the Children's Center
at Walter Reed Bethesda

Pediatric Diabetes Education Workbook

Caring for Children with Diabetes

A local guide for patients & families

@PediatricEndoc1

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Let's work together as a team.

Let's learn how to care for your child with diabetes. Being told about diabetes is a family event. It means the child and the family need to work TOGETHER with the healthcare team to be successful. Diabetes does not define the child. He or she just happens to have diabetes. He/she is expected to have a wonderful, productive long life, just like everyone else.

We in the Pediatric Department serve as coaches to the Family Team with diabetes. We call the plays, and the Team runs the plays. Our goal is to keep your child healthy. We change treatments based on what you tell us. Taking care of diabetes happens in your home, not our office. Please keep your coaches involved and we will work on this together.

Let's get the team involved!

Coaches:

Pediatric Endocrinologists: These are doctors with many years of extra training in caring for children and diabetes. They make decisions about monitoring, medications, insulin and manage your diabetes care.

Registered Nurses, LPNs, Corpsman, and Medical Assistants: These caregivers are trained to make sure you and your child have the skills to manage diabetes. They will take care of your child and report information to the doctor.

Registered Dietitians: These coaches have special nutrition training. They will teach you about carbohydrates and eating healthy foods. They are ready to answer your questions.

Certified Diabetes Educators (CDE): These are nurses, dietitians, and other healthcare professionals with special training in diabetes education and skills.

Behavioral Health Counselors: These are doctors or professionals trained to listen to your concerns and find healthy ways for the entire family to cope.

Licensed Clinical Social Workers (LCSW); These professionals provide family support. They help families navigate the healthcare system and reach out for community support as needed.

Child Life Specialists: These are professionals specifically trained to help children understand, cope with, and participate actively in their medical treatment in ways that are appropriate for their developmental level.

My Coaches

Doctors:_____

Nursing staff:_____

Dietitian_____

CDE:_____

Counselor:_____

Team members:

Child, Parents & Caregivers, Brothers & Sisters, Friends, Family, Babysitters, Teachers, School Nurses, etc…..

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What is Diabetes?

Diabetes is a disease that affects how your body uses food for fuel.

Carbohydrate is food that turns into sugar in the body. After you eat, the stomach works like a washing machine. It flips and flops the food over until it breaks down into sugar. It's what the cells inside your body use for food. Next, sugar goes into the blood and then travels to all the cells of the body. The cells have doors for the sugar to go through, but the cell keeps that door locked. The only way for sugar to get in is if there is a key to open that door---and that key is called INSULIN. Insulin is a hormone, or a messenger, that comes from certain cells in an organ called the pancreas. The pancreas is found behind your stomach. Everyone needs sugar to get to the cells for the body to have energy.

In **Type 1 Diabetes**, the body destroys the cells that make the insulin. This is called an auto-immune disease, because the body attacks a part of itself. Right now, there is no cure for diabetes. We treat it with insulin, diet and exercise. We are still learning more about why this happens. We know it wasn't anyone's fault and we can not prevent it.

In **Type 2 Diabetes**, there are two causes. The first cause is called insulin resistance. It happens when the cell doesn't want to open up to sugar. It now takes several keys before the lock opens. The second cause is the pancreas does not make as much insulin as it used to. Some reasons people get Type 2 diabetes are: family history, extra body weight and little activity. Some ethnic groups are more likely to get Type 2. This type of diabetes can be treated with: weight loss, change of diet, exercise, pills, and insulin.

What type of diabetes do you have?_____

Words to know…..

Carbohydrate

Insulin

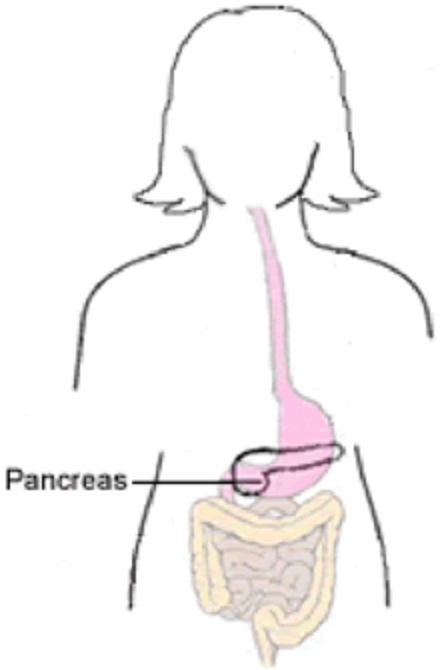
Pancreas

Cells

Glucose

Ketones

Endocrine



What are the symptoms of diabetes?

If your body does not have enough insulin, then the sugar builds up in the blood. This is what “high blood sugar” means. When it builds up, the kidneys try to get rid of it. This will make a person thirsty, go to pee a lot, and lose weight. Weight loss happens from losing the extra water and some fat and muscle. When the cells do not know there is sugar around, they send messages to use fat and muscle for energy instead.

Common Symptoms of Diabetes:

- Thirst
- Frequent urination
- Weight loss
- Blurry vision
- Dry skin
- Slower healing
- Stomach ache
- Head ache
- Feeling tired
- Yeast infections

For Your Information: The doctor will ask for lab work (blood and urine) to test for diabetes. These are positive results:

◊ Blood Glucose (also called a blood sugar test) greater than 125mg/dL before eating or more than 200 after eating

◊ Hemoglobin A1c over 6.4%

◊ Urine or blood ketones and urine sugar

◊ Autoantibodies

What are your results?

_____
_____
_____
_____

What are my goals?

We want to make sure you live a long, healthy life with diabetes. When high blood sugar is not taken care of, complications may happen. It can take months or years for long-term problems to start. We set goals to make sure you are safe from high or low blood sugar and longer term problems with the: eyes, heart, kidneys, or feet.

LAB TESTS:

A1C blood test: Done every 3 months. This tells us how well blood sugar is controlled during a 3 month period. In the blood stream, sugar sticks to the red blood cell, and this number tells us how much is sticking over time. Remember the higher the A1C, the higher the chance for complications later on.

Goal: <7% for adults 19 years and older; <7.5% for children under 19 years old.

My current A1c result:_____

My next A1c is due:_____

Other Lab tests: Your doctor will decide which lab tests are needed and how often. They are important tests to check on the kidneys, other parts of the body, and for other autoimmune diseases.

SELF TESTS:

Self Blood Glucose Monitoring: You will be given a glucose meter to use at home. It helps you and your healthcare team know how you are doing any time of the day or night. If you keep your blood glucose in these ranges more than 50% of the time, then we know your A1c will be at goal.

American Diabetes Association Blood Glucose (BG) Goals For All Pediatric Age Groups:

Ranges Before Meals: 90-130mg/dL

Ranges at Bedtime/Overnight: 90-150mg/dL

Check BG: ___pre-meals __2 hours post meal ___bedtime ___2:00am

Ask about when to add a snack to prevent low blood sugar:_____

Ask about bedtime goals and snacks:_____

Check more often when sick, having low or high results, or making changes to the insulin doses.

Self Urine or Blood Ketone Testing: Some blood meters can test for ketones. Some people just use urine dipsticks to check for ketones. **Goal: Negative.** Go to the Ketones page for more information.

Skills time: Start tracking your skills checklist in the back of this workbook (page 37)

Medications & Insulin

Type 1 Diabetes and Insulin: People with this type of diabetes have to take insulin every day. At first, he/she may not need very much to keep the blood sugars in normal range. After a while, we may need to adjust the doses. Insulin needs change as a child grows, too. Tell the healthcare team your blood sugar results and get the best possible care.

Type 2 Diabetes and Medications: Some pills help your body make more insulin or make your cells more sensitive to it. Pills are not made of insulin. You and your doctor will decide if pills can help. Ask us for more information on any medication. If a person with Type 2 Diabetes needs to use insulin to keep his/her blood sugar in a normal range, then we will decide on the type and doses. The plan may be different than the Type 1 Diabetes insulin plan. Just because you have to use insulin to manage your blood sugars, doesn't mean your diabetes is any worse. It just means your body needs some extra insulin to help out.

Insulin Chart

Type	Color	Onset	Peak	End
Rapid-Acting Bolus (Injectable) **NOVOLOG** (Aspart) **HUMALOG** (Lispro) **APIDRA** (Glulisine) **FIASP** (Aspart-fast onset) - - - - - - - - - - - - - - - - - **AFREEZA (Inhaled, precautions)**	Clear - - - - - - Kit colors vary	Within 15 Minutes - - - - - - - 12 min	1-2 Hours - - - - - - 35-45 min	3-4 Hours - - - - - - - - - - - - 1.5-2 hrs
Short-Acting (Injectable) **Regular** (Novolin R)	Clear	30min-1hour	2-4 hrs	6-9 hrs
Intermediate-Acting (Injectable) **NPH** (Novolin N)	Cloudy	1-2 hours	4-8hrs	12-15hrs
Long-Acting Basal (Injectable) **LANTUS** (GLARGINE U-100*) **LEVEMIR** (DETEMIR) **TRESIBA** (DEGLUDEC) ****TOUJEO*** *(Ultra-Long Glargine U-300)*	Clear	1-2 hours	Designed to be flat but may vary at 6-10 hrs	Basal insulin lasts for up to 24 hours. - - - - - - - - - - - Degludec may last 42+ hrs

Insulin (continued)

Basal – Bolus insulin therapy means the insulin is given as close as possible to the way the body would if it did not have diabetes.

- This method involves giving a long-lasting insulin one or two times daily and a fast-acting insulin at meal times. This type of insulin therapy allows the person to eat when they are hungry. They do not need set meal or snack times.
- It is important to learn how to carbohydrate count and then use some basic math skills.
- **BASAL Insulin:** This **long lasting insulin** works in at a level amount most of the day and night. We mostly use **Lantus.** Do not mix with other insulins.
- **BOLUS Insulin: Rapid acting insulin** starts working in 5-15 minutes. This insulin will cover the carbohydrates in a meal and/or provide correction to bring blood glucoses into range. We mostly use **Novolog**. *It may not always be possible to do, but it is ideal to take Novolog 15-20 minutes BEFORE the first bite of a meal.*
- **Taking Insulin**: Insulin is given in the fat. Change or "rotate" places around your body each time.
- **Storage**: Store unopened vials or pens in refrigerator. Once opened, the vial or pen may be stored at room temperature for up to 28 days (Lantus, Novolog) or 42 days (Levemir). Do not let insulin get hot or freeze. *Please don't leave it in the car or put it in the freezer!*

Understanding Bolus Insulin Doses

INSULIN TO CARBOHYDRATE RATIO

This ratio is how many grams of carbs 1 unit of Novolog will cover. Count how many carbs you are eating. Then, divide that number by your Insulin to Carb Ratio.

> *Example Only: Turkey sandwich, a small apple, and a cup of milk for lunch. This has 60 grams of carbs. The example Insulin to Carb Ratio is 1 unit to 15 grams. Answer: 60 ÷ 15 = 4 units*

SENSITIVITY or CORRECTION FACTOR

If a blood glucose is above the target, you will need to take extra insulin to correct it. This is how many points your blood glucose will go down if you take 1 unit of Novolog. You also need to know your target blood glucose number (set with the doctor).

Example Only: The blood glucose is 250mg/dL. The example target glucose is 150. The correction factor is 50 points. How much insulin is needed to correct this glucose?

Answer: 250 (blood glucose) – 150 (target) = 100. Then, 100 ÷ 50 (correction factor) = 2 units

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Example Total Bolus Dose: Combine the Insulin to Carb Ratio result (4 units) with the Insulin Correction Factor (2 units). 4 units +2 units=6 units of Novolog fast acting insulin with this meal.

Insulin (continued)

Other Insulin Dosing Tips:

1. Even if you decide to SKIP a meal or eat a meal with no carbs, you must still test your blood sugar and give a correction if it is above your target.
2. For older children, try to give the fast acting insulin 15-20 minutes before the meal. Younger or less predictable eaters may need to take the fast acting insulin right after they eat.
3. Ask if you should cover the carbs in a snack. If eating a snack over 15 grams, then you will usually cover it. DO NOT give more correction if it has been 2 hours or less since your last insulin shot.
4. Be cautious about giving corrections at bedtime. Ask about giving only half the calculated amount or adding a snack.
5. If you are LOW at a meal, fix the low first. Always make sure your blood sugar has come up before you give an injection of insulin.
6. Demonstrate how to inject and add a dose before your leave your appointment or hospitalization. Visit the online lessons for insulin pen and vial use. Read the *Understanding Diabetes* books.

My questions to ask the healthcare team:_____

_____

_____

Skill Checks:

Practice Insulin Dosing Example: Jill is 17 years old and in the 11th grade. She woke up before school and checked her blood glucose. Her BG this morning is 160mg/dL. She is going to eat 45 grams of carbs for breakfast at 09:00am.

Insulin to Carb Ratio: 1 unit per 10 grams carb

Correction (or Sensitivity) Factor: 1 unit for every 60mg/dL to a target of 100.

How much Novolog should Jill have with breakfast?_____

What time should Jill give the Novolog?_____

Practice Insulin Dosing Example: Ross is 4 years old and attends pre-school. His mom checked his BG this morning at 07:30am and it was 120mg/dL. She is making him a meal with 60 grams of carb at 08:00am but he is distracted by the new cartoon on TV.

Insulin to Carb Ratio: 1 unit per 30 grams carb

Correction Factor: 1 unit for every 80mg/dL to a target of 120.

How much Novolog should Ross be given with breakfast?_____

What time should Ross's Mom give the Novolog?_____

Today's date:_____

My Insulin Plan

Basal Insulin (longer acting)

Type:_____Dose:_____Time:_____

Bolus Insulin (faster acting)

Type:_____Times:_____

Step One: Correction Factor (is given if greater than 3 hours since last correction).

____unit for every _____mg/dL over blood glucose target of_____mg/dL.

Do the math:

____blood glucose - ___target blood glucose =___*divided by* ___correction factor =_____units

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Step Two: Insulin to Carb Ratio

___unit for every _____grams of carb

Do the math:

Total grams of carb_____ *divided by* _____grams in ratio = _____units

---

Step Three: Total Bolus Dose (round to nearest half or whole unit)

Correction Factor units + Insulin to Carb units = _____total dose.

The doctors will change the basal dose and bolus ratios as needed.

Correction Factor should be based on the pre-meal BG result.

Record keeping is very important for these decisions.

Key:

- minus or subtract symbol

+ plus or addition symbol

= equals symbol

Insulin (continued)

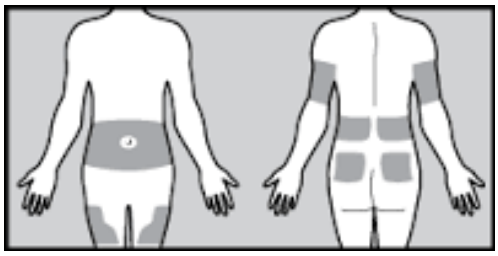
Insulin Injection Tips

1. Store opened vials or pens of insulin at room temperature—these shots are more comfortable!
2. Let the alcohol dry on your skin first before you inject. At home, use soap and water instead.
3. Go at least an inch away from the previous site used. Secure the skin or pinch up.
4. Insert the needle at a 90 degree angle. Pierce quickly.
5. Inject insulin. Count to 5 with a syringe and 10 with a pen. Release the pinch and withdraw the needle.
6. Blot but do not rub the injection site.
7. Sometimes you will get a drop of blood at the site, or even a bruise. If this happens a lot, ask your diabetes educator for help.
8. Put used needles and lancets in a hard plastic container.

REMEMBER INSULIN AND FAT LOVE EACH OTHER. If the shot is given in the same place over and over, it will cause lumpy fat. The lumpy fat does not absorb insulin as well as healthy fat. Avoid lumps by changing sites each time.

Skill check:

1. Show us how to give an injection.
2. How will you remember where you gave the last one?
3. **Look at the picture of WALLIE on the last pages.**



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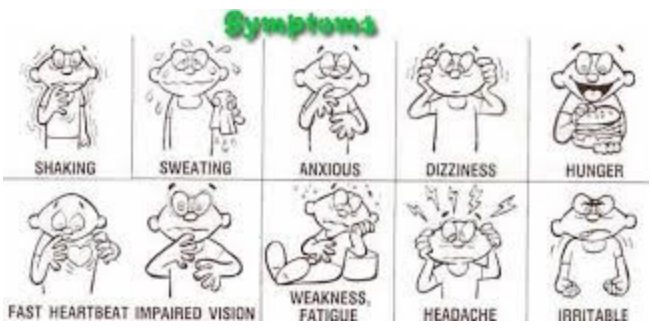
Low Blood Glucose (Hypoglycemia)

Hypoglycemia, or low blood sugar is an **emergency** that must be treated right away. Some causes are: too much medicine/insulin, not enough carbohydrate, increase activity, injecting wrong, or a hot shower after an injection. **A blood glucose reading of 70mg/dL or less is considered low blood sugar and should be treated with 15 grams of a fast acting carbohydrate.** When possible, check the blood glucose (BG) first. If you can not check, always assume these are symptoms of low BG.

SYMPTOMS	TREATMENTS
Mild: Shakiness, Sweating, Fast heart rate, Dizzy, Yawning, Grouchy, Hungry	Give: 15 grams fast carbohydrate (follow guidelines for treating lows by age) Recheck: Do another BG check in 15 minutes. If still less than 70mg/dL, then repeat treatment. Next: Have a meal or snack with carbohydrate & protein. Keep track of low BG patterns and report.*
Moderate: Confusion, Slurred speech, Poor Coordination, Not Able to Cooperate.	Give: 15 grams fast carbohydrate (follow guidelines for treating lows by age) Recheck: Do another BG check in 15 minutes. If still less than 70mg/dL, repeat treatment. If unable to keep drinking or eating, give glucagon. Next: Have a meal or snack with carbohydrate & protein. Tell your healthcare team.
Severe: Loss of consciousness, Seizure, Convulsions	Give: Glucagon injection (follow directions on kit for mixing). Notify: Call 911. Call your healthcare team. Next: When there is no risk of choking, give food with carbohydrates.

* **Driving:** check your BG before driving. Do not drive if it is below 100mg/dL. Have a snack and plan on more snacks and hourly checks. Wear medical alert jewelry.



NDAP.org image

Low BG Treatment Choices & Glucagon

Examples of 15 gram **Fast Carbohydrates** (they turn in to sugar faster in the body):

3-4 Glucose tablets	1 small tube of cake gel icing or Glucose gel
Half-cup juice	Half-cup regular soda pop
1 cup of milk	1 tablespoon of sugar, regular jam, jelly, honey, or syrup

Tips:

* For children too young to chew, get juice boxes or cake icing.
* Keep something sweet at the bedside so there is no fumbling for the kitchen if lows happen at night.
* Keep sweet choices in the car, backpack, at grandparents home, school, and _____.
* Some kids might go low on purpose to get a sweet treat. Or, sometimes sweet treats disappear when friends or family want it. Try not to treat with goodies they love. Keep fast carbs separate.
* If the person is not able to swallow, do not put anything in his/her mouth. Use glucagon instead.
* Do not drive until BG is over 100mg/dL and re-check every hour while driving.

GLUCAGON or GLUCOGEN Injection: Visit www.lillyglucagon.com OR www.glucagenhypokit.com for an online lesson. Tell other caregivers and friends, too. If a person has a low blood glucose and is unable to swallow, then inject glucagon. Glucagon tells the body to dump out any stored sugar into the blood stream.

Steps (Important: also follow the instructions on the kit):

1. If person is found unconscious, seizing, or unable to swallow, open the orange/red kit.
2. Remove the safety cap from the vial. Remove the cover from the syringe.
3. Insert the syringe and push the fluid into the vial of powder.
4. Swirl to mix the fluid and powder.
5. Tilt the syringe upside down with the vial. Pull back all the fluid.

6. Give the injection any place you usually give insulin. DOSE: Give the full amount in the syringe except for children under 44lbs (20kg), then give half the syringe or 0.5mg.
7. Expect vomiting. Place the person in the recovery position on his/her side to prevent choking. Call 911. Notify your healthcare team.
8. When able to swallow, eat lots of food and drinks with sugar to refill the storage in the body. Keep checking BG until stable.

DEMONSTRATE: Show us you know how to use the kit before you ever need to. Make sure everyone knows where the kits are kept. Carry in your backpack or keep at school, too.

GLUCAGON Nasal Spray: Follow precautions with Glucagon above. Single use only. Spray into one side of the nose. Do not use a "test spray". Visit Baqsimi.com for instructions.

High Blood Glucose (Hyperglycemia)

High blood glucose (BG) is not always an emergency. We know that blood sugars go up normally after we eat. Sometimes it will go higher than we expect. Taking care of high BG will keep you safe. Do you know what else might make the blood sugar go up through the day?

Some **Causes** of High BG:

- Under-counting carbohydrates (too much food)
- Less activity than normal
- Not enough insulin, missed doses, kinked pump tubing, old or expired insulin, or lumpy skin sites.
- Stress
- Illness (the immune system)
- *Dosing insulin too late— Remember, 15-20 minutes before eating is best*

Some **Symptoms** of High BG:

- Thirst
- Frequent urination
- Stomach aches
- Blurry vision
- Feeling tired
- Ketones with a very high BG can cause “fruity breath”, nausea, stomach pain, and confusion

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What should you do about a high?

First, recheck the BG results. If also having a sick day, then see the Sick Day page. Other highs are usually just written down in your log book and reported to the healthcare team. If the BG is over 300mg/dL twice, then check ketones. If ketones are positive, follow the plan on the Ketone page. There are also special rules for high BG before sports or exercise.

Next, have lots of non-sugary drinks. Try to drink at least 1 cup (1/2 cup for small children) per hour when awake. Take a light walk. Don’t exercise too hard when you have a BG over 300mg/dL.

Don’t forget your medicine. If you take insulin, use your correction factor with your carbohydrate coverage dose to bring down the BG. If you use an insulin pump, keep checking your BG every 30-60 minutes to make sure it is working correctly. Follow your insulin pumping rules for high BG. Inject new insulin in healthy skin sites.

Finally, keep track of your high BG patterns. Write them down and send them to your healthcare team. Don’t wait for your next appointment to tell the team about the patterns. You are not to blame when changes to insulin doses are made. We want to make sure you stay healthy and are glad to hear from you.

What are Ketones?

Ketones are made when the body uses fat for fuel. The body wants to use sugar. Sometimes there is a lot of sugar in the blood but the cells don't get the message to use it. The body knows when the cells aren't getting enough sugar, so it burns fat for energy. Ketones are the leftovers from the fat burn.

Too many ketones make the blood acidic. Too much acid can make a person very sick, cause DKA (Diabetic Ketoacidosis), or even death. Remember, ketones happen when the body uses fat for fuel—and it only does this if there is not enough insulin. If you have Type 1 diabetes, YOU MUST TAKE YOUR INSULIN or you will start making ketones.

We can do self-tests for ketones at home with blood or urine. *Check for ketones when sick and whenever the BG is >300 mg/dL two or more times in a row.*

Testing for Ketones in the Blood: The Precision Xtra meter has a special strip for a finger stick blood ketone check. It is not available at the pharmacy. Ask your doctor if you need this kind of meter. Ask your diabetes educator to teach you. Blood Ketone results from the Xtra meter:

Normal = Less than 0.6 mmol/L(maybe repeat it) Moderate = 0.6-1.0 mmol/L **High** = 1.0 or greater

Testing for Ketones in the Urine (not with a meter):

1. Pee in a cup (and dip the strip) or directly on the strip. Wait 15 seconds (check the bottle for the time for that brand).

2. Hold the strip up to the side of the bottle—you are looking to see if there is a change to the color purple on the strip.

3. If you see purple—you have ketones. The darker the color, the more ketones you have, and the more at risk you are.

Treatment:

- If you have ketones, start drinking water. Have at least a couple glasses of water.
- Take your correction insulin doses.
- Contact us if after an hour or so, the color is not getting lighter or is getting worse on repeat tests. Call if 1.0 or higher on the meter or dark purple if using the bottle.
- If you have ketones, it is really important you do not become dehydrated—so drink LOTS of water. If you can not drink or begin vomiting, you must call us RIGHT AWAY.
- REST. NEVER EXERCISE IF YOU HAVE KETONES!
- Keto-Diastix brand in 100 strip bottles should be replaced every **6 months** once opened and stored at room temperature.

Carbohydrate Counting

Carbohydrate counting is a useful skill to help keep the blood glucose (BG) at goal. The meal time insulin dose will be based on the amount of carbs per meal. There is no longer a “diabetes diet” or a “forbidden foods” list. Instead, we like to show people how to eat the foods they like in the right portions.

3 types of food: Carbohydrate, Proteins, and Fats.

Carbohydrate (Carbs) will turn into sugar energy for the body. Carbs will make the blood glucose go up. Fast acting insulin is given to cover the carbs at a meal or large snack. Fiber is a part of carbs that may help slow down the rise of the blood glucose. Proteins and fats are also important to make sure the body has the energy and nutrients it needs. Every meal should have something from all the food types.

Step One: Meet with the Registered Dietitian and determine a meal plan. Ask about a carbohydrate range for each meal or snack.

Step Two: Learn to label read and measure portion sizes of carbs. You do not have to measure and count protein or fat.

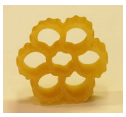
Step Three: At first, avoid juice, other sweetened drinks and high sugar treats unless you are having a low.

Step Four: Keep a food diary. Help us learn how your body responds to the insulin and the food.

Carbohydrate (Carb) Examples to Count:

- Starchy Veggies: peas, corn, rice, potatoes, yams, some beans (like kidney beans), lentils, chick peas. (Some Non-Starchy Veggies: depends on the portion. Count some if over 1/2 cup cooked or 1 cup raw)
- Grains: bread, crackers, graham crackers, wafers, cereal, popcorn, bagels, pretzels, granola, tortillas, flour (dough), pasta
- Fruits: bananas, apples, grapes, strawberries, melon, oranges, raisins, berries, kiwi, mango, pears, plums, etc.
- Dairy: milk, ice cream, pudding, yogurt, cream soups, cream dressings & sauces
- Treats (limit): desserts, candy, cookies, pies, cakes, muffins, rolls, donuts, syrups, sugar, honey, jam, chips, sherbet
- Sweet drinks (avoid): regular soda pop, juice, milk shakes, specialty coffees, sweet tea, smoothies

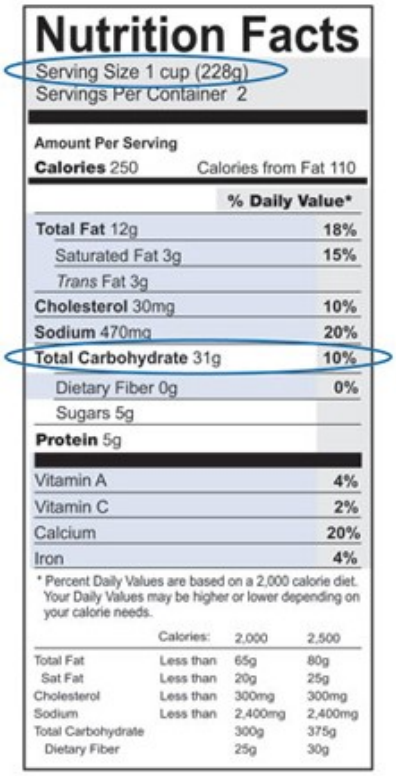







Carbohydrate Counting (continued)

Sample label for
macaroni & cheese



Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Protein 5g	
Vitamin A	**4%**
Vitamin C	**2%**
Calcium	**20%**
Iron	**4%**

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

<u>Using a Food Label:</u>

1. Look for the “serving size”
2. Read the “total carbohydrates” in grams
3. Decide how many servings you will have
4. Add up your carbs for each serving
5. You are carb counting!

Resources for carb counting:

Food Labels

Calorie/Carb Counting Books

Smart Phone Applications

Websites for Recipes & Restaurants

Ask the Dietitian for the most current apps and websites.

This Food Label Example: Eating 2 servings (2 cups) = 62 grams of carb

Nutrition Examples

Tip: Brands may vary. Check your labels and websites.

Breakfast examples:

1 cup O-shaped cereal = 15 grams
1 cup milk = 12 grams
1 string cheese
Total Carb: 27 grams

2 eggs & 1 /4 cup shredded cheese
1 tortilla (6 inch) = 25 grams
1/2 large banana = 15 grams
Total Carb: 40 grams

Lunch example:

Chicken sandwich (cheese/mayo) = 30 grams
1/2 cup grapes = 20 grams
Salad with vinaigrette & almonds
Total Carb: 50 grams

Dinner example:

Baked fish fillet (no batter or breading)
1 Roll = 15 grams
1 medium baked potato = 42 grams
Total Carb: 73 grams

1/2 cup broccoli
1 tbsp butter
1/2 cup ice cream=16 gms

Snack ideas with a protein & fat & 15 grams of carb:

1/4cup tuna with 5-6 whole grain crackers
1/2-1 cup dry cereal with nuts
6 tbsp. hummus and celery
String cheese and 1 cup of milk
1 piece of bread or toast with a tbsp. nut butter (or seasoned olive oil for dipping)
1/2 cup fruit with cottage cheese

Snack ideas with no carbs to count:

—Any non-starchy raw vegetable: 1/2 cup carrots, cucumber, salad, celery, tomatoes, peppers, green beans, broccoli
—1/4 cup nuts, low-fat cheese, string cheese, cottage cheese, olive oils (for dipping)
—Sugar free gelatin, homemade diet popsicles

Snacks with about 15 grams of carb each:

1 piece fresh fruit (tennis ball size)
1/2cup fruit sorbet
1 cup milk
8 small pretzels
1/4cup apple sauce
2tbsp raisins
6 saltines
3 cups plain popcorn
3 graham crackers
1 small yogurt
1oz chocolate
1 cup berries
6 vanilla wafers
11 nacho chips

Nutrition (continued)

Well-rounded meals are important, too. The CHILD-1 diet is the first stage of the Cardiovascular Health Integrated Lifestyle Diet. It promotes healthy eating and a healthy weight for all kids.

Have more: fresh, healthy recipe, and higher fiber foods.
Have less: sweet treats, fast foods, or processed foods.
You will see blood glucose readings do not go as high as fast.

Please see: http://www.nccpeds.com/HealthyHabits/Nutrition%20resources/CHILD1%20Diet%20Pediatrics.pdf

Skill Check

1. Example: 1 cup spaghetti, 1 slice wheat bread, 1 tsp butter, 2 grilled chicken strips, 1 cup milk

How many carbs are in this example? _____grams

2. Example: 1 small fruit, 1/2 cup salad with olive oil, 2/3 cup rice, 2 pieces of baked fish

How many carbs are in this example? _____grams

Give it a try. What do you like to eat for lunch? How many grams of carb are in this meal?

_____ _____

_____ _____

_____ _____

Ask the dietitian to help you if you get stuck.

1= 72 2= 45

Activity

Exercise makes insulin work better. It will LOWER the blood sugar.

Tips:

1. Check your blood sugar before, during and after the exercise.

2. Make sure you always have some kind of snack available during exercise.

3. Make sure your coach or PE teacher knows about diabetes. Always wear medical alert jewelry so other people will help take care of a low blood glucose (BG) reaction. Give your coach a copy of the hypoglycemia and glucagon instructions.

4. Add 15 grams of carbohydrate for every 30 minutes of exercise. Experience is the best teacher. You might need a snack with protein and/or fat in it as well if the activity will be going on for awhile, like a soccer or basketball game. Sometimes, more intense exercise will make the BG up for a short time and then followed by low BG hours later.

5. Check for ketones if the BG is >300mg/dL before exercise. THIS IS VERY IMPORTANT—if ketones are present and you exercise, you WILL GET VERY SICK. Rest and drink water instead until the ketones are gone.

6. On busier exercise days, check a blood sugar in the middle of the night since some people will go low many hours after exercise. Ask your healthcare team about adjusting basal rates (on pumps) or decreasing the amount of insulin on sporty days.

7. Be proud of being active every day! Don't let diabetes stop you from playing, joining teams or clubs, hiking, going to PE class, or any other healthy activity you enjoy. As you get more comfortable with activity and diabetes care, your team will help with insulin and carb planning.

Write down activity questions to ask your healthcare team._____

_____

_____

_____

_____

Fun Facts: Professional sport stars and Olympic athletes compete with diabetes. Google your favorite sport and diabetes. You may be surprised at their amazing accomplishments.

Sick Days

Sickness, even just a cold, will usually make the blood sugar go UP. If there is not enough insulin, the body will use fat for fuel. This makes KETONES. Too many ketones are very dangerous.

Ways to prepare:

1. Read *Understanding Diabetes* "Pink Panther" Book for more age specific details and sick day planning.
2. Plan ahead for sick days. Make a sick day tool kit.
3. Keep sick day foods at home separate. Examples of 15 grams carb choices: 1/2 cup Gatorade, 1/4 cup Jello, 1/2 cup juice, 1/2 cup ice cream, 1 cup chicken noodle soup, 6 crackers, 1 slice toast

To keep your child safe:

1. ALWAYS GIVE THE INSULIN! NEVER WITHHOLD THE LANTUS OR LEVEMIR.

2. TEST BLOOD SUGAR EVERY 2 to 4 HOURS.

3. DRINK AT LEAST 1 CUP OF WATER PER HOUR (1/2 CUP FOR SMALLER CHILDREN). IF SHE/HE GETS TIRED OF WATER, YOU MAY GIVE OTHER DRINKS THAT ARE SUGAR-FREE/CAFFEINE FREE.

4. TEST FOR KETONES DAILY AND EVERYTIME THE BLOOD SUGAR IS > 300.

5. FOLLOW THE MEAL PLAN AS MUCH AS POSSIBLE.

6. CALL US IF:

    a. If your child is vomiting and can keep nothing down— CALL US and make plans to go to the NEAREST emergency room.

    b. You need help with insulin doses.

    c. Your child has moderate/large ketones (purple color on bottle OR 1.0 or more on the Xtra meter)

    d. Your child looks very ill.

    e. You are not sure what to do.

Reach the On-call Pediatric Endocrine Doctor at 202-713-3321

Medical Tip: **Planning a dental procedure? Scheduling a surgery? Please let our team know 2-3 weeks ahead. We will make a diabetes care plan for the dentist or surgeon. Things to let us know:**

- Date/Time/Location
- How long is the procedure or surgery?
- How long will your child be fasting (example: nothing to eat after midnight)?
- Will your child have an IV (tube for fluids in the vein)?
- Is it okay to wear a pump or CGM in the room?

Sick Day FAQs

1. What medicine should a child with diabetes take on a sick day?

- Cold and cough medicines are usually not helpful
- If a child over 4 years is using a cold medicine, “sugar free” syrups are not required. If having regular doses of cough syrup, consider counting the carbs
- Acetaminophen or ibuprofen will help with fevers and for comfort. (CGM users are warned not to trust the BG readings when taking Acetaminophen)
- Try nasal saline sprays or washes. Encourage drinking more fluids, rest and lots of love.

2. How do I know when to call or visit my PCM?

- Ask for advice with cold, flu, seasonal allergy, upset stomach, earache, or other symptoms
- Fever
- Deciding on types of sick day medications, doses, and when to go back to school

3. When do I call the Pediatric Endocrine Team for sick days?

- Sick days with BG over 300mg/dL and moderate to large ketones
- Stomach pain. Nausea, vomiting, or diarrhea.
- Difficulty drinking enough water. See sick day rules on previous page, also.

4. When do I go to the ER or Call 911?

- Difficulty breathing. Fast gasping breaths. Shallow, slow or weak breathing
- Severe pain
- Fever over 100.4F in infants or children with immune system conditions
- Fever over 105F
- Very sick and not improving
- Unresponsive (not waking up)

Prevention

Immunizations are very important for children with diabetes. Ask about these...

1. Yearly Influenza Immunization. New every Fall. Use the shot, not the nasal spray.
2. Pneumonia Vaccine with initial diagnosis if over age 2.
3. Look at this website for more details. www.cdc.gov/vaccines/hcp/vis/index.html

Coping & Concerns

We know life with diabetes is overwhelming sometimes. We hope to provide you with the support you need to cope with the challenges. Self-management of diabetes is 90+% the patient and family responsibility, though. Setting goals and earning rewards is a great way to be successful at any age. Let us know how we can help you achieve your diabetes goals.

Help with Coping:

—Reach out to your healthcare team. Secure Message Email and call when you need extra support. Schedule appointments at least every 3 months.

—Find a local support group, blog, or email group. (jdrf.org)

—Read and learn from the experts. Check out the resources listed on the Support & Resources page.

—Set goals for managing tasks. Have a reward for achieving them. Don't focus on "good or bad numbers". Focus on doing the best you can and learning from experience.

—Keep doing the things you love to do. Diabetes is a disease, but it does not have to be an illness. You can be very well, have a fabulous life, and have diabetes.

—Keep the school plan updated with the school nurse, teachers, and coaches.

—Age specific responsibilities will change as the child grows. Sometimes he/she will take on more of the tasks and then, without warning, will want parents to be more involved again. Find the balance you need.

—-Visit https://diatribe.org/10-tips-teenagers-live-well-type-1-diabetes

Behavioral Management Parenting Tips to Consider:

- *Watch* the type of reaction that you make (as a parent) to seeing a number. Kids notice if you think the number is "good" or "bad". A number is a number is a number. What can you do bring that number into target range?

- *Compliment* the child on taking an initiative for wanting to do more in his/her diabetes care.

- If it is a teen or tween you're parenting, then *don't be accusatory* of why their blood sugar is high. Take a deep breath, find out what happened, what could be done differently, correct it, and move on. Maintaining your happy relationship with your child is far more important than being right. Work together.

- Allow the teen or tween to pick out one day of the week where they don't have to do diabetes care. On that day, say Sunday, the parent would do the testing, carb counting, etc. Many times this is effective because it gives them a day to "recuperate" from having to do diabetes management all week. It gives them time to be a regular kid. It also reminds you about their daily struggle.

- For the newly diagnosed, try to keep up the same traditions. Just because the child has diabetes doesn't mean that he/she can't have grandma's special cookies or go trick or treating. You can find carb counts on practically anything these days. Plus it's all about moderation. *Remember, what is healthy for your child with diabetes is also healthy for the whole family!*

Goal Setting as a Family:

1. Write down a small goal to achieve.
2. What might get in the way?
3. Who do you need to support you?
4. When will you achieve the goal?
5. What is the first step? Next steps?
6. Give updates. Reward and pick another.

School

Plan for school:

—We will provide the **DMMP** (Diabetes Medical Management Plan) with specific insulin, monitoring, and safety instructions for the school nurse and staff to follow.

—Start **504** Plans and IEP forms. These forms are separate from the DMMP and help protect the student's rights during classes and testing. Are you ready to talk to the school about carrying meters, monitors, or pumps into the standardized testing rooms? Get a 504 ready.

https://www.diabetes.org/resources/know-your-rights/safe-at-school-state-laws/written-care-plans/section-504-plan

—Read the *Understanding Diabetes* "Pink Panther" chapters on school aged children and preparing for school.

—Talk to the school nurse, teachers, bus driver, and coaches. Define who is responsible for each task.

—Decide how much you want to share with classmates.

—Order medical alert jewelry.

—Find out what supplies to keep at school.

Example list:

- Glucose meter (to leave at school), test strips, lancet device, lancets
- Insulin vial or pens
- Syringes or pen needles
- Glucagon kit (copy the hypoglycemia pages from this workbook or share our link)
- Glucose tablets, juice, snacks
- Extra batteries for the meter
- Ketone test strips
- Alcohol pads

Adult Transition & College Prep

Young adults should start preparing for more independent diabetes care 3-6 months before leaving home.

__After age 18 years, a young adult can make his/her own healthcare decisions. Permission should be obtained for ongoing parental involvement and communication with the healthcare team.

__Program clinic telephone numbers into your mobile **phone**.

__Make a plan to download pump, CGM or blood glucose meter reports and send to your provider.

—**Contact Tricare** to arrange for medical care near campus or if you are relocating from home.

—Tell your Pediatric Endocrinology team when you are transferring care to an Adult Endocrinologist. We may provide summaries of your last visits and consult with the new doctor.

—Plan on prevention screenings. Keep track of eye and feet exams, dental check-ups, A1c and other labs.

—Learn what Americans with Disabilities Act and Section 504 laws apply on your campus or at work.

—Reach out to the campus dietitian about nutrition facts at dining services.

—Plan on refills and supplies every 90 days. Take **cell phone pictures** of the prescription labels. This way, you will always have the RX number needed for the refill telephone line.

—Find a pharmacy or plan mail-order supplies.

__Learn how to make your own follow up appointments (every **3** months).

__Teach friends and roommates how to help.

—Ask us about special concerns with the use of alcohol. Drinking **alcohol** can cause hypoglycemia and make it difficult to manage life with diabetes.

__**Avoid tobacco**. Nicotine is especially harmful for people with diabetes.

__Wear **medical alert.** Program your mobile phone with Emergency Contact/Medical Alert ID information.

__Stay safe behind the wheel. Check your BG before **driving**. Remember the rules we taught you.

__Independence means planning your own meals. Notice the impact of different foods on diabetes care.

__Keep communicating with your parents. Tell them about challenges and what support you need.

__Young adult pre-**pregnancy** planning discussions are important. According to the ADA, “Pregnancy for a woman with diabetes is serious.” Ask your healthcare team about goals to set before starting a family of your own.

__**Visit** with the CDE. Schedule a transition care planning appointment with LCSW.

Tricare Young Adult

Who Can Participate?

You may qualify to purchase TRICARE Young Adult if you're:

- An unmarried, adult child of an eligible sponsor
- At least age 21 but not yet 26 years old.
- If enrolled in a full course of study at an approved institution of higher learning and your sponsor provides more than 50 percent of your financial support, your eligibility may not begin until age 23 or upon graduation, whichever comes first.
- Not eligible to enroll in an employer-sponsored health plan based on your own employment
- Not otherwise eligible for TRICARE coverage

https://tricare.mil/tya

Check out these other supportive websites:

- Diabetes.org/college
- CollegeDiabetesNetwork.org
- StudentswithDiabetes.health.usf.edu
- Endocrinetransitions.org/type-1-diabetes
- Gottransition.org

Technology

Learn more about diabetes insulin pumps and continuous glucose monitors*.

Insulin Pumps have a tiny tube that goes under the skin. It gives small amounts of insulin all day. It will also give meal-time and correction insulin.

Continuous Glucose Monitors have a tiny wire sensor to place under the skin. It will send blood glucose readings to a mobile phone or receiver.

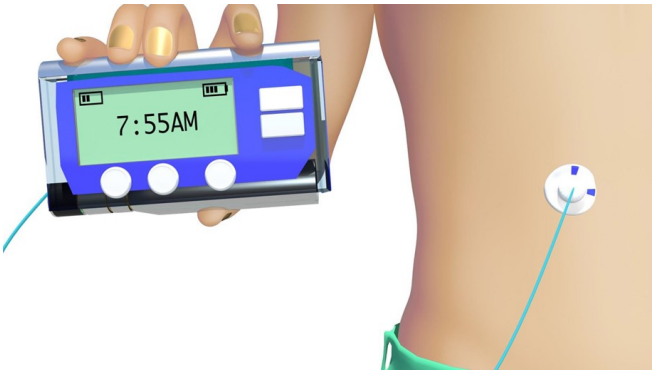
Ask the Pediatric Endocrine team when you are ready.

General pump guidance:

- Past the “honeymoon”
- Understand diabetes self-care
- Comfortable inserting and wearing a device
- Attend the Diabetes Technology Visit

Search for pump comparisons at www.diabetesforecast.org

**Insulin pumps and CGM supplies are covered benefits but co-pays may vary with retired beneficiary plans.*



Continuous Glucose Monitor (CGM) Details

The CGM devices offer reliable blood glucose (BG) readings every 1-5 minutes all day. The sensor is inserted just under the skin, taped, and a transmitter is worn for 7-14 days. They will send BG results to a receiver or smart phones and may be shared on a computer with the healthcare team. The screen will show arrows if the BG is going up or down. Options include: Dexcom, Libre, Medtronic, and Eversense (implant).

Check the company websites for updates.

Dexcom G6:

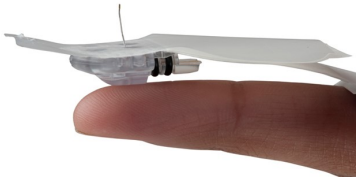
- Wear on abdomen or top of hips for 10 days
- Child & Adult approved
- Use smart phone apps for sharing with 5 friends and to alert if BG is high or low
- May be used for correction factor dosing
- This requires a DME (Durable Medical Equipment) order and retiree families may have a co-pay.

Libre Sensor:

- Wear on back of arm for 14 days
- For adults (18 years and older)
- BG appears with a "scan button push" from app or receiver
- May be used for correction factor dosing
- It does *not* have high and low BG alarms
- It requires a special request prescription through our pharmacies at no co-pay.

Medtronic Guardian:

- Wear on abdomen or the back of the arm for 7 days
- Approved if over 14 y.o.
- It is not approved for correction factor dosing and BG meter checks are needed at least twice a day
- App provides alarms on smart phone only but does not share.
- Requires a DME order and retiree families may have a co-pay.



Contact Us

1. Plan to follow up every **3** months with a Pediatric Endocrinologist.
2. Visit more often with the CDE for extra help.
3. Continue to visit with your PCM for other healthcare needs.

Walter Reed National Military Medical Center

Pediatric Subspecialty Clinic, Pediatric Endocrinology, 4th Floor America Building 19,

8901 Wisconsin Avenue, Bethesda, MD 20889

Pediatric Endocrinology Doctor On-call Line: 202-713-3321

WRB Appointments: 1-855-227-6331

WRB Front desk: 301-295-4959 WRB Fax: 301-319-2420

Certified **D**iabetes **E**ducator: 301-295-5068

Nutrition at Pediatric Primary Care: 301-295-6168 at WRB or 571-231-3369 at Ft Belvoir

Pediatric Behavioral Health: 301-319-4095

Pediatric Social Work Services: 301- 319-2595

Health Beneficiary Services: 301-295-5143

Visit the WRNMMC Webpage for contacts, scheduling, forms, and references.

Email us at: TOLSecureMessaging.com

Outreach Clinics:

Fort Belvoir, VA ,Pediatric Subspecialty Appointments (River Building, 1st Floor): 571-231-1066

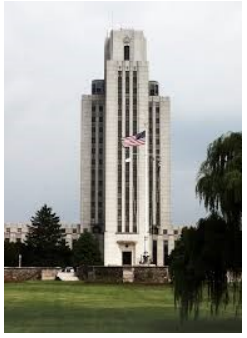
Fort Belvoir Pediatrics: 571-231-1014/1015

Malcolm Grow Medical Clinics and Surgery Center, Joint Base Andrews, MD, Appointments: 240-612-1140

Naval Health Clinic Annapolis, MD, Appointments: 410-293-2086

Refill Tips:

- Medication and supply orders have refills that will last a year.
- Call the refill line or the pharmacy to ask for more supplies every 90 days.
- Write down medications that need new orders and bring to your 3-month follow up visit with the Pediatric Endocrinologist. Include the pharmacy location on the list.
- Take a **picture** of all medication and supply labels with your smart phone so you always have access to the Rx number and refill information.
- Register with Express Scripts for mail-order through Tricare online.



Support & Resources

Books:

Chase, Peter MD & Maahs, David, MD. Understanding Diabetes.

Lillydiabetes.com/lilly-disney.aspx

Important Websites:

American Diabetes Association at Diabetes.org

ADA kits: call for a free kit 1-800-DIABETES (800-342-2383)

Diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/

ChildrenWithDiabetes.com (medical alert pages)

Childrensdiabetesfdn.org (order Understanding Diabetes books)

Juvenile Diabetes Research Foundation at JDRF.org

National Institutes of Diabetes, Digestive, and Kidney Diseases at NIDDK.nih.gov

EFMP: www.militaryonesource.mil/efmp

Tricare Young Adult: Tricare.mil/tya

CollegeDiabetesNetwork.org

Helpful Links:

Twitter @PediatricEndoc1

My.Glooko.com (share with clinic ID “reedpeds”)

MySugr.com

Nutrition: health.gov/dietaryguidelines/2015/resources.asp

CalorieKing.com

Recipes.sparkpeople.com/recipe-calculator.asp

Extra support: combatkidst1dmilitary@gmail.com (local independent support group)

123magic.com (parenting newsletter)

Safeneedledisposal.org

Camps: Diabetescamps.org/find-a-camp

Travel Tips:

https://www.tsa.gov/blog/2014/04/01/tsa-travel-tips-travelers-diabetes-or-other-medical-conditions

DISCHARGE INSTRUCTIONS

Patient Name:_____ DOB:_____

1. Insulin Dose:

   Lantus insulin: Give _____units at this time _____am/pm.

   Novolog Insulin to Carb Ratio: _____unit per_____grams carb at each meal.

   Novolog Insulin Correction Factor:_____unit per_____mg/dL to correct to _____mg/dL add this with meals and at bedtime. Be careful of correction dosing less than 3 hours apart.

   ____Give only half the correction before bedtime.

   Other insulin orders:_____

2. Check blood glucose **before** each meal and at **bedtime** and write them down.
3. Additional checks needed: ____ 3 hours after meals ___ at 2:00am
4. My Blood Glucose goals: _____before meals _____before bedtime
5. Regular meal plan with carb counting.

   Give a snack if blood glucose is less than _____ at bedtime. Give carbs as needed.
6. Give 15 grams of a fast-acting carb if blood sugar less than 70. Test after 15 minutes to make sure the BG is above 70mg/dL and repeat as needed.
7. Contact us **daily** after leaving the hospital. More if your child is having lows. The frequency of calls or emails will decrease over time.
8. Remember to check for ketones if blood sugar is >300 two times in a row or your child is sick.
9. Return to school plan:_____
10. Follow up appointments:_____

_____

_____

_____

BRING METER, LOGBOOK, DOWNLOADS, REFILL LIST & QUESTIONS to every appointment.
Plan every 3-months to follow up with Pediatric Endocrinology.

Staff Signature:_____ Date:_____

Parent/Patient Signature:_____

Pediatric Endocrinology Doctor On-call Line: 202-713-3321

Certified Diabetes Educator: 301-295-5068

Join Tricare Online for secure e-mail at TOLSecureMessaging.com

Notes

Appendix

Inpatient Form: Pediatric Pathway to Wellness

WRB Education Outlines

Insulin and BG Log

Food Diary

Wallie

Fun Page

PEDIATRIC PATHWAY TO WELLNESS

New Onset Diabetes

Plan of care for:

When someone is in the hospital, it is important for the patient and the family to know what to expect and when things will happen. While everyone is unique, there are some aspects of care that we can predict. This Pediatric Pathway describes the usual course of care for the above condition or surgery.

the Children's Center at Walter Reed Bethesda

A "Ticket to Home" for Patients and Families

DAY ONE: Admission to the Pediatric Ward

In some cases you may have spent some time in the Pediatric ICU. These events below typically begin once you've arrive to 3 West Inpatient Unit.

After arrival to the unit, you can expect:

Your child's height, weight and vital signs (blood pressure, temperature, heart rate and breathing rate) will be obtained every 4-8 hours.

The Nurse will ask a few health history questions (such as allergies, medicines your child is taking, any past health problems), if you are just arriving to the hospital.

It is likely your child has an IV line and has had blood work done. If this s not the case, we will do this once your child arrives. Your child will probably need IV fluids to help correct electrolytes and to help with hydration.

Between Day 1 and 2 on 3 West, you will have some extensive education / training done in order to prepare you for life at home. Either the Endocrinologist or Diabetic Educator will spend some time to go over the disease process and the required lifestyle changes. We strive to get you home supplies as soon as possible (typically on Day 2). We will begin using your supplies and teaching your child (if age appropriate) and primary care givers on how to use them.

Your child will receive a regular diet three times per day with mid-afternoon and bedtime snacks. Allow your child to eat until their appetite is satisfied. Foods with a high sugar concentration like sugary drinks and sweet deserts should be avoided. 3 West staff members will contact dietary and request an age appropriate up to date menu and give you instructions on how to order your child's meals.

Your child's carbohydrates need to be calculated with each meal. The staff will work with you on how to calculate the carbohydrates **prior** to ordering the meals. We will also need to get a finger stick before each meal, before bedtime and at around 2 am. We will then calculate the amount of insulin needed to cover the carbohydrates and the required correction factor. When your tray arrives, we will administer the insulin.

Continued on next page

Inpatient Pathway Form Side 2

Notes and Questions:

Day 1 Insulin:

Before ordering dinner, call your nurse so that you can calculate carbohydrates together.
Your child's blood glucose will be checked before his/her meal. If available we will use your home equipment. Immediately record those numbers in your log.
Calculate the correction factor for both carbohydrate intake and blood glucose.
Draw up and give the insulin injection right before the meal (with nursing supervision). If your child is not very hungry or is tired, you can give the shot after they eat.

Day 1: Before Bed

Your child's blood glucose should be checked.
Your child's long lasting insulin should be given (sometimes the long lasting insulin is given in the morning).
Have your child eat a bedtime snack.

Day 1 (Overnight): 0200

Your child's blood sugar will be checked to assess effectiveness of the long lasting insulin.

Day 2: Morning

Your child's blood glucose should be checked before his/her meal. Carbohydrate counting should be done. Enter the result in your log book.
Calculate the correction factor for both carbohydrate intake and blood glucose level.
Draw up and give the insulin injection right before the meal (with nursing supervision). If your child is not very hungry or is tired, you can give the shot after they eat.

DISCHARGE CRITERIA:
Caregiver and/or child:
- is able to check blood glucose level
- has a basic carbohydrate counting skills
- is able to correctly calculate mealtime insulin dosage based on carb count & blood glucose level
- is able to demonstrate correct insulin injection technique

Caregiver and/or child can verbalize the signs and symptoms of **hypo**glycemia and **hyper**glycemia and when to call the doctor
Caregiver's and/or child's questions about your child's care at home have been answered

the Children's Center at Walter Reed Bethesda

WRB Pediatric Diabetes Education Outlines & Handouts

CHECK MARK WHEN YOU UNDERSTAND THESE TOPICS

Introduction:

__Introduce *Understanding Diabetes* Book and WRB Workbook
__Define Types of Diabetes & DKA
__Answer diagnosis questions
__BG testing and goals
__Ketone testing
__Hyperglycemia
__Insulin administration (names, action, timing, storage, demo skill)
__Sharps disposal
__Hypoglycemia (symptoms, treatment, prevention)
__Glucagon
__Diabetes food plan and basic carb counting
__Daily carb and insulin coverage
__Insulin correction factor (sensitivity factor)
__Basal/Bolus plan
__When/How to call the doctor
__Activity
__Sick days
__School plan
__Driving rules (if applicable)
__Coping
__Community support
__Contact information
__Follow up plan (daily contact for first week, then 1 week with educator, 1 month with MD)

Follow up visit(s) (newly diagnosed within 1-2 weeks):

__Living with diabetes questions
__Feelings and coping
__Skills re-checks (meter, insulin, ketones, glucagon)
__A1c
__Hypo & Hyperglycemia causes and treatments
__Understanding glucose patterns
__Carb counting demo
__Meal and snack plan
__Special occasions
__Sick days
__Activity
__Medical alert
__Community support
__Age specific responsibilities & challenges
__Preventing complications
__Technology topics
__Ongoing support plan

Future Topics for Follow up visit(s):

__Overview of diabetes topics (above)
__Pattern management
__Nutrition
__Advanced carbohydrate counting
__Lifestyle
__Behavior change goals
__Ongoing support plan
__Stress & coping
__Formal basal or bolus checks
__Safety skills check
__Update meter or technology
__Diabetes Technology Class (CGM & Pumps)
__Age-specific milestones
__College prep
__Apps or online resources
__Community support
__Preventing complications
__Travel
__Driving
__Pre-pregnancy planning

Lantus/NovoLog Flow Sheet NAME:

FAX:301-319-2420 (Attn Dr.) Insulin:Carb- Target- Insulin Correction Factor- Lantus dose-

Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												
Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												
Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												
Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												
Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												
Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												
Date		Night		Breakfast		Lunch			Dinner			Bedtime	
	Time												
	BG												
	Carbs												
	Insulin												

WRB Pediatric Diabetes Education Diary

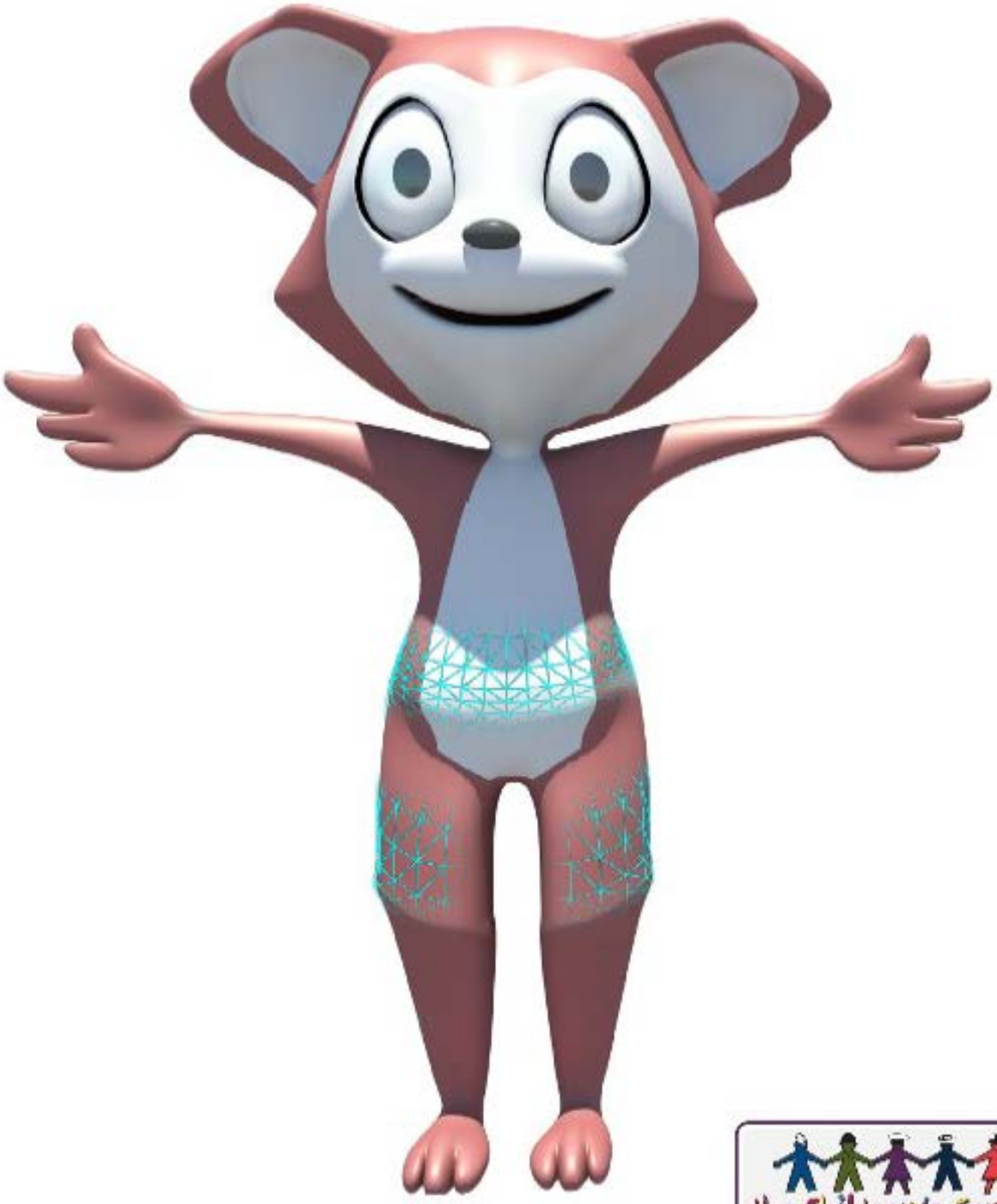
Name:

DOB:

DATE:	Pre-meal BS:	Post- breakfast BS:	Pre-meal BS:	Post-lunch BS:	Pre-meal BS:	Post-supper BS:	Snack or Bedtime BS:	2:00am BS:

	Breakfast Time:	Lunch Time:	Supper Time:	Snack Time:	Activity
Monday Food portions and Carb gms Insulin Bolus +Correction=					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

Wallie's Insulin Tracker



the Children's Center
at Walter Reed Bethesda

Wallie's Insulin Tracker

the Children's Center
at Walter Reed Bethesda

FUN PAGE

Fill in the letters to find the clues. Fill in the clues and solve the mystery creature.

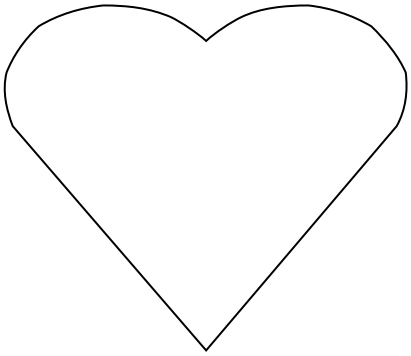
Lives in the __ c __ __ __

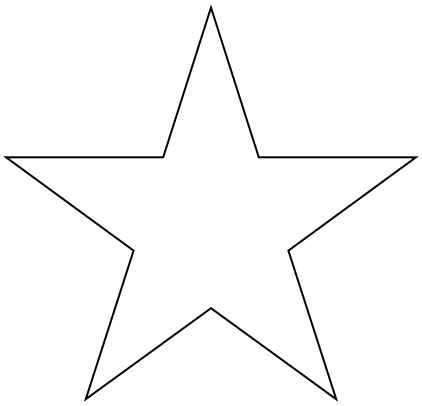
Has brightly colored __ __ a __ __ __

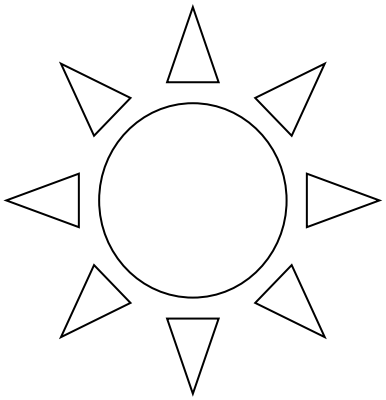
Some of these like to eat __ l __ __ __ __

They quickly hide in the __ __ r __ __

The mystery creature is a:_____

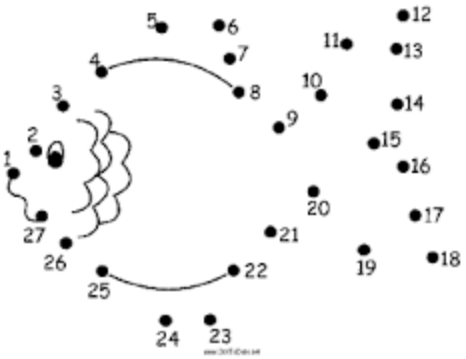






Draw a line to match the word with the fun fact.

Finding Nemo was about a	….smell
A group of fish is a	….night
Sharks have a strong sense of	….swimming
Swordfish like to hunt at	….school
Marlins are fastest at	….clown fish



ocean, scales, plants, coral, fish