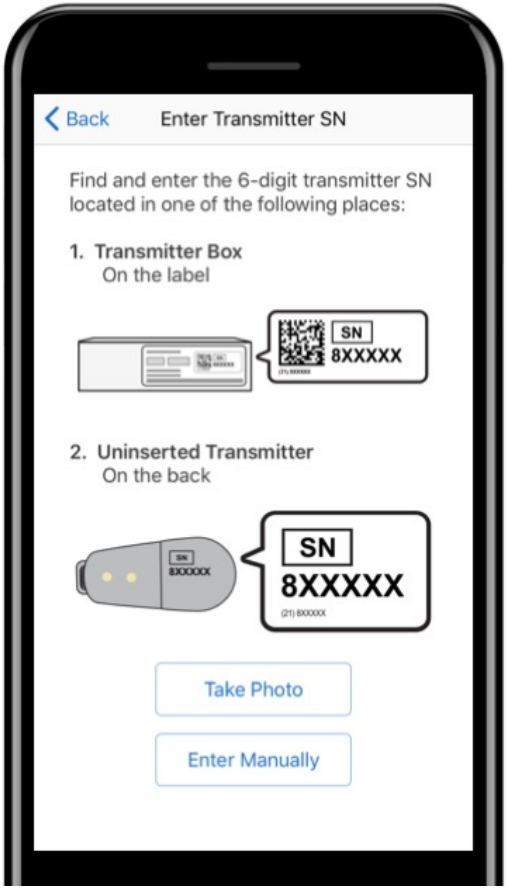
Removing the Sensor and Transmitter

First, soak the patch with REMOVEIT to allow adhesive to dissolve before removing.



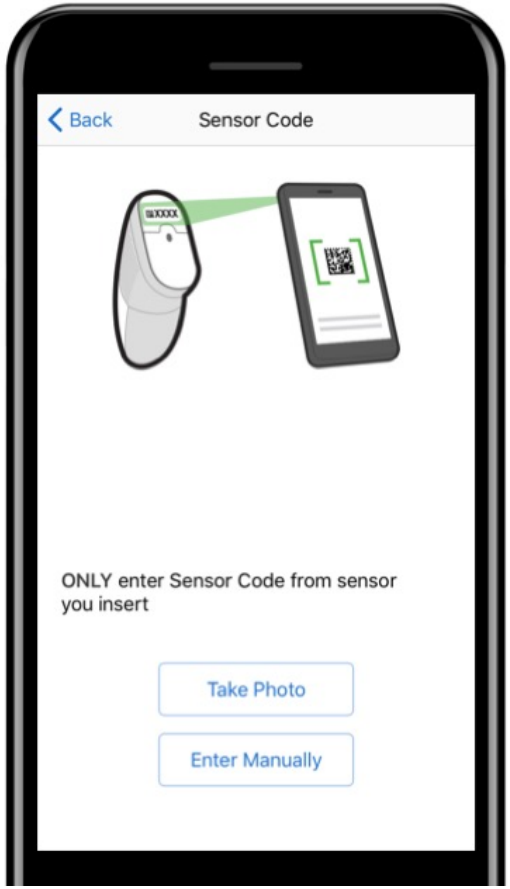
App Setup: Enter Transmitter SN

- When prompted, enter your transmitter serial number (SN)



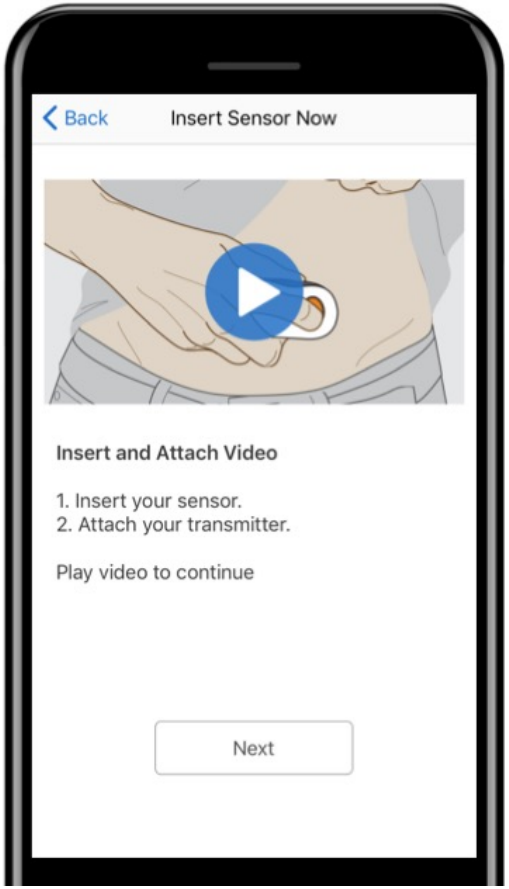
App Setup: Enter Sensor Code

- When prompted, enter your sensor code
- Only enter the sensor code from the sensor you are going to insert



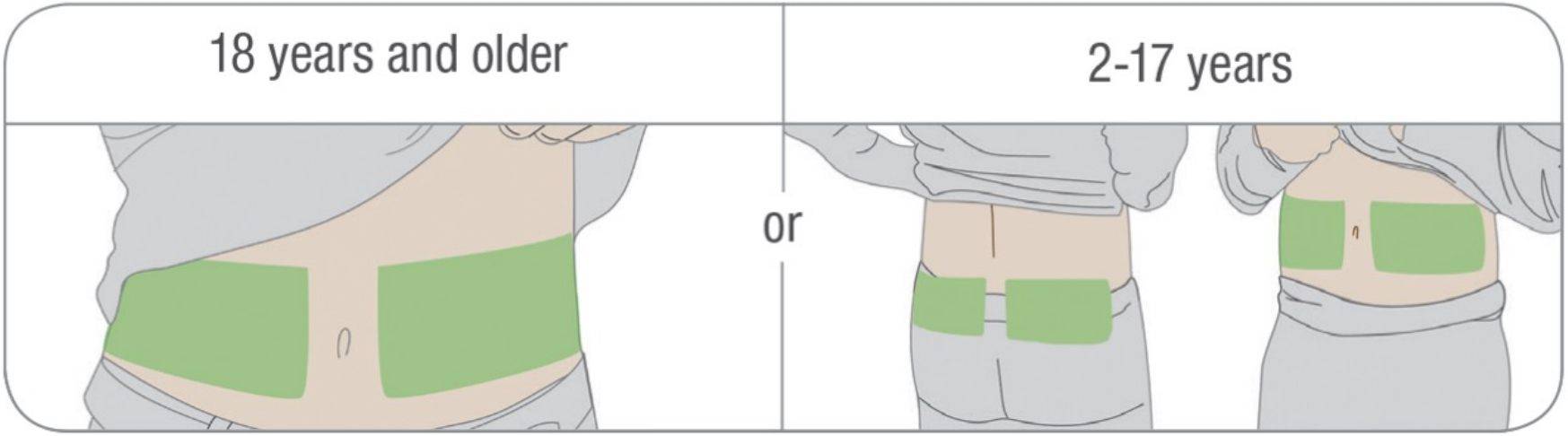
Insert Sensor and Attach Transmitter

- When prompted, insert your sensor and attach your transmitter



LBL015820 Rev 002

Choose Sensor Site



Avoid scars, hair, tattoos, irritation, boney areas, areas where the sensor can be rubbed (waist band, seat belt), and at least 3” from insulin injection sites. Wash hands and clean insertion site with alcohol.

Optional Skin Adhesive and Timing

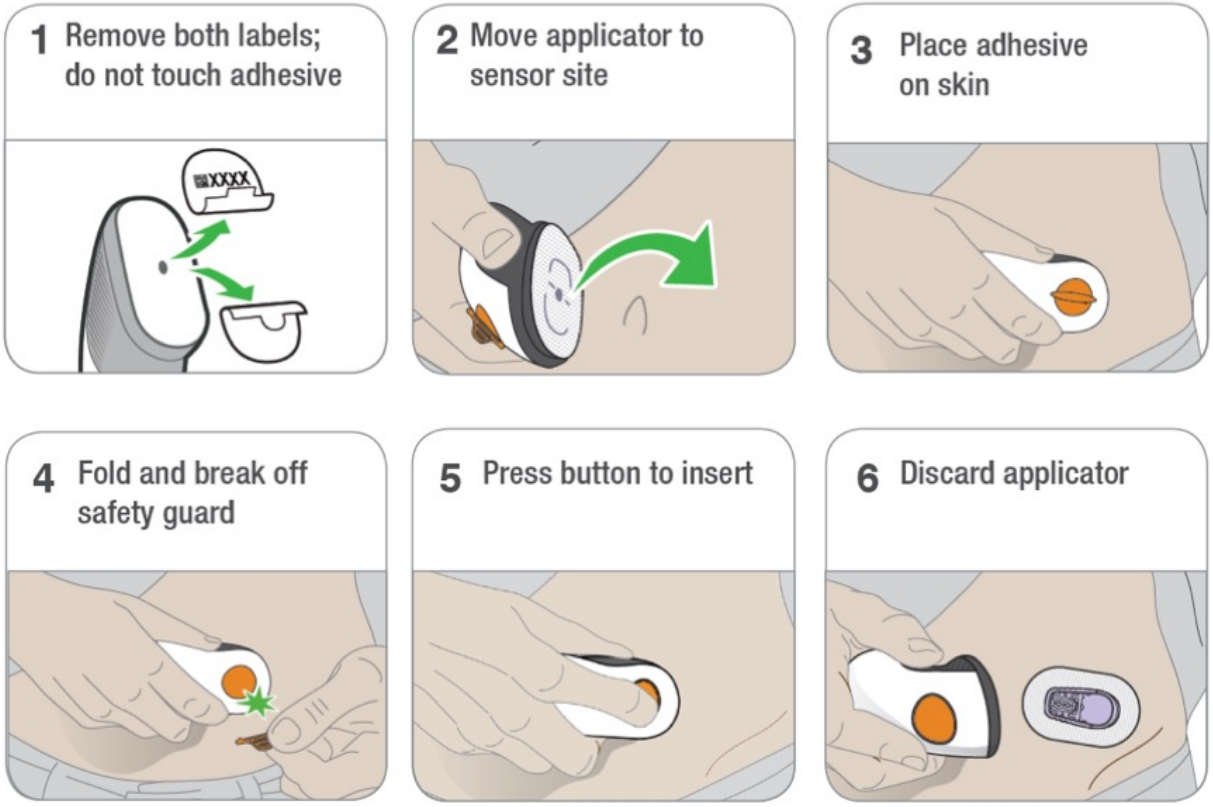
Optional Skin Adhesive

- Create an empty oval on the skin with the skin adhesive, such as Mastisol or SkinTac
- Let skin adhesive dry
- Insert sensor on clean skin in center of oval.

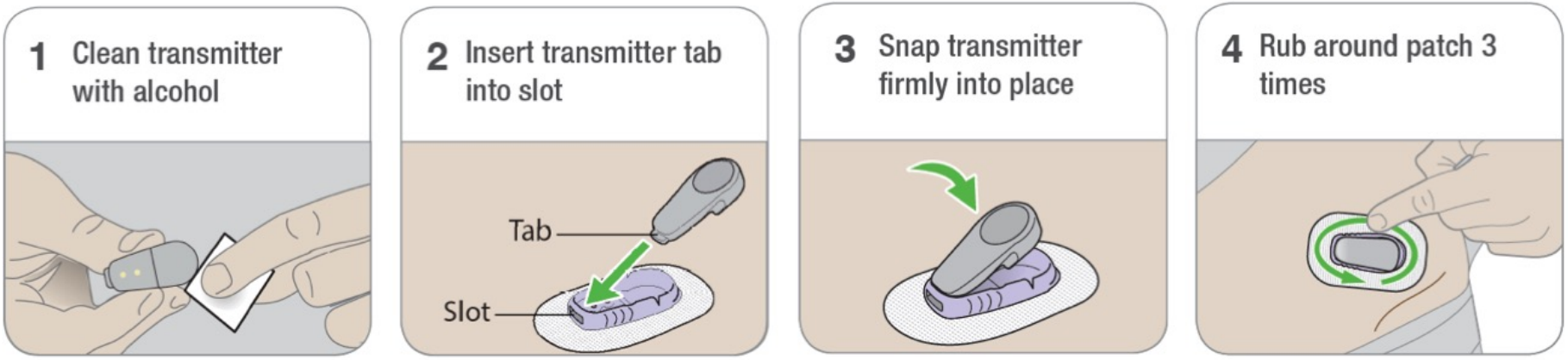
Timing

- Skin types vary, and for some people, it may take awhile – overnight, for example – for the patch to fully dry and stick. During that time, keep your skin dry and avoid doing things that would make you sweat. If inserting a new sensor before bed, make sure you're through the warmup before you go to sleep.

Inserting the Sensor



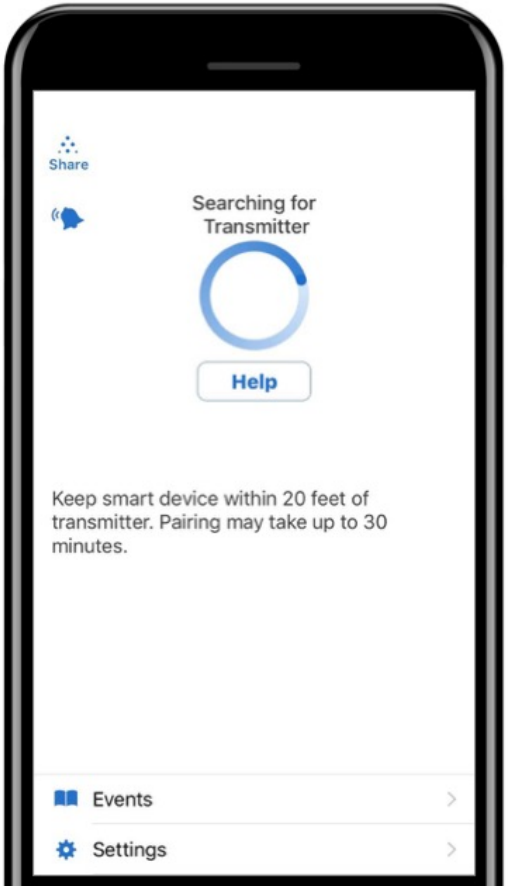
Attaching the Transmitter

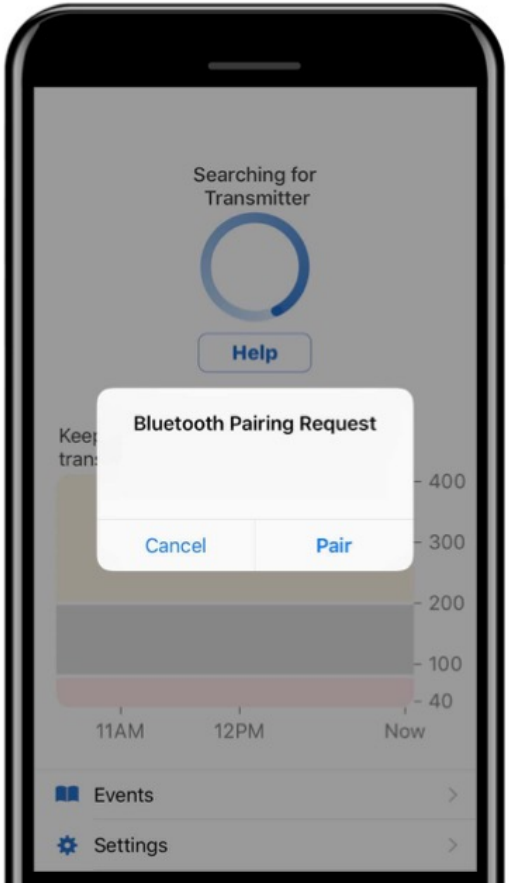


Once the transmitter is snapped in you can shower or swim like normal but for best adhesion you might want to wait awhile before getting the patch wet.

Pairing

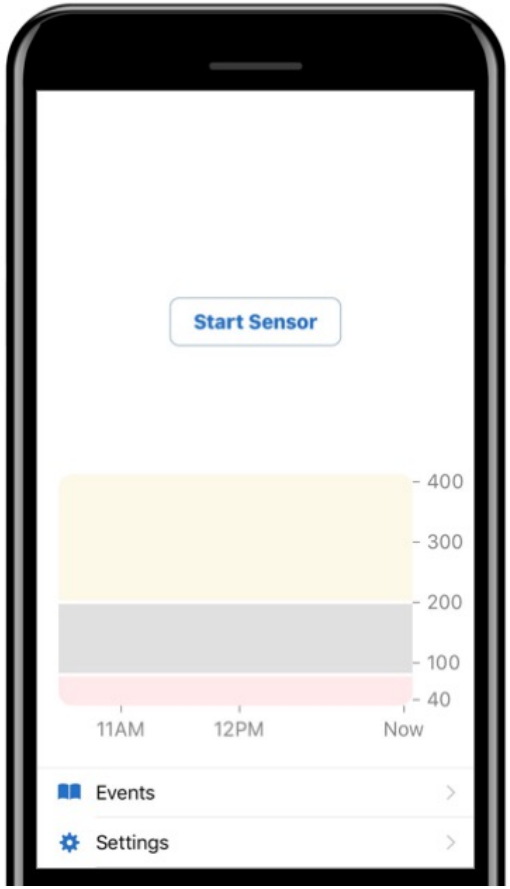
- Once you attach your transmitter it needs to be paired

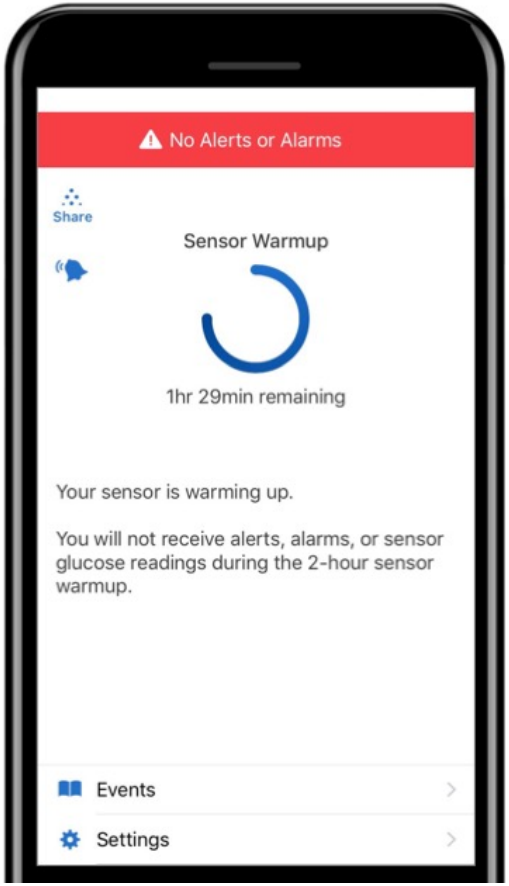




Start Sensor

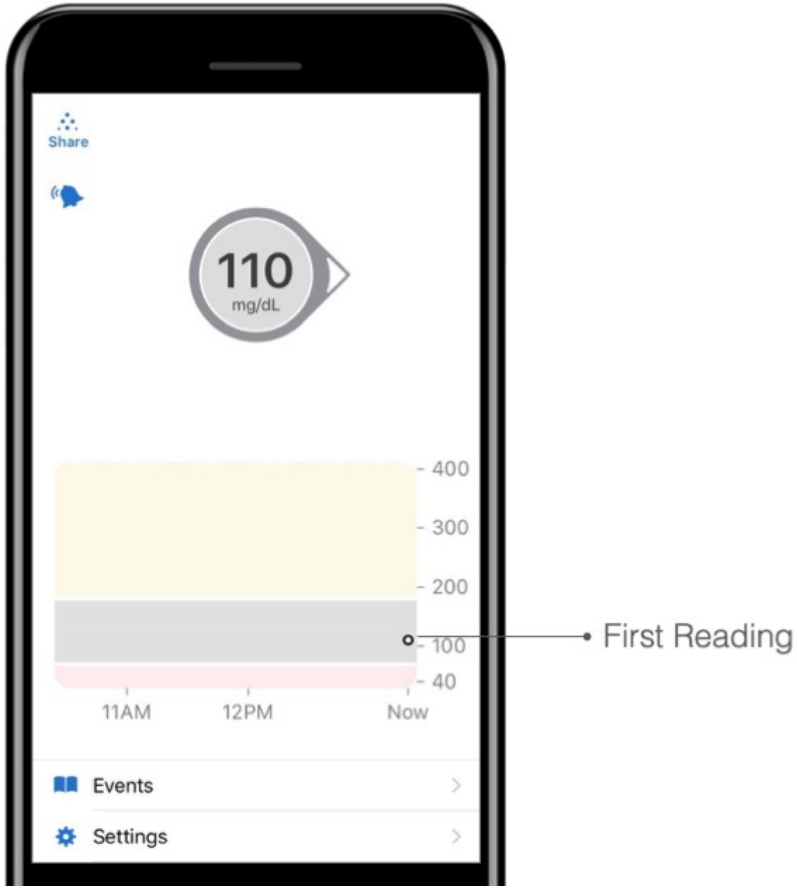
- Tap **Start Sensor** to begin 2-hour sensor warmup
- There will not be any glucose readings or alerts until warmup period has ended
- Keep smart device within 20 feet of the transmitter during the sensor warmup
- Keep app open in background





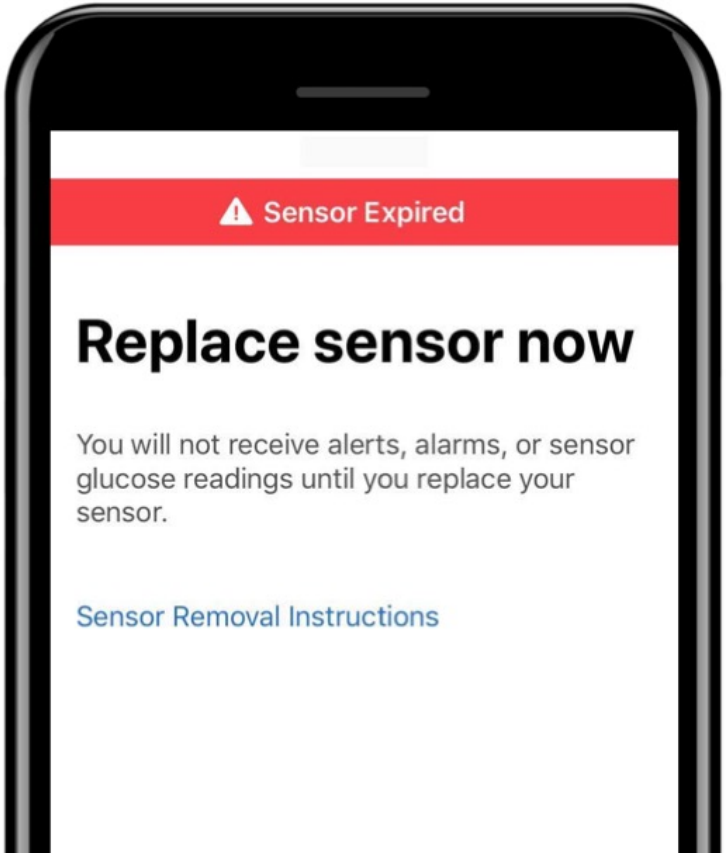
Beginning of Trend Graph

- After the 2-hour warmup your first reading will appear
- The app must be within 20 feet of the transmitter to receive glucose information



Ending Sensor Session

- Your sensor automatically shuts off after 10 days
- Your app will alert you 24 hours, 6 hours, 2 hours and 30 minutes before this happens



REPLACEMENT “BIG” PODS

Omnipod

OMNIPOD INSULIN PUMP

Three simple steps to insulin delivery

OmniPod® couldn't be more straightforward. It primes automatically. Inserts automatically. There's nothing to fuss with.

STEP 1

Fill the Pod

The Pod automatically primes itself and performs a series of safety checks to prepare for insulin delivery.

STEP 2

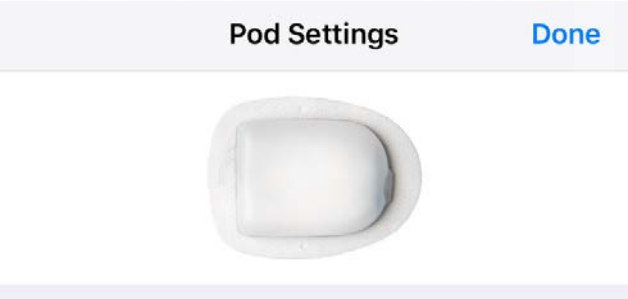
Apply the Pod

Place your Pod almost anywhere you can give yourself an injection. Click to see all your options.

STEP 3

Press Start

The cannula inserts automatically and insulin delivery seamlessly begins.

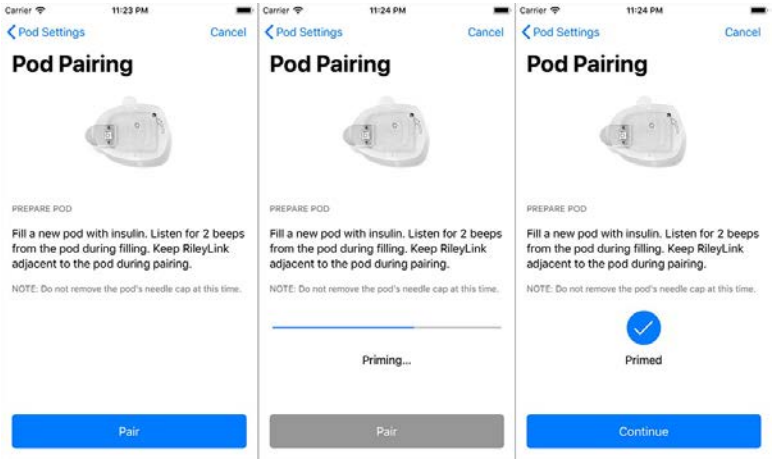


OMNIPOD CHANGE #1

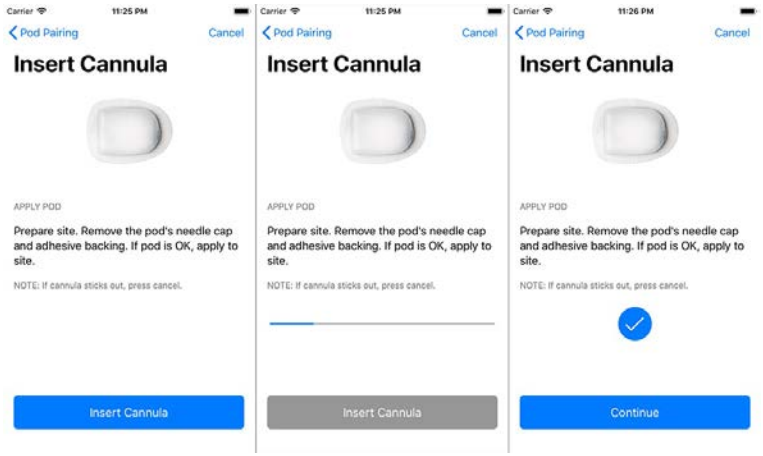
- Every 3 days, the big pod (omnipod) must be changed. Robin can watch his phone during this process. Ask him where he wants to put his pod. Ensure it is a place that looks relatively healed and has a bit of fat on it (pinch an inch! abdomen, back, upper butt)
- Tap settings, omnipod, replace pod
- Click deactivate pod. It will beep and acknowledge when it is deactivated.
- Saturate existing pod in Removelt. This will dissolve the adhesive and can then be peeled off after a few minutes. Wipe the site with alcohol or skin prep and then apply calendula lotion
- Open new omnipod package.
- Wipe insulin vial with alcohol, attach needle, and withdraw minimum amount of insulin (FIASP). Draw in a little air, put cap back on syringe and shake it to mix.
- Tap syringe and squeeze out any air bubbles. Fill omnipod

OMNIPOD CHANGE #2

- Pair Pod
  - Place the Pod near RileyLink
  - Fill the Pod with insulin until it beeps (minimum fill is 80 units)
  - Click the Pair button
  - Wait while the progress bar for priming completes
  - Press the Continue button when the blue checkmark confirms priming is complete



OMNIPOD CHANGE #3



- Prepare your insertion site (clean with skin prep, wipe with skin tac)
- Remove the Pod's needle cap and adhesive backing
- If the cannula is safely tucked away, apply the Pod to your desired infusion site. Press the Insert Cannula button.
- Listen to the clicks filling the cannula, wait for insertion and the progress bar to complete. The number of clicks to insertion is not consistent. The cannula will deploy before the progress bar is completed.
- Confirm cannula has deployed by looking through the peep-hole on the Pod.
- Press the Continue button.

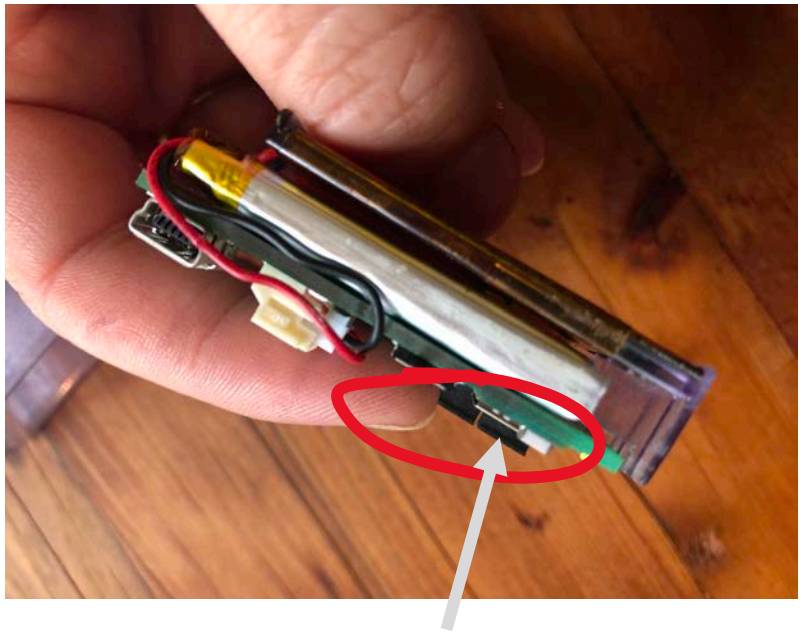
If cannula is sticking out, press cancel in the upper right corner of the screen and try a new Pod.

ADDITIONAL RESOURCES

- Loop and learn https://www.youtube.com/channel/UCTbpfq0Pc6eexTnCJgRsX6Q
- www.beyondtypeone.org
- www.Loopdocs.org
- www.diabetes.ca
- www.Diabetesatschool.ca
- Facebook groups:
  - Canadian Parents of Type 1 Diabetics
  - Looped

RESTARTING OLD RILEYLINK

- Turn your RileyLink off/on at its physical power switch located on the side of the RileyLink.
- Unhook the jump ring and open the plastic casing
- Very carefully slide the motherboard out and turn off and on the tiny switch on the side.
- Redo READ POD STATUS before reassembling to ensure it's working.



Very tiny switch