Guidelines for Newly Diagnosed Diabetes
Pediatric Endocrinology

Bernard & Millie Duker
Children’s Hospital
ALBANY MEDICAL CENTER

ALBANY MED
Learning About Diabetes

Over the next few months you will be learning the skills needed to safely manage diabetes at home. We understand that there is a lot to learn. Be patient with yourself!

We also know that living with diabetes means that you will always be learning something new. We are here to help you learn about:

- How to test blood sugar (using a meter)
- How to record information about diabetes (using a log book)
- Preparing insulin injections
- Giving an insulin injection
- Using an insulin pen
- Correct places (sites) to give insulin
- What to do when blood sugar gets too low (Hypoglycemia)
- What to do when blood sugar gets too high (Hyperglycemia)
- How to test urine for ketones
- How to establish a healthy eating plan
- Handling your daily schedule and activities
- What to tell family, friends, and school
- When to call the educator
- New technologies used to help manage diabetes such as insulin pumps

We hope to see you and your child every 3-4 months in our clinic to monitor their health and progress, and, of course, we are available by phone for questions in between visits.
Dear Parent or Guardian,

Below are guidelines to follow during the initial phase of your child’s newly diagnosed diabetes. These may change frequently over the next several weeks!

Please check your child’s blood sugar five (5) times a day:

- **Before breakfast**
- **Before lunch**
- **Before dinner** (this needs to be 3 ½ to 4 hours after dinner)
- **Before bedtime** (this will only be for a short time 😊)
- **At 2 a.m.** (this needs to be 3 ½ to 4 hours after dinner)

✔️ If blood sugar reading is greater than 300, please test urine or blood for ketones. If blood sugar is greater than 300 and ketones are small to large, follow Ketone correction guidelines. See page 11.

✔️ If blood sugar is below 70 mg/dl follow the treatment guidelines on the attached sheet, “About Hypoglycemia.” See page 9.

✔️ Call physician if blood sugar is less than 40 after treatment or if emergency glucagon has to be given.

Your child will be taking two types of insulin:

**Basal Insulin:** provides background insulin to help keep blood sugar even between meals.

✔ Give ___ units of _____________ (Basal Insulin) each day at _____

**Analog Insulin:** to be given with food and/or to correct high blood sugars.

✔ Give 1 unit of ___________ (Analog Insulin) per ___ grams of carbohydrate at all meals/snacks

✔ Give additional analog insulin if the blood sugar is over _____ mg/dl according to the following formula:
  
  \[(\text{Blood sugar} - 130) \div _____ = _____ \text{ units of analog insulin}\]

- Correction factor = _______
  
  This means that 1 unit is expected to drop the blood sugar by ____mg/dl

- At bedtime, if correction is needed, give only ½ the dose

- Do not give correction insulin more often than every 4 hours

- Do not give any correction insulin when you check at 2 a.m.

Sincerely,

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Child Life Specialist,  
Diabetes Paraprofessional  
Certification

You may reach Pediatric Endocrinology at (518) 262-5723 Monday through Friday from 8:30 am to 4:30 pm. After hours, emergency calls can be placed to the same number.
Daily Diabetes Schedule

**Before Breakfast**
1. Test the Blood Sugar ________.
2. **If the Blood Sugar is greater than 200**, calculate the correction
   \[(BG – 130) ÷ _____ = _____\] units of Analog for correction.
3. Count the carbohydrates ________.
4. Calculate the insulin for carbohydrates.
   \[(total \ grams \ of \ carbohydrate) \ ÷ \ (carb \ ratio) = _____ \ units \ of \ Analog.\]
5. Add the two doses together ________ + ________ = _____ units of Analog needed,
   then round down if needed to nearest ½ unit.
6. Give the insulin injection.
7. Feed breakfast.

**Snack (if desired)**
1. Count the carbohydrates in the snack ________.
2. Calculate the insulin for carbohydrates.
   \[1 \ unit: _____ \ grams \ carbohydrate\]
   \[\frac{total \ grams \ of \ carbohydrate}{carb \ ratio} = _____ \ units \ of \ Analog.\]
3. Give the injection.
4. Feed snack.

**Before Lunch**
1. Test the Blood Sugar ________.
2. **If the Blood Sugar is greater than 200**, calculate the correction
   \[(BG – 130) ÷ _____ = _____\] units of Analog for correction.
3. Count the carbohydrates ________.
4. Calculate the insulin for carbohydrates.
   \[(total \ grams \ of \ carbohydrate) \ ÷ \ (carb \ ratio) = _____ \ units \ of \ Analog.\]
5. Add the two doses together ________ + ________ = _____ units of Analog needed,
   then round down if needed to nearest ½ unit.
6. Give the insulin injection.
7. Feed lunch.

**Snack (if desired)**
1. Count the carbohydrates in the snack ________.
2. Calculate the insulin for carbohydrates.
   \[\frac{total \ grams \ of \ carbohydrate}{carb \ ratio} = _____ \ units \ of \ Analog.\]
3. Give the injection.
4. Feed snack.
Before Dinner
1. Test the Blood Sugar ________.
2. **If** the Blood Sugar is greater than **200**, calculate the correction BG – 130 ÷ _______ = units of Analog for correction.
3. Count the carbohydrates ________.
4. Calculate the insulin for carbohydrates.
   (Total grams of carbohydrate) ______ ÷ _____ (carb ratio) = units of Analog.
5. Add the two doses together
   ______+_______=_____ units of Analog needed,
   then round down if needed to nearest ½ unit.
6. Give the insulin injection.
7. Feed dinner.

Bedtime (3 ½ - 4 hours after dinner)
1. Test the Blood Sugar ________, **if less than 100**, give 15 grams of carbohydrate **without insulin**.
2. **If** the Blood sugar is greater than **200**, calculate the correction insulin as instructed by physician ______________________________.
3. If snack desired, calculate the total carbohydrates _______.
4. Calculate the insulin for carbohydrates.
   (total grams of carbohydrate) ______ ÷ _____ (carb ratio) = _____ units of Analog.
5. Add the two doses together ______+_______=______ units of Analog needed,
   then round down if needed to nearest ½ unit.
6. Give the insulin injection.
7. Feed snack.
9. Go to bed, set your alarm to awaken at 2 a.m.

2 A.M.
1. Test the blood sugar ________.
2. Do not give any insulin.
3. **If BG less than 100** give 15 grams of carbohydrate.
What is Diabetes?

You have just been told your child has diabetes. You are probably feeling shock, disbelief, fear and a need for more information. Most people have heard of diabetes. You may even have someone in your family with this condition. Diabetes is a common chronic disease in which blood sugar levels are above normal. Sugar is used by the cells of the body for energy with the help of a hormone called **insulin**. Insulin is produced in a gland called the pancreas which is located just beneath the stomach.

There are groups of cells called the **islets of Langerhans** in the pancreas and insulin is made in these cells. You may also hear us refer to them as beta **cells**. There is more than one type of diabetes. In type 1 diabetes, the beta cells are damaged and can no longer produce insulin. In another type of diabetes the pancreas still makes insulin but the cells of the body become resistant to it. In either type, sugar cannot be used by the cells for energy and it builds up in the blood.

**Normal Blood Glucose Control**

In people without diabetes, glucose stays in a healthy range because...
Type 1 Diabetes

For reasons that are complex and not completely understood by researchers, the beta cells in the pancreas are attacked and destroyed by the child’s own immune system. This results in a total lack of insulin. As the blood sugar rises, the symptoms of diabetes begin to appear. These symptoms include increased thirst, increased urination, weight loss, nausea and fatigue.

It is important to understand that Type 1 diabetes cannot be prevented.

The disease process is believed to be started by an environmental trigger in a person who has a genetic predisposition to develop an autoimmune disorder.

Type 1 diabetes is the most common cause of diabetes in children and accounts for about 5 percent of all diabetes cases. Type 1 diabetes is lifelong and requires administration of insulin by injection. It is diagnosed by symptoms, blood sugar testing and blood tests for the presence of antibodies.

The good news is that the treatment of type 1 diabetes has improved greatly over the years. With the help of the pediatric endocrinologist, nurse practitioners, diabetes educators and nutritionists your child can live a normal, healthy life. We are here to help you learn what you need to know to manage your child’s diabetes now and in the future.
What Happens in Type 1 Diabetes

1. Food enters stomach
2. Food is converted into glucose
3. Glucose enters bloodstream
4. Pancreas cannot release insulin
5. Glucose cannot enter cell

What Happens in Type 2 Diabetes

1. Food enters stomach
2. Food is converted into glucose
3. Glucose enters bloodstream
4. Pancreas releases insulin
5. Resistance to glucose entering cell
6. Liver makes extra sugar
Blood Sugar Monitoring

✔ Before Breakfast
✔ Before Lunch
✔ Before Dinner
✔ Bedtime
✔ 2 to 3 a.m.

It is not necessary to test at snack time unless your child has symptoms of hypoglycemia.

Test anytime you suspect HYPOGLYCEMIA (BG < 70 mg/dl) or ______mg/dl

- Follow Hypoglycemia treatment guidelines*
- Write Down Numbers In A Blood Sugar Log
  Remember, there are no “BAD” blood sugar levels
- Daytime BG goal range is: 70 – 150mg/dl or __________
- Bedtime and Overnight: > 100 mg/dl

Hemoglobin A1C Target: 7.5%

Make sure to wash hands prior to testing!
Any food on the fingers can alter the test results.
About Hypoglycemia (Low Blood Sugar)

The job of insulin is to lower the blood sugar. Sometimes the blood sugar can drop too low, and that will require immediate treatment. As you will see, keeping the blood sugar within a specific target is something of a balancing act!

Common reasons for low blood sugar:

- Too much insulin
- More physical activity than usual
- Too little food was eaten, or meals may have been too delayed

## Symptoms and treatment

### Typical Early Symptoms

Sweaty, shaky, nervous, hungry, weak, dizzy, tingling of tongue or lips, headache, rapid heart rate, irritability

| Treatment |  
|---|---|
| with **15g of CHO** if blood glucose is between **70** and **40** |  
| • ½ cup fruit juice - small juice box |  
| • 5oz. REGULAR soda (NOT DIET) |  
| • 4 Starburst candies |  
| • 1 tablespoon honey/corn syrup/maple syrup/jelly/molasses/frosting |  
| • 3 B-D glucose tablets |  
| • 5 packets (4 level teaspoons) granulated sugar |  
| • 1 tube cake gel |  
| RETEST IN 15 MINUTES — if blood glucose still below 70, repeat 15 grams carbs |  

### Later Symptoms

Blurry vision, slurred speech, change in personality, poor coordination

| Treatment |  
|---|---|
| If blood sugar is below **40**, choose same foods as in above list, but give twice as much (30 gms of carbs). |  
| **RECHECK IN 15 MINUTES** |  

### Severe Symptoms

Seizures, unconsciousness, not able to swallow

| Treatment |  
|---|---|
| Call 911. |  
| **Use injectable or nasal powder glucagon** as directed. After regaining consciousness, eat complex carbohydrate and protein foods. |  

No matter how diligent you are your child may experience a low blood sugar. Here are some things to remember so you can be prepared:

- ✔ Carry a sugar source such as a box of juice, Starburst or glucose tablets on you at all times.
- ✔ Some people do not feel the early symptoms of low blood sugar. If the blood sugar is below 70, **even if there are no symptoms, always treat it.**
- ✔ Some people feel symptoms of low blood sugar even though their blood sugar is normal, especially if coming down suddenly from a high blood sugar into a normal or near-normal range. This should be treated as you would any low blood sugar.
**Glucagon Emergency Kit**

**What is Glucagon?**

- Glucagon is a hormone that is produced by the body. It stimulates the liver to raise the blood glucose level.
- Glucagon is available in an injectable form and in a nasal powder form; *it is not given by mouth.*

**Indications For Use of Glucagon**

- Glucagon is given only to treat very severe hypoglycemia (low blood glucose level) if your child is unable to swallow or if they are having seizure.
- Directions for preparing and administering glucagon can be found in the package insert.

**What to Expect**

- It takes 15-20 minutes after administering glucagon for the person to respond. Call 911 and notify the physician every time that glucagon is administered.
- Nausea, vomiting and an upset stomach are common after a person is given glucagon, so place your child on his/her side after administering the glucagon.
- Glucagon only temporarily raises the blood glucose level, so after your child is awake and alert, encourage sips of fluids containing sugar (juice or regular soda). If fluids are tolerated, follow with a snack.

**Storage of Glucagon**

- Glucagon is stored at room temperature. Once it is mixed, it should be used immediately.
Hyperglycemia (High Blood Sugar)

A Blood Sugar (BG) is considered HIGH if it is above the target range. Your child’s target range will change as he/she gets older. You will use a correction formula to correct high BG.

What Causes High Blood Sugar?

- Too little insulin
- Forgetting to take a dose of insulin
- Underestimating carbs
- Illness
- Stress
- Puberty

For now, you will correct any BG before mealtime that is above 200 mg/dl.

The CORRECTION FORMULA is: \((BG-130)÷\text{the correction factor=}\)
the number of units of Analog Insulin (_______) needed.

Your Child’s Correction Factor is _________.

(The #130 is the target Blood Sugar.)

Example: Your child’s BG is 275mg/dl.

\((275-130)÷______ = ______\) units of Analog Insulin to give in addition to food insulin.

For now, only correct the BG level if it is above 200 mg/dl before meals.

- Don’t correct BG in between meals.
- If directed to correct BG at bedtime, only give ½ of the correction dose.
- Don’t give insulin at the overnight BG check.
Ketones

Whenever your child’s BG is 300 or greater, you will need to check for ketones in the urine or blood. Ketones are produced when the body breaks down fat for energy. This can happen when there is not enough insulin in the body to move glucose into the cells or during illness. The body breaks down fat in an effort to provide energy to the cells. Ketones can also be produced during times of illness even when BG levels are normal or low.

Ketones are checked with Urine Ketone Test strips or a Blood Ketone Meter.

For Urine Ketone testing, a ketone test strip is dipped into a urine sample and then compared to the color on the color key that comes with the test strips.

Diabetic Ketoacidosis

Diabetic Ketoacidosis is a serious condition that can lead to diabetic coma or even death. Sugar is a main source of energy for the cells that make up the muscles and other tissues.

Sugar enters the body’s cells with the help of insulin. If a person does not have enough insulin in his/her body, the body won’t be able to use sugar for energy. When the body’s cells don’t get the sugar they need for energy, the body burns fat for energy. When the body breaks down fat, ketones are produced. Ketones are acids that build up in the blood and appear in the urine when the body doesn’t have enough insulin. They are a warning sign that your child’s diabetes is out of control or that your child is getting sick. High levels of ketones are poisonous to the body. When levels get too high, your child can develop Diabetic Ketoacidosis or DKA. DKA can happen to anyone with diabetes, especially persons with Type 1 diabetes.

Blood ketones are frequently used for younger children who may not be able to provide a urine sample. This is done as you would as you would a blood sugar test except using a Blood Ketone Meter and Blood Ketone Test Strips.

Warning Signs

Early

1. Frequent urination
2. Thirst or a very dry mouth
3. High blood sugar levels
4. Ketones in the urine

Severe

1. Nausea, Vomiting or Abdominal Pain
2. Fatigue
3. Rapid breathing
4. Confusion, difficulty arousing, won’t wake up
5. Fruity odor on the breath
Diabetic Ketoacidosis, continued

**Prevention**

You can **prevent** Diabetic Ketoacidosis by learning the warning signs and checking your child’s blood glucose levels and urine or blood ketone levels as directed by the doctor.

1. **Check blood sugar levels** a minimum of 4 times a day
2. **Check urine or blood ketones** any time the blood sugar is over 300.
3. Call the Endocrine Office if blood glucose correction and ketone correction dose do not bring blood glucose back in range or if ketones are not resolving.
4. **Give correction insulin with a syringe or insulin pen according to your child’s correction factor.** Do not give correction insulin through an insulin pump if there are ketones present. You must give a correction by injection and then change the insertion set, tubing, cartridge and insulin.
5. Have the child drink **8 ounces of sugar free fluid every 30 - 40 minutes** until the ketones have cleared.
6. **Check the blood sugar and ketones** every 1-2 hours after the correction is given to make sure the ketones are going away and the blood sugar is going down.

**Emergency Care**

If your child has developed the following symptoms, you will need to bring your child to the emergency room.

1. Prolonged vomiting or abdominal pain.
2. Unable to urinate. Has been more than 6 hours since last urinated.
3. Increased heart rate or pulse.
4. You can not wake up your child, he or she is confused, or is not behaving normally.
5. Rapid breathing with a fruity odor.

**Insulin Injection Sites**

Rotate sites within chosen areas regularly

- Upper outer arms
- Abdomen
- Front & out-sides of thighs
- Upper outer arms
- Buttocks

**Insulin syringe scales**

<table>
<thead>
<tr>
<th>Half-unit scale</th>
<th>Whole-unit scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
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<tr>
<td>10</td>
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<td>15</td>
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<td>25</td>
<td>25</td>
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<tr>
<td>30</td>
<td>30</td>
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</tbody>
</table>
**Drawing Up and Injecting Insulin**

1. Wash hands.
2. Swab insulin vial with alcohol.
3. Inject air, equal to the amount of insulin you want to draw out.
4. Tip vial upside down and draw out insulin dose.
5. Hold syringe straight up and flick air bubbles up to the top, expel air.
6. Swab skin with alcohol, inject dose at a 90-degree angle into the skin. (See chart for injection sites and remember to rotate sites).
7. Dispose of syringe into sharps container.

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**Insulin should not be stored in the freezer and it should not be allowed to freeze. Discard if it has been frozen.**

<table>
<thead>
<tr>
<th></th>
<th>Not in-use (unopened)</th>
<th>Not in-use (unopened)</th>
<th>In-use (opened) (See Temperature Below)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10 mL Vial</strong></td>
<td>Until expiration date</td>
<td>28 days</td>
<td>28 days / Refrigerated or room temperature</td>
</tr>
<tr>
<td><strong>3 mL disposable insulin device</strong></td>
<td>Until expiration date</td>
<td>28 days</td>
<td>28 days / Room temperature only (Do not refrigerate)</td>
</tr>
</tbody>
</table>
Nutrition education for Type 1 Diabetes Mellitus

1. Basic Principles
   - The major emphasis of nutrition for a child with Type 1 diabetes is to ensure normal growth through routine intake of a variety of healthful foods from all food groups.
   - Foods and beverages provide the more than 50 nutrients the body needs daily.
   - Carbohydrate, protein and fat are the major nutrients in foods.
   - Carbohydrate is the body’s first source of energy and, therefore, growing children need a sufficient amount daily. Typically, 50 percent of total calories come from carbohydrate. Types of carbohydrate include starches, sugars (natural and added), sugar alcohols and fiber.
   - As part of its normal function in the body, carbohydrate affects the blood sugar (glucose) more than protein or fat.
   - Carbohydrate counting is the basis of meal planning for diabetes, but this is not a low carbohydrate diet! Carbohydrates from all food sources are counted including fruits, grains, starchy and non-starchy vegetables, milk, sugars and sweets. Beverages which contain carbohydrate are also counted.
   - There is no longer a “diabetic diet.”
   - Sweets or other foods with added sugar are not eliminated from a child’s meals or snacks. They may be included as for any child, within healthful guidelines, as long as the carbohydrates are counted and appropriate insulin given.
   - The diabetes team generally does not set carbohydrate goals for meals and snacks, but instead lets the child’s appetite determine the amount of food consumed (within healthful guidelines).
   - The diabetes team does not promote the withholding or restriction of foods in order to control blood sugars, but will instead work with the parents to determine the appropriate insulin doses.

2. Carbohydrate counting—the basics
   - Because the child’s pancreas is no longer producing any (or very little) insulin, the parents will now be doing some of the work of the pancreas.
   - Parents will be giving the child a basal (long acting, peakless, background) insulin once a day.
   - At meals and most snacks an injection of quick-acting insulin (Novolog or Humalog) will be given to cover the carbohydrates in food.
   - Additional quick-acting insulin may be given in the same injection to help lower high blood sugars.
   - This will be practiced soon during the instruction period.

3. Carbohydrate counting—the specifics
   - Rapid-acting insulin will be given based on an insulin-to-carbohydrate ratio determined by the provider from a formula based on the child’s weight and current insulin needs. Example: 1 unit of Novolog for every 20 grams of carbohydrate.
   - Carbohydrate contents of foods and beverages are found in/on:
     1. Food labels
     2. Books such as The Calorie King or The Complete Book of Carb and Fat Counts
     3. Websites such as www.calorieking.com, www.dlife.com and computer nutrient analysis programs
   - Reading food labels (see samples)
     1. First step is to look at the portion size which is the amount on which the numbers on the label are based.
     2. Next step is to look at the total carbohydrate. Sugars, fiber, other carbohydrates and sugar alcohols are included in the total carbohydrate number; don’t add them on. Additional considerations for fiber & sugar alcohols may be discussed at a later time.
3. Determine the serving that will be eaten. Divide or multiply as appropriate (we’ll practice) to figure the amount of carbohydrate.

• The procedure (see example)
  1. Determine carb amounts for each food and beverage and add up the total for the meal or snack.
  2. Divide by the insulin to carbohydrate ratio number to determine number of units of Novolog or Humalog.

• Insulin is given before the meal if intake can be determined, otherwise, especially for infants or young children, insulin is given at the end or near the end of the meal.

4. Correcting high blood sugars
• To figure how much quick-acting insulin is needed to lower a high blood glucose level, another formula is used.

• The formula includes the following terms:
  BG = Blood glucose, which is obtained by finger prick and glucometer
  130 = Target blood glucose level
  Correction factor (CF) = A number, individually determined by your provider, which is the number of points (mg/dl) that the blood glucose will drop with one unit of rapid-acting insulin (Novolog or Humalog)

• The formula is: (BG-130)/ CF = ___ # ___ units of Novolog or Humalog (See example)

5. Coverage for food and correction of high blood sugar (as needed) are added together to be given in one injection before the meal.

Example:
  3 units to cover carbohydrate in food
  + 2 units to correct a high blood glucose level
  5 total units of Novolog given before a meal

6. Practice
Insulin to carb ratio: _______ Correction factor:______

Typical meal: Carb amounts per item:

__________ Carb total:_______

Carb total = _________ = units of Novolog or Humalog

Ratio (don’t round the numbers at this point if correction insulin is needed)

Correction of high blood sugar
(BG ______-130) / _______ = ______ units of Novolog or Humalog

Add coverage insulin for food to correction insulin:

_____ units for food

+ _____ units for high blood sugar correction

_______ total units (round as needed to nearest ½ or whole unit as instructed)
7. **Snacks**

- Children generally need 2-3 snacks during the day. Healthy snacks are always encouraged.

- Insulin is needed for snacks as well as for meals. The carbohydrate content of the snack needs to be counted and appropriate insulin dose figured out. Injection is then given for the snack.

- At times, a low carbohydrate snack (<5 grams of carb) may be preferred for a number of reasons. For most children, a 5-gram snack can be considered free if only one 5 gram snack is eaten at a time and no more than 3 per day.

- See list of “free” foods.

- Add other free foods your child may want to eat or drink.

8. **Physical activity**

- Physical activity may lower blood sugars.

- See the recommendations for adding carbohydrate (as needed) before activity sessions, according to blood sugar level and activity intensity.

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**“Free” Foods and Beverages / Less than or = 5 grams carb**

<table>
<thead>
<tr>
<th>Food/beverage group</th>
<th>Examples</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, cheese, eggs</td>
<td>Age-appropriate portions</td>
<td>Can be used occasionally for carb-free snacks</td>
</tr>
<tr>
<td>Sugar-free beverages and drink mixes, some light “juice” drinks, diet sodas</td>
<td></td>
<td>Contain artificial sweeteners, should not replace milk intake.</td>
</tr>
<tr>
<td>Sugar-free gelatin and gum</td>
<td></td>
<td>Contain artificial sweeteners, use if desired.</td>
</tr>
<tr>
<td>Salad greens, cucumbers, celery, green pepper, dill pickles</td>
<td>Within reason</td>
<td>Very low carb, can use as free snacks</td>
</tr>
<tr>
<td>Sugar-free popsicle</td>
<td>1 popsicle</td>
<td></td>
</tr>
<tr>
<td>Ketchup</td>
<td>1 Tbsp is free</td>
<td>Count carbs in &gt; 1 Tbsp</td>
</tr>
<tr>
<td>Oyster crackers</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Popcorn</td>
<td>1 cup</td>
<td>Count carbs for &gt; 1 cup</td>
</tr>
<tr>
<td>Spices, herbs, vinegar</td>
<td>free</td>
<td></td>
</tr>
<tr>
<td>Others per patient</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Foods and Beverages Containing Carbohydrate

<table>
<thead>
<tr>
<th>Food/beverage group</th>
<th>Examples</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breads, cereals, grains</td>
<td>All types of bread, English muffins, pancakes, waffles, French toast, rolls, buns, bagels, biscuits, all types of cereals, pastas, rice and other grains, etc.</td>
<td>All foods can be included even though carb amounts may be higher in some choices.</td>
</tr>
<tr>
<td>Starchy vegetables and legumes</td>
<td>Potatoes, corn, peas, mixed vegetables, winter squash, baked beans, dried beans, lentils, French fries, etc.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>Other starchy foods</td>
<td>Tortillas, stuffing, popcorn, taco shells, crackers, chips, Chinese noodles, etc.</td>
<td>Count carbs as needed.</td>
</tr>
<tr>
<td>Fruits and fruit juices</td>
<td>Apples, applesauce, bananas, grapes, oranges, peaches, pears, raisins, kiwi, watermelon, fruit juices, etc.</td>
<td>All fruits and juices must be counted for carb content (fruit sugar).</td>
</tr>
<tr>
<td>Milk, yogurt</td>
<td>Fat-free, 1%, 2%, whole milk, chocolate milk, all yogurts</td>
<td>Check labels for carb amounts, which include lactose (milk sugar) and added sugars (for flavoring).</td>
</tr>
<tr>
<td>Non-starchy vegetables</td>
<td>Green beans (also wax, Italian), tomatoes, carrots, beets, green &amp; red peppers, cucumbers, lettuce, zucchini, celery, mushrooms, eggplant, radishes, etc.</td>
<td>Carb amounts vary: Lettuce, cucumbers, celery are very low (free). Carrots &amp; beets are higher, but can certainly be included.</td>
</tr>
<tr>
<td>Sweets, desserts, syrups, jellies, candy, sugar-containing beverages</td>
<td>Cookies, ice cream, brownies, most sugar-free products, doughnuts, cake, jelly, honey, Gatorade®, vitamin waters, etc.</td>
<td>Carbs must be counted and appropriate insulin given. Can be included in reasonable amounts using healthful guidelines. No regular soda!</td>
</tr>
<tr>
<td>Combination foods</td>
<td>Soups, casseroles, pizza, chicken nuggets, tacos, burritos, macaroni &amp; cheese, chili, spaghetti &amp; meatballs, etc.</td>
<td>Check all available labels. Information is available to assist in carb counting.</td>
</tr>
</tbody>
</table>

## Foods with Very Little or No Carbohydrate

<table>
<thead>
<tr>
<th>Food/beverage group</th>
<th>Examples</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, cheese, eggs</td>
<td>Beef, chicken, turkey, pork, lamb, fish, tuna fish, eggs, cheese, hot dogs, luncheon meats, peanut butter (watch carbs after 1 Tbsp).</td>
<td>Check breaded products such as chicken nuggets and fried fish patties for carb content.</td>
</tr>
<tr>
<td>Fats</td>
<td>Butter, margarine, salad dressings (check carbs in sweet dressings), oils, mayonnaise, olives, cream cheese, sour cream, half-and-half, small portions of nuts, bacon</td>
<td>Fats can be included in reasonable amounts according to healthful guidelines. Nuts are also low in carb in small amounts, but will “add up” with larger portions.</td>
</tr>
</tbody>
</table>
1. Check serving size (1 cup)
   (eg. 1 cup, ½ cup, 2 pieces, etc)
   The person doesn’t have to eat this amount, necessarily, but the numbers on the label are based on this serving size.

2. Determine how many servings (or part of servings) the person is eating.

3. Look at the total carbohydrate
   (22 grams)
   Fiber, sugars, sugar alcohols and “other carbohydrates” are included in this total. Don’t add those numbers onto the total. Fiber and sugar alcohols may have a lower effect on blood sugars, but to start with, we’re counting all carbohydrates the same.

4. Divide or multiply the total carb by the numbers of servings to find the amount of carb the person is eating.
   **Example:** serving size is 1 cup for 22 grams of carb. If the person eats 2 cups, the carb amount then becomes 44 grams

5. Although other information on the label is important, we are concentrating on the carbohydrate information at this time. We are not using the % numbers on the right of the label.
Treating “Low Blood Sugar”
(“hypoglycemia”, “insulin reaction”)

If you need to treat frequently, discuss this with your diabetes educator

I. If the blood glucose (sugar) is under _________.
Give: 15 grams simple carbohydrate such as any one of these:

<table>
<thead>
<tr>
<th>3-4 glucose tablets (check label)</th>
<th>4 teaspoons sugar</th>
<th>½ cup orange or apple juice</th>
<th>5 oz. regular soda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/4 cup nonfat or 1% milk</td>
<td>6 Life Savers (pieces)</td>
<td>8 Sweet Tarts (pieces)</td>
<td>15 Skittles (pieces)</td>
</tr>
<tr>
<td>2 tbsp. raisins</td>
<td>1 fruit roll-up</td>
<td>1 tbsp. honey</td>
<td>4 Starbursts</td>
</tr>
<tr>
<td>8 jelly beans</td>
<td>1 tube cake gel (check label)</td>
<td>1 tbsp. maple syrup (not sugar-free)</td>
<td>1 tbsp. jelly or jam</td>
</tr>
</tbody>
</table>

DO NOT USE CHOCOLATE
Retest after 15 minutes—repeat treatment if BG still below 70

II. If the blood glucose (sugar) is under _________.
Give: 30 grams simple carbohydrate such as:
8 oz fruit juice or 10 oz regular soda or 2 tablespoons honey or
12 Life Savers or twice the amounts in above table.

DO NOT USE CHOCOLATE
Retest after 15 minutes—give additional 15 grams carb if BG still below 70

If no meal or snack is to follow:
also provide a 15-20 gm carbohydrate snack (in addition to the treatment listed above)
such as one slice of toast, 3 cheese and crackers, or 1 oz. chips

Evening Snack Protocol
If the blood glucose (sugar) is under ________ before the bedtime snack,
increase the snack to 1½ / 2 times the normal snack or ________ grams carbohydrate.

Rev. 6/06 NR
### Suggested Snacks for Various Exercise Levels

<table>
<thead>
<tr>
<th>Duration/Type of Exercise</th>
<th>Example of Exercise</th>
<th>Glucose Level</th>
<th>Take Snack of</th>
<th>Example of Snack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 30 min low to moderate intensity</td>
<td>Walking or leisurely bicycling</td>
<td>Less than &lt;100</td>
<td>10-15 grams carbohydrate</td>
<td>Small orange/4-6 crackers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater than &gt;100</td>
<td>None necessary</td>
<td></td>
</tr>
<tr>
<td>60 min moderate intensity</td>
<td>Tennis, jogging, swimming</td>
<td>Less than &lt;100</td>
<td>25-50 grams carbohydrate +10-15 grams per additional hour</td>
<td>½ meat sandwich with milk or fruit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100-180</td>
<td>10-15 grams carbohydrate</td>
<td>Small orange/4-6 crackers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>180-300</td>
<td>None necessary</td>
<td></td>
</tr>
<tr>
<td>OK to exercise unless ketones are present</td>
<td></td>
<td>300</td>
<td>None necessary</td>
<td></td>
</tr>
<tr>
<td>Greater than 1 hour strenuous</td>
<td>Football, basketball, hockey</td>
<td>Less than &lt;100</td>
<td>50 grams carbohydrate (monitor glucose)</td>
<td>One meat sandwich, milk and fruit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100-180</td>
<td>25-50 grams carbohydrate</td>
<td>½ meat sandwich, milk and fruit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>180-300</td>
<td>10-15 grams carbohydrate</td>
<td>A fruit or a few crackers</td>
</tr>
<tr>
<td>OK to exercise unless ketones are present</td>
<td></td>
<td>300</td>
<td>None necessary</td>
<td></td>
</tr>
</tbody>
</table>

As always, frequent blood glucose testing is recommended to determine your own reaction to exercise and your own carbohydrate needs.
When to Call the Endocrine Office

Phone Number:
(518) 262-5723

Office Hours:
Monday-Friday, 8:30 a.m. – 4:30 a.m.

Blood Sugar Log and Insulin Review
Initially after diagnosis, we would like you to call the office every day BEFORE NOON to report blood sugars. This will allow us to make changes to the insulin doses and answer any questions you may have. It is expected that your child will need frequent insulin dose adjustments in the first few weeks. When you call the above number, leave a message on the NURSES VOICEMAIL. Include your name, your child’s name and birthdate, and a phone number where you can be reached. Then recite your child’s blood sugars (breakfast, lunch, dinner, bedtime and any low bgs.) The diabetes educator will review the numbers and call you back by the end of the day.

If you require IMMEDIATE ASSISTANCE, stay on the line and wait for the secretary to answer so that you may be directly connected to one of us. Do not hang up, the wait may be lengthy if there are several calls coming in at once.

EMERGENCY PHONE CALLS—after office hours
If you have an emergency during the night, weekend, or holidays, there is always a physician on call. You will need to call if your child has small to large ketones that do not resolve after correction insulin is administered, vomiting and cannot keep fluids down, if your child has low blood glucose that does not respond to oral glucose, or if you needed to give glucagon. Most questions and concerns, including blood glucose review can be managed during our regular office hours.

Prescription Refills or Lab Results
If you are calling to refill a prescription or obtain lab results, please allow two business days for us to fill your request. We will not call back to inform you that prescriptions were sent to your pharmacy, please call your pharmacy. It is best to obtain prescription refills at your appointments which occur every three months.
Sick Day Guidelines for Children with Diabetes

Any type of illness or injury may affect your child's blood glucose control. Below are some guidelines to follow during sick days.

Monitor blood glucose often.

- ✔ Check BG every 1-4 hours, depending on the trend of the BG and the severity of the illness

Monitor ketones — make sure ketone test strips are not expired. They are only good six months after being opened.

- ✔ Check ketones with every void, or if using blood ketones, with every blood glucose test.
- ✔ If your child is too “dry” to urinate during an illness, please call us.
- ✔ If you prefer blood ketone testing to urine ketone testing, you might try the Precision Xtra BG meter, which has a separate strip for blood ketone testing. If you are interested, please contact us.

Continue to give insulin.

- ✔ Never stop giving insulin, even if your child is not eating well! Continue to give the same amount of long acting or basal insulin.
- ✔ If BG is high, correction insulin needs to be given. If ketones present also administer ketone correction dose.
- ✔ Ketone Correction Dose to be added to high BG Correction Dose, see KETONE CORRECTION WORKSHEET (page 24).
- ✔ If you’re not sure how to adjust insulin during an illness, please call us!

Encourage fluid intake.

- ✔ If BG is high, offer sugar-free fluids liberally (water, sugar-free drinks and popsicles).
- ✔ If child is vomiting, only provide small sips; too much could trigger vomiting.
- ✔ If BG is running low, you can offer fluids that contain calories, such as regular soda, juice, or popsicles, and follow the usual guidelines for low blood glucose.

Check with your pediatrician.

- ✔ Regarding all over-the-counter medicines you wish to use.
- ✔ If your child has a high fever or rash.
- ✔ Anytime you are worried about a sick child.

WHEN TO CALL 911 / GO TO EMERGENCY ROOM for severe symptoms

- ✔ Child is sleepy, difficult to arouse.
- ✔ Change in breathing pattern, difficult breathing.
- ✔ Vomiting and not tolerating fluids; not urinating.
Sick Day Guidelines and Ketone Management

KETONE CORRECTION DOSE CALCULATION

The presence of ketones in urine or blood means that you need more fluids and you may need additional insulin if the blood sugar is high. If you are on an insulin pump, this will be given by syringe or pen. If the blood sugar is high and there are ketones, additional insulin must be injected in addition to the insulin you inject to correct a high blood sugar and the insulin that you inject for carbohydrate coverage. This additional insulin dose is called the ketone correction. If you are on a pump, the infusion set will need to be changed after this injection.

The ketone correction dose is always your fast-acting insulin (Admelog, Apidra, Fiasp, Humalog, Novolog). It will be added to your high BG correction dose.

Small to Large Ketones or 1.0 - 3.0 blood ketones:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Ketone Correction Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 years old</td>
<td>½ unit</td>
</tr>
<tr>
<td>5 – 10 years old</td>
<td>1 unit</td>
</tr>
<tr>
<td>&gt;10 years old</td>
<td>2 units</td>
</tr>
</tbody>
</table>

Add the KETONE CORRECTION DOSE to the carb dose (if any) and the hyperglycemia correction dose (if any).

Your high BG correction dose is (BG-130)÷ _________ = units of fast-acting insulin to inject.

Call Albany Med Division of Pediatric Endocrinology if your child is vomiting and cannot tolerate fluids, or if your child is not responding to high blood glucose and ketone correction doses.
Sick Day Guidelines and Ketone Management

START

Check Blood Glucose

BG<70

Treat with 15 grams of carbohydrate. Do not give insulin for these carbohydrates

BG <70

Ketones Negative to trace or <0.6

Encourage CLEAR JUICE. Do not give insulin for these carbs.

BG >70

If Ketones are small to large then give more carb free FLUIDS

BG 70-200

Test for Ketones

Ketones Positive or >0.6

Give a Hyperglycemia Correction Dose plus a carb coverage dose if eating.

Go back to START every 3 hours

BG >200

Test for Ketones

Ketones Negative to trace or <0.6

Give a Ketone Correction Dose, plus a hyperglycemia correction dose, plus a carb coverage.

Give 8 ounces of carbohydrate free FLUIDS every 30 – 60 minutes
Age Related Expectations of the Child in Diabetes Care

Depending on what age your child is when he or she is diagnosed with diabetes, they will begin the long process of learning to manage their condition. It is very important to have realistic expectations of what diabetes related tasks and responsibilities your child can participate in at a given age. Also, you must remember that children grow and develop at different rates and age alone should not be the deciding factor to determine if a child is ready to assume a particular task. It is important for children to be encouraged and supported to gradually assume care of their diabetes as they mature and demonstrate confidence. Remember that a child’s ability or desire to perform diabetes related tasks can vary from day to day. It is normal for the child to regress from time to time and depend once again on an adult to handle the responsibility. Parents must always be vigilant and oversee their child’s care even if the child seems very independent.

The Endocrine team will help provide you with guidance regarding what to expect as time goes on. Be sure to discuss your concerns about your child’s adjustment whenever you come in for clinic visits. You will also find that participation in support groups, such as Sugar Free Gang or diabetes camp experiences can go a long way in helping you and your child learn what is needed to successfully incorporate diabetes care into their life.

<table>
<thead>
<tr>
<th>Age</th>
<th>Child</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preschool</td>
<td>Unable to perform tasks independently. By 4 years of age, may be</td>
<td>Parents do all tasks.</td>
</tr>
<tr>
<td></td>
<td>expected to generally cooperate with Diabetes tasks. May help with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSBG testing.</td>
<td></td>
</tr>
<tr>
<td>School age</td>
<td>The child should be expected to cooperate in all diabetes tasks. By</td>
<td>Perform or supervise all</td>
</tr>
<tr>
<td></td>
<td>age 8 most children are able to perform FSBG testing with supervision.</td>
<td>BG testing and insulin administration.</td>
</tr>
<tr>
<td></td>
<td>By age 10, some children can administer their own insulin with</td>
<td>Calculate insulin doses.</td>
</tr>
<tr>
<td></td>
<td>supervision. Begin to learn carbohydrate counting.</td>
<td>Maintain BG logs. Call numbers into</td>
</tr>
<tr>
<td></td>
<td></td>
<td>endocrine office as needed.</td>
</tr>
<tr>
<td>Middle school age</td>
<td>Should be able to administer own insulin with supervision and</td>
<td>Supervise insulin administration.</td>
</tr>
<tr>
<td></td>
<td>perform FSBG under routine circumstances, if not experiencing low</td>
<td>Calculate doses. Review BG logs daily.</td>
</tr>
<tr>
<td></td>
<td>blood sugar. Fill out BG logs. Count carbohydrates. Begin to learn</td>
<td>Call numbers into endocrine office as</td>
</tr>
<tr>
<td></td>
<td>how to calculate insulin doses.</td>
<td>needed.</td>
</tr>
<tr>
<td>High school age</td>
<td>Should be able to perform FSBG testing under routine circumstances,</td>
<td>Review BG logs 2-3 x a week. Call in</td>
</tr>
<tr>
<td></td>
<td>if not experiencing low blood sugar. Should be able to count</td>
<td>numbers as needed. Ensure that BG’s are</td>
</tr>
<tr>
<td></td>
<td>carbohydrates, calculate and administer insulin without supervision.</td>
<td>checked a minimum of 4 x a day. Ensure that</td>
</tr>
<tr>
<td></td>
<td>Maintain BG logs. Review logs with parents 2-3 times a week and</td>
<td>insulin is being given at appropriate</td>
</tr>
<tr>
<td></td>
<td>as needed. Participate fully in Endocrine visits. Be aware of</td>
<td>times and doses are correct. Make sure</td>
</tr>
<tr>
<td></td>
<td>insulin and supply needs.</td>
<td>that adequate insulin and supplies are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>available at home and school.</td>
</tr>
</tbody>
</table>
Ways we can help:

A new diagnosis of type 1 diabetes (juvenile diabetes) can spark a range of reactions, including anger, sadness, and guilt. Whatever your feelings, they are normal, and you are not alone.

Life with type 1 diabetes poses challenges for every member of the family. Whether you have type 1 diabetes yourself, or are the parent or loved one of a person with type 1 diabetes, it takes time to adapt to the day-to-day demands of the disease. But treatment options are improving all the time, and type 1 diabetes will not prevent you or your child or loved one from living a full and active life. With medical and emotional support, people with type 1 diabetes and their families learn to cope with the demands that the disease imposes. Even a child with type 1 diabetes – depending on age – will learn to take over much of his or her care. As time goes by, everyone will gain knowledge and confidence, and be able to celebrate successes, learn from mistakes, and move away from the intense feelings common after diagnosis.

Until there is a cure, we want to provide information that will help you cope with the burdens type 1 diabetes imposes, take advantage of help that is available right now, and keep you and your loved ones as strong and healthy as possible. This site contains some basic information about diabetes and its management that is based, first and foremost, on input from adults and children who have “been there” as well as from physicians and diabetes educators.

JDRF’s Online Diabetes Support Team is a group of volunteers working with staff to provide one-to-one support, a sympathetic ear, and some practical suggestions to families affected by type 1 diabetes.

We look forward to hearing from you.

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Northeastern NY Chapter
Phone: 518-477-2873
Federal Law Protections For Students With Diabetes

TIPS FOR PARENTS/GUARDIANS

• Children with diabetes are protected against discrimination by several federal laws that include the American with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 (Section 504).

• Some children with diabetes may also be protected under the Individuals with Disabilities Education Act (IDEA).

• A new law, the American with Disabilities Act Amendments Act (ADAAA), went into effect on January 1, 2009, making it easier to prove that diabetes is a disability protected by the ADA and Section 504.

• A disability is defined by these laws as a substantial limitation on a major life activity.

• For children with diabetes, major life activities include, but are not limited to, the major bodily function of the endocrine system, eating, caring for oneself, thinking, communicating, and learning.

• The ADAAA expanded the list of major life activities to include caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, learning, reading, thinking, communicating and working. The ADAAA provides that major bodily functions are also major life activities. The law specifically includes the endocrine system.

• The use of insulin and/or medications to treat diabetes cannot be used by schools as a reason to exclude a child with diabetes from protections and services under these laws.

• If a school questions eligibility, the only thing that the school should require is a letter from the child's treating health care provider that explains that their child's diabetes is a disability because it substantially limits the functioning of his or her endocrine system.

• In order for a child to be protected and be eligible for services under ADAAA and/or Section 504, there is no requirement the diabetes affects learning or academic progression.

• If a child is having difficulty with learning he or she may be eligible for other protections and services under IDEA (see IDEA above).

For More Information:

If a child is experiencing problems with diabetes care at school, contact the Association’s National Call Center at 1-800-DIABETES and ask for a discrimination packet and visit diabetes.org/SafeatSchool. The Call Center can also put the parent in touch with the Association’s Legal Advocate who can provide expert guidance to enable the parent to advocate on behalf of his or her child.
Federal Law Protections For Students with Diabetes

The Americans With Disabilities Act Amendments Act (ADAAA) and Its Impact Upon Children With Diabetes

Frequently Asked Questions

1. Why was the Americans with Disabilities Act (ADA) amended?

In the past, some people with serious medical conditions, including diabetes, had difficulty in proving that they were protected by the Americans with Disabilities Act (ADA). The Americans with Disabilities Act Amendments Act (ADAAA), which went into effect on January 1, 2009, broadens the scope of ADA coverage to protect individuals with serious medical conditions even if they use mitigating measures – such as insulin and other medications – to treat their health conditions.

2. How does the ADAAA impact children with diabetes?

The Americans with Disabilities Act Amendments Act (ADAAA) affects students with diabetes because it makes it even easier to prove that diabetes is a disability. The ADAAA amended the law in a number of ways, and the changes also apply to Section 504 of the Rehabilitation Act. Most notably for students with diabetes, ADAAA requires that when determining eligibility under Section 504, a school may not consider the use of medication (such as insulin) when determining whether a student is substantially limited in a major life activity. The ADAAA also expanded the list of major life activities to include major bodily functions – including the functioning of the endocrine system – as major life activities.

There is not much difference in eligibility determinations for students with diabetes as a result of the ADAAA. One reason for this is that the Office for Civil Rights at the U.S. Department of Education has long taken the position that “mitigating measures” such as insulin could not be considered when determining whether a student has a disability. Even though students with diabetes have had few problems showing they were covered by Section 504, the ADAAA makes it even easier to establish eligibility.

3. What changes does the ADAAA provide?

The ADAAA changes the way a person can prove he or she is covered by the ADA and Section 504. The general requirement of proving eligibility stays the same: a child with diabetes qualifies for services, modifications, and protection from discrimination if his or her impairment – diabetes – substantially limits a major life activity. An impairment that substantially limits one major life activity need not limit other major life activities in order to be considered a disability.

The ADAAA also provides that certain bodily functions such as the function of the endocrine system are major life activities. Another key change is that, unlike the original law, the ADAAA provides a list of major life activities that include, but are not limited to caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working.

Additionally, the ADAAA provides that a child qualifies for services, modifications and protection from discrimination if he or she is substantially limited in a major life activity when a condition is active (i.e., during hypoglycemia or DKA) and when untreated – that is, how the child would be without insulin. The ADAAA requires school districts to make disability determinations without considering mitigating measures such as insulin or other medications. However, the ADAAA does not change what a child is entitled to once he or she qualifies; for example, if a school previously agreed that a child was covered, but did not excuse the child from classroom or homework assignments, the ADAAA does not mean that now the child should be excused from these assignments. The focus of the statute is who is covered, not what happens when coverage is established.
4. Under the ADAAA, does any special evidence need to be shown that a child is covered, or can the parent just say he or she has diabetes?

The ADAAA still requires schools, daycare centers, and other entities to consider whether the individual child qualifies for services under the ADA and Section 504. Although some schools do not question whether a child with diabetes qualifies for services, parents or guardians making a request for assessment under Section 504/ADA should explain why the child's diabetes is a disability under the law. You must do more than just state that the child has diabetes. You should start by stating that your child has a disability because he or she is substantially limited in their endocrine function. You can back this up by presenting a doctor’s note that explains that your child has been diagnosed with diabetes and that the child is substantially limited in endocrine function because he or she does not produce insulin or does not properly utilize insulin. The doctor’s note can further explain what would happen to your child if he or she didn’t receive insulin – that his or her blood glucose will rise leading to DKA and rapid deterioration, and that the child will die within a matter of days if not given insulin. The doctor can also explain how your child is limited in thinking, concentrating and caring for him/herself during hypoglycemia and hyperglycemia.

5. Is a student with diabetes still eligible for services under Section 504 if he/she is academically performing and has no trouble learning?

Yes. Unlike the Individuals with Disabilities in Education Act (IDEA), which considers whether a student’s disability makes it difficult for them to learn, Section 504 is a broad civil rights law applying to all recipients of federal financial funding (including public schools) and eligibility does not require that a student have trouble learning. As discussed above, students with diabetes are eligible under Section 504 because they are substantially limited in several major life activities and the major bodily function of the endocrine system.

Questions about this information?
E-mail: legaladvocate@diabetes.org
For more information on diabetes, visit www.diabetes.org or call 1-800-DIABETES.

3/16/09

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Informative Websites:
- www.childrenwithdiabetes.com
- www.diabetes.org
- www.jdrf.org
- www.diabetes.org/wizdom
- www.kidslearnaboutdiabetes.org
- www.thinklikeapancreas.com

Medical Alert ID
- www.coolmedid.com
- www.rescuemeids.com
- www.IdentifyYourself.com
**Insulin:**

<table>
<thead>
<tr>
<th>Carb ratios:</th>
<th>Basal insulin:</th>
<th>Correction Factor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Breakfast</td>
<td>Before Lunch</td>
<td>Before Dinner</td>
</tr>
<tr>
<td>Date</td>
<td>BG</td>
<td>Date</td>
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<tr>
<td>Date</td>
<td>BG</td>
<td>Date</td>
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<td>Date</td>
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<td>Date</td>
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<td>Date</td>
</tr>
<tr>
<td>Date</td>
<td>BG</td>
<td>Date</td>
</tr>
</tbody>
</table>

You may reach Pediatric Endocrinology at **(518) 262-5723** Monday through Friday from 8:30 a.m. to 4:30 p.m. After hours, emergency calls can be placed to the same number.