Glucagon nose spray for a severe low blood sugar

What do I need to know about Glucagon nose spray (BAQSIMI©)?

- It is only for children age 4 years and older. (Children younger than 4 years old will use a glucagon shot for severe low blood sugar).
- It is good to have extra doses for home and school. If your insurance will cover them, get 4 doses. 2 doses are for school and 2 doses are for home. Take the home doses with you when your child travels. If you need help getting doses, talk to your provider.
- Each dose is 3 mg and can only be used once.
- Store it in the shrink wrap. Keep in safe place that is less than 86˚ F (30˚ C).

What are the most common side effects?

- Stuffy nose and irritation.
- Watery or red eyes.
- Headache.
- Upset stomach or throwing up.

When do I need to use Glucagon Nose Spray (BAQSIMI)?

If your child with diabetes has a severe low blood sugar that makes them:

- Not able to have anything put in their mouth without choking.
- Having a seizure.
- Passed out or you are unable to wake them.

Special information

- Show your family, friends, and other caregivers how to use the nose spray. They need to know how to use it before it is needed.
- The nasal glucagon instructions are on the CHW Diabetes care management page https://www.chw.org/medical-care/diabetes-program/diabetes-care-management.
- You can also find it at the following link: http://pi.lilly.com/us/baqsimi-us-ifu.pdf

ALERT: Call the Diabetes clinic or Children's operator at 414-266-2000 and ask to speak to the Diabetes provider on call, if your child:

Had a severe low blood sugar requiring any glucagon.

Your child is vomiting.

See back for instructions.

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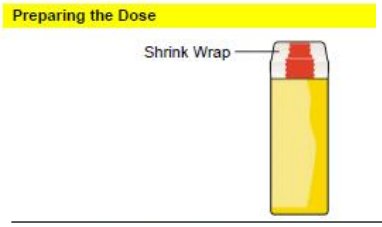
How do I give nasal glucagon to my child?

1. If you are alone, treat your child with the spray. Glucagon can cause nausea and vomiting. Roll your child on his or her side after giving Glucagon so they don't choke if they throw up. If your child is throwing up, keep them on their side until they are alert and able to swallow.
2. Call 911.

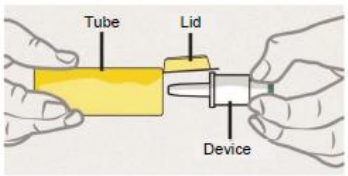
Or

If you have a second person to help, call 911 for emergency medical help right away.

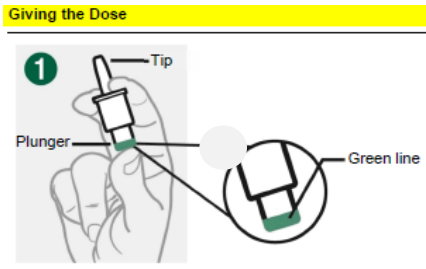
Check your device for product specific instructions.



1. Remove the shrink wrap by pulling on the red stripe.



2. Open the lid and remove the device from the tube. Caution: Do not press the plunger until ready to give the dose.



3. Hold device between fingers and thumb. Do not push the plunger yet.

4. Insert tip gently into one nostril until finger touches the outside of the nose.

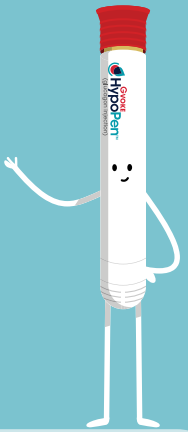
5. Push plunger firmly all the way in. Dose is complete when the green line disappears.

3. If your child does not respond after 15 minutes give another dose.
4. When they can safely swallow, get your child to eat as soon as possible. Give them a fast-acting source of sugar, like juice. Then give them a snack, like crackers with cheese or peanut butter.

This teaching sheet is meant to help you care for your child. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment, and follow-up.

Gvoke HypoPen™
(glucagon injection)

A Quick Guide for managing very low blood sugar.[1]



Look out for one or more of these common signs and symptoms[2]:

- Shakiness
- Dizziness
- Confusion
- Combative behavior
- Trouble answering basic questions

Gvoke HypoPen™ can be used when you experience any of the following[2]:

Have tried correcting with food or drink and it isn't working

Are unable to swallow safely

Feel like passing out

Pass out or have a seizure

You can even give Gvoke HypoPen to yourself, in certain situations.

Gvoke HypoPen is used to treat very low blood sugar in adults and kids ages 2 and above.[1]

Please see Important Safety Information.

Gvoke HypoPen™
(glucagon injection)

Anyone can use Gvoke HypoPen to bring blood sugar up to safe levels with just 2 steps.[1-3]

1

Pull red
cap off.

2

Push yellow
end down on skin and hold
5 seconds. Window will turn red.

Administer into upper arm, stomach, or thigh.

After using Gvoke HypoPen, turn person on their side if they have passed out or are seizing. Call for emergency help.[2]

Write down where you'll store your Gvoke HypoPen so those around you know where to find it.

Store at room temperature. Do not refrigerate.[1]

Indication and Important Safety Information

GVOKE is a prescription medicine used to treat very low blood sugar (severe hypoglycemia)in adults and kids with diabetes ages 2 years and above. It is not known if GVOKE is safe and effective in children under 2 years of age.

WARNINGS

Do not use GVOKE if:

- you have a tumor in the gland on top of your kidneys (adrenal gland), called a pheochromocytoma.
- you have a tumor in your pancreas, called either an insulinoma or a glucagonoma.
- you are allergic to glucagon or any other inactive ingredient in GVOKE.

GVOKE MAY CAUSE SERIOUS SIDE EFFECTS, INCLUDING:

High blood pressure. GVOKE can cause high blood pressure in certain people with tumors in their adrenal glands.

Low blood sugar. GVOKE can cause low blood sugar in certain people with tumors in their pancreas.

Serious skin rash. GVOKE can cause a serious skin rash in certain people with a tumor in their pancreas called a glucagonoma.

Serious allergic reaction. Call your doctor or **get medical help right away** if you have a serious allergic reaction including:

- rash
- difficulty breathing
- low blood pressure

COMMON SIDE EFFECTS

The most common side effects of GVOKE include:

- nausea
- vomiting
- swelling at the injection site
- headache

These are not all the possible side effects of GVOKE. For more information, ask your doctor.

Call your doctor for medical advice about side effects. **You are encouraged to report side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.**

BEFORE USING

Before using GVOKE, tell your doctor about all your medical conditions, including if you:

- have a tumor in your pancreas
- have not had food or water for a long time (prolonged fasting or starvation)

Tell your doctor about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

HOW TO USE

- Read the detailed Instructions For Use that come with GVOKE.
- Make sure your caregiver knows where you keep your GVOKE and how to use GVOKE correctly before you need their help.
- Your doctor will tell you how and when to use GVOKE.
- GVOKE contains only 1 dose of medicine and cannot be reused.
- After administering GVOKE, the caregiver should call for emergency medical help right away.
- If the person does not respond after 15 minutes, another dose may be given.
- Tell your doctor each time you use GVOKE.
- Store GVOKE at temperatures between 68°F and 77°F. Do not keep it in the refrigerator or let it freeze.
- Keep GVOKE in the foil pouch until you are ready to use it.

Keep GVOKE and all medicines out of the reach of children.

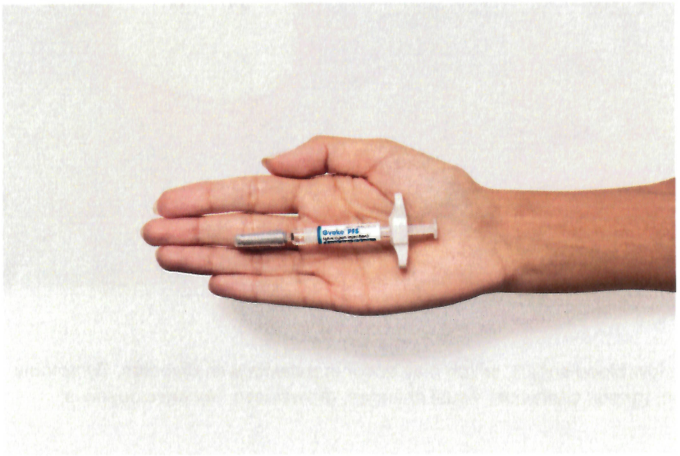
For more information, call 1-877-937-4737 or go to www.GvokeGlucagon.com.

Please see the Important Facts about Gvoke HypoPen.
GvokeGlucagon.com

References: 1. Gvoke [prescribing information]. Chicago, IL: Xeris Pharmaceuticals, Inc; 2019. **2.** Gvoke HypoPen [instructions for use]. Chicago, IL: Xeris Pharmaceuticals, Inc; 2019. **3.** Valentine V, Newswanger B, Prestrelski S, Andre AD, Garibaldi M. Human factors usability and validation studies of a glucagon autoinjector in a simulated severe hypoglycemia rescue situation. *Diabetes Technol Ther.* 2019;21(9):522-530.

xeris PHARMACEUTICALS

The certainty of an injection in the palm of your hand

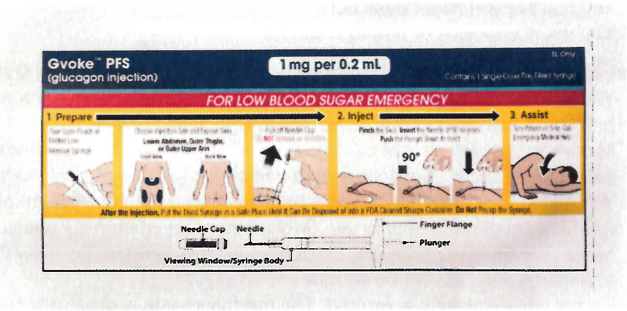


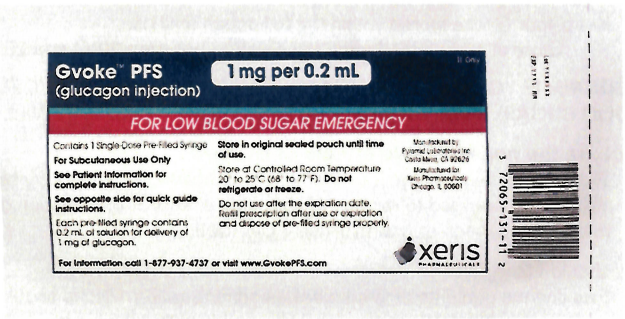
Gvoke™ Pre-filled Syringe:

- Is just under 4 inches long, including the 1/2-inch needle[1]
- Has a 27-gauge needle which allows for easy subcutaneous administration[1]

Gvoke PFS comes in a pouch; do not open it until the time of use[2]

- Can be prescribed as a single pack or as a convenient double pack
- In each pack, Gvoke PFS is individually sealed in foiled pouches
- Is room-temperature stable for up to 24 months from the date of manufacture[1]





Now Available

Gvoke™ PFS (glucagon injection) PRE-FILLED SYRINGE

Please see Important Safety Information on reverse side

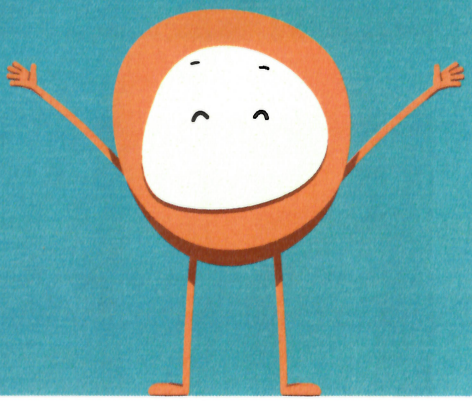
Easy 2-step administration with Gvoke PFS[3]

1 Pull off needle cap

2 Pinch skin and insert needle at 90°

Lower abdomen, outer thigh, or upper arm

That's easy to love!



Important Safety Information

Gvoke [Gvoke PFS (glucagon injection)] is a treatment for severe hypoglycemia (very low blood sugar), which may occur in patients with diabetes. Symptoms of very low blood sugar include, but are not limited to: nausea, irritability, disorientation, tremor, confusion, visual changes, drowsiness, unconsciousness, seizures or convulsions, coma, and if left untreated, death.

When to use Gvoke (when you are treating very low blood sugar):

- You have taken food or drink and it isn't working
- You are unable to eat
- You feel like you might pass out
- You're unconscious or having a seizure

What is the most important information I should know about Gvoke?

- You should NOT use Gvoke if you have a pheochromocytoma (a tumor that may lead to increased heart rate, high blood pressure, sweating, and anxiety) or if you are allergic to any of the ingredients within Gvoke.
- Make sure you tell your healthcare provider if you have been diagnosed with or have been suspected of having an insulinoma (a pancreatic tumor that secretes insulin) or glucagonoma (a pancreatic tumor that secretes glucagon), as Gvoke should be used cautiously in these situations.
- You and anyone who may need to help you if your blood sugar becomes very low should become familiar on how to recognize your symptoms of severe low blood sugar and how to use Gvoke before an emergency arises. Read the Instructions For Use provided on the pouch.
- Make sure that your relatives, close friends, and caregiver(s) know that if you become unconscious or have a seizure, immediate emergency medical assistance must always be sought.
- Do not use Gvoke if it is expired. The expiration date is physically stamped on the outside of the carton as well as on the Gvoke medication itself.
- If you have questions concerning the use of this product, consult a doctor, diabetes educator, nurse, or pharmacist.
- Keep your Gvoke stored within the foil pouch until use.
- Store at a controlled room temperature between 20°C and 25°C (68°F and 77°F). **Do not refrigerate or freeze.**

WARNING: IF YOU ARE IN A COMA FROM SEVERE HYPERGLYCEMIA (VERY HIGH BLOOD SUGAR) RATHER THAN HYPOGLYCEMIA (VERY LOW BLOOD SUGAR), YOU WILL **NOT** RESPOND TO GVOKE AND WILL REQUIRE IMMEDIATE MEDICAL ATTENTION.

What are the possible side effects of Gvoke?

- Side effects may include: nausea, vomiting, headache, temporary high blood sugar, pain or redness at the injection site, itching, or stomach pain.
- You are encouraged to report negative side effects of prescription drugs to 1-877-XERIS-37 or the Food and Drug Administration (FDA) by visiting www.fda.gov/medwatch or calling 1-800-FDA-1088.

How should I take Gvoke?

- Examine the contents of Gvoke before administration. Gvoke should not be used unless the liquid solution is clear or pale yellow and has a water-like consistency. No solid matter should be visible within the liquid.
- Gvoke should be administered quickly into the bare skin of the outer thigh, outer arm, or abdomen. Do not administer through clothing.
- Contact emergency services after administering Gvoke.

Make sure your family and friends know to turn you on your side to prevent choking after administering Gvoke. Gvoke is available by prescription only.

Click here for full Prescribing Information for Gvoke PFS

References: 1. Data on File 2.Gvoke Pre-Filled Syringe [instructions for use]. Chicago, IL: Xeris Pharmaceuticals, Inc. 3. Gvoke [prescribing information]. Chicago, IL: Xeris Pharmaceuticals, Inc.

xeris PHARMACEUTICALS

Children's Hospital of Wisconsin

Diabetes and Your Child: The A1c Test

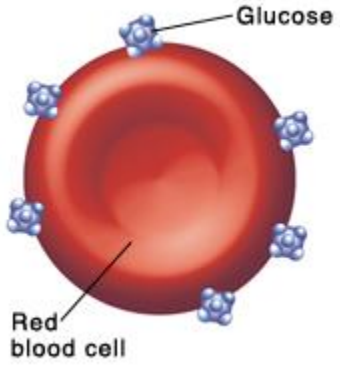
You are using a blood glucose meter to track your child's blood sugar readings every day. This helps you make adjustments to your child's treatment plan. But you also need to know if your child's blood sugar level is healthy over time. A hemoglobin **A1c (glycated hemoglobin)** test will help.

What Is the A1c Test?

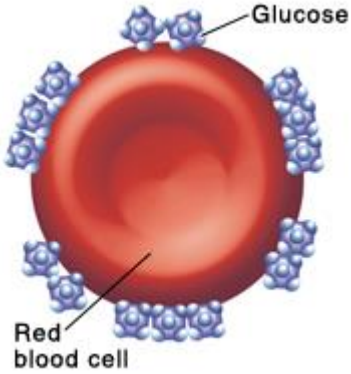
The A1c is a simple blood test. It measures your child's average blood sugar level over a period of 2 to 3 months. It works by measuring the amount of glucose that sticks to a protein called **hemoglobin.** Hemoglobin is found in red blood cells. The more glucose stuck in the red blood cells, the higher your child's average blood sugar has been.

What Does the Result Mean?

A1c is shown as a percentage (for example, 7%). This number represents the amount of glucose stuck to the hemoglobin in your child's blood. Most people without diabetes have an A1c of 6% or lower. People with diabetes can have numbers much higher than this. The closer to normal your child's A1c is, the lower his or her risk of complications now and diabetes-related health problems later in life. If your child's A1c number is too high, his or her treatment plan will likely need to be changed. This will help get your child's blood sugar down to a healthier level.



Healthy red blood cells have some glucose stuck to them.



When your child has high blood sugar, much more glucose sticks to the red blood cells. This is what the A1c test measures.

Children's Hospital of Wisconsin

A1C Target for All Pediatric Patients

0 - 19yr ≤ 7.5%

(ADA Standards of Care 2014)

Comparison of Average Blood Sugar Levels and Hgb A1C Values

Blood sugar level	126	154	169	183	197	212	240	269	298	326	355
Hgb A1C Value	6%	7%	7.5%	8%	8.5%	9%	10%	11%	12%	13%	14%

Resources

For more information about diabetes, visit these websites:

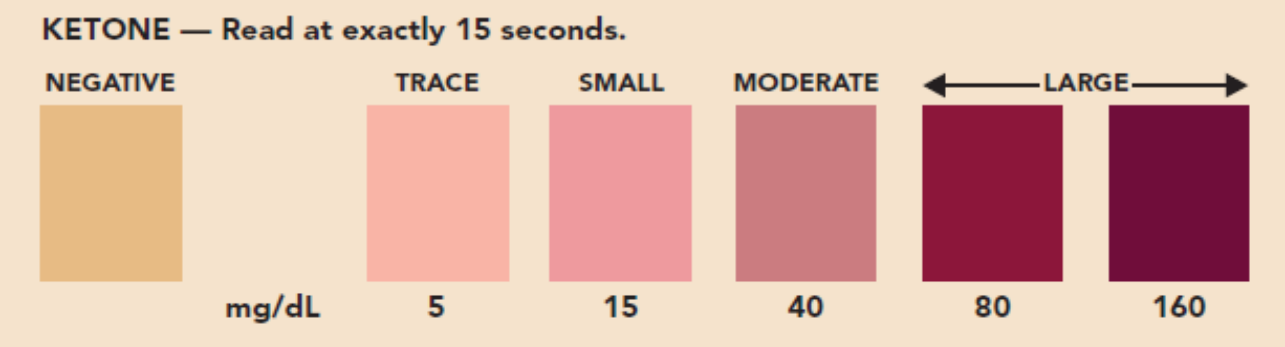
- **American Diabetes Association** www.diabetes.org
- **Children with Diabetes** www.childrenwithdiabetes.org
- **Juvenile Diabetes Research Foundation** www.jdrf.org
- **American Association of Diabetes Educators** www.aadenet.org
- **American Association of Clinical Endocrinologists** www.aace.com
- **National Diabetes Information Clearinghouse** www.diabetes.niddk.nih.gov

NOTE: This sheet does not give all the information you need to care for your child with diabetes. Ask your child's health care provider for more information.

Children's Hospital of Wisconsin

Kids deserve the best.

Testing for Ketones



Check for ketones daily until ketones are negative. Once ketones negative, check ketones anytime night or day if:

- One blood sugar reading above 350
- Three blood sugar readings in a row above 250
- If your child is sick (fever, stomach ache, flu symptoms, etc.)
- Any time your child vomits

Symptoms of Diabetic Ketoacidosis (DKA):

- Upset stomach
- Vomiting
- Confusion
- Dizziness
- Deep breathing or difficulty breathing
- Sweet, fruity odor to breath
- If not treated- coma, brain damage, death

How to Reduce Your Ketones:

1. Give insulin as scheduled
2. Drink lots of sugar-free fluids to help flush out ketones
3. Continue to check for ketones until there is a negative reading

CALL DOCTOR: For signs of DKA and/or if ketones were negative and become moderate or large

Introduction to insulin shots

People with type 1 diabetes need to take insulin shots every day. Insulin is the hormone that helps sugar move from the blood into the cells to give the body energy. The body cannot live long without insulin.

There are two common types of insulin given to children with type 1 diabetes:

- Fast acting insulin is usually given before your child eats a meal and brings higher blood sugars down.
- Long acting insulin is given daily, usually before bedtime, to give your child a small amount of insulin throughout the day and night.

Insulin comes in different forms that are injected into the skin. Your healthcare provider will decide which form will work best for your child.

Where to give insulin shots

There are different areas on the body where you can give insulin shots, as shown below and on the following page.

Belly and thighs.

Back of upper arms and top of butt.

Belly (abdomen) area—stay two fingers or more away from the belly button.

Comfort hold with hand over shoulder and elbow to mark the spot on the back of the arm.

Hand on hip and knee to mark the area in between.

Where you can put your hands while you sit—not the part you sit on.

Coping with shots

Getting through the shot

- **Breathe.** Try to relax. Breathing slowly and deeply through the nose and out through the mouth is helpful for you and your child.
- **Relax the muscle where you will give the shot.** Think of cooked spaghetti rather than raw spaghetti.

Helping your child cope

- **Use distraction.** Your child may watch TV, look at a book, or blow bubbles during the shot.
- **Give your child some control.** Children often cope better when they have some control. This may be done by offering your child choices about things that are okay for them to have control over. Choices that are okay are those that will not make a difference in basic diabetes care.
- **Offer acceptable choices.** The choices you offer might include:
    1. Where the shot is given (like, right or left arm, right or left leg, right or left side of belly, right or left side of butt).
    2. Location (like, kitchen, bathroom or living room).
    3. Timing of the shot by being allowed to count ("Give the shot on three…one, two, three.") Remember that the choice must be reasonable, like a number from one to ten.
- **It is okay for a child to know that giving the shot to them is hard for you, too.** Actually, it would be strange if your child thought giving the shot did not bother you.
- **Know how the shot feels yourself.** This will lessen the fear of giving a shot to your child.

Site rotation

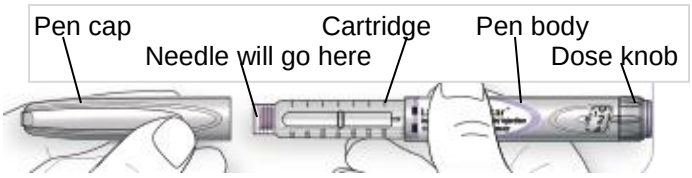
It is important to keep your child's skin healthy where you give shots by using a different place each time. Having a regular pattern of where you give shots helps you decide where to give the next one. Use your child's log book to keep track of the areas where you have given shots.

Using a Disposable Insulin Pen

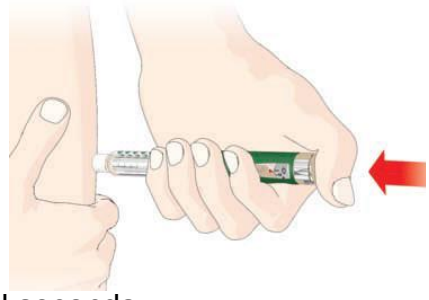
What is an Insulin Pen?

An insulin pen is the most common way of giving an insulin shot (injection). They are easier to use and more convenient than syringes and insulin bottles. There are different kinds of pens. Some pens are pre-filled with insulin and can be thrown away when empty. Some pens are reusable and can be loaded with new cartridges of insulin when they are empty.

How do I use a disposable pen?



1. Take off the pen cap
2. Look to be sure the type of insulin listed on the pen is what you need to give.
3. Screw on the pen needle.
4. To prime the needle:
   a. Point the needle up into the air.
   b. Dial up 2 units of insulin and push on the dose knob. You should see a stream of insulin come out of the needle.
   c. If no insulin stream is seen, repeat steps a and b.
5. Dial up the dose as you were told by the doctor or nurse.
6. Be sure the poke area is clean. If need be, use soap and water to clean the area.
7. With one hand, grasp and hold the area around where you plan to poke.
8. Use your other hand to insert the needle straight into the skin. Do not poke at an angle.
9. Push down the dose knob to deliver the insulin. Check to make sure that the dial reads "0". This means that the whole dose has been delivered.



10. Hold the pen and needle in place under the skin for 10 full seconds.
11. Gently pull out the needle.
12. Remove the needle from the pen and dispose of the needle in a sharps container.

Storage

- Keep in a safe area away from children.
- Never play with the dial before using the pen.
- Do not refrigerate the pen **after** opening it.
- Insulin expires after 28 days after it is opened.
- Throw empty and expired pens in the garbage.

ALERT: Call your child's doctor, nurse, or clinic if you have any concerns or if your child has special health care needs not covered by this information.

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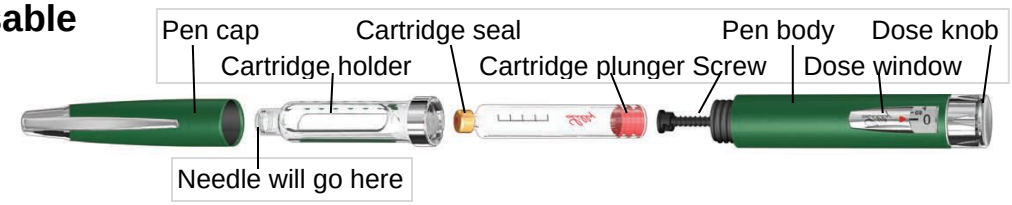
Using a Reusable Insulin Pen

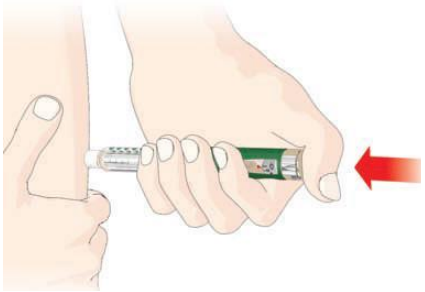
What is an Insulin Pen?

An insulin pen is the most common way of giving an insulin shot (injection). They are easier to use and more convenient than syringes and insulin bottles. There are different kinds of pens. Some pens are pre-filled with insulin and can be thrown away when empty. Some pens are reusable and can be loaded with new cartridges of insulin when they are empty.

How do I use a reusable pen?



1. Take off the pen cap.
2. If a new cartridge is needed, check to be sure the type of insulin listed on the cartridge is what you need to give.
3. Unscrew the cartridge holder from the pen body. Carefully load a new cartridge. Put the small end (cartridge seal) into the cartridge holder.
4. **Do not manually push down the plunger**. Screw the cartridge holder onto the pen body.
5. Screw on the pen needle.
6. To prime the needle.
   a. Point the needle up into the air.
   b. Dial up 2 units of insulin and push on the dose knob. You should see a stream of insulin come out of the needle.
   c. If no insulin stream is seen, repeat steps a and b.
7. Dial up the dose as you were told by the doctor or nurse.
8. Make sure the area that will be used is clean. If need be, use soap and water to clean the area.
9. With one hand, grasp and hold the area around where you plan to poke.



10. Use your other hand to insert the needle straight into the skin. Do not poke at an angle.
11. Push down the dose knob to deliver the insulin. Check to make sure that the dial reads "0". This means that the whole dose has been delivered.
12. Hold the pen and needle in place under the skin for 10 full seconds.
13. Gently pull out the needle.
14. Remove the needle from the pen. Dispose of the needle in a sharps container.
15. Leave the cartridge in the pen until the next dose.
16. Put the pen cap back on.

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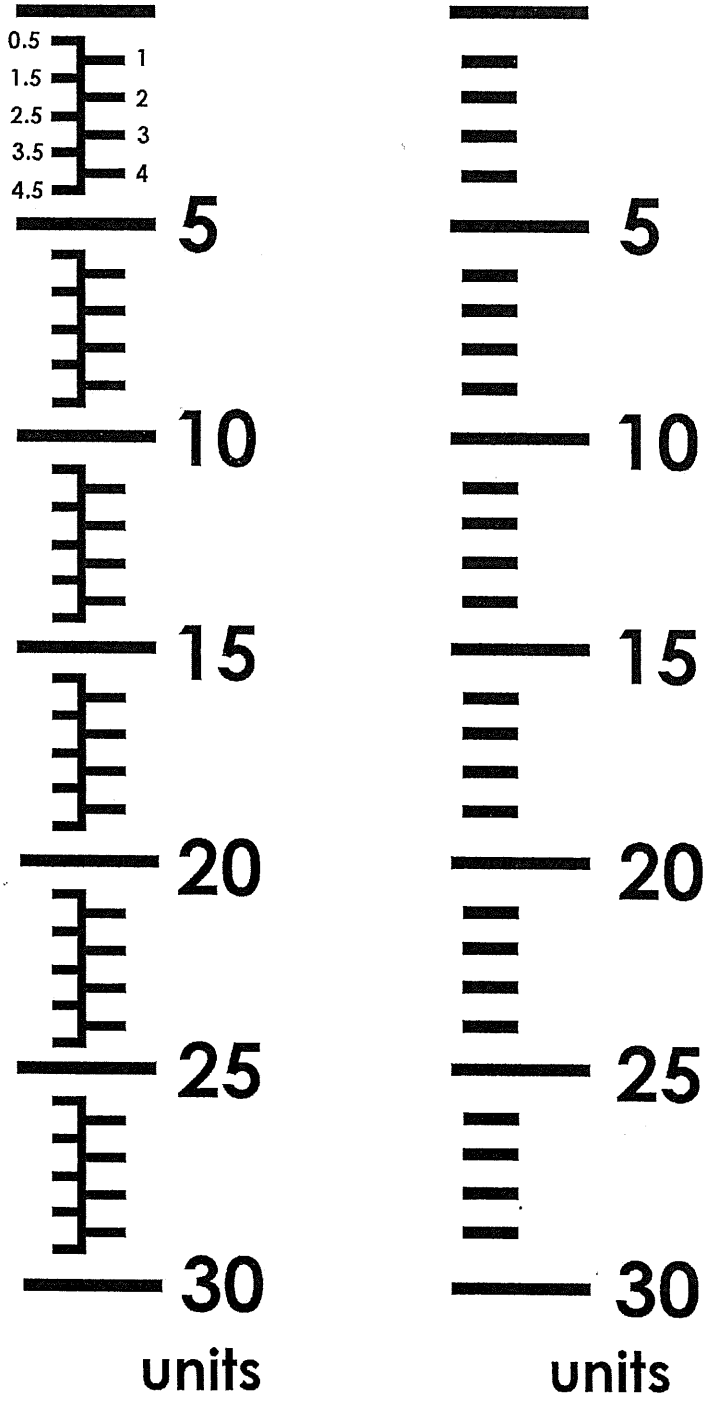
Storage

- Keep in a safe area away from children.
- Never play with the dial before using the pen.
- Do not refrigerate the pen **after** opening it.
- Insulin expires after 28 days after it is opened.
- Throw empty and expired cartridges into sharps containers.

ALERT: Call your child's doctor, nurse, or clinic if you have any concerns or if your child has special health care needs not covered by this information.

Insulin syringe scales:

Left: half-unit scale
Right: whole unit scale



FLEXIBLE INSULIN MANAGEMENT

INSULIN DOSES

Insulin to carbohydrate ratio (food dose): 1.0 unit of Insulin for ________ grams of carbohydrate

Insulin Correction Factor (blood sugar dose): 1.0 unit of Insulin will drop your blood sugar _________ points (mg/dl)

Blood Sugar Target Range: ________ to ________ mg/dl

Blood Sugar Target Number: _________ mg/DL

Round To Nearest Whole or Half Unit

Step 1: CALCULATE MEAL/FOOD INSULIN DOSE (BOLUS)

___________________ ÷ ________________ = ________________

Total Carbohydrate grams | Carbohydrate ratio | Total units for food

Step 2: CALCULATE BLOOD SUGAR CORRECTION DOSE

_________ - ________ = __________ ÷ __________ = ________________________

Blood Sugar | Target number | Points to drop | Correction Factor | Correction dose to drop Blood Sugar

Step 3: TOTAL DOSE OF INSULIN TO INJECT AT MEAL

________________ + ________________________ = ______________ Units

Total units for food | Correction dose to drop blood sugar | Total dose to inject

Step 1: CALCULATE MEAL/FOOD INSULIN DOSE (BOLUS)

___________________ ÷ ________________ = ________________

Total Carbohydrate grams | Carbohydrate ratio | Total units for food

Step 2: CALCULATE BLOOD SUGAR CORRECTION DOSE

_________ - ________ = __________ ÷ __________ = ________________________

Blood Sugar | Target number | Points to drop | Correction Factor | Correction dose to drop Blood Sugar

Step 3: TOTAL DOSE OF INSULIN TO INJECT AT MEAL

________________ + ________________________ = ______________ Units

Total units for food | Correction dose to drop blood sugar | Total dose to inject

Step 1: CALCULATE MEAL/FOOD INSULIN DOSE (BOLUS)

___________________ ÷ ________________ = ________________

Total Carbohydrate grams | Carbohydrate ratio | Total units for food

Step 2: CALCULATE BLOOD SUGAR CORRECTION DOSE

_________ - ________ = __________ ÷ __________ = ________________________

Blood Sugar | Target number | Points to drop | Correction Factor | Correction dose to drop Blood Sugar

Step 3: TOTAL DOSE OF INSULIN TO INJECT AT MEAL

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Total Carbohydrate grams | Carbohydrate ratio | Total units for food

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_________ - ________ = __________ ÷ __________ = ________________________

Blood Sugar | Target number | Points to drop | Correction Factor | Correction dose to drop Blood Sugar

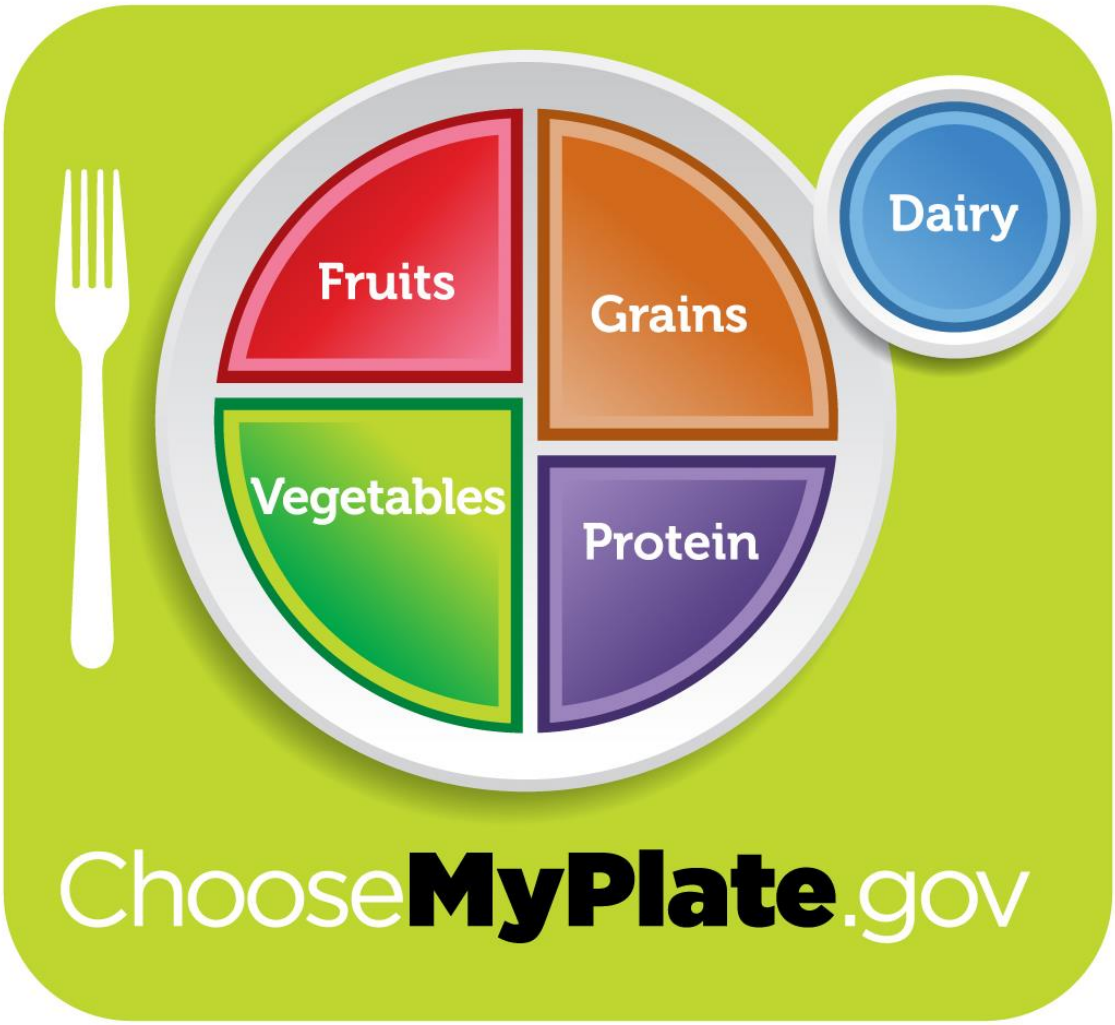
Step 3: TOTAL DOSE OF INSULIN TO INJECT AT MEAL

________________ + ________________________ = ______________ Units

Total units for food | Correction dose to drop blood sugar | Total dose to inject

Meal Planning and Carbohydrate Counting

- All carbohydrates break down into sugar.
- MyPlate can help guide you to build balanced meals when eating.
- Carbohydrates are found in all food groups.
- Nutrition Facts labels are the best way to count carbohydrates.
- Other resources including the Calorie King book, apps and websites are helpful.



Reading Food Labels

Nutrition Facts

Serving Size 1 package (272g)
Servings Per Container 1

Amount Per Serving

Calories 300	Calories from Fat 45
	% Daily Value*
Total Fat 5g	**8%**
Saturated Fat 1.5g	**8%**
Trans Fat 0g	
Cholesterol 30mg	**10%**
Sodium 430mg	**18%**
Total Carbohydrate 55g	**18%**
Dietary Fiber 6g	**24%**
Sugars 23g	
Protein 14g	
Vitamin A	80%
Vitamin C	35%
Calcium	6%
Iron	15%

There are two areas to focus on when reading a food label:

1. Serving size
2. Total Carbohydrate

Serving Size

- All of the information on the Nutrition Facts label is based off the serving size.
- You can eat more or less than the serving size.
- The serving size of this food is 1 package.
- The number listed next to the serving size is the weight of the serving size (272g). Do not use this number.

Total Carbohydrate

- All carbohydrates break down to sugar and need to be counted.
- The Total Carbohydrate amount includes dietary fiber and sugars. Do not use these numbers for carbohydrate counting.
- The total carbohydrate in this food is 55 grams for 1 serving.

What if I want to eat more or less than the serving size?

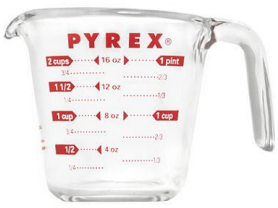
More: If you eat two packages, you are eating twice the carbohydrates listed on the Nutrition Facts label, or 110 grams.

Less: If you eat ½ of this package, you are only eating ½ of the carbohydrates listed on the Nutrition Facts label, or 27.5 grams.

Always measure your food for accuracy using measuring cups

These cups are for solid ingredients (cereal, pasta, fruit, and vegetables). Make sure you level your measurement so it is flat, not heaped.

This measuring cup is for liquid ingredients. When measuring liquids, always view amount at eye level for accuracy.



Other carbohydrate counting resources

Always use a food label if you have one.

Sometimes we do not have food labels but still need to count carbohydrate. There are other resources to help.

1. Calorie King Book: this book has common foods and restaurant information. Always use the green **Cb** column to count carbohydrate. Do not forget to look at the portion size too.
2. Online Resources: there are many websites and apps that help you count carbohydrates.
    a. Websites:
        i. www.fatsecret.com
        ii. www.calorieking.com
    b. Apps:

App Name	Symbol
CalorieKing (Iphone)	
Calorie Counter by Fat Secret (Iphone and Android)	
Diet and Food Tracker (Iphone and Android)	

Counting Carbohydrates in School Meals

Most school meals can fit into your child's diabetes meal plan…you just need to know how to count the carbohydrates.

Remember, the same guidelines for carbohydrates that apply at home are also true at school. Here are the general carbohydrate amounts for many foods frequently served at school breakfasts and lunches. If you have a food label, use it!

	FOOD	USUAL GRAMS OF CARBOHYDRATE
GRAINS	1 slice bread	15
	1 flour taco shell (6")	15
	1 flour tortilla (10")	30
	1 standard muffin	25
	1 waffle or pancake	15
	1 hamburger/hot dog bun	25
	1 bagel	45
	1 English muffin	25
	1 6" sub roll	45
	1/2c (1 package) sweetened oatmeal	30
	7 saltine crackers	15
	1c pasta	45
	1c rice	45
LEGUMES & STARCHY VEGETABLES	1/2c baked beans	30
	1/2c refried beans	20
	1/2c mashed potatoes	15
	1/2 medium baked potato	15
	1/2c corn or peas	15
	10 tater tots	20
	15 French fries	20
	2TB peanut butter	7
	1/4c nuts	5
FRUIT	1 small apple, orange, peach or pear	15
	1/2 grapefruit	15
	1c grapes	30
	1c pineapple	20
	1-1/4c sliced strawberries or watermelon	15
	1c cut up cantaloupe or honey dew melon	15
	1/2c unsweetened canned fruit	15
	2 plums or tangerines or cuties	15
	1/2c unsweetened applesauce	15
VEGETABLES	1c cucumbers	4
	1c broccoli (Raw)	4

	1c baby carrots (Raw)	12
	1c salad	2
	1c cooked cauliflower	7
DAIRY	8 oz white milk (skim, 1%, 2%, whole)	12
	8 oz chocolate milk	20
	6oz light yogurt	15
	1 slice American Cheese	2
	1 slice cheddar/swiss/Colby cheese	0
ENTREES	1 breaded chicken patty	15
	4 breaded fish sticks	15
	5 chicken nuggets	15
	1 triangle thin crust pizza (1/8th pizza)	15
	1/2c ravioli	20
	1/2c spaghetti sauce	10
	1c lasagna	30
	1 Corn dog	20
	1c macaroni and cheese	45
SWEETS	15 chips (1oz)	15
&	8 animal crackers	15
SNACKS	3 graham cracker squares (1.5 sheets)	15
	15 teddy grahams	15
	3c popcorn	15
	2 Oreo cookies	15
	1 small unfrosted brownie (2” x 2”)	15
	1 small frosted brownie (2” x 2”)	30
	1 2” piece frosted cake	30
	1 frosted cupcake	35
	1 unfrosted donut	20
	1 frosted donut	30
	1/2c ice cream	15
	1 ice cream sandwich	30
	1/2c regular pudding	25
	1/2c sugar free pudding	15
	1 oz chocolate candy (1 “fun-size”)	15
CONDIMENTS	1TB ketchup	5
	2TB ranch dressing	2
	2TB cream cheese	2

Foods with no carbohydrates

Beef, chicken, turkey, fish, eggs, butter, margarine, oil, sour cream, mustard, mayo

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The Two Emergencies of Diabetes

Severe Low Blood Sugar: Use of Glucagon

- Occurs when the balance between insulin, food intake and exercise is disrupted. Usually a blood sugar below 70 (80 for children under 4) is considered hypoglycemia.
- Causes include too little food, too much insulin, exercise, missing meals, alcohol, honeymoon period

	SYMPTOMS	TREATMENT
MILD	Hunger, sweaty, shaky, weak, nervous, fast heartbeat	Give 15 grams of fast acting carbohydrates. Such as: 4 oz juice or soda, 4 glucose tabs or starburst, 2-3 smarties packages, 15 skittles
Moderate	Headache, behavior changes, double vision, confusion, resisting, dizziness or difficulty talking	Give 15 grams of instant fast acting sugar, juice or regular soda, gel or frosting. Recheck BG in 10-15 minutes. May need 2nd treatment.
SEVERE	Loss of consciousness, seizure or unable to take anything by mouth	Give Glucagon into muscle (see handout for instructions) Call 911 after Glucagon is given.

Diabetic Ketoacidosis (DKA)

- Occurs when ketones build up in the body because there isn't enough insulin. Ketones are a by-product of fat metabolism that can create an acid leading to DKA.

CAUSES

- Too little insulin
- Not giving insulin
- Infection/illness
- Extreme stress on the body
- Insulin pump malfunctions

SYMPTOMS

- Moderate or large ketones
- Vomiting or upset stomach
- Sweet, fruity smelling breath (Acetone Breath)
- Confusion (late sign)
- Labored/altered breathing (late sign)
- Unconsciousness/coma (latest sign)

TREATMENT

- Contact healthcare provider immediately!
- Child may need to go to ER
- OR child may require more insulin doses at home as directed by diabetes team

Ages 4 years
to 13 years

Hypoglycemia (Low Blood Glucose)

Causes: Too little food or skipping a meal; too much insulin or diabetes medicine; more active than usual.

Onset: Often sudden.

Some Symptoms:


SHAKY


FAST HEARTBEAT


SWEATING


DIZZY


ANXIOUS


HUNGRY


BLURRY VISION


WEAKNESS OR FATIGUE

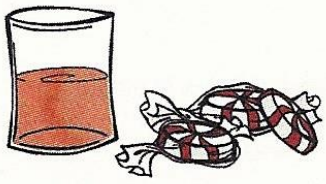

HEADACHE


IRRITABLE

IF LOW BLOOD GLUCOSE IS LEFT UNTREATED, YOUR CHILD MAY PASS OUT AND NEED MEDICAL HELP

What Can You Do?

CHECK your blood glucose, right away. If you can't check, treat anyway.



TREAT
Ask your child's doctor how to treat low blood glucose.

_____

_____

_____

CHECK
Ask your child's doctor when to check blood glucose after treatment and what your child's blood glucose should be.

When to check: _____

After treatment target level: _____

Printed in the U.S.A. 136812F April 2009

novo nordisk®

Ages 4 years
to 13 years

Hyperglycemia (High Blood Glucose)

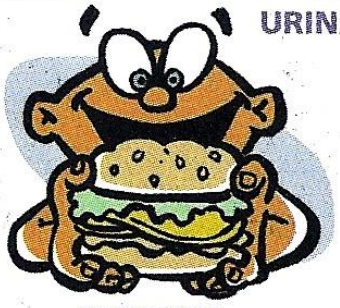
Causes: Too much food, too little insulin or diabetes medicine, illness, or stress.
Onset: Often starts slowly.

Some Symptoms:

EXTREME THIRST

NEED TO URINATE OFTEN

DRY SKIN



HUNGRY

BLURRY VISION

DROWSY

SLOW HEALING WOUNDS

HIGH BLOOD GLUCOSE MAY LEAD TO A MEDICAL EMERGENCY IF NOT TREATED.

What Can You Do?

CHECK BLOOD GLUCOSE

Ask your child's doctor how to treat high blood sugar.

_____

_____

_____

Ask your doctor when to check blood glucose after treatment and what the levels should be.

When to check: _____

After treatment target level: _____

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Treatment of Hyperglycemia

MILD to MODERATE	SEVERE
• Encourage Water & Carb-Free fluid intake and bathroom privileges •Trouble shoot pump check for tubing issues, air bubbles, or blood in cannula. •Administer 1ST correction dose of insulin with pump if no issues if found. 2nd correction dose must be with injection	•Immediately call parents if moderate to large ketones. •Call clinic if unable to reach parents. •If child has difficulty breathing or is unresponsive CALL 911.

Symptoms of Hyperglycemia

MILD to MODERATE	SEVERE
• Increased thirst, and urination •Fatigue •Headache •Stomach Ache •Blurred vision •Increased Hunger •Behavior changes such as: - Crying - Mood swings - Irritability - Combativeness	•Mental sluggishness or unresponsiveness •Fruity Breath odor •Labored Breathing •Severe Abdominal pain

Symptoms of Hypoglycemia

MILD →	MODERATE →	SEVERE
• Blank expression or staring • Pale complexion •Hunger •Sweating/clamminess •Shaky •Headache •Drowsiness	•Confused •Behavior changes, such as crying, mood swings, irritability, combativeness •Lack of coordination and or weakness	•Unresponsive or inappropriate answers to questions •Seizure
IHP may include exact amount of fast acting sugar needed to treat a low blood sugar		

Low Blood Glucose Levels & when to treat

Any blood glucose under 70 is a treatable low Blood Glucose

<table>
<tr><th>MILD →</th><th>MODERATE →</th><th>SEVERE</th></tr>
<tr><td>With or without symptoms
Treatment
•Give fast acting carb
•Re-check BG in 15 mins
<u>Re-treat until BG above 80</u></td><td>-With symptoms AND early changes in mental status
Treatment
• Give fast acting carb
•Re-check BG in 15 mins
•Re-treat until BG above 80</td><td rowspan="2">-With severe mental status changes & / or seizure
Treatment
DO NOT Give anything by mouth if patient is UNCONSCIOUS or CAN NOT SWALLOW SAFELY

•Suspend or disconnect pump
• Give Glucagon
• Call 911
• Follow up with clinic</td></tr>
<tr><td colspan="2"><u>Consider suspending pump or disconnecting until BG above 80</u></td></tr>
</table>

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Treating Lows

We all need ideas of easy things we can throw in the car, in our backpacks and in our travel cases to treat low blood sugars. It's best to always be prepared and know exactly how much to give!

If your child 5 years old or younger…

Treat with 10 grams of carbohydrate:

About 2 glucose tabs	1/3 of a tube of glucose gel	1 tube of cake icing (read label)	1/3 cup Apple juice
¼ cup orange juice	2 teaspoons Sugar	½ tablespoon honey (Don't use if your child is under 2 years old!)	About 3oz of regular soda
2 Lifesavers	10 Skittles	1 ½ packages of Smarties	6 Sweet Tarts
1 mini box of raisins	4 – 5 Gummi Bears	10 small Jellybeans	1 Twizzler

If your child is 6 – 10 years old…

Treat with 10 – 15 grams of carbohydrate depending on body size:

About 3 - 4 glucose tabs (check label)	1/3 – ½ of a tube of glucose gel	1 tube of cake icing (read label)	1/3 – ½ cup Apple juice
¼ - ½ cup Orange juice	3 - 4 teaspoons Sugar	½ - 1 tablespoon honey	About 4 -5oz of regular soda
2 – 3 Lifesavers	10 – 15 Skittles	1 ½ - 2 packages of Smarties	6 – 8 Sweet Tarts
1 – 1 ½ mini boxes Of raisins	5 – 7 Gummi Bears	10 – 15 small Jellybeans	1 – 2 Twizzlers

If your child is over 10 years old…

Treat with 15 grams of carbohydrate (maybe more depending on body size):

About 4 - 5 glucose tabs (check label)	½ - 2/3 of a tube of glucose gel	1 - 2 tubes of cake icing (read label)	½ cup Apple juice
½ cup Orange juice	4 teaspoons sugar	1 tablespoon honey	5oz of regular soda
3 Lifesavers	15 Skittles	2 packages of Smarties	8 – 12 Sweet Tarts
1/2 a small box of raisins	7 Gummi Bears	15 small Jellybeans	2 Twizzlers

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Treating a Low Blood Sugar

✓ Check blood sugar and if less than 70, treat with 15g of fast acting carbohydrates

Example fast acting carbohydrates:

- 3-4 glucose tabs
- 4oz (1/2 cup) juice or regular soda
- 2 Tablespoons raisins (small box) or craisins
- 1 package fruit snacks (12 pieces)
- 1 Tablespoon honey or jelly/jam
- 1 tube cake decorator gel
- 15 Skittles (fun size)
- 2 rolls Smarties®
- 7 Pixy Stix
- 6-7 Sour Patch Kids
- 5-6 Lifesaver candies
- 8-9 SweeTARTS® candies
- 3 Starburst®
- 7-15 jelly beans

✓ Wait 15 minutes and then recheck the blood sugar

✓ If blood sugar still low (less than 70), give another 15g of fast acting carbohydrates and wait another 15 minutes to recheck

✓ If child is not responsive, passes out or has a seizure, do not force food/drink into the mouth. Use glucagon and call 911.

Glucagon

What is glucagon?

- Glucagon is a hormone that comes from the pancreas. It tells the liver to release sugar. It is very good at making the blood sugar go up.

Why is glucagon needed?

- You need glucagon if someone with diabetes is passed out and it would not be safe to put anything in his or her mouth (they could choke). If they are awake you would always try juice or soda first because it will work faster.
- If your child has Type 1 diabetes their body is not releasing glucagon the way it should because of the damage to the pancreas.
- People without diabetes may use it for other medical reasons either in the hospital or at the doctor's office.

Who should have glucagon?

- If your child takes insulin you must keep glucagon on hand.
- You will need a prescription to get a Glucagon Emergency Kit.

When is it needed?

Give glucagon if your child has diabetes and is:

- Not able to have anything put in their mouth without choking.
- Having a seizure.
- Passed out or you are unable to wake them.

If your child is awake, you should try juice or soda pop first because it will work faster.

Can it harm my child?

- No, glucagon is in everyone. Its only job is to make the blood sugar go up.
- Glucagon is safe. There is no danger of giving too much.

How is it used?

A Glucagon Emergency Kit has a bottle with Glucagon powder inside. There is also a syringe filled with a liquid used to mix it.

1. Make sure that the hard plastic tip is off the bottle and the safety latch is removed from the syringe.
2. Use the syringe to squirt the liquid into the bottle.
3. Swirl the liquid around until it is clear. It should look like water when it is ready to use.
4. Draw the medicine out of the bottle. Do not worry about air bubbles.

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Using Glucagon (continued)

- If your child weighs less than 44 pounds draw (0.5 mL) into the syringe.
- If your child weighs more than 44 pounds draw (1.0 mL) into the syringe.
- **If you are unsure of your child's weight, it is ok to give the full dose**.

5. Push the needle into the upper leg muscle. It is okay to go right through your child's clothes if you need to.
6. Push the plunger down to get the medicine into your child.
7. Roll your child onto his or her side since Glucagon may cause them to throw up.
8. It should take 10 to 20 minutes for Glucagon to work and it should only last for 30 minutes.
9. Once your child wakes up, offer a fast-acting sugar source, like juice or soda, if they can tolerate it.

What are the side effects?

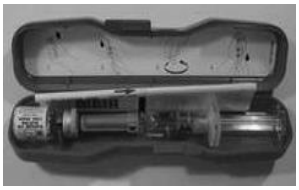
Glucagon can cause nausea and vomiting. Roll your child on his or her side after giving Glucagon so they don't choke if they throw up.

Storage

- Store the kit at room temperature.
- Once the glucagon is dissolved, **use immediately**.
- Throw away any unused glucagon solution.
- Glucagon does expire. Watch expiration date and replace when needed.

What else should I know about low blood sugar and Glucagon?

- Glucagon is a signal for the liver to release sugar. It is not sugar. It will take 10 to 20 minutes to work and will last for only 30 minutes.
- People with Type 1 diabetes use adrenaline to make their blood sugar go up. This is the hormone you feel when you are scared or excited. You might feel shaky, sweaty, or a fast heart rate. That is another reason why you can feel "low" without being low.
- Glucagon comes in a package called Glucagon Emergency Kit. The kit has the supplies needed to give glucagon. Your health care professional will show you how to use it.
- Show your family, friends, and other caregivers how to use the kit. They need to know how to use it before it is needed.



ALERT! If you ever need to give Glucagon, **call 9-1-1**

ALERT: Call the Clinic after use of Glucagon. Your care provider should be notified whenever severe low blood sugar reactions happen.

WHAT IS CONTINUOUS GLUCOSE MONITORING?

Continuous Glucose Monitoring (CGM) is a FDA-approved device that provides real-time glucose readings, throughout the day and night, allowing people with diabetes to know their glucose levels and trends with a touch of a button. CGM has been an established technology since 2006 and performance advances throughout the years have made today's systems extremely accurate. A typical CGM provides up to as many as 288 glucose readings per day (once every 5 minutes). CGM does not completely eliminate the need for blood glucose meter readings but provides additional information for more informed treatment decisions and improved glucose control. CGM can be used by people with Type 1 or Type 2 who are concerned with their diabetes management.

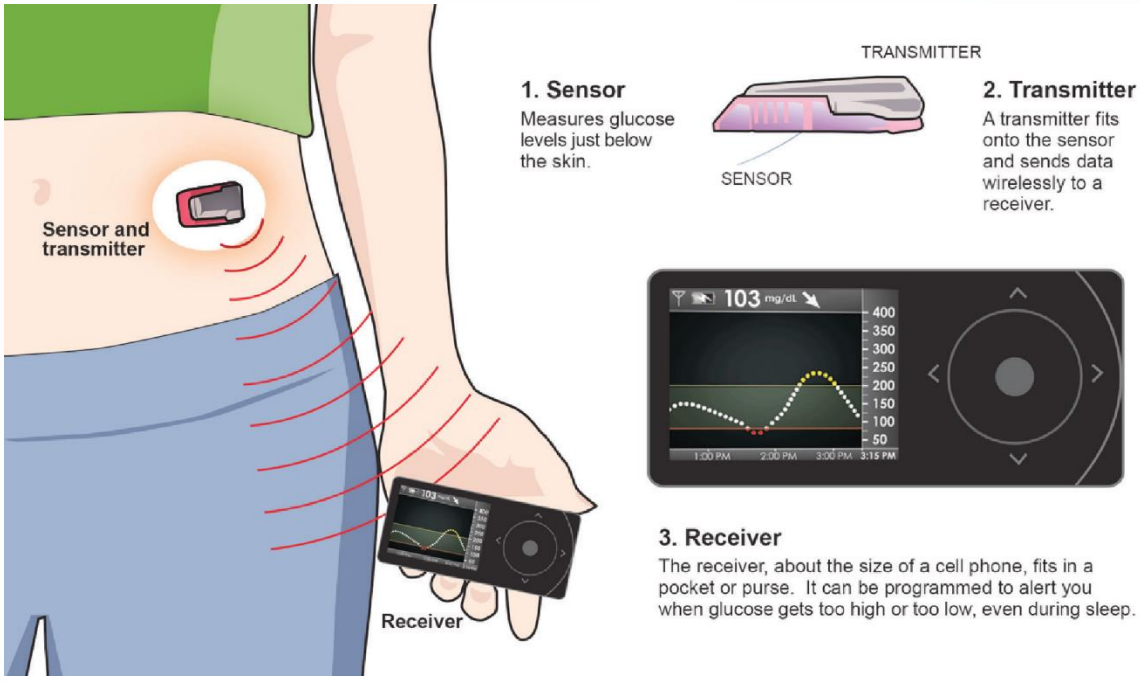
HOW DOES CGM WORK?

A CGM system consists of three parts: a glucose sensor, a transmitter and a small receiver that displays the glucose information.

The sensor is easily inserted just under the skin with an applicator and is used to measure glucose levels. Sensors are typically placed on the abdomen but some sensors are approved for use on alternate body locations. The sensor has a small adhesive to hold it in place and typically lasts for approximately one week before replacement is necessary.

The transmitter is a small, lightweight piece that fits onto the sensor. The transmitter wirelessly sends the glucose data from the sensor to the monitor or an insulin pump if the sensor is integrated with a pump.

The receiver is a slim, portable and discreet component that is carried by the user and displays the glucose information sent from the transmitter. This device displays the current glucose level as well as the trended information. The receiver also alerts the user in the case of impending highs and lows. Many CGMs can also send glucose information directly to an insulin pump.



Picture is of a typical CGM device (this example is not integrated with an insulin pump).

CGM

HOW IS CGM DIFFERENT THAN A TYPICAL BLOOD GLUCOSE METER (BGM)?

The traditional method of measuring blood glucose levels is a fingerstick blood glucose measurement that is displayed using a blood glucose meter (BGM). The BGM provides a single glucose reading at a single point in time. The key difference between CGM and BGM is that CM provides continuous glucose readings thoughout the day and night. Beyond just the glucose readings, CGM displays a glucose trend graph and direction arrows that allow people with diabetes to anticipate glucose highs and lows. Finally, CGM is designed with alerts to warn the wearer of approaching glucose highs and lows during distracted times like playing, sleeping or exercising.

Along with the continuous glucose readings, CGM provides unique information about the speed and direction that the glucose is heading. Glucose speed and direction helps people with diabetes to be more proactive with their glucose management. Here is an example of how that information could impact glucose management decisions:

BLOOD GLUCOSE METER (BGM) READING: 105

CONTINUOUS GLUCOSE MONITOR (CGM) READING: 102 ↓↓

(The double arrows signal a rapid decline in glucose)

Based on the blood glucose meter (BGM) reading of 105, this person is likely to decide that no action is required. But, with a similar glucose level reading on the CGM, and two arrows facing down, the patient might decide to eat some carbohydrates to avoid having an impending hypoglycemic event.

WHAT ARE THE BENEFITS OF CGM?

The main advantage of continuous glucose monitoring is that it can help identify fluctuations and trends that would otherwise go unnoticed with intermittent finger stick measurements. A CGM also provides the following:

- Glucose readings at the push of a button. Easy and discreet view of up to 288 glucose readings per day.
- Trend arrows that reflect the speed and direction of glucose level to help avoid impending lows and highs with appropriate action.
- Alerts to warn the patient of approaching glucose level highs and lows during distracted times such as sleeping, playing or exercising.
- Trend graphs to offer a retrospective view of the effect on glucose levels from things like food, exercise, medication and illness.

CGM is a unique technology that has been proven through clinical studies to help improve diabetes management over time. If CGM is worn on a near-daily basis, the on-going benefits are:

- Reduction in Hemoglobin A1c without increasing low blood glucose events.[1]
- Reduced time spent in the high and low glucose ranges.[1]
- Reduced events of severe hypoglycemia (<55 mg/dL)[1]
- More time in your target glucose ranges[1]

In addition, CGM can provide the peace of mind that comes from having a tool that provides the information necessary to make the best daily management decisions.

WHO WOULD BENEFIT FROM USING A CGM?

CGM is designed for use by people with Type 1 or Type 2 diabetes who would like better glucose control. CGM can especially benefit people who experience any of the following:

- An A1c above target level.
- Frequent low glucose unawareness.
- Significant glucose variability.
- Fear of low and/or high glucose levels.
- Nighttime hypoglycemia.

CGM is covered by a significant number of insurers and policy coverage is growing. More information on CGM is available at the doctor's office and through searches on CGM suppliers on the internet.

1. JDRF CGM Study Group. Diabetes Care. 2009. 32(11): 204742049.

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Honeymoon Period

What is happening?

At diagnosis of Diabetes, there is approximately 20% of the pancreas still functioning. With the honeymoon period, there is some restoration of insulin production and the blood sugar levels can improve to near-normal levels. Insulin doses are often decreased during this time. This is often a time when people think they don't have Diabetes.

When will this happen?

It often occurs shortly after diagnosis of Diabetes, usually within two to eight weeks, although not all people will have this honeymoon period. The very young children (under age 4 years) often do not have a honeymoon. There is no test to tell when honeymoon will start or when it will end.

You will know that the "honeymoon" is starting when the current dose of insulin brings the blood sugar level down below 100mg/dl (especially wake up numbers).

What should you do?

During this time, the body may not need much extra insulin. In order to prevent low-blood sugar reactions, the amount of insulin often needs to be adjusted. Because of the need for adjustments, it is very important to call during the first few weeks whenever your child's blood sugar is less than 70. Even though the insulin dose may be less, diabetes does not go away.

REMEMBER: All persons with Type 1 Diabetes need some insulin <u>every day</u>.

How long does the honeymoon last?

No one can answer this question. Usually, the honeymoon period will last 3-12 months. Blood sugar control is always important. This period of good control does affect how long the honeymoon will last. Very good control allows the few remaining insulin producing cells of the pancreas to "rest". This resting period allows them to last "longer" before they are finally lost.

It is known from experience that the body will again need more insulin. Usually with growth, illness or stress there may be a need for more insulin. This need may be evident when the morning blood sugars start to be above the desired range.

Long acting insulin

Names

Glargine (Lantus®, Basaglar®, Toujeo®), Detemir (Levemir®),
_____,

Why does my child need this medicine?

- Long acting insulin lowers overall blood sugar levels in children with Type 1 or Type 2 Diabetes throughout the day and night.
- Long acting insulin starts to work in about 2 to 4 hours and works for about 20 to 24 hours for most people.
- Long acting insulin does not bring blood sugars down quickly and is not used to correct a high blood sugar right away.

What does this medicine look like?

- This medicine comes as a clear liquid in a vial, cartridge or a prefilled pen.

How and when should I give my child this medicine?

- You will use a syringe or insulin pen to give this medicine.
- You will give this insulin at the same time each day (usually at bedtime).
- Your health care team will teach you how to do this.

Special advice for giving this medicine with other medicines:

- Do not mix fast-acting insulin with long-acting insulin in a syringe.
- If you give fast-acting at the same time as long-acting insulin, you must give two injections in different places of your child's body.

Possible side effects

If your child has these or other side effects, tell the doctor, nurse, or pharmacist:

- Low blood sugar. Follow low blood sugar guidelines.
- Lumps under the skin if the insulin is given many times in the same spot. Do not give insulin into a lump as it will not work well.
- Allergic reaction (mild): redness or itching at the injection site.
- Allergic reaction (moderate or severe): Call your doctor or nurse immediately if your child has:
  – Rash all over the body
  – Trouble breathing (call 911)
  – Fast heart rate
  – Sweating

Children's Hospital of Wisconsin • PO Box 1997 • Milwaukee, WI 53201-1997 • chw.org

How to store insulin and when to throw insulin away

Keep this medicine out of the reach of young children.

- Insulin should be kept in the refrigerator between 36 - 46° F until you start to use it.
- Unused insulin is good until the expiration date when it is kept in the refrigerator.
- Once you take insulin out of the refrigerator to use it, it is good for 28 days.
- Mark the date you start using the insulin on the pen or bottle.
- Keep used insulin at room temperature (less than 86° F) and do not put it back in the refrigerator.
- Insulin will stop working if it freezes or gets too hot (see package insert).
- Store insulin pens with the cover on.
- Use a new needle every time you give an injection and remove the needle after the injection.
- Throw the insulin your child is using away after 28 days or sooner if it becomes cloudy or you see something floating in the bottle or cartridge.
- You can throw insulin away in the garbage.

ALERT: Call your child's doctor, nurse or clinic if you have any questions or concerns or if your child:

- Is vomiting (this is dangerous with Type 1 diabetes).
- Has special health care needs that were not covered by this information.

Fast acting insulin

Names

Lispro (Humalog®, Admelog®), Aspart (Novolog®), _____

Why does my child need this medicine?

- This insulin starts to lower the blood sugar in 5-10 minutes and works up to 5 hours.
- Fast-acting insulin helps your child use the food they eat.
- This type of insulin also lowers a high blood sugar over about 2 to 3 hours in children with Type 1 or Type 2 Diabetes.

What does this medicine look like?

- This medicine comes as a clear liquid in a small vial, cartridge or a prefilled pen.

How should I give my child this medicine?

- You will use an insulin syringe, an insulin pen, or an insulin pump to give this medicine.
- Use a new needle every time you give an injection and remove the needle after the injection.
- Your health care team will teach you how to do this.

When should I give my child this medicine?

- Give this insulin before your child eats a meal.
- Give this insulin before you child eats a snack if your health care team tells you to.
- Give this insulin with high blood sugars based on advice from your health care team.

Special advice for giving this medicine with other medicines

- Do not mix fast-acting insulin with long-acting insulin in a syringe.
- If you give fast-acting at the same time as long-acting insulin, you must give two injections in different places of your child's body.

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Possible side effects

Call your doctor or nurse immediately if your child has:

- Allergic reaction (moderate or severe):– Rash all over the body
  - Trouble breathing **(call 911)**
  - Fast heart rate
  - Sweating

If your child has these side effects, tell the doctor, nurse or pharmacist:

- Allergic reaction (mild): redness or itching at the injection site.
- Low blood sugar. Follow low blood sugar guidelines.
- Lumps under the skin if the insulin is given many times in the same spot. Do not give insulin into a lump as it will not work well.

How to store insulin

Keep this medicine out of the reach of young children.

- Insulin should be kept in the refrigerator between 36 - 46° F until you start to use it.
- Unused insulin is good until the expiration date when it is kept in the refrigerator.
- Once you take insulin out of the refrigerator to use it, it is good for 28 days.
- Mark the date you start using the insulin on the pen or bottle.
- Keep used insulin at room temperature (less than 86° F) and do not put it back in the refrigerator.
- Insulin will stop working if it freezes or gets too hot (see package insert).
- Store insulin pens with the cover on.

When to throw insulin away

- Throw the insulin your child is using away after 28 days or sooner if it becomes cloudy or you see something floating in the bottle or cartridge.
- You can throw insulin away in the garbage.

ALERT: *Call your child's doctor, nurse, or clinic if you have any concerns or if your child:*

- Is vomiting (this is dangerous with Type 1 diabetes).
- Has special health care needs not covered by this information.

How to call the Diabetes Team

Urgent or Emergency Calls:
The diabetes team is available to you 24 hours a day, 7 days a week for urgent calls.

- Monday through Friday 8 AM to 4:30 PM call: **(414) 266-3380** and have the diabetes nurse on call paged.
- Nights, weekends or holidays call **(414) 266-2000** and have the diabetes doctor on call paged.

Non- Urgent calls, messages or questions- can leave a message for <u>any</u> team member.

When leaving a message for the diabetes team please include:

- The name of the child and the child's birth date
- The name of the person requesting the call back
- A call back phone number and times you can be reached
- If the call is regards to a prescription, all prescription information necessary to contact the pharmacy

Non-urgent calls will generally be returned between 9 AM - 11 AM and 2 PM - 4 PM,, Monday through Friday, within 3 to 5 working days. Messages can be left at any time.

- Voice mail: **(414) 266-3380**
- E-mail: DiabetesClinic@chw.org
- FAX: **(414) 266-3964**

Mail, Fax or E-mail 7 days of blood sugars for insulin adjustments
Non-urgent messages will be prioritized according to urgency and time received. Blood sugar information requiring insulin adjustment will take priority over prescription refills and school plans.

To schedule all appointments call Central Scheduling at (414) 607-5280 or toll free (877) 607-5280

Central Scheduling Open Monday thru Friday 7 am to 6 pm
(Must cancel appointments 24 hr in advance or it will be considered a no-show)

Be Healthy Today;

Be Healthy For Life

Information for Youth and their Families

Living with Type 2 Diabetes

Print this (44 page) document online at:

http://main.diabetes.org/dorg/PDFs/Type-2-Diabetes-in-Youth/Type-2-Diabetes-in-Youth.pdf

Diabetes Program
Diabetes Clinic-Main Campus Non-Urgent Phone: 414-266-3380
Diabetes Clinic- Main Campus Fax: 414-266-3964

Fox Valley Diabetes Clinic Non-Urgent Phone: 920-969-7970
Fox Valley Diabetes Clinic Fax: 414-337-7203
Diabetes Clinic-All Sites Urgent Phone Line: 414-266-2860

DIABETES MANAGEMENT MEDICAL ORDERS FOR 2018-2019 SCHOOL YEAR
Student:
School name:
School/ daycare phone:
School/ daycare fax:

TYPE OF DIABETES:
Type 1 Diabetes

TESTING BLOOD SUGARS AT SCHOOL
- This student will test blood sugar:
  - Before all meals and insulin dosed snacks at school
  - As needed for high and low blood sugars
  - As needed for higher activity levels, negotiated by parent/guardian and the school nurse
  - At additional testing times negotiated with parent/guardian and school nurse per the CHW Management Protocol

TREATMENT OF LOW BLOOD SUGAR
- For this student a low blood sugar is:
  -Blood sugar under 70 mg/dL
  -Treat with 10 to 15 grams of carbohydrate
- Follow the CHW Treatment Protocol for low blood sugar
- Glucagon dose for this student is: 1.0 mg
- Follow CHW treatment protocol when glucagon is used.

TREATMENT FOR HIGH BLOOD SUGAR
- For this student a high blood sugar is:
  -Blood sugar over 250 mg/dL
  -Give insulin if applicable in the insulin dosing orders.
- This student will check urine or blood ketones:
  -Yes, when blood sugar is over 250 mg/dL
- Follow the CHW Treatment Protocol for high blood sugar

CONTINUOUS GLUCOSE MONITOR (CGM)
Yes, Student wears a CGM

Type of CGM this student wears is: Dexcom

High Alert for this student is:
-Blood sugar over 350 mg/dL

Low Alert for this student is:
-Blood sugar under 70 mg/dL

Scheduled CGM checks can be negotiated by parent/guardian and the School Nurse

Refer to CHW Treatment Protocols for Guidance

INSULIN DOSING ORDERS

Insulin required and delivered by:	Insulin Pen
Type of Insulin to be given at school:	Rapid/short: Humalog
Insulin to be given by:	Approved School Personnel, Student and with supervision
Student skills for using insulin:	Counts and calculates carbohydrates, Determines correct insulin dose for carbohydrates consumed, Draws up correct insulin dose and Gives own injection
Adjusting Insulin Doses:	Parents/guardians may adjust insulin carb ratios for meals within the range of 1.0 unit for 12 to 18 grams carbohydrates.
Insulin Dose for Meals:	AM Snack, Lunch and PM Snack
Give Insulin:	Before eating (eat within 5 minutes)

Flexible Insulin Dose with Calculated Correction Dose:

This student is on flexible management and may have different carbohydrate intake at each meal/snack.

Insulin to Carb Ratio Dosage=total grams of carb divided by the carb ratio:
AM Snack: 1.0 unit for 15 grams carbohydrate
Lunch: 1.0 unit for 15 grams carbohydrate
PM Snack: 1.0 unit for 15 grams carbohydrate

Calculated Correction Dose:
Use this correction dose when blood sugar is above 150 mg/dL:

Blood Sugar Level minus 150 divide by 40 = _____Units to correct blood sugar.

Add this to the Calculated Carbohydrate Dosage at meal/snack time. Use the calculated dose also for non-meal correction only if ordered.

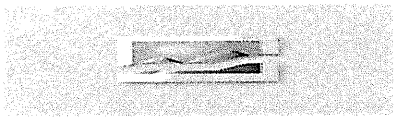
Insulin for Correction: Non Meal Time:
Yes

Options:
Use Calculated Correction Insulin Dose
Criteria for giving extra insulin for correction:
-Extra insulin is given if it has been more than 2 hours since last dose was given and it is not a meal
-Blood glucose level is over 250 mg/dL
-Do not exceed 2 extra doses in one school day
-Blood glucose must be checked in 2 hours after correction dose is given
-Notify parents when extra doses are given at school

ADDENDUM

These are the Diabetes Medical Management orders for this Student. This includes all diabetes medication orders. Any changes listed above replace any previous insulin and management orders. Use the "Children's Hospital of Wisconsin School Diabetes Management Protocols" (Go to www.chw.org and navigate to the diabetes specialty page) for reference when negotiating the student's school schedule and management with the parent/guardian.

These orders are approved and reviewed by:
PETER M WOLFGRAM, MD
3/14/2019
8:13 AM



Diabetes Program
Diabetes Clinic-Main Campus Non-Urgent Phone: 414-266-3380
Diabetes Clinic- Main Campus Fax: 414-266-3964

Fox Valley Diabetes Clinic Non-Urgent Phone: 920-969-7970
Fox Valley Diabetes Clinic Fax: 414-337-7203
Diabetes Clinic-All Sites Urgent Phone Line: 414-266-2860

DIABETES MANAGEMENT MEDICAL ORDERS FOR 2018-2019 SCHOOL YEAR
Student: Anna A Gold DOB: 1/20/1999
School name:
School/ daycare phone:
School/ daycare fax:

TYPE OF DIABETES:
Type 1 Diabetes

TESTING BLOOD SUGARS AT SCHOOL
- This student will test blood sugar:
  - Before all meals and insulin dosed snacks at school
  - As needed for high and low blood sugars
  - As needed for higher activity levels, negotiated by parent/guardian and the school nurse
  - At additional testing times negotiated with parent/guardian and school nurse per the CHW Management Protocol

TREATMENT OF LOW BLOOD SUGAR
- For this student a low blood sugar is:
  -Blood sugar under 70 mg/dL
  -Treat with 12 to 15 grams of carbohydrate
- Follow the CHW Treatment Protocol for low blood sugar
- Glucagon dose for this student is: 1.0 mg
- Follow CHW treatment protocol when glucagon is used.

TREATMENT FOR HIGH BLOOD SUGAR
- For this student a high blood sugar is:
  -Blood sugar over 250 mg/dL
  -Give insulin if applicable in the insulin dosing orders.
- This student will check urine or blood ketones:
  -Yes, when blood sugar is over 250 mg/dL
- Follow the CHW Treatment Protocol for high blood sugar

CONTINUOUS GLUCOSE MONITOR (CGM)
No, Student does not wear a CGM

ORAL DIABETES MEDICATION GIVEN AT SCHOOL:
No oral diabetes medications

INSULIN DOSING ORDERS

Insulin required and delivered by:	Insulin Pen
Type of Insulin to be given at school:	Rapid/short: Humalog
Insulin to be given by:	Student and with supervision
Student skills for using insulin:	Counts and calculates carbohydrates, Determines correct insulin dose for carbohydrates consumed, Draws up correct insulin dose and Gives own injection

Adjusting Insulin Doses:	Parents/guardians may adjust insulin carb ratios for meals within the range of 1.0 unit for 10 to 15 grams carbohydrates.
Insulin Dose for Meals:	Breakfast and Lunch
Give Insulin:	Before eating (eat within 5 minutes)

Flexible Insulin Dose with Calculated Correction Dose:

This student is on flexible management and may have different carbohydrate intake at each meal/snack.

Insulin to Carb Ratio Dosage=total grams of carb divided by the carb ratio:
Breakfast: 1.0 unit for 12 grams carbohydrate
AM Snack: 1.0 unit for 12 grams carbohydrate
Lunch: 1.0 unit for 12 grams carbohydrate

Calculated Correction Dose:
Use this correction dose when blood sugar is above 250 mg/dL:

Blood Sugar Level minus 120 divide by 50 = _____Units to correct blood sugar.

Add this to the Calculated Carbohydrate Dosage at meal/snack time. Use the calculated dose also for non-meal correction only if ordered.

Insulin for Correction: Non Meal Time:
Yes

Options:
Use Calculated Correction Insulin Dose
Criteria for giving extra insulin for correction:
-Extra insulin is given if it has been more than 2 hours since last dose was given and it is not a meal
-Blood glucose level is over 200 mg/dL
-Do not exceed 2 extra doses in one school day
-Blood glucose must be checked in 2 hours after correction dose is given

ADDENDUM

These are the Diabetes Medical Management orders for this Student. This includes all diabetes medication orders. Any changes listed above replace any previous insulin and management orders. Use the "Children's Hospital of Wisconsin School Diabetes Management Protocols" (Go to www.chw.org and navigate to the diabetes specialty page) for reference when negotiating the student's school schedule and management with the parent/guardian.

These orders are approved and reviewed by:
Fiallo-Scharer, Rosanna V, MD
2/22/2019
9:34 AM

DEPARTMENT OF HEALTH SERVICES
Division of Public Health
F-43009 (03/10)

STATE OF WISCONSIN
(608) 261-6855

EMERGENCY ACTION PLAN

Student Name: _____ Grade No.: _____ Date Requested: _____

Mother/Guardian: _____ Home phone #: _____ Work phone #/Cell: _____

Father/Guardian: _____ Home phone #: _____ Work phone #/Cell: _____

Health care provider: _____ Office phone #: _____

List preferred hospital: _____

Place student photo here

I have☐**type 1** /☐**type 2 diabetes**, which means I take ☐insulin /☐oral medication along with balancing diet and physical activity. I check my blood glucose several times a day. Please follow the steps below to help keep me safe.

LOW BLOOD GLUCOSE REACTIONS

My blood glucose may go too low (hypoglycemia). This is very dangerous. If you think my blood glucose is low, let me check my blood glucose in the classroom. If I go elsewhere to check my blood glucose, **someone must accompany me**. Never leave me or send me somewhere alone to check my blood glucose. My symptoms of low blood glucose include *(check)*:

☐ Hungry	☐ Inattentive/spacey	☐ Unable to awaken (unconscious)
☐ Shaky/weak/clammy	☐ Slurred/garbled speech	☐ Seizure
☐ Blurred vision/glassy eyes	☐ Anxious/irritable	☐ Convulsion
☐ Dizzy/headache	☐ Numbness or tingling around lips	☐ Other _____
☐ Sweaty/flushed/hot	☐ Poor coordination	☐ Other _____
☐ Tired/drowsy	☐ Unable to concentrate	☐ Other _____
☐ Fast heartbeat	☐ Personality change	☐ Other _____
☐ Pale skin color	☐ Confused/unable to follow commands	☐ Other _____
☐ Mood/behavior change	☐ Unable to swallow	☐ Usually has no symptoms

If my blood glucose is less than: ☐ 70 mg/dL ***or*** ☐ ____ mg/dL **I NEED TO EAT FAST-ACTING GLUCOSE QUICKLY**

1) Give _____ grams carbohydrate of one of the following *(check)*:
   ☐ ____oz milk ☐ ____ oz fruit juice ☐ ____ grams of glucose gel ☐ ____ glucose tablets ☐ other _____
2) Recheck blood glucose in 15 minutes
3) If blood glucose is less than _____ mg/dL, give another _____ grams carbohydrate
4) Repeat above steps as needed
5) Troubleshoot the cause(s) of the low blood glucose if possible

If my blood glucose drops too low, I may be confused/unable to follow commands, unable to swallow, unconscious, or having a seizure.

1) **Do not** give me anything by mouth
2) **Give me Glucagon** Dose *(check)*:☐**0.5 mg** or ☐**1.0 mg**
3) Position me on my side, as there is a risk of vomiting
4) Stay with me; do not leave me alone
5) Contact school nurse/trained school personnel
6) Call **9-1-1** per school district policies and procedures
7) Contact my parents/guardians and/or health care provider
8) Check my blood glucose and troubleshoot cause(s) of low blood glucose if possible

Glucagon is not life threatening even if it is given when not needed.

Prepared by School Nurse: _____ Date prepared: _____

Note: It is important to be familiar with your local EMS system

Diabetes Program
Diabetes Clinic-Main Campus Non-Urgent Phone: 414-266-3380
Diabetes Clinic- Main Campus Fax: 414-266-3964

Fox Valley Diabetes Clinic Non-Urgent Phone: 920-969-7970
Fox Valley Diabetes Clinic Fax: 414-337-7203
Diabetes Clinic-All Sites Urgent Phone Line: 414-266-2860

DATE: 8/14/2020
DIABETES MANAGEMENT MEDICAL ORDERS FOR 2020-2021 SCHOOL YEAR
Student: [redacted]
School name: Elementary
School grade/ year: 5th
School/ daycare phone: [redacted]
School/ daycare fax: Comments: updated [redacted]

TYPE OF DIABETES:
Type 1 Diabetes

MONITORING BLOOD SUGARS OR SENSOR SUGARS AT SCHOOL
- This student will test blood/sensor sugar:
  - Before all meals and insulin dosed snacks at school
  - As needed for high and low blood/sensor sugars
  - As needed for higher activity levels, negotiated by parent/guardian and the school nurse
  - At additional testing times negotiated with parent/guardian and school nurse per the CHW Management Protocol
  - All students must have a blood sugar meter and supplies at school even if wearing a continuous glucose sensor in the case of technology failure.

TREATMENT OF LOW BLOOD SUGAR OR SENSOR SUGAR
- For this student a low blood/sensor sugar is:
  - Blood/Sensor sugar under 80 mg/dl
  - Treat with 6 to 16 grams of carbohydrate
- Follow the CHW Treatment Protocol for low blood/sensor sugar.

TREATMENT OF SEVERE LOW BLOOD SUGAR OR SENSOR SUGAR
- Nasal Glucagon may be used if student is 4 years or older:
  - The Nasal spray is packaged as a fixed dose of 3 mg. Each nasal spray contains 1 dosage.
- Injected Glucagon dose for this student is: 1.0 mg
- All students need at least 1 form of glucagon available at school for low blood sugar emergencies.
- Follow CHW treatment protocol when glucagon is used.

TREATMENT OF HIGH BLOOD SUGAR OR SENSOR SUGAR
- Give insulin if applicable in the insulin dosing orders.
- This student will check urine or blood ketones:
  - If blood/sensor sugar is over 300mg/dl **AND** it has been greater than 3 hours since the last meal.
- Follow the CHW Treatment Protocol for high blood sugar

CONTINUOUS GLUCOSE MONITOR (CGM)
Type of CGM this student wears is: Dexcom
- Scheduled CGM checks can be negotiated by parent/guardian and the School Nurse.
- All factory calibrated CGM's are approved to dose insulin based on the sensor sugar.
- If the student is using a CGM, then "blood sugar= sensor sugar" throughout the school orders.
- All students on CGM's may use directional arrows with insulin dosing and blood/sensor sugar adjustments as negotiated by parent/guardian and the School Nurse.
- Refer to CHW "treatment Protocols for Guidance in Dosing and using a CGM.

INSULIN DOSING ORDERS

Insulin required and delivered by:	Insulin Pump
Type of insulin to be given at school:	Rapid/short: Humalog/Novolog/Apidra
Supervision requirement:	Kindergarten to 6th grade: Supervision with all cares.
Insulin to be given by:	Approved School Personnel and Student
Student skills for using insulin:	Counts and calculates carbohydrates and Determines correct insulin dose for carbohydrates consumed See CHW Protocol for guidance on supervision.
Adjusting insulin doses:	Parents/guardians are trained to adjust settings in pump throughout the vear
	Lunch
Give insulin: **Insulin dose for meals,** [redacted]	Before eating (eat within 5 minutes)

Insulin Pump:

This Student is: Established pump user

This student will use the device to enter total grams and the blood sugar to calculate the amount of insulin for the pump to deliver. Use the Insulin Pump Bolus Calculator with the Omnipod Pump.

Student pump abilities/skills:

Boluses correct amount for carbohydrate consumed
Changes infusion set/prepares reservoir and tubing
Inserts new infusion set
For pump failure: draws up insulin and gives injection with help calculating doses

In the event of a pump failure the flexible dosing per a pen or syringe for this student may be used based on the current pump settings. The parent is required to give the school an updated copy of the current pump settings if change occur throughout the school year.

INSULIN FOR CORRECTION: NON MEALTIME

YES

Options:

Insulin Pump Bolus Calculator

Criteria for giving extra insulin for correction:

Extra insulin is given if it has been more than 2 hours since last dose was given and it is not a meal
..Blood/sensor sugar level is over 140 mg/dl
..Do not exceed 2 extra doses in one school day
Blood/sensor sugar must be checked in 2 hours after correction dose is given
Notify parents when extra doses are given at school
-If an insulin pump fails for any reason, call the parents/guardians/healthcare provider

These are the Diabetes Medical Management orders for this Student. This includes all diabetes medication orders. Any changes listed above replace any previous insulin and management orders. Use the "Children's Hospital of Wisconsin School Diabetes Management Protocols" (Go to www.chw.org and navigate to the diabetes specialty page) for reference when negotiating the student's school schedule and management with the parent/guardian.

These orders are approved and reviewed by:

Elaine A Parton, APNP 8/14/2020 5:03 PM

[redacted]