

Diabetes Education

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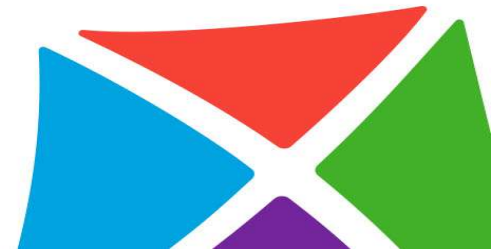
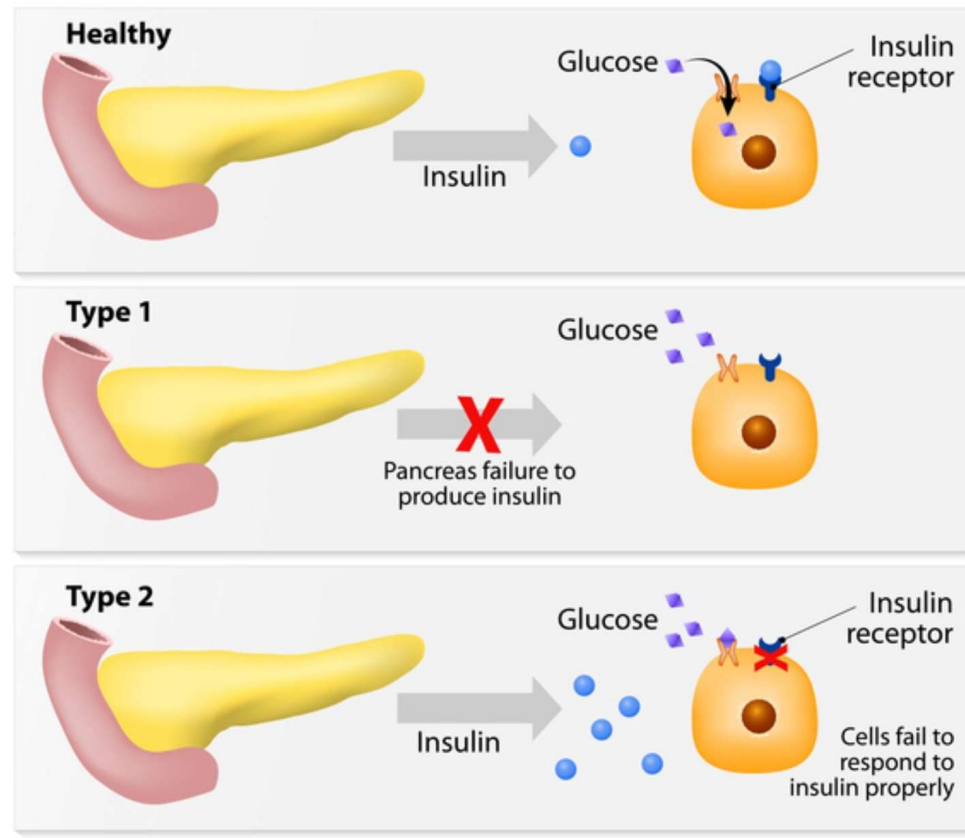


IN TODAY'S PRESENTATION

- Diabetes overview: Insulin action/dosing/stacking
- Hypoglycemia: Symptoms/Rule of 15/Severe low glucose
- Hyperglycemia: Symptoms/Ketones/Ketone management
- Technology: CGM's/Pumps/Hybrid Closed Loop
- Failures and ketones with pump therapy
- Exercise/Activity Mode
- OBJECTIVES:
 - Calculate insulin dose using ICR, ISF, and Target BG
 - What to do when students are experiencing low & high blood sugars
 - Understand how CGM's and Pumps work together



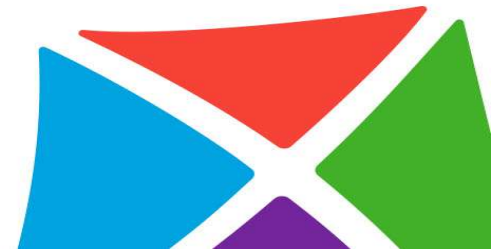
WHAT IS DIABETES? (TYPE 1 vs. TYPE 2)



INSULIN

Basal or long acting insulin: Background insulin that keeps blood glucose levels stable throughout the day, night, and between meals. Examples: Lantus, Basaglar, Levemir, Semglee, or Glargine.

Bolus or rapid acting insulin: Insulin used to correct elevated glucose levels and cover carbohydrate consumption. Examples: Novolog or Humalog.



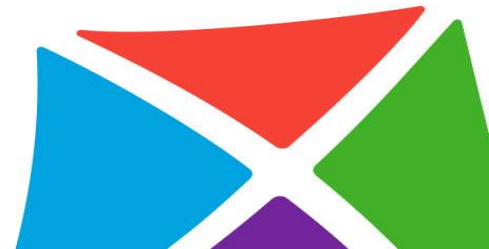
INSULIN: Dosing

Corrections: The estimate of how much insulin it will take to get to the target blood sugar.

Insulin Sensitivity Factor (ISF): Identifies how sensitive a patient is to 1 unit of insulin. (Example: If the ISF is 50 that means 1 unit of insulin will drop the blood sugar 50 points)

This can be expressed in either a correction scale or correction equation

NOTE: The targets and ISF will vary from patient to patient



Correction Scale:

Target 100 ISF: 50

BG 150-200: 1 unit of insulin

BG 201-250: 2 units of insulin

BG 251-300: 3 units of insulin

BG 301-350: 4 units of insulin

BG 351-400: 5 units of insulin

BG >401: 6 units of insulin

Correction Equation:

Target 100 ISF: 50

$$\frac{\text{Current BG} - \text{Target (100)}}{\text{ISF (50)}}$$

Example:

$$350 - 100 / 50 = 5 \text{ units}$$

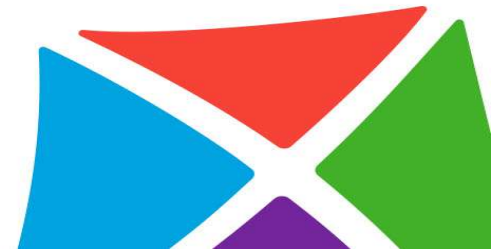
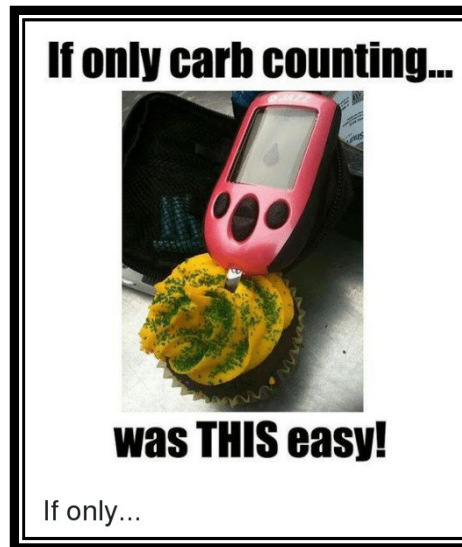


INSULIN: Dosing

Insulin Carb Ratio (ICR): How many carbs are covered by 1 unit of insulin

-This is based on the child's insulin sensitivity, size, and may vary from meal to meal (most children are more insulin resistant in the morning)

Example: 1 unit of insulin for every 15 grams of carbs (1:15)



INSULIN: Putting it Together

Poppy presents to the school nurse with a blood glucose of 231 mg/dl. Poppy's mother packed her a ham sandwich with 2 slices of bread (40 gram), a medium apple (30 grams), and a granola bar (15 grams). Poppy always eats her full lunch and always gets her insulin before she eats.

Her insulin orders are:

ICR: 1:10

ISF: 1:50

Target: 100



Poppy will get 8.5 units of rapid acting insulin for her carbs and 2.5 units for her blood sugar to equal a **total of 11 units of insulin**

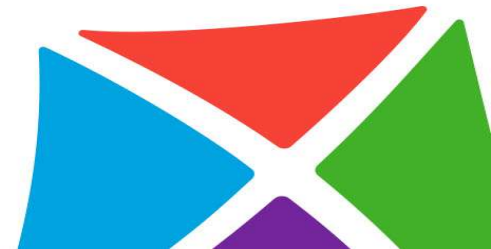


INSULIN: Stacking

Rapid acting insulin is active in the body for about 3 hours. Therefore, insulin to correct blood glucose should NOT be given sooner than 3 hours from the last insulin dose.

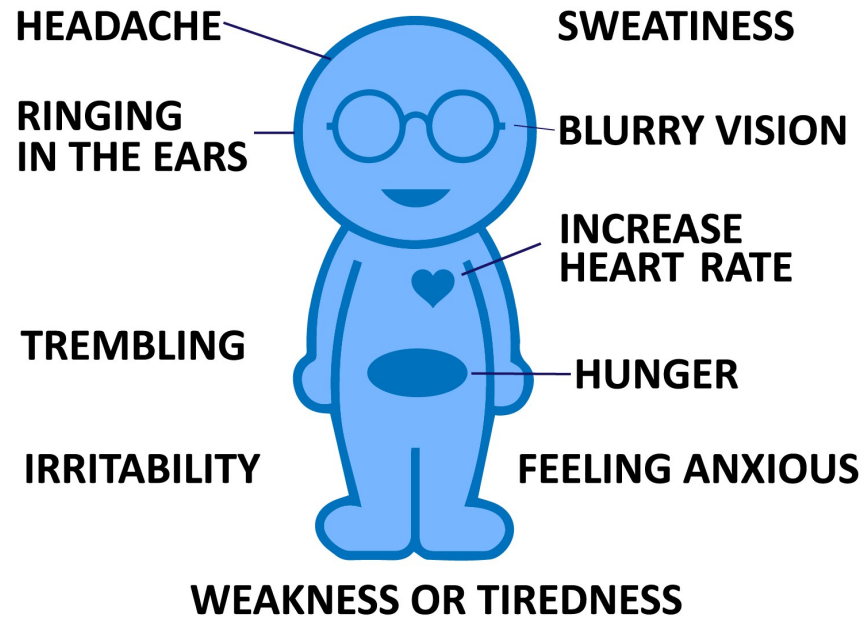
However, insulin for carbohydrates can be safely given at anytime and is not considered stacking.

Example: If a student had lunch an hour ago and they are now celebrating a classmates birthday and sharing cupcakes, you cannot check a blood sugar because it will not be accurate...you will just count and cover the carbohydrates using their ICR.



HYPOGLYCEMIA

A low BG is classified as any number 70 mg/dl and below



HYPOGLYCEMIA TREATMENT

RULE OF 15: If patient is able to swallow, give 15 grams of fast acting carbs (4oz of juice), wait 15 minutes, recheck. Repeat Rule of 15 until BG is >70 mg/dl. Provide 10-15 grams of a complex carb (w/protein) when BG is >70 mg/dl



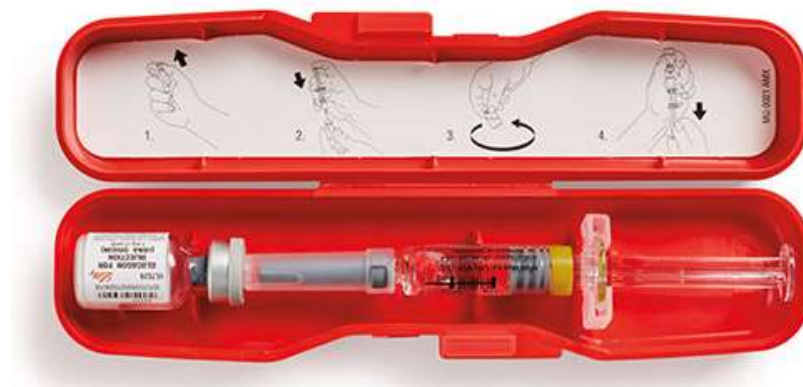
Severe Low Blood Sugar

Glucagon, Gvoke, or Baqsimi is given when a patient is unable to swallow, unconscious or seizing. (Will be in their HCP)

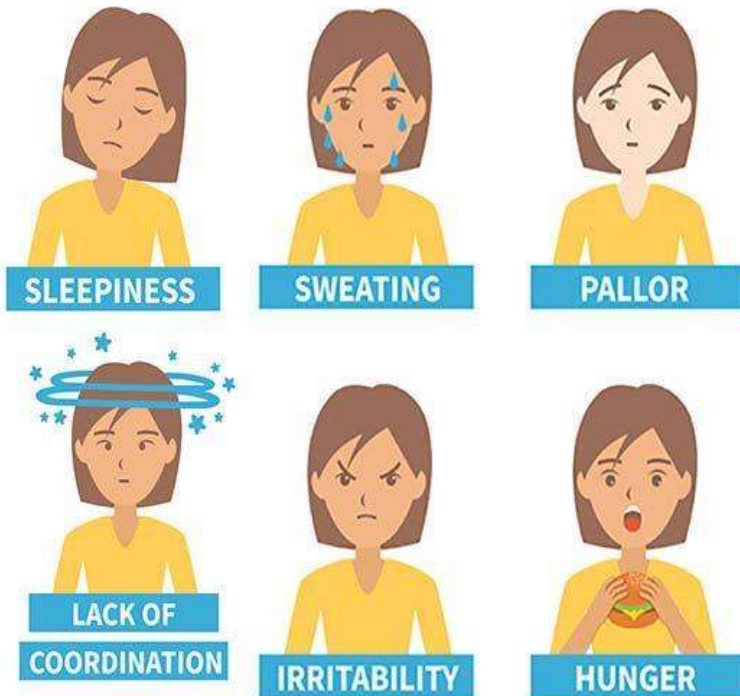
There is no one blood sugar reading that indicates the need for this emergency medication. As long as the patient can take carbs orally, start with juice.

If Glucagon, Gvoke, or Baqsimi is given, it can take 15 minutes for it to take effect. Student should be on the floor, on their side, and call 911.

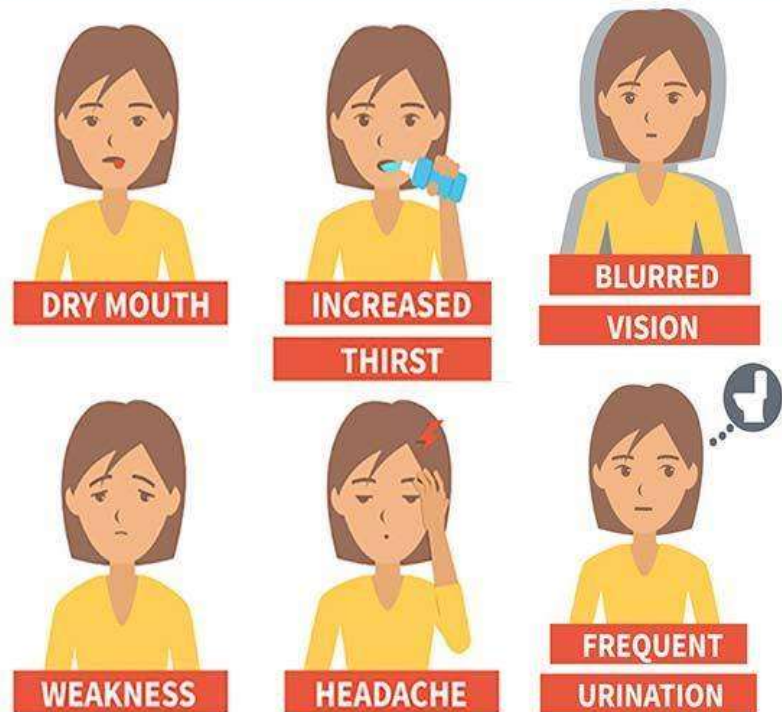
THERE'S AN APP FOR THAT!



HYPOGLYCEMIA



HYPERGLYCEMIA



Ketones

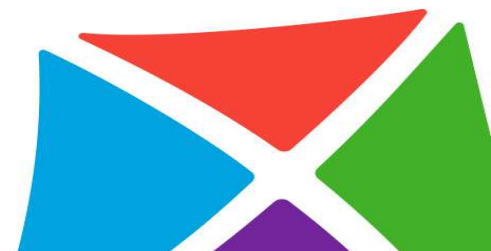
Ketones occur: When there is not enough insulin to match the body's energy needs and the body starts metabolizing fat for energy instead of glucose. **Most common cause of ketones: MISSED INSULIN.**

When to check:

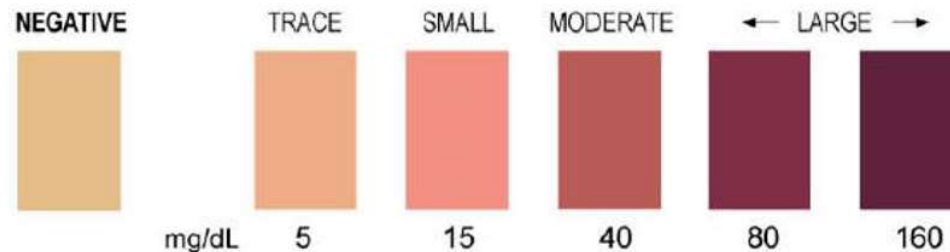
If BG is >300 mg/dl, with nausea, vomiting, breathing changes, or illness. (Do not need to check if student just ate and received insulin less than 3 hours ago).

When to call parents: (Call clinic if unable to reach parents)

If ketones are present with vomiting, labored breathing, or mental status change.



KETONE-Read at exactly 15 seconds.



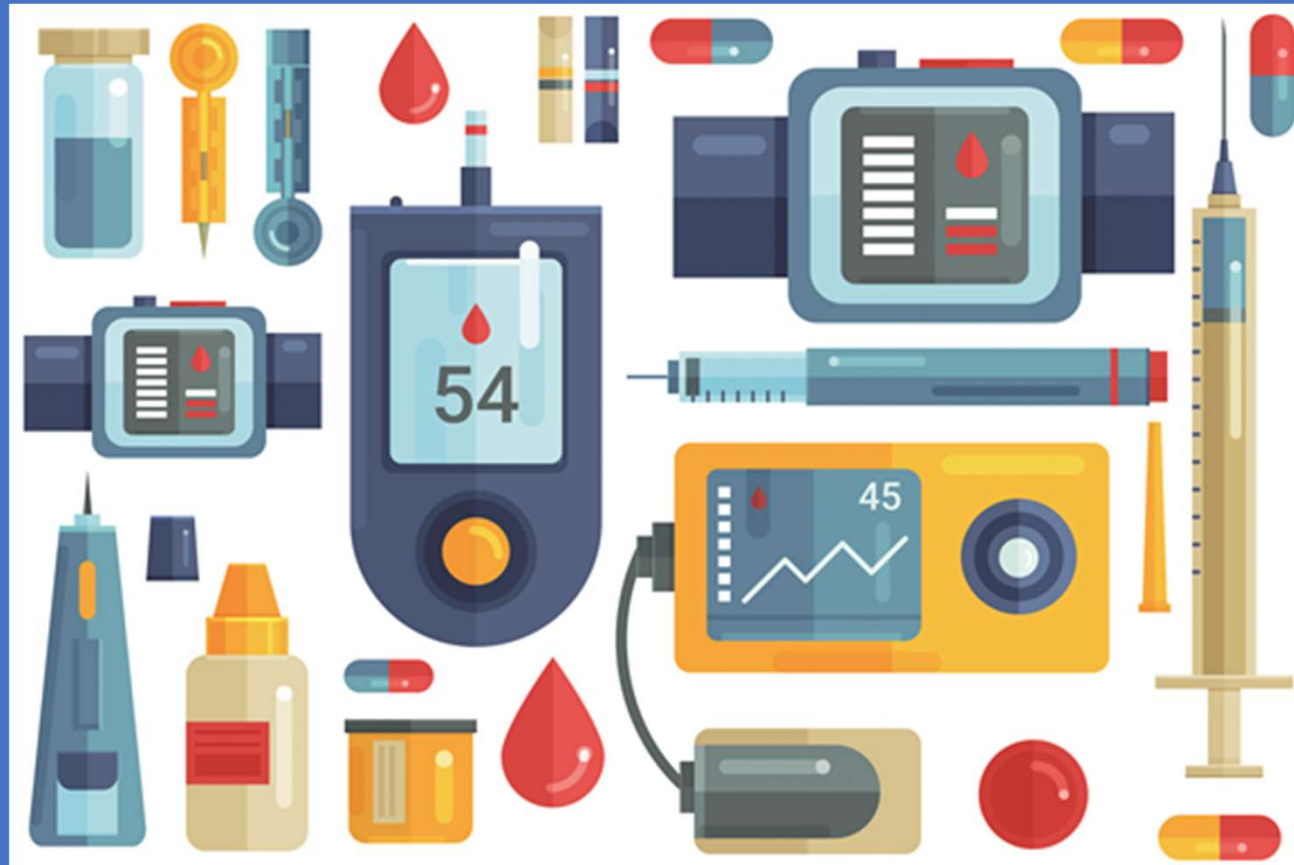
TRACE OR SMALL

- Give 8-16 oz of water per hour
- Give insulin as ordered
- Recheck ketones every 2-3 hours
- Safe to return to class

MODERATE OR LARGE

- Give 8-16 oz of water per hour (sip if nauseous)
- Call family (patient needs be sent home with adult supervision)
- Call clinic if unable to reach family
- Extra insulin is required (See HCP)
- Patient should rest and not participate in physical activities

DIABETES TECHNOLOGY

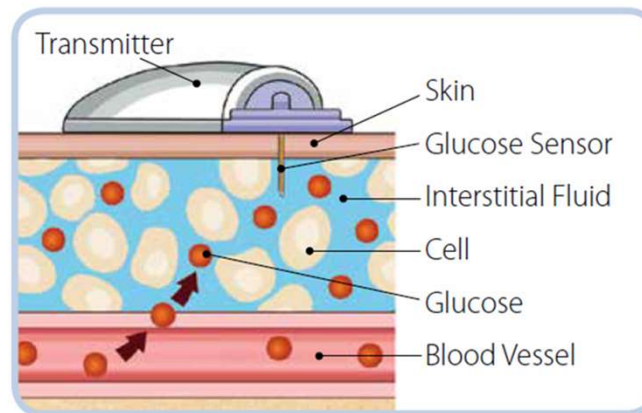


CONTINUOUS GLUCOSE MONITOR (CGM)

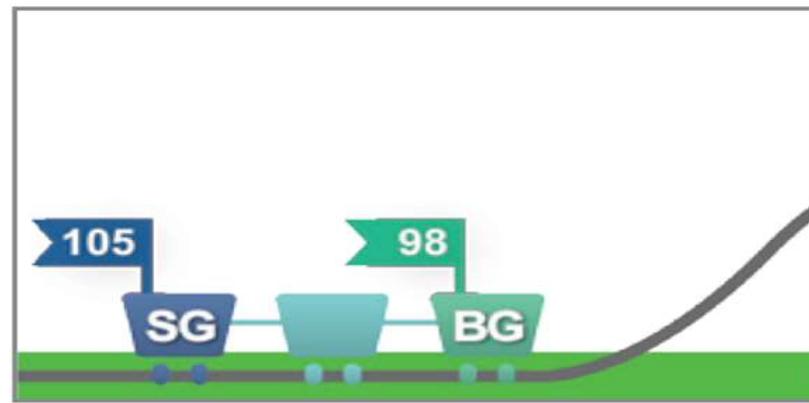
BG meters measure glucose in your BLOOD and a sensor measures glucose levels in the INTERSTITIAL FLUID in the subcutaneous tissue

NOW we are talking about sensor glucose (SG) instead of Blood Glucose (BG)

CGMs have downloadable data that allows families and clinics to review **time in range**

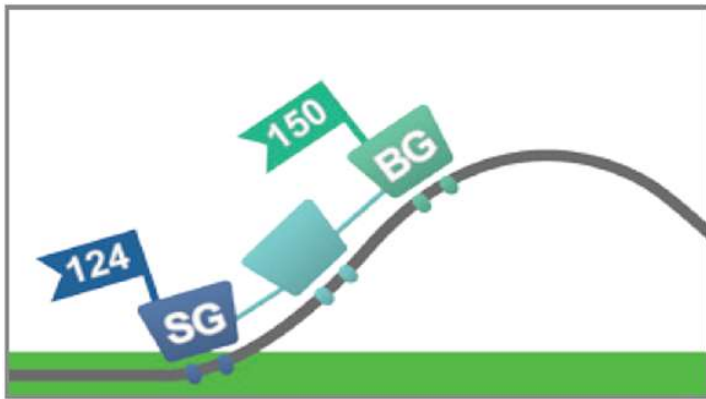


Sensor Glucose Vs. Blood Glucose

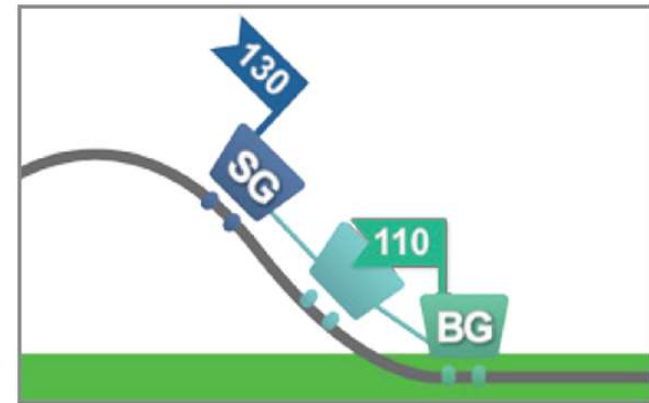


- Blood Glucose tends to be ahead of the Sensor Glucose
- BG and SG reading will be similar when glucose is stable

Sensor Glucose Vs. Blood Glucose



- When glucose is rising, BG will be higher than SG



- When glucose is falling, BG will be lower than SG

The difference between SG and BG will tend to be greater after meals or taking insulin, during and after exercise, and when arrows are on pump screen.

CGM Components

- **Sensors** - measure the glucose levels under the skin
- **Transmitters** - secured to sensor and sends glucose wirelessly to a receiver (Dexcom G7/Freestyle Libre have sensor & transmitter in 1 piece)
- **Receiver/Pump/Phone or Smart Device** – displays sensor glucose every 3-5 minutes.



CGM TYPES



Freestyle Libre



Medtronic
Guardian



Dexcom



Continuous Glucose Monitors

- Can be stand-alone device (no pump) transmits data to Apple Products, Android smart phones, receiver
- Has sharing capability if student uses a smart device.
- No calibration needed for Dexcom, Freestyle Libre, or Guardian 4.
- Dexcom G6: Integrates with both Tslim X2 and Omnipod 5 pumps.
- New Medtronic 780 pump integrates with Guardian 4 sensor.
- Freestyle Libre 2 and 3 is currently a stand-alone sensor.



CGM: Additional notes

- The first 24 hours after placing a sensor the readings can be less accurate. When in doubt, get the meter out.
- If a sensor fails or comes off, all students need a backup glucometer
- If symptoms do not match CGM readings, follow up with a blood glucose check
- Setting reasonable alarms (Low:80 and High:300)



CGMs Side by Side

	DEXCOM G6	GUARDIAN 4	LIBRE
# of day wear	10 days	7 days	14 days
Can it be used with a pump?	YES (T-Slim and Omnipod)	YES (780)	NO
Can it be used without a pump?	YES (Smart devices)	YES	YES
FDA approved to dose insulin from data	YES	YES	YES
Does it need to be calibrated?	NO	NO	NO
Audible alarms/alerts	YES	YES	YES

INSULIN PUMP: IT'S A SMALL COMPUTER

Each pump is filled with rapid acting insulin, Humalog or Novolog. It is programmed to deliver small amounts of insulin through an infusion set or pod. This is a thin plastic tubing that is inserted into fatty tissue for optimal absorption.

Students should be placing these on their arms, upper thighs, stomach, or upper buttock with good rotation. These sets/pods must be changed every 2-3 days to avoid developing scar tissue. (Medtronic extended wear x 7 days)



Pump Components

Sensor for CGM
optional extra



Insulin vial
to fill
reservoir



Reservoir



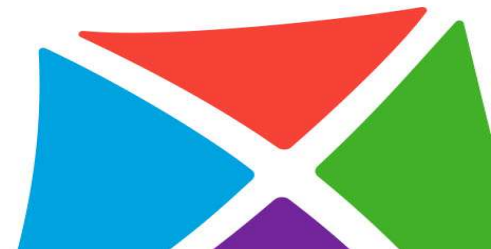
Insulin Pump



Infusion set
before insertion



Infusion set
after insertion





BOLUS

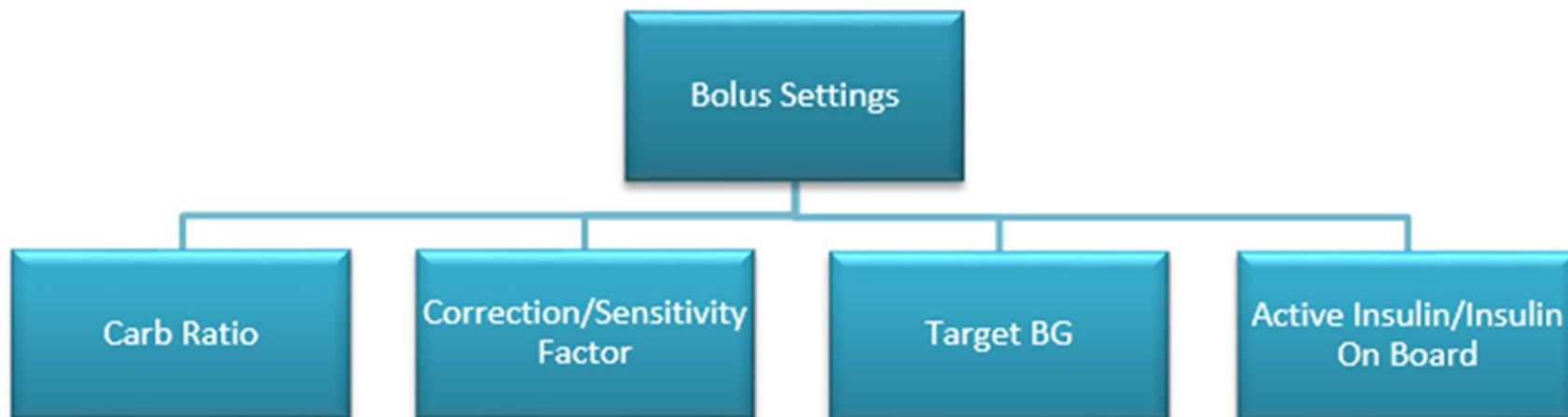
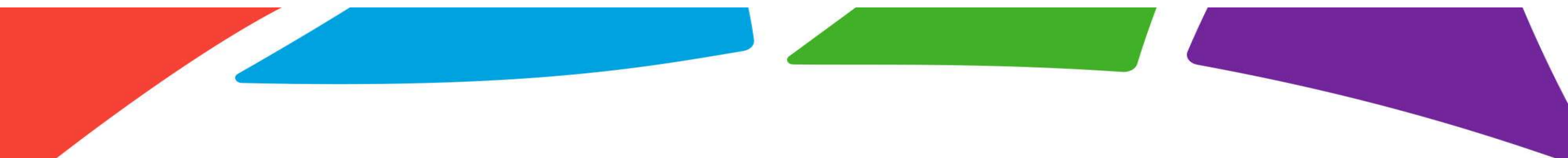
Carbohydrate Ratio: How many grams of carbohydrates per 1 unit of insulin

Sensitivity Factor: How much 1 unit of insulin will lower blood sugar

Target BG: Used in calculation as a goal for where blood sugar should be

Active Insulin or Insulin on Board: How much insulin is still working in the body

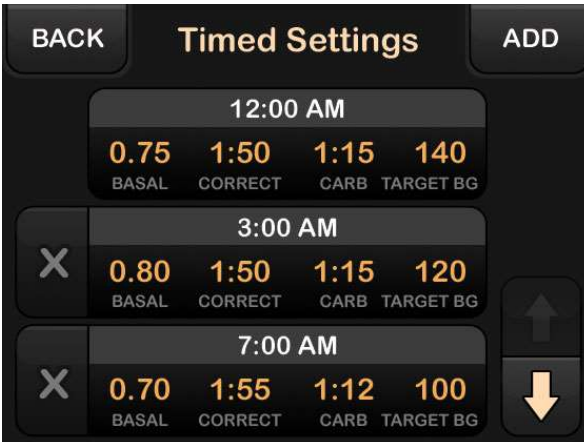
PUMPS ARE SMART: they will use all of these settings and calculate the dose for you. If they are using a sensor, it will take the CGM data into consideration as well as the insulin on board.



Basal Rates

Constant infusion of rapid acting insulins

- Basal rate settings replace the long acting insulin that was needed before starting pump therapy.
- There can be different rates at different times of the day (acts more like a pancreas)
- Provides more flexibility for the person with diabetes
- Pumps that are integrated with sensors will adjust the basal rates based on trending sensor glucose.



Time	Basal	Correct	Carb	Target BG
12:00 AM	0.75	1:50	1:15	140
3:00 AM	0.80	1:50	1:15	120
7:00 AM	0.70	1:55	1:12	100

Omnipod 5 with Dexcom G6

- Recently integrated with Dexcom G6 for hybrid closed loop automation.
- Will increase and decrease insulin based on sensor data
- Pod is the only tubeless pump we have currently
- Uses requires compatible smart device to connect Dexcom to Pump.
- Pods are changed every 2-3 days



Tandem T-Slim X2

- Interacts with Dexcom G6 (CGM data appears on the pump)
- **Control IQ:** The Dexcom and T-Slim X2 predict high and low blood glucose. It will decrease insulin or suspend insulin delivery to avoid hypoglycemia if the sensor is predicting low. The pump will also deliver micro boluses and/or increase basal rates when blood glucose is predicted to rise and when running high.
- Smallest available pump
- Rechargeable battery
- It is not uncommon for a student to have the Dexcom data on a pump and phone/smart device so that the parents can follow the sensor data.



MEDTRONIC

- 630G and 670G (older models, using guardian sensor 3 that requires calibration and also has automode option)
- New: 780 model uses Guardian 4 sensor and is also hybrid closed loop pump (automode)
- This pump will also suspend insulin if low glucose is predicted and auto bolus if blood glucose is rising.
- Extended wear infusion sets 7 days!! All other pumps are 2-3 day infusion set changes.



AUTO MODE

- If there is a blue shield the pump is in Auto Mode
- Auto Mode adjust basal rates based on Guardian CGM data
- In Auto Mode the pump user will need to respond to alerts in order to stay in Auto Mode
- If alerts are not addressed in a timely manner or if the glucose level is above or below target for too long, the pump will exit Auto Mode
- IT'S OKAY if the patient exits auto mode. The pump will return to manual mode settings prescribed by the doctor. It is the clinic's responsibility to make sure the manual mode settings are appropriate for the student
- The pump will list what is needed to reenter Auto Mode



School Nurse's Role in Pump and Sensor Therapy

- Recognizing a site/pump failure
 - Is the glucose continuously rising after a correction bolus?
 - In 1 hour has the glucose dropped at least 30 mg/dL after a correction bolus?
(no food should be given in the 1 hour period after you delivered correction bolus)
- Assessing Trend arrows, anticipating high/low glucose, and acting accordingly

IF negotiated between the school nurse and parents/guardian, the school nurse can learn how to change the pump site.

Insulin Pump Safety Plan

Anytime your blood sugar is over 300 mg/dl, check ketones!

Green Zone

(Safe)



Blood Sugar under 300mg/dl

What to do:

- ✓ Continue basal insulin through insulin pump! Use pump for bolus insulin needs, carbohydrate and high blood sugar coverage.


Yellow Zone

(Caution)



Trace or Small Ketones

What to do:

- ✓ Continue basal insulin through the insulin pump.
- ✓ Give insulin bolus through pump for high blood sugar. DO NOT eat, just give insulin for high blood sugar
- ✓ **Recheck blood sugar in 1 hour**
 - If blood sugar is lower at the 1 hour check (by more than 30 mg/dl) safe to use pump.
 - If blood sugar does not drop by at least 30 mg/dl then go to red zone 
- ✓ Check ketones in 3-4 hours to make sure they have cleared
- ✓ Drink lots of water (8-12 ounces hourly)

Red Zone

(Danger!)



Moderate or Large Ketones

What to do:

- ✓ STOP USING INSULIN PUMP FOR BOLUS NEEDS!
- ✓ GIVE CORRECTION INSULIN WITH SYRINGE OR PEN DEVICE!
- ✓ **DOUBLE THE CORRECTION INSULIN FOR MODERATE OR HIGH KETONES**
- ✓ Place new insulin pump site and continue basal insulin through pump.
- ✓ Continue to give insulin by syringe or pen device every 2-3 hours until ketones cleared AND Blood sugar under 200 mg/dl
- ✓ Drink lots of water (8-12 ounces hourly)

Remember pump problems can occur anytime but especially at night or when you first start a new pump site. Always check your blood sugar at start of a new pump site and recheck in 1-2 hours to make sure that blood sugars are not rising rapidly.



DIABETES
won't get me down

Green Zone

(Safe)



Blood Sugar under 300mg/dl

What to do:

- ✓ Continue basal insulin through insulin pump! Use pump for bolus insulin needs, carbohydrate and high blood sugar coverage.


Yellow Zone

(Caution)



Trace or Small Ketones

What to do:

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Red Zone
(Danger!)



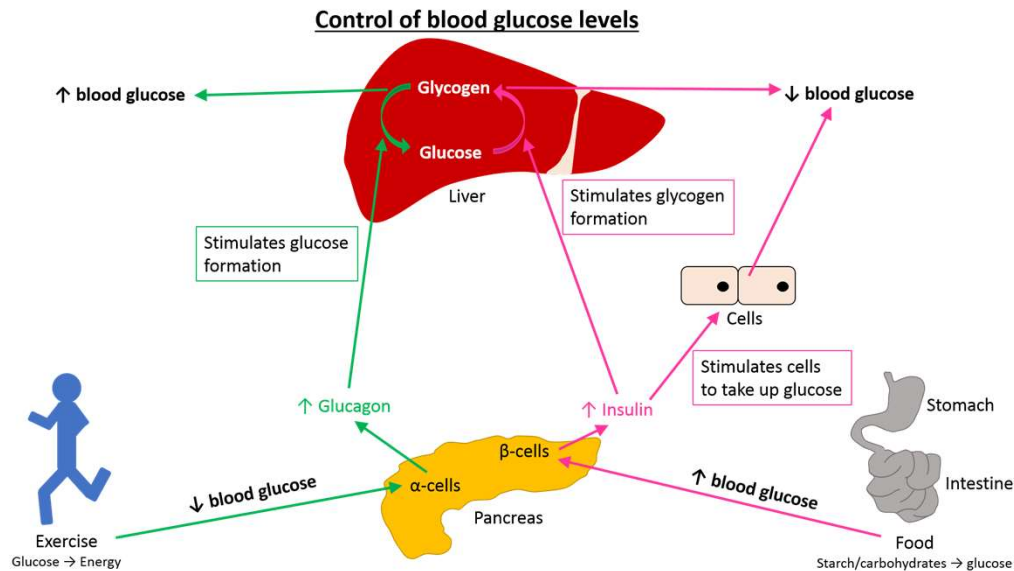
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Diabetes and Exercise

When someone without diabetes is physically active their insulin levels drop and their glucagon levels rise.



Exercising with injection therapy:

Have a carb snack prior to activity to anticipate low blood glucose levels

Extra Food to Cover Moderate Exercise		
General Rule: An extra 15 grams of carbohydrate (CHO) for every 30 minutes of moderate exercise. (Insulin “coverage” not needed for this extra food)		
Length of Activity	Blood Glucose	Snack Example
Short (15-30 minutes)	<80	½ cup juice + 15-30g CHO. Recheck glucose
	80-150	15-20g CHO
	>150	No extra snacks needed
Medium (30-60 minutes)	<80	½ cup juice + 30g CHO. Recheck glucose
	80-150	15-30g CHO
	>150	15g CHO
Long (2-4 hours) May also need decrease in long-acting insulin as well	<80	½ cup juice + 30g CHO. Recheck glucose. Additional 30g CHO per hour of activity
	80-150	30g CHO per hour of activity
	>150	20-30g CHO first hour and then 30g CHO every hour. May require reduction in insulin dosage as well.

Exercising on pump therapy:

- Set pump in active mode or activity mode (will be different with each pump)
- The activity option sets the blood sugar target higher. We recommend turning this option on an hour prior to activity/recess so that the BG is at 150 (safe target).

Everyone is different. Discuss with parents what works best for their child. This is an option that can be added to HCP's if family is requesting this be used.



Questions???





welcome!

DIABETES TECHNOLOGY

CONTINUOUS GLUCOSE MONITORS

DEXCOM, FREESTYLE LIBRE, GUARDIAN

SITES:

Placed in fatty tissue on abdomen, arms, upper thighs. Should not be placed directly next to infusion set/pod.

DEXCOM G6

Connects with Tslim and Omnipod 5. Change sensor every 10 days. Transmitter is changed every 90 days. No calibrations required. (G7 not integrated yet)



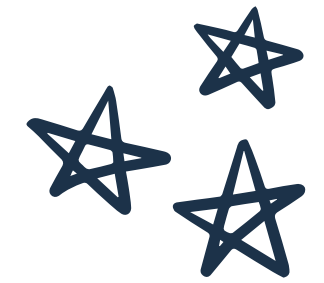
GUARDIAN

Connects with Medtronic 770/780 pump. Is changed every 7 days and calibrated 2x daily (Updated: new sensor/no calibrations)

FREESTYLE LIBRE 3

Does not integrate with any pump currently. Is changed every 14 days. No calibrations required. Integration with Omnipod/Tslim 4th qtr 2023

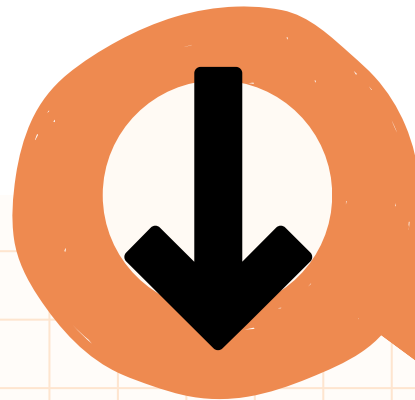
What do the arrows mean?



Arrows are giving you the direction and speed in which the glucose is trending.

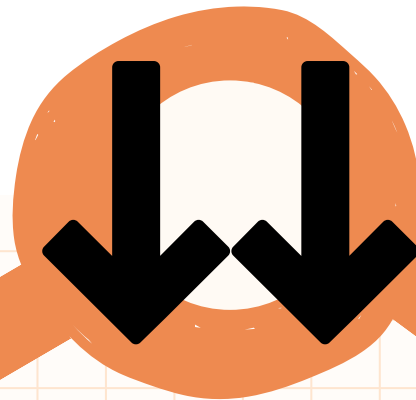
Arrow Down

Blood sugar may drop 60 points in the next 30 minutes



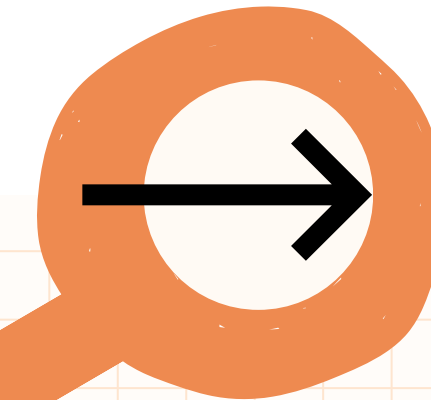
Double arrow down

Blood sugar may drop 90 points in the next 30 minutes



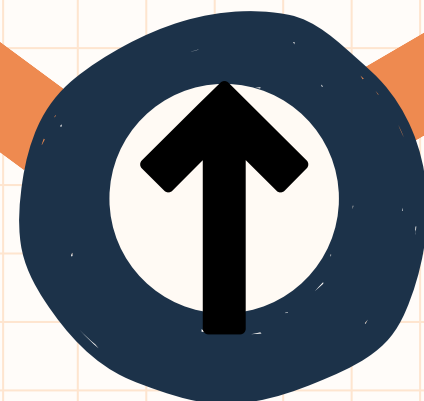
Straight arrow

Blood sugar is steady, no anticipated drop or rise



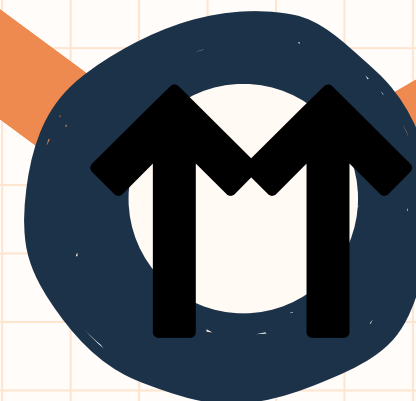
Arrow Up

Blood sugar may rise 60 points in the next 30 minutes

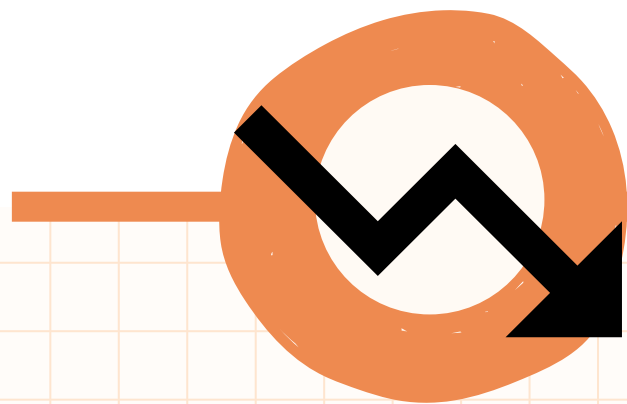


Double arrow up

Blood sugar may rise 90 points in the next 30 minutes

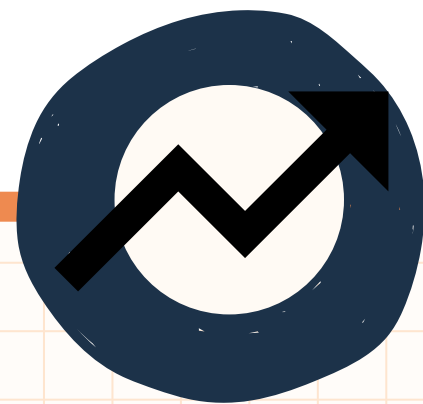


Arrows continued:



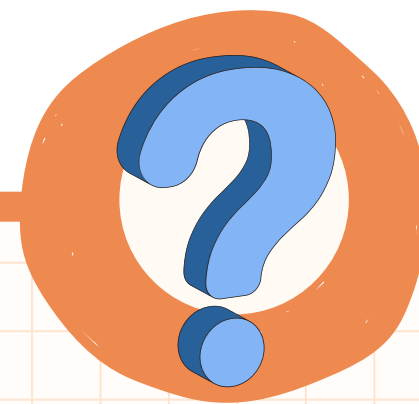
Side arrow down

Blood sugar may drop 30 points in the next 30 minutes

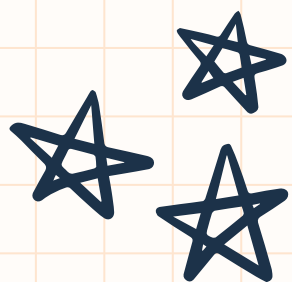


Side arrow up

Blood sugar may rise 30 points in the next 30 minutes



We can go over questions on trends in just a few minutes.





WHAT CAUSES FAST RISE, FALL?

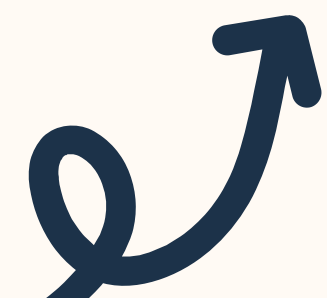
FAST RISE

THIS IS NORMAL AFTER THE START OF A MEAL OR SNACK. THE BLOOD SUGAR IS RISING AS SOON AS THEY START EATING. THE INSULIN TAKES 1.5 HOURS TO START WORKING.

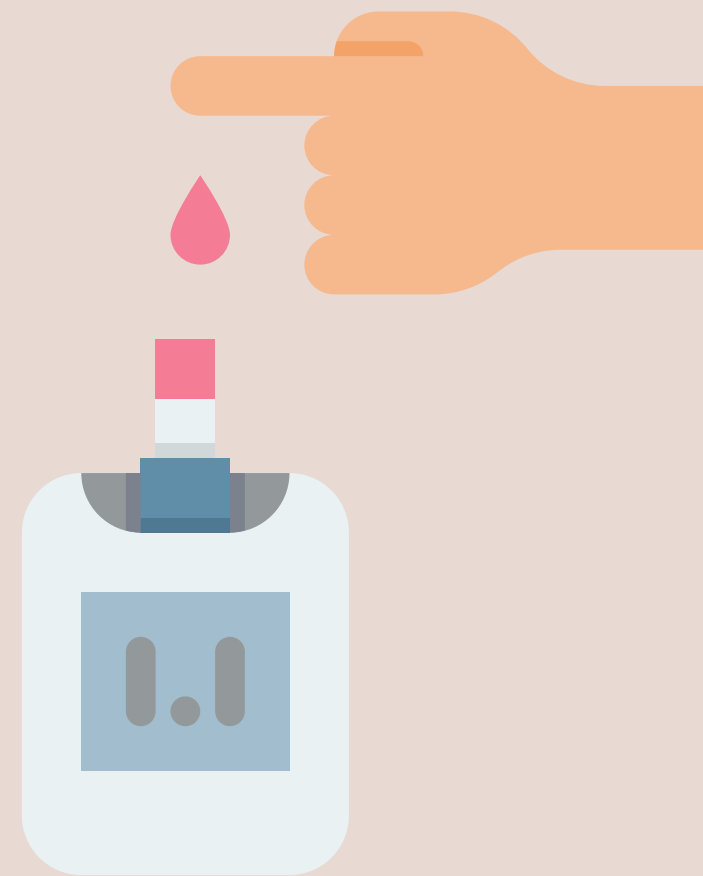
EXAMPLE: IF STUDENT ARRIVES TO SCHOOL WITH A HIGH BLOOD SUGAR, THIS IS LIKELY DUE TO BREAKFAST. I WOULD RECOMMEND ASKING STUDENT WHEN THEY ATE AND WHEN THEY RECEIVED INSULIN. THEY CAN NOT CORRECT BLOOD SUGAR ANY SOONER THAN 3 HOURS SINCE LAST INSULIN DOSE WAS ADMINISTERED. IF BLOOD SUGAR IS STILL HIGH AT THE 3 HOUR MARK AND THEY HAVEN'T EATEN ANYTHING IN THAT TIME, CORRECTION CAN BE GIVEN.

FAST DROP

THIS TYPICALLY HAPPENS WHEN THE INSULIN IS PEAKING (1.5 TO 2 HOURS). THIS CAN ALSO HAPPEN DURING PHYSICAL ACTIVITY. THE ARROW OR DOUBLE ARROW DOWN DOES NOT ALWAYS REQUIRE INTERVENTION BUT IF THEY ARE DROPPING AND LOW BLOOD SUGAR IS PREDICTED, FOLLOW HYPOGLYCEMIA ORDERS. PARENTS MAY ALSO CALL TO ASK THAT YOU ASSESS. IF THEY ARE INDEPENDENT, THE PARENTS SHOULD CONTACT STUDENT DIRECTLY AND IF THEY ARE UNABLE TO REACH THEM, YOU SHOULD ENGAGE AND ASSESS SITUATION.



WHEN IN DOUBT, GET THE METER OUT



SYMPTOMATIC

If the sensor says glucose is normal but student has symptoms of either high or low blood sugar

NO DATA

If the sensor is not working, no data is available

UNEXPLAINED

If the blood sugar is unexplained HIGH or LOW and not symptomatic

DELAYED DATA

The sensor is reading changes in ISF and not in blood. This means the sensor data will be delayed compared to the finger stick.

HOW DOES THE INSULIN PUMP WORK?

1.

WORKS LIKE THE PANCREAS

Our pancreas delivers small amounts of insulin known as BASAL or background insulin. With food, and times blood sugar is high, the pancreas will secrete more insulin known as BOLUS

2.

BASAL

This is pre-programmed based on students insulin needs. Basal settings take the place of the long acting insulin they were using before they started the pump. Basal rates are set to accommodate 'background' insulin needs for 24 hours

3.

BOLUS

A bolus is given at the time of a meal or snack. The amount of bolus is based on their carb ratio settings and correction/sensitivity settings. When carbs and blood sugar is entered to bolus, both the food and blood sugar will be covered.



IT'S A SMALL COMPUTER....

OMNIPOD, TSLIM, MEDTRONIC

Each pump is filled with rapid acting insulin, Humalog or Novolog. It is programmed to deliver small amounts of insulin through an infusion set or pod. This is a thin plastic tubing that is inserted into fatty tissue for optimal absorption. Students should be placing these on their arms, upper thighs, stomach, or upper buttock with good rotation. These sets/pods must be changed every 2-3 days to avoid developing scar tissue. (Medtronic extended wear x 7 days)

OMNIPOD

Currently, the only tubeless pump. Omnipod 5 is now integrated with Dexcom G6.



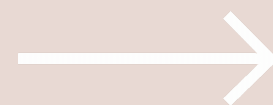
TSLIM X2

Popular pump. It is also integrated with Dexcom G6.



MEDTRONIC

Integrated with the Guardian sensor. (new 780)



When pumps are 'integrated' with a sensor (continuous glucose monitor) it will automatically increase or decrease insulin based on their blood sugar levels using an 'algorithm'

This is a GREAT tool! It will increase basal rates and micro bolus when blood sugars are predicting to rise.

The pump will decrease or suspend insulin if it predicts student's blood sugar will drop low

Bolus Menu Definitions

1

CARBOHYDRATE RATIO OR ICR

-HOW MANY CARBS PER 1 UNIT OF INSULIN.

2

SENSITIVITY/CORRECTION FACTOR

-HOW MUCH ONE UNIT OF INSULIN WILL LOWER YOUR BLOOD SUGAR.

3

BLOOD SUGAR TARGET

-TARGET RANGE FOR BLOOD SUGAR-USED IN CALCULATION AS A GOAL FOR WHERE BLOOD SUGAR SHOULD BE.

4

ACTIVE INSULIN OR IOB

HOW MUCH INSULIN IS STILL WORKING. IT ALLOWS THE PUMP TO ADJUST INSULIN RECOMMENDATIONS BASED ON WHAT'S ACTIVE.

TIME TO BOLUS FOR LUNCH



STEP ONE

BOLUSING

Go to pump options
push Bolus
enter carbs and blood
sugar



STEP TWO

IOB- INSULIN ON BOARD

All of the pumps keep track
of IOB (active insulin) and
will calculate dose using
that information (to avoid
stacking insulin)



STEP THREE

COMPLETE BOLUS

Before you complete the
bolus, you will be given the
breakdown of CHO
coverage and correction
coverage. This should be
verified before bolus is
initiated

1.

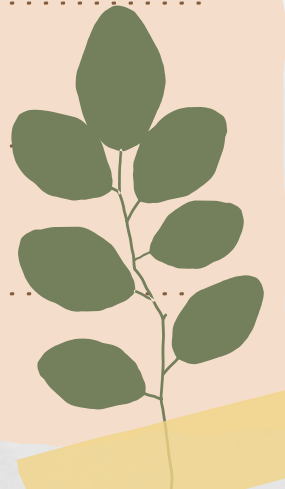
Bolusing



The home screen will include:

Battery life (should be >20%)

Insulin reservoir (how much should they have available?)



Triangle (either Basal or Control IQ identifier)
Blood sugar graph/trends (3 hours)
IOB (insulin on board)

Select BOLUS

(Use Tslim Simulator App)

2.



Enter carbs
If student is using
CGM, the blood sugar
should automatically
carry over into the bolus
screen. If it
doesn't, enter BG there.
Hit view calculation....



3.



The pump has calculated the insulin dose using ICR, blood sugar target, IOB, and sensitivity.

Recommended dose is 1.08 units.

Enter 

4

Confirm Request



Confirm Request?

Carbs	25 g
BG	90 mg/dL
Units To Deliver	1.08 u

X ✓

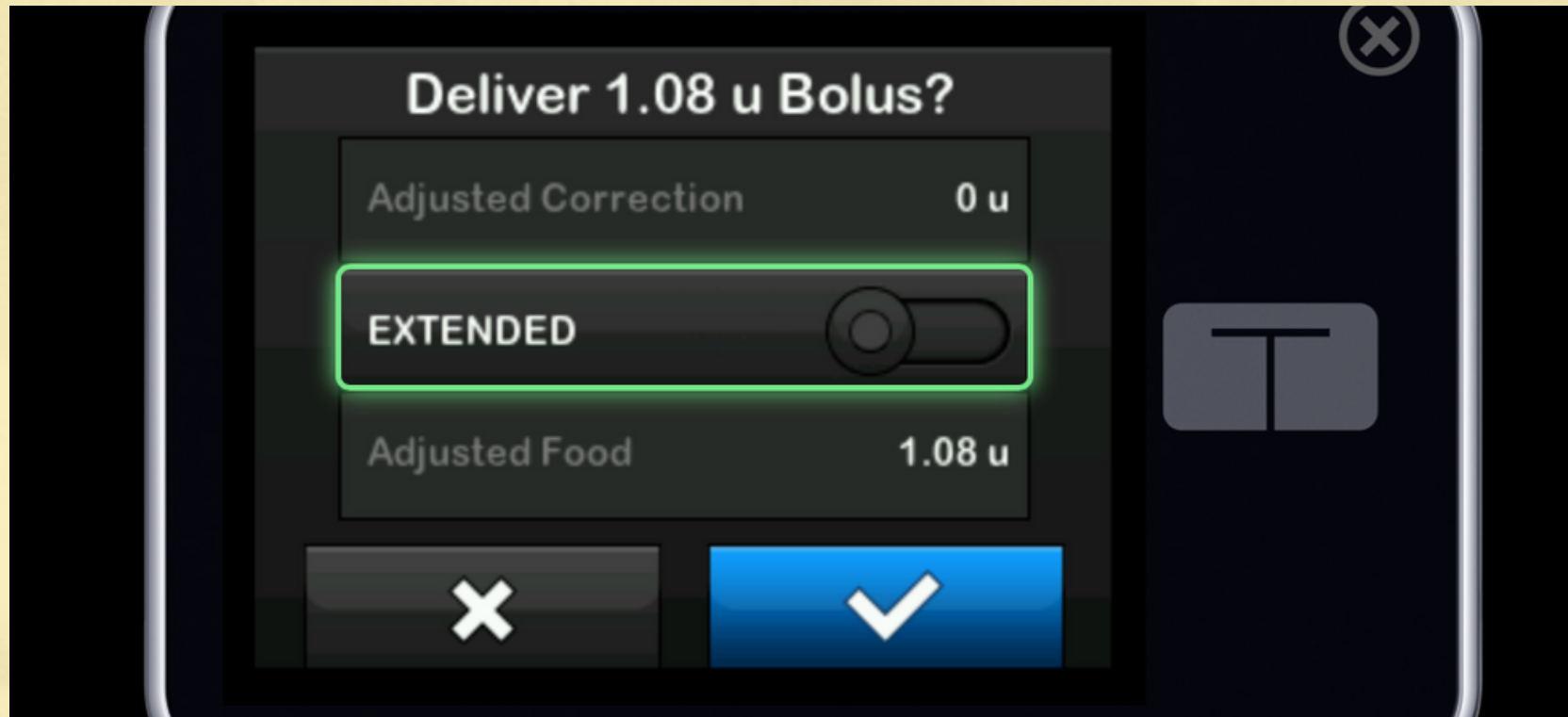
This is a great time to double check that the blood sugar and carbs have been entered correctly. We have found patients entering 200 carbs vs 20 carbs.

When confirmed, enter



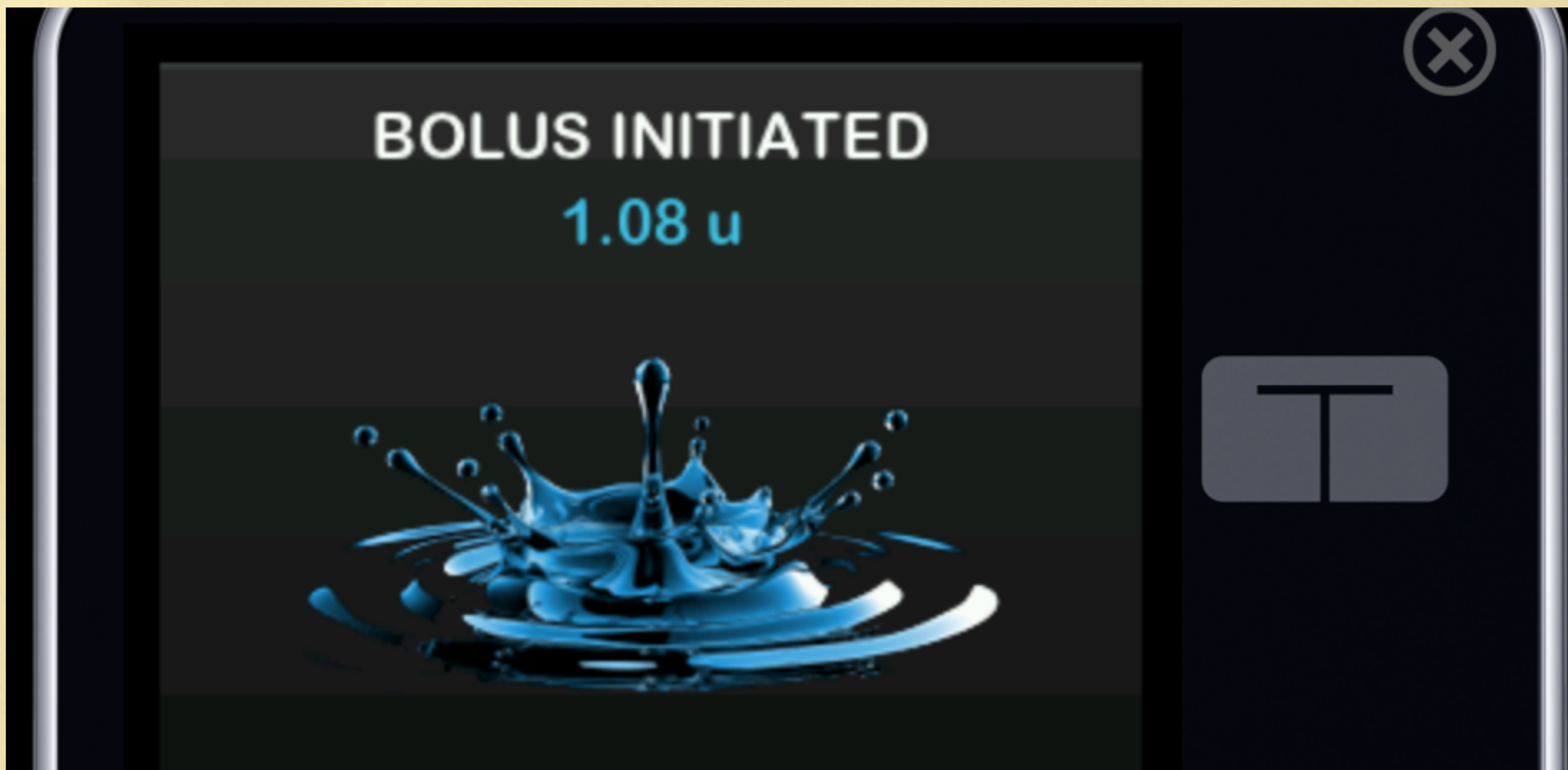
5

Bolus Initiated

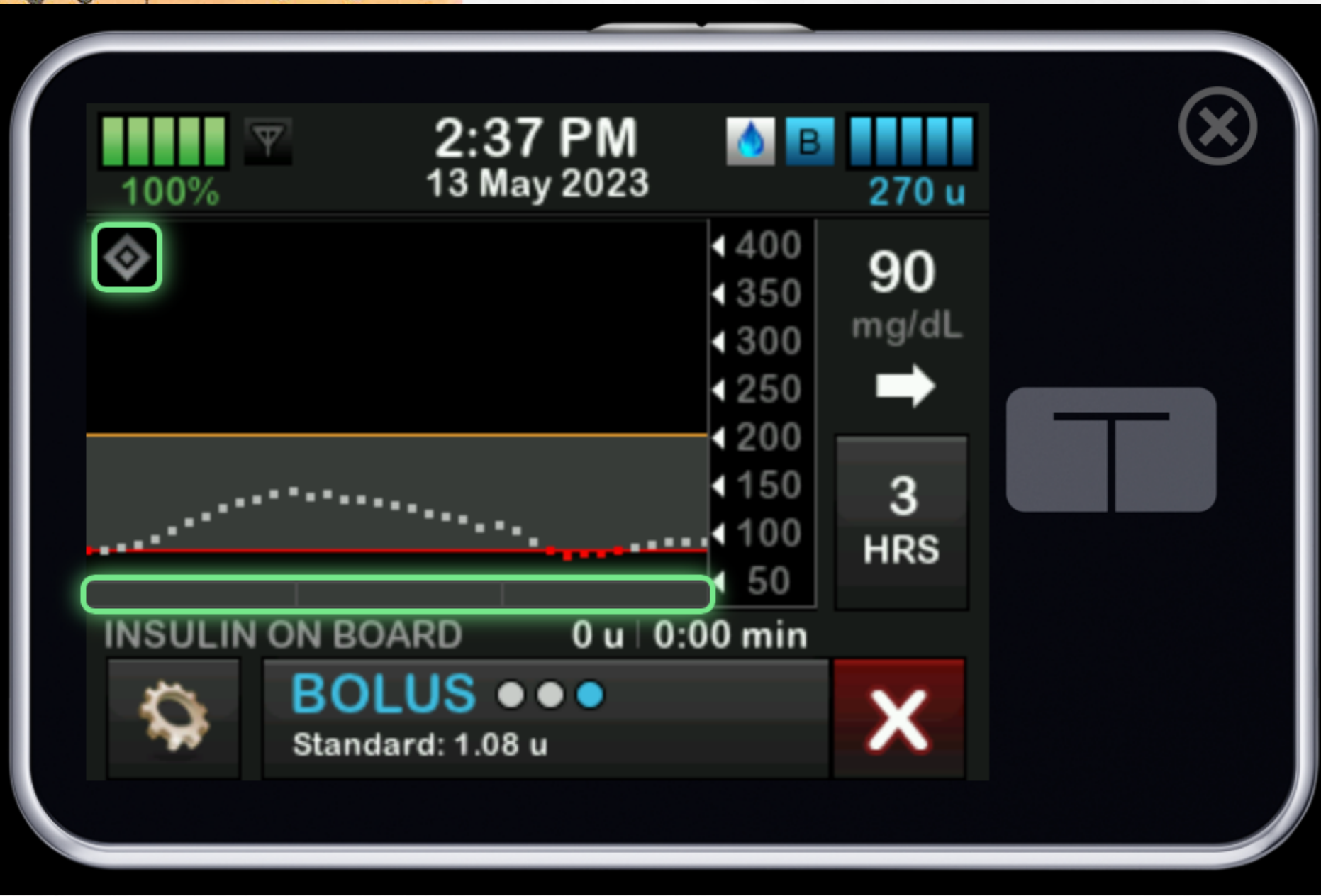


Before bolus is initiated, it will provide the calculation and an option to use the extended bolus. The extended bolus is often used when a patient is eating a high fat meal (pizza/pasta) or during holidays like Thanksgiving or Christmas when there is a lot of grazing. This will deliver the recommended bolus over a period of time.

To initiate bolus, enter



Bolus Complete!



<--- Insulin is being delivered
If you notice an error, hit X to stop bolus.

IOB
Once delivered, it will show 1.08 units on board.



Omnipod 5

Omnipod Dash is still being used but most patients have upgraded to the Omnipod 5 for CGM integration

(You can practice bolusing using the Omnipod5 simulator app)

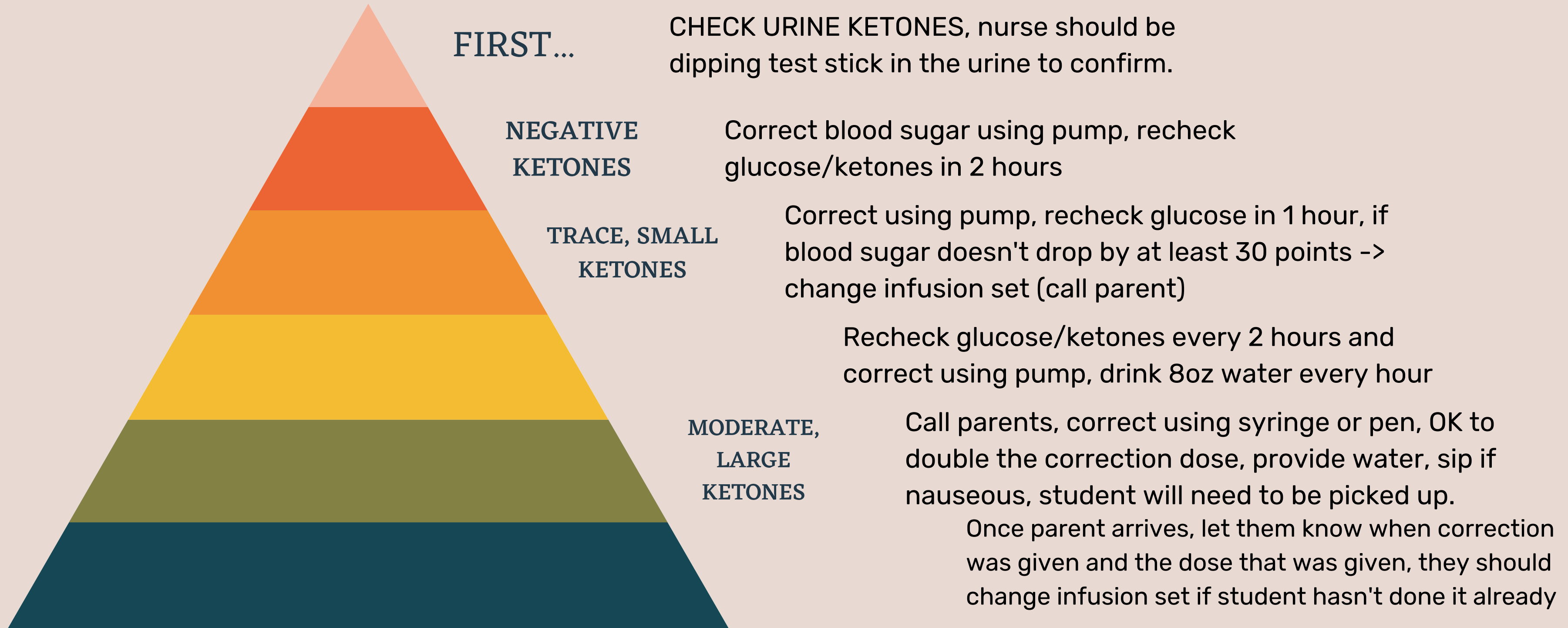
Uses with compatible smartphone or free controller

Activity feature accessible for increasing target before/during/after exercise

Uses a customizable glucose target 110 to 150 in 10mg increments

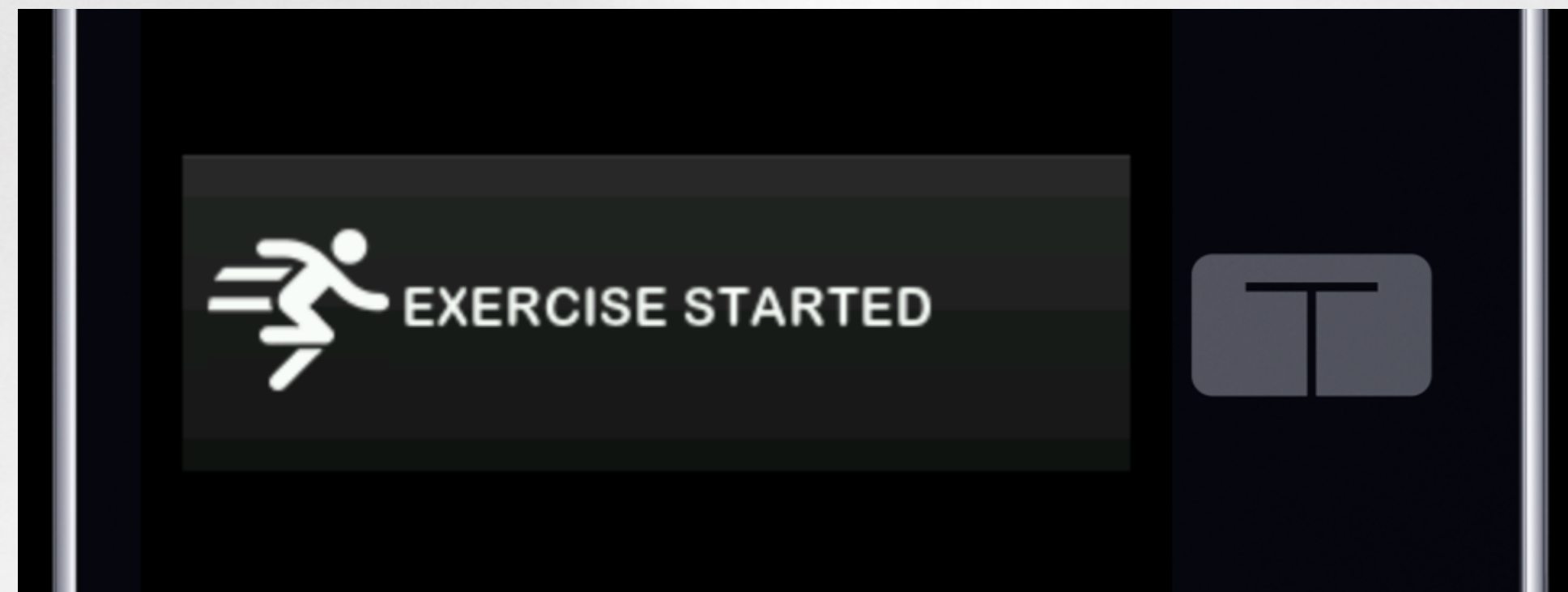
Must be using Dexcom app (not reciever) for technology to work

BLOOD SUGARS >300 WITH INSULIN PUMP



Prevent Hypoglycemia

We often recommend families use this option if we see trends of low blood sugar related to activity at school. (PE or sports). The blood sugar target is automatically set at 160 when activity is on and will suspend insulin if blood sugars are expected to drop below 140 target. We recommend turning this on 30-60 minutes prior to activity and possibly continuing an hour after activity.



RECESS & P.E.

Managing activity and exercise

What is the Activity feature?

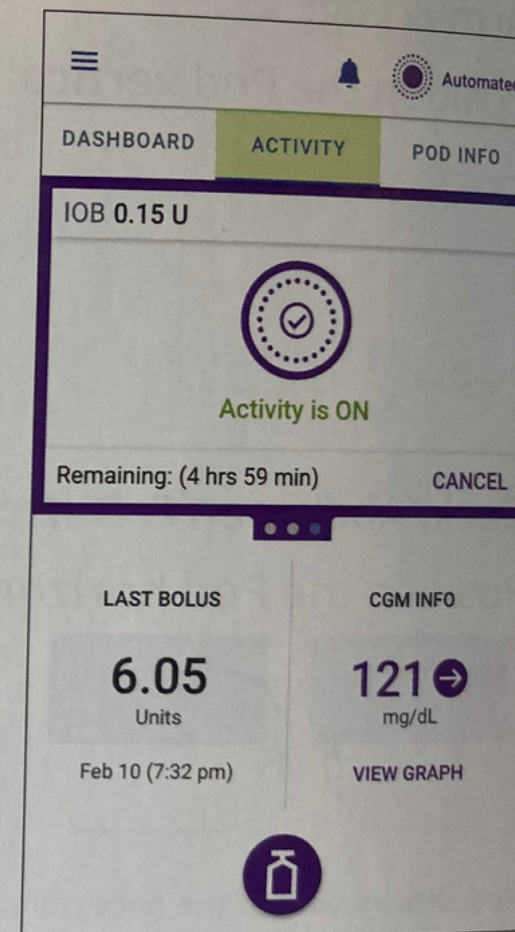
While in Automated Mode, there may be times when you would like less insulin automatically delivered. When the Activity feature is started, the SmartAdjust™ technology reduces insulin delivery and automatically sets the target glucose to 150 mg/dL for the time you choose.

When can the Activity feature be used?

During activities like sports, swimming, yard work, a walk in the park, or any other time when the glucose level tends to go low.

How do I start the Activity feature?

1. Tap the menu button
2. Tap **ACTIVITY**
3. Enter the desired duration, then tap **CONFIRM**
4. Tap **START**



PARENT DECISION:
WE RECOMMEND FAMILIES USE THIS FEATURE IF A CHILD IS EXPERIENCING LOW BLOOD SUGARS DURING OR AFTER ACTIVITY (RECESS/PE/SPORTS)

NOTE: WE ARE WORKING ON ADDING THIS TO OUR HCP'S.



WHAT WOULD YOU DO?



ROSE ARRIVES TO SCHOOL WITH HIGH BLOOD SUGAR AND SAID SHE DIDN'T HAVE ANYTHING FOR BREAKFAST. HER PUMP DOESN'T SHOW ANY ACTIVE INSULIN OR IOB (NO INSULIN HAS BEEN GIVEN FOR AT LEAST 3 HOURS) SHE DOESN'T KNOW WHY HER BLOOD SUGAR IS HIGH AND IS NOT SYMPTOMATIC.

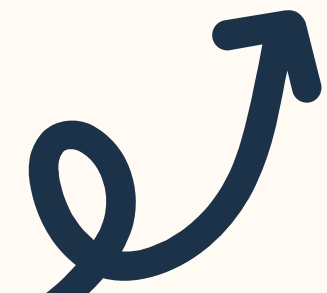
ANSWER?

DISCUSS IN GROUP

KADEN IS USING DEXCOM G6 AND YOU HAVE BEEN GIVEN ACCESS TO FOLLOW HIS DATA VIA SCHOOL IPAD. IT SHOWS HIS BLOOD SUGAR IS 100 WITH DOUBLE ARROWS DOWN. HE IS AT RECESS NOW PLAYING BASKETBALL. HE HAD LUNCH ABOUT AN HOUR AGO.

ANSWER?

DISCUSS IN GROUP





**DO YOU HAVE ANY
QUESTIONS FOR
US?**

