This educator’s manual:

- **Mirrors page-by-page the patient and family Diabetes Basics booklet**, to reinforce the sequence and presentation of the topics in the patient materials.
- **Includes teaching notes** from the pediatric educators who contributed to the Diabetes Basics booklet.
- **Provides space for you to write your own notes and reminders** as you gain experience working with pediatric patients and families facing a new diagnosis of diabetes (especially type 1)
- **Is a work in progress.** We welcome your feedback on this educator’s manual or on the Diabetes Basics booklet. For questions, comments, and additional copies of this manual, contact Carolyn Reynolds, Director, Pediatric Specialty Clinical Program, Intermountain Healthcare, 801.442.3567.
As you begin your teaching:

- Complete an assessment of the learner(s). Determine the patient and family members’ readiness to learn so that you can tailor teaching. Continue to assess their learning as you go along.

- Beware of “information overload.” The time after diagnosis is emotionally challenging, and the content you’re teaching is technical and potentially intimidating.
  - Go as slowly as you need to.
  - Make sure your teaching points build on each other.
  - Use repetition to increase the learning.

About the organization of the patient Diabetes Basics booklet.

- Beginning on page 6, chapters proceed logically from an explanation of the pathophysiology of diabetes to aspects of daily treatment, to information about special circumstances such as glucose lows, highs, sick days, and so on. Note that the booklet covers only “survival education” to cover the first two weeks after diagnosis; it’s not meant to be a comprehensive manual for ongoing care.

- There is a brief quiz at the end of most chapters. Have the patient / family complete the quiz, correct it with them, and then reinforce learning as needed.

- Be sure to refer to and use the MyPlan section of the Diabetes Basics booklet.
  - Here you’ll write the child’s individual orders / plans on the day of discharge.
  - The family can copy and share many of the MyPlan tools as needed. See the Diabetes topic page on the Intermountain PEN website (from the main .net page, type “PEN” in the browser bar, then choose the Diabetes topic in the window listing ALL Intermountain patient education.)
A Message to Parents

"Your child has diabetes." Right now, you’re probably feeling a host of emotions. It can be an overwhelming and confusing time for you, your child, and the whole family. But if you’re struggling to navigate this new territory, many other parents have walked the same path, and you will too.

The message below may help.

Success factors for daily life with diabetes

- The commitment, buy-in, expectations, and routines for daily diabetes care, but that your child’s newfound responsibilities and independence will come.
- Communicate. Everyone who cares for your child should be well informed about diabetes and how to manage the insulin injections. Share your child’s insulin regimen with them, and encourage them to ask questions and be involved.
- Take breaks. Diabetes can be exhausting. Take frequent breaks to relax, re-energize, and recharge. It’s important to remember that you can’t be perfect all the time. Ask for help when you need it.
- Be patient. It’s not easy to adjust to this new way of life. You may feel frustrated at times, and your child may have difficulties adapting. Remember that everyone reacts differently to diabetes. Be patient with yourself and your child.

Others are ready to help. Let them.

Parents of children with diabetes realize that diabetes care can become intense and difficult. By not isolating yourself, you can find support and understanding from others. You can also learn from other parents who have been through similar experiences. This can be a great source of comfort and support.

Your child’s health is important, too. So are your relationships.

As your child grows and matures, you may need to redefine your roles and responsibilities. This can be a challenging time, but it’s also an opportunity to strengthen your relationships with your child and with others.

Page 4

About A Message to Parents:

- This brief first chapter presents reassuring messages and advice. Unless parents want to talk about these topics, you probably only need to point it out to them to read on their own later.

Page 5
About Understanding diabetes:

- Go through pages 6 and 7 bullet by bullet; these pages contrast normal and diabetic metabolism.
- Use a flip chart or magnet board for younger kids who are tactile-learners.
- Explain the organs – their placement, normal function—as a start.
- If the patient has type 2 diabetes, explain the way the pathophysiology differs from that emphasized in the booklet.
Note that some diabetes education materials use the analogy of an insulin “bridge” rather than an insulin “key” that allows glucose to enter cells. Other analogies and scenarios to use when teaching:

- With younger children, talk about a car using gas.
- With older children, talk about traffic signaling; the police officer is insulin allowing glucose into cells.
- If someone in the (type 1) patient’s family has type 2 in the family, build off of their experiences with this family member while highlighting the differences.
**Thought question:**

- What is the difference between type 1 and type 2 diabetes?
  - the pathophysiology
  - the risk factors
  - the treatment

Patients and families will benefit from an understanding of the two types, as well as the ability to explain the differences to others (they will probably get a lot of questions).
Go over the honeymoon phase if patient and family seem receptive and ready. It can be important to manage expectations and prepare patients and families for future adjustments.
Depending on the patient/family, complete the quiz together, or discuss their responses afterward. Use the quizzes as ways to test understanding AND open up opportunities for further questions, exploration.
Normal blood glucose regulation

Blood glucose levels naturally vary. They rise after a meal, then go down as the body uses up the glucose provided by the food. Here’s how it normally works:

- As your blood glucose starts to rise after a meal, the pancreas responds by releasing insulin. The insulin moves the glucose out of the bloodstream and into the cells to be used for energy. This prevents blood glucose from getting too high.
- When your blood glucose gets low—a can happen when you don’t eat for a while—the liver responds by releasing extra glucose into your bloodstream.

With insulin helping glucose get into the cells, and the liver preventing blood glucose from dropping below blood glucose levels can stay within a healthy range.

About Monitoring Blood Glucose:

Emphasize the following points:

- **Don’t make moral judgments about blood glucose values.** A blood glucose value isn’t “good” or “bad”—it’s simply information that is needed to adjust insulin. (You may need to reinforce this point with parents as much as with your pediatric patients: there should be no blame or punishment related to blood glucose values.)

- **Blood glucose fluctuates constantly.** Control isn’t a black-and-white thing, and there’s no “perfection.” No matter what you do, every day is a different, and you’ll find that responses, reactions, and readings will vary a bit.

- **The goal for patients is to be in their blood glucose target range about 50% of the day.**
Circle the target range for the child’s age, and discuss the rationales behind the ranges:

- **Babies.** The BG target is higher because babies can’t recognize or tell symptoms, and because of a concern about low blood glucose and its effect this may have on the developing brain.
- **Toddlers.** The BG target is higher for the same reasons as mentioned above (for babies), plus the fact that toddlers have variable eating patterns and therefore require more flexibility.
- **School-age children.** The BG target is lower than for younger children because most school-aged children can understand and recognize signs of highs and lows and thus respond better.
- **Adolescents.** Same rationale as above.

- Insurances may have a preferred meter. Check with the family’s insurance provider to determine coverage for pharmacy and DME.
- For the first several weeks at a minimum, encourage the child to use the daily log that comes with the meter. Practice filling in the values with the patient and family. Explain how to review and watch for trends and patterns that can assist in management.
- Explain how to use the meter’s average as a way to track overall blood glucose control. The average needs to be in the target range. Note that some meters may not have this capability.
Meter topics:

- **Meter and strip accuracy.** Teach about when, how, and why to test to determine strip / meter accuracy. (Generally don’t teach the child to do this; this is more for the parents.)

- **Strips.** Tell patients to avoid leaving the strips in the car or other places where the strips will be subject to extreme changes in temperature.

- **Control solution.** Use when a new lot# of strips is opened, if the results are questionable, or if the strips have been exposed to extreme temperatures or humidity.
  - The solution is only good for 90 days after it’s opened.
  - If more solution is needed or if the control solution is out of range, tell patients to call 1-800 # (customer service #) on the meter to see if they will send a new bottle. Many companies will also replace broken lancet device and batteries if you ask.

- **Lancet devices.**
  - In the hospital, lancets are only single use (manufacturer recommends single use).
  - For home use, patients can use one lancet a day. (Frequent changes mean less pain.)
  - Lancets that do not come with the meter may be most comfortable to use, e.g. BD lancet™ or Accu-check Multiclix.™ But be careful—some insurances may not cover these lancets.

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**Point out each part of the patient’s meter and demonstrate its use.** Teach patients and families the following technique:

- Clean your hands first and dry thoroughly. (You might use alcohol in the hospital setting, but it’s not necessary for home use. If you use alcohol, be sure to allow the hands to dry completely or the test result may be altered.)
- Warm your hands.
- Use the outside edge of your finger for the lancet site. (You can use any finger for the sample.)
- After pricking the finger, milk it from above the puncture to express blood down and out.
Depending on the patient/family, complete the quiz together, or discuss their responses afterward.

**Thought questions:**

- **How do you problem-solve if you get a blood sugar reading that is 400?**
  Discuss: Perhaps hands were not clean, wash and retest; test strip accuracy with control solution.

- **What if you get a different blood glucose level from two different meters within a short time?**
  Discuss: Meters can have variability (from 10 to 20%). If you are going to treat the level, choose the lower number to base treatment.
About Taking Insulin:

- Parents must know how to give injections, even if their child is older and independent in care.
- Focus on basal and bolus terminology. This will help patients and families understand the different insulins and their proper use.
What are the types of insulin?

There are three general types of insulin. The table below describes them. You’ll see key differences in how they work to make sure that both your basal and bolus insulin needs are met.

<table>
<thead>
<tr>
<th>Insulin Type</th>
<th>Onset</th>
<th>Peak</th>
<th>Duration</th>
<th>Used As Basal or Bolus?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting</td>
<td>1-2 h</td>
<td>2-22 h</td>
<td>24 h</td>
<td>basal</td>
</tr>
<tr>
<td>Short-acting</td>
<td>10-15 min</td>
<td>20-90 min</td>
<td>4-6 h</td>
<td>bolus</td>
</tr>
<tr>
<td>Intermediate</td>
<td>1-2 h</td>
<td>3-6 h</td>
<td>12-15 h</td>
<td></td>
</tr>
</tbody>
</table>

*Keep in mind the onset of any insulin can vary from person to person. It also depends on dose, site of injection, temperature, and physical activity.*

For most patients with type 1, doctors prescribe regimens that combine different types of insulin. The most common regimen uses both long-acting and short-acting insulin. The graph below shows how the regimen mimics normal insulin production.

**Basal-bolus insulin regimen**

- **Breakfast:** short-acting insulin
- **Lunch:** short-acting insulin
- **Dinner:** short-acting insulin
- **Long-acting:**

**What is a correction dose?**

If your blood glucose is too high, you may need to add extra short-acting insulin to "correct" your high blood glucose. Correction doses are usually given at meals. You may not need to give more than every 3 to 4 hours. Your doctor may give you this information as part of your insulin regimen.

Circle the insulin(s) the patient is using on the chart, and discuss.
All about injections

Giving an injection—to yourself or to someone else—might be scary at first. You may worry about doing it wrong or worry that it will hurt. This section can help. It gives you the information, steps, and tips you need to learn this new skill. With practice, patience, and the help of your healthcare provider, you’ll soon feel more comfortable.

Insulin syringes

To inject your insulin, you'll use disposable (throw away) syringes. The syringe needle is short, thin, and very sharp. This helps the needle go in easily—and makes the shots less painful.

There are several different brands of insulin syringes. There are syringes with different needle lengths and different widths (gauge). Your doctor or diabetes educator will give you some syringes to take home. Eventually, you’ll need a new one. See page 38 of this book for information on buying syringes. For now, as you first learn to take insulin, you only need to keep the following in mind:

• Look at the lines and numbers on the barrel of the syringe. These show the amount of medication inside. You need to look carefully to make sure you’re getting the right amount (dose) of insulin for each injection.

• Don’t reuse your insulin syringes. This helps ensure that the needle is needle (clean) and that the needle is sharp every time.

• Do throw them away in a sharps container. The needles won’t poke through—like an empty coffee can or a plastic bleach container.

Give the patient and family a small sharps container to use for vacations. They can use a bleach bottle or something similar while they’re at home.
How to draw up insulin

"Drawing up insulin" means putting the insulin in the syringe for an injection. To get the right dose and to reduce the pain of the injection, follow these steps carefully:

1. Get everything you need: insulin bottle, syringe, alcohol wipe, and your daily record log to write down the dose. (A log book is included with your insulin preparation.)
2. Wash your hands with soap and water.
3. Write down the dose of insulin in your daily record.
4. Check the insulin. First, make sure you’ve got the right bottle (the right type of insulin). Second, check the insulin for any discoloration, crystals, or sediment (stuff sitting on the bottom or floating around inside). If you see any of these, throw the insulin away and use new insulin.
5. Wipe the top of the bottle with an alcohol wipe.
6. Pull back the plunger on the syringe to draw in enough air to equal your insulin dose (see the label and number on the barrel of the syringe). Then push the needle into the bottle and inject air into the bottle. (This prevents the vacuums inside the bottle from sucking the insulin back out of the syringe.)
7. With the needle in the bottle, turn the bottle and syringe upside down. Carefully draw up insulin past your correct dose. Then, slowly push on the plunger to drain off your excess dose of insulin.
8. Before withdrawing the needle from the bottle, check for air bubbles. If you notice any, tap the syringe so that the bubbles float to the top. Pull the plunger past your correct dose and slowly push in the plunger until all bubbles are gone. Repeat as needed to get rid of all bubbles, then withdraw the needle from the bottle.
9. If the insulin has been stored in the refrigerator, warm the syringe by holding it in your closed hand for a minute or so. Injections hurt less if the insulin is warm.
10. Inject the insulin, following the instructions on the facing page.

About drawing up insulin:

- **Demonstrate** how to warm insulin; cold insulin stings!
- **Mention** that insulin can be left at room temperature, once opened, for 28 days. Its loss of potency is correlated with the number of times it’s accessed through the port.
How to give an injection

1. Choose the place on your body where you will inject the insulin. This area is called the injection site. See page 21 for information on injection sites.

2. Make sure the area is clean. If it isn’t, wash it with soap and water. As a general rule, don’t use alcohol to clean the skin. This dries and toughens the skin. Of course, if you’re camping or someplace where you can’t wash, it’s okay to use an alcohol swab.

3. Lift up (pinch) about an inch of the skin and firm tissue with your thumb and fingers.

4. Holding the syringe like a pencil, touch the needle to the skin, then push it into the skin. Push it straight in, not at an angle—and make sure the needle is in all the way. You might feel a sting.

5. Once the needle is in the skin, let go of the pinch of skin.

6. Push the plunger of the syringe down slowly and steadily, all the way.

7. When the plunger is all the way down, count to 5 slowly before removing the needle. This helps prevent insulin from leaking out of the site.

8. Press your finger over the site for a few seconds. This helps stop any bleeding that can happen when you pull out the needle.

About injections:

- **Explain** to patients and families why it’s best not to reuse syringes.
- **To desensitize the child to the needle**: place the needle on the skin and hold it there for a moment before slowly pushing the insulin in.
- **For younger children**, you may want to numb the site (use a cold spoon, an ice cube, etc.). Also, show the parents how to hold the child in a position of comfort during an injection.
- **With older children**, have them practice injections by giving injections to their parents.
- **For school-age children who need to be independent with injections**: show how to brace a limb with the back of a chair or against a door frame; this helps hold the injection area still.
- **Note that Lantus stings**, and may best be given in the buttocks.
- **To encourage site rotation** for pre-school and school-age kids: have family use a sticker chart.
How to use an insulin pen

In addition to a syringe, your healthcare provider may have you use an insulin pen. Insulin pens are more convenient to use. But you have to use them correctly to make sure you’re getting the right amount of insulin. Here are the steps to follow.

1. Check the pen before you use it.
   - Make sure the dosage dial turns easily.
   - Look at the amount of insulin in the cartridge—is there enough for your dose?
   - Check the insulin for any discoloration, cloudiness, or sediment (suffusing on the bottom or floating around inside). If you see any of these, throw the pen or cartridge away and use another.

2. Attach a new needle to the pen. Using a new needle every time helps make sure you get the right amount of insulin. (An unused needle can dig, and leaving the needle in the pen between injections can cause leaking and air bubbles.)

3. Prime the pen—this is important.
   - Dip up to 4 units of insulin, remove the needle cover, and point the pen upward.
   - Try the cartridge until any bubbles rise to the top.
   - Prime the pen by pressing the injection button down all the way. If you don’t see a stream of insulin, repeat until insulin does come out of the needle.

4. Inject the insulin following step 1 through 3 on the previous page: choose your injection site, clean the site, pinch up some skin, insert the needle straight into the fatty tissue, and let go of the pinch of skin.

5. Press the injection button down all the way, counting to 5 slowly before removing the needle. For larger doses of insulin, you may need to count to 10 before removing the needle. In general, it takes a bit longer for insulin to come out of a pen than out of syringe, if there’s insulin dripping from the needle when you pull it out, that’s a clue that you need to leave it longer next time.

About insulin pens:

- **Pen needles**: emphasize the need to remove the needle between uses. Not doing this can cause leaking and air bubbles to enter the pen, which in turn creates a negative pressure that over time can jam the plunger.

- **Pen Novo Fine auto covers™**: these are safety shields that hide the needles. They’re great for a needle-phobic patient.
About injection sites:

- **Rotation is important**, but patients also need to keep in mind upcoming physical activity, and give the injection in the area that would be best.

- **More consistent absorption can be expected in these areas**: the abdomen (quickest absorption) and the buttocks (slowest absorption).
Taking Insulin

Quick Quiz

True or false?

true    false  Insulin raises your blood glucose.
true    false  People with type 1 diabetes may not need insulin injections.
true    false  You need some insulin in your body all the time.
true    false  It's important to inject insulin directly into a muscle.

Circle the correct answer:

What is the term describing the use of insulin to cover your mealtime needs?

A. Basal  
B. Glucose  
C. Bolus  
D. Hormonal

What is the term for the extra short-acting insulin you take if your blood glucose is too high?

A. Correct dose  
B. Low dose  
C. Basal dose  
D. Long-acting dose

Where are some appropriate sites to inject insulin into your fatty tissues? (Circle all that apply.)

A. Stomach  
B. Thighs  
C. Buttocks  
D. Back of the upper arms

Whether you're using a syringe or a pen, which is an important step BEFORE you inject insulin?

A. Count to 15  
B. Check the type and amount (dose) of insulin in the pen or syringe  
C. Press on the injection site  
D. Expose the area you're injecting

Before removing the insulin needle from the injection site, you should count to ______

A. 60  
B. 30  
C. 10  
D. 5

Depending on the patient/family, complete the quiz together, or discuss their responses afterward.
About Eating Well, Being Active:

- **Be “food positive”**—don’t imply or give moral judgment on food, and don’t give a list of good and bad foods.

- **Teach the importance of carbohydrates** (carbs) and blood glucose. Patients and families may not be ready for in-depth nutrition education during this initial teaching, but this concept is important.
Highlight food groups in the pyramid, and add examples from child’s normal diet.
Carb-counting tools

In the coming weeks and months, you’ll learn more about counting carbohydrates and about other principles of eating well with diabetes. Here are a few of the Intermountain tools available to you and your healthcare team:

- The Living Well, Eating Well with Diabetes
  A complete guide for kids and families facing diabetes—available from your healthcare team or from Primary Children’s Medical Center by calling 801.662.5303.

- Carb Counselor advice and tools for counting carbs
  A pocket-size booklet available from your healthcare team or online at www.intermountainhealthcare.org/diabetes.

- Food Finder
  A 24-hour poster showing disease food groups and sample portions available from your healthcare team or online at www.intermountainhealthcare.org/diabetes.

- MyPlan
  A tool to help you and your healthcare team devise a meal plan that fits your needs and food preferences. Available from your team or online at www.intermountainhealthcare.org/diabetes.

- Let’s Talk About…Food choices for good health
  A fact sheet available from your healthcare team or online at www.intermountainhealthcare.org/diabetes.

For more information, check out the organizations listed on page 5.

Physical activity

Physical activity is good for everyone. So, like everyone else, you should aim for at least 30 minutes of play or exercise every day. Just keep in mind that physical activity makes your cells burn more glucose than if you were just sitting around.

To prevent a blood glucose low, you may need to cut down your meals or increase your carbohydrate intake during or after exercise. Follow these tips for healthy exercise:

- Check your blood glucose before you exercise to know if you should eat a snack first.
- Keep some carbohydrate snacks on hand to treat low blood glucose.
- Drink plenty of water during exercise or hard play.
- Keep track of how exercise affects your blood glucose, and discuss it with your doctor or diabetes educator at your next visit.

Some active people may significantly change their eating habits in dance groups, for example. They may need to adjust their meal and insulin doses. If you need to, share the instructions with your coach or teacher.

About nutrition resources:

- The Living Well, Eating Well with Diabetes binder is Intermountain’s comprehensive resource; it can be ordered from PCMC at 801.662.5303.

- The Carb Counselor and Food Finder have helpful information, though they’re not as geared to kids.

- The LiVe resources for nutrition and activity contain healthy habits for everyone, not just people with diabetes.

- “Life in the Fast Lane” (a small calorie guide) is also a helpful resource, but you may want to wait for the two-week follow-up class before introducing it.

About physical activity with diabetes:

- Remind patients and families that they may need to test before exercise and have a snack for quick sugar if needed.

- If you give special instructions for physical activity (especially for kids who are very active, e.g., athletes and dancers), write the instructions in MyPlan page 45.
Depending on the patient/family, complete the quiz together, or discuss their responses afterward.
About Treating and Preventing Low Blood Glucose:

- Explain: the reason we have different target ranges for different ages is that experts are concerned about the effect of hypoglycemia on the developing brain.

- Spend time reviewing symptoms, and talk about what it might look like for the child; every child is different, and reacts differently when blood glucose is low. A good example may be the feeling a child has when giving a report in front of class: “Are you nervous, sweaty, shaky...?”

- You may want to mention that it’s possible to have low blood glucose and be symptom-free. (Leave the details of hypoglycemic unawareness for the two-week follow-up class.)

- Reinforce the “watch for lows” sidebar on this page. Also alert patients and families to the uncertainties that may come with the “honeymoon phase”: in this time period, lows come from too much insulin. If blood glucose runs low consistently, patients and families should contact their physicians for an insulin dosage adjustment.
About treating low blood glucose:

- **Emphasize the 15/15 rule** (take 15 grams of carbohydrate, wait 15 minutes, repeat if blood glucose not rising). “Be patient, wait for the stomach to absorb the carbs.”

- **Instruct the patient and family to use a quick-acting sugar** until they see a BG rise. If they introduce complex carbs too soon, absorption will slow down. To sustain the blood glucose level, they must use complex carbs after the initial rise.

- **Reinforce: When in doubt – treat!** Don’t take time to do the meter, just get some quick sugar in.

- **Teach the patient and family how to use glucagon** – teach that it takes glucagon time to work, too.
Preventing nighttime lows

Low blood glucose can happen at any time of day, but it may be more likely to happen during sleep, when you go for several hours without eating. It’s also more of a risk early in your treatment, as your body adjusts to your new insulin regimen. Here are a few steps you can take to help prevent low blood glucose during the night:

- **Check blood glucose at bedtime.** You need to make sure that your blood glucose is high enough to sustain you through the hours you’re asleep. Most children and teens should aim for a bedtime blood glucose of over 100 mg/dL. If you hit this bedtime target, you can go to sleep as usual.
- **Bedtime blood glucose is less than 100 mg/dL...**
  - Have a nighttime snack: (a snack is already part of your daily schedule, and adds extra carbohydrates to the mix.) Choose a snack from the list below—the items in this list have a bit of fat or protein along with the carbohydrate, and will sustain you longer than a quick sugar source will.
  - Redo-check your blood glucose in 1 to 2 hours. You can go to sleep after the snack—you’ll just need to wake up to re-check.

Nighttime snacks

These snacks contain about 15 grams of carbohydrates and some fat, protein, fiber, or other nutrients.

- 10 grams (1 tbsp) milk
- 1 gram (1 tsp) peanut butter
- 1 small piece of fruit
- 1/2 cup ice cream
- 4 grams (1/2 cup) broccoli milk
- 1 ham sandwich
- 7 Saltine crackers with peanut butter
- 6 M&Ms
- 1 slice of bread

Reinforce to parents that if blood glucose < 100 mg/dL, give a bedtime snack and let the child go to bed as usual (don’t keep the child up!). Just wake the child up in a couple of hours to recheck blood glucose.
Treating and Preventing LOW Blood Glucose (Hypoglycemia) Quick Quiz

True or false?
- true false Very low blood glucose is healthy.
- true false Eating too many carbohydrates can cause low blood glucose.
- true false Low blood glucose can make you feel weak and dizzy.

Circle the correct answer:
- What can cause low blood glucose? (Circle all that apply.)
  a. Skipped or low meal
  b. Testing blood glucose often
  c. Particularly hard exercise or play
  d. Too much insulin

- What is a symptom of low blood glucose? (Circle all that apply.)
  a. Headache
  b. Moodiness or irritability
  c. Weakness
  d. Dizziness

- What should you do if your blood glucose is too low?
  a. Take additional insulin
  b. Exercise vigorously
  c. Eat a carbohydrate snack
  d. Take a nap

- What emergency medication should you inject to treat very low blood glucose when the person can't swallow or respond?
  a. Lantus
  b. Blood thinner
  c. Insulin
  d. Gastro

- What things should you do at bedtime to prevent a nighttime low?
  a. Check your blood glucose
  b. Consider the day's exercise and other physical activity
  c. Adjust the bedtime snack if blood glucose is low
  d. All of the above

Depending on the patient/family, complete the quiz together, or discuss their responses afterward.
About *Treating and Preventing High Blood Glucose (Hyperglycemia)*:

- Remind the family of the symptoms that brought them to this point. Say, “Tell me again what you observed or felt right before the diagnosis.”

- Emphasize the “watch for highs” sidebar. Be sure families know which doctor to contact. Write it in MyPlan.
Emphasize these key points re: treating high blood glucose:

- **One high blood sugar is not an emergency.** If blood glucose is high, just take a correction dose – don’t panic. If next blood glucose is lower, then you’re all right. Don’t repeat correction dose until after 3 hours from the last correction dose.

- **It’s the chronic high blood glucose that causes complications,** not the random, treated high blood glucose.

- **Focus on the trends and patterns of high blood glucose.** This information will help you and your doctor assess and adjust treatment.
Remind the parents:

- **Don’t make blood glucose a moral issue** — it’s not “bad” if you have high blood glucose.

- **Don’t jump to conclusions or label kids** — e.g., they’re “sneaking” or “cheating” — and don’t ask “what did you eat?” in an accusatory tone. Instead:
  - Talk calmly and help the child think about what they have eaten and the activity they’ve been doing.
  - Ask the child for ideas of what may have contributed to the blood glucose high.
  - Then together problem-solve how to handle a similar situation in the future.
Depending on the patient/family, complete the quiz together, or discuss their responses afterward.
About Taking Care of Yourself at School:

- Make sure that the Medical Authorization Form included on page 47 of the MyPlan section is completed; this is what kids will need if they are taking insulin at school.

- Extra copies (online only—not available at Corporate Express) of the Medical Authorization Form and other forms included in the MyPlan section can be found at the Diabetes Topic page on the Intermountain PEN website (from the main .net page, type “PEN” in the browser bar, then choose the Diabetes topic in the window listing ALL Intermountain patient education.)
About *Taking Care of Yourself on a Sick Day*

- Clarify for families that what we ask them to do in the first two weeks (call the doctor or educator for advice) is different than sick-day management after that (when families should follow sick-day guidelines on page 46).

- As part of the above, point out the sick-day guidelines on page 46—this really is too much information for the first couple of days of teaching, but if the child becomes ill and the family contacts the doctor/educator, the doctor/educator may want to walk through the guidelines with the family to handle the illness.

- For a sick day in the first two weeks after diagnosis, tell parents: “If it is just a runny nose and you feel like everything is okay, they don’t need to call the doctor or educator.”

- Tell families that they can use OTC medication as they would with other kids; they just need to be careful to dose appropriately for age and size. When necessary, they can call the doctor or educator to help manage blood glucose response to illness.
About **Handling Insulin and Diabetes Supplies:**

- Go through all the patient’s supplies and match them with their pictures.
- Clarify insulin storage: “You can keep the bottle you’re using at room temperature, but keep all others in the fridge.”
- Help determine what size needle / syringe is appropriate for child.
- Note any differences in insulin bottle size and shape, and encourage patients to date and mark the bottles clearly to help them quickly distinguish insulin types. Does the child want to use...
  - Stickers?
  - Markers?
  - Rubber bands?
- Suggest storing different types separately so there is less risk of error.
Expect to spend a fair amount of time going through the MyPlan section. Be sure to fill it in completely and accurately with the patient and family prior to discharge.
Collaborate with the patient and family to fill in these two pages completely. When possible, have them fill in the blanks—they need to understand thoroughly what the information means and how they will use it every day to guide diabetes care.

Page 44 reinforces the need to complete a daily log of blood glucose readings for the first several weeks. Together with the patient, work through a few lines in the log that comes with the patient’s own meter.
About **SPORTS DAY INSTRUCTIONS, SICK DAY GUIDELINES**

...and on the reverse side: **CONTACTS FOR DIABETES CARE**

- **These are perforated pages to copy and share** with all of the patient’s caregivers, coaches, etc. as needed.
- **Remember**: in the first two weeks after diagnosis, the family should call the doctor or educator if the child is sick (more than sniffles). The guidelines included here are more for ongoing self-care on a sick day.
More perforated pages to copy and share with teachers, coaches, caregivers, etc.:

- **MEDICAL AUTHORIZATION FORM**: make sure this form is completed and signed by the physician before the patient is discharged; the form is required for the child to return to school and receive care at school.

- **Let’s Talk About…TEACHER INFORMATION ABOUT DIABETES**: this gives basic information about diabetes, hypoglycemia, and hyperglycemia.

- **Let’s Talk About…HOW TO TREAT LOW BLOOD GLUCOSE**: this gives information on recognizing and treating low blood glucose in a child

- **Glucagon: emergency medicine for treating very low blood glucose**: share this sheet with everyone who also receives a glucagon kit for treating severe hypoglycemia.
Toward the end of your teaching:

- Point out the resources on this page. Eventually, parents and patients may want more information.
- Remind the patient and the family that they can call you any time with questions or concerns.
- Schedule follow-up classes and appointments.
- Be reassuring and upbeat. Patients and families may be nervous about leaving the hospital and beginning diabetes management on their own. Help them feel that they can do it!