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dear parents and caregivers

It is our privilege to care for your child and support you throughout their type 1 diabetes care journey. We hope the material in this binder will provide helpful information and resources and make you feel more comfortable with caring for your child. We encourage you to read this binder, and to use it to store information and as a reference. If you believe your child can understand this information, please share it with them too.

At Dayton Children's, we not only care for your child, but also your family. We understand that you know your child better than anyone else, so it is important that parents and caregivers feel they are part of the care team. It is our goal to always go above and beyond to ensure you have a positive experience. Please let us know if you have any questions or if there is anything we can do to help meet the needs of your child and family.

Sincerely,

Paul Breyer, MD
Chief, division of endocrinology

Please scan this QR code to complete a brief survey about this binder so we can improve it for future patients.

communicating with the diabetes team

illness

Please call 937-641-3487 and press option 5 if your child has any of the following:

- Is vomiting and unable to keep fluids down
- Has moderate or large ketones (page 12-13)
- Blood sugar meter reads "HI" after checking it twice
- Has severe low blood glucose
- Has an emergency like you are out of insulin, or you need to use glucagon shot

When you call please have the following information:

- Blood sugars and ketone results
- Insulin doses

don't forget about MyKidsChart!
MyKidsChart is the best way to communicate with us for routine questions or requests.We can sign you up while you're here, so be sure to ask if you're not signed up yet! You can also sign up at childrensdayton.org/mykidschart.

blood sugars

You can submit blood sugar records for review by phone, fax or MyKidsChart.

- Call directly to the nurse line: 937-641-3487. Select diabetes, then select the name of your provider.
- Fax: 937-641-5878

The dosing changes will be returned to you by phone or MyKidsChart.

Please include the following information:

- Your **child's name and date of birth.** Please spell your child's name if calling.
- Your child's current doses.
- The date, time, and actual blood sugar numbers.

Please do not leave a message requesting the nurse to call you back for the blood sugars. This will only delay the physician looking at the blood sugars and adjusting doses.

prescriptions

Please leave your request on the nurse line: 937-641-3487, select diabetes, then select the name of your provider. Include the following information:

1. Your child's name and date of birth. Please spell your child's name.
2. The refill needed.
    a. *Example*: Test strips – be sure to leave the type of strips so the correct refill will be provided (ex. Aviva Plus, Contour, Freestyle Lite, Smart View, True-Test, Ultra, Verio, etc.)
3. 30-day or 90-day supply (this is dependent upon your insurance)
4. The pharmacy name and phone number
    a. Requests are sent directly to the pharmacy you specify unless you request the prescription to be mailed or picked up.
    b. If you are requesting a 90-day supply, please also provide the pharmacy city and state.

non-emergency requests

Examples: forms for school, work or driving, general questions, etc. Please call the nurse line at 937-641-3487, select diabetes, and select the name of your provider.

1. For any form to be completed and sent by the diabetes team, a release of information form must be signed by the parent. The child can sign if they are 18 or older. You can access the release of information form on our website. Or, we can mail one to you or send it to you through MyKidsChart.
2. A release of information is good for one year.

diabetes clinic guidelines

how often does my child need to be seen?

Usually, patients are admitted when they are first diagnosed. After your child is discharged, we will schedule a follow-up visit for one to two weeks after that, and then in one month.

After that, routine appointments will be scheduled every 2-3 months.

what do I need to bring with me to appointments?

To help appointments go as smoothly as possible, bring with you:

- Your written records for the last two weeks
- All home meters or devices (CGM, receiver, pump, etc.)
- List of prescriptions
- Your child's snack or meal if the visit is scheduled close to meal or snack time.
- Any questions or concerns you have

how long will the appointments be?

When coming to clinic, please allow up to two to four hours to meet with team members. You will always be seen by the physician. You may also meet with a nurse, dietitian, social worker, diabetes educator and/or care coordinator.

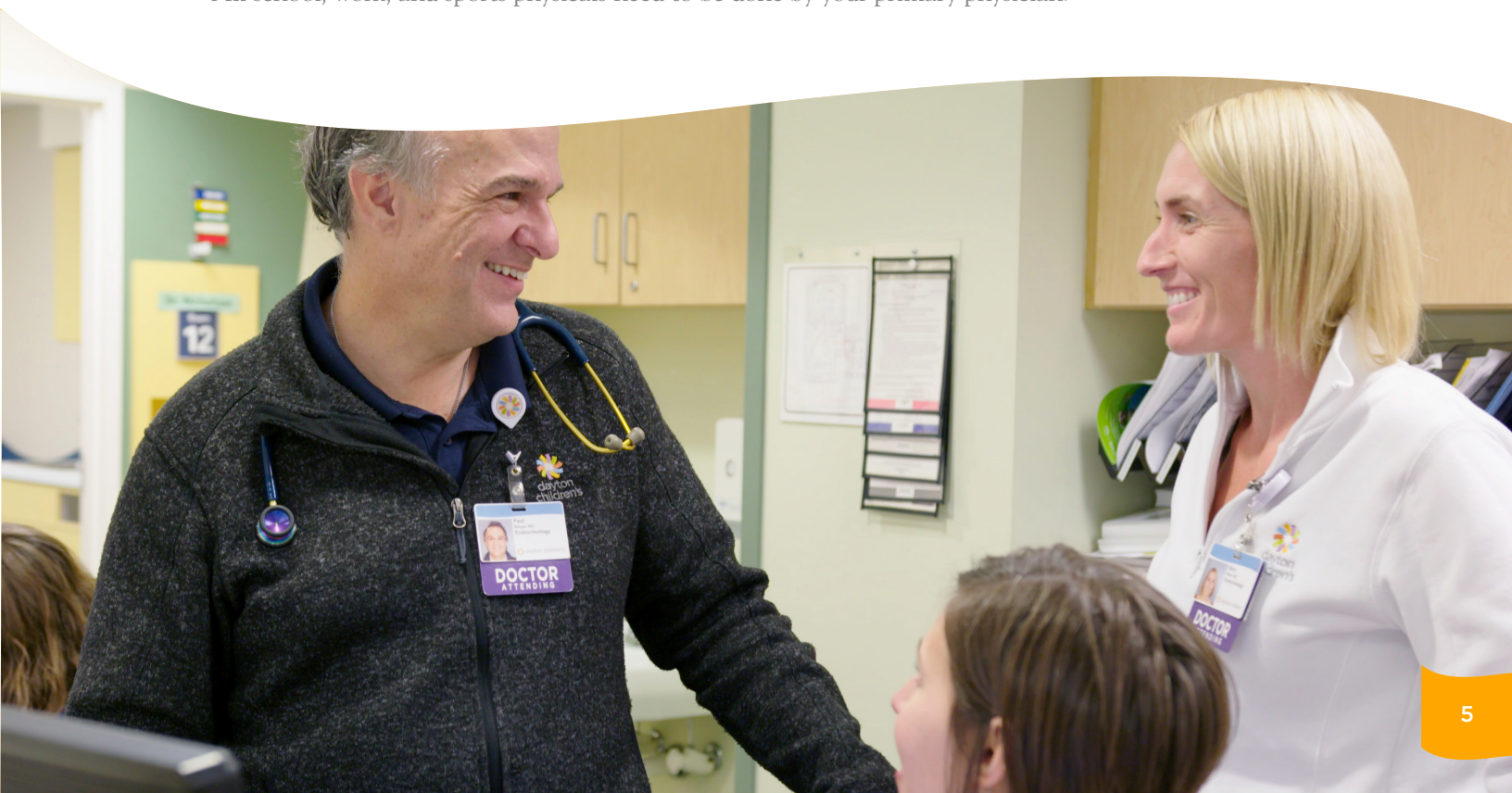
how long before my appointment do I need to arrive?

- **Routine clinic:** At routine visits, a hemoglobin A1C lab is drawn. This can be drawn in the clinic during your appointment. If you choose to go to lab to have this drawn, then you must arrive in the lab 30-60 minutes before your scheduled appointment. After blood is drawn, go immediately to the diabetes clinic and sign in.
- **Fasting lab work (done yearly):** Once a year, you must arrive in the lab one hour before your appointment. This will allow enough time for blood work to be drawn, insulin given and breakfast eaten. When finished, go straight to the diabetes clinic and sign in.

If you are late for your appointment, your provider will try to work you in. But, you may need to be seen at the end of clinic or be rescheduled to a later date.

other tips:

- Schedule follow-up appointments before leaving the clinic.
- When needing school or driving forms:
  - Complete the parent section of the forms.
  - Provide a self-addressed stamped envelope.
  - Allow about one to two weeks for forms to be completed.
  - Forms will be mailed unless a fax number is provided. To fax the form, a release of information (ROI) form must be completed and signed prior to the form being faxed. The ROI form is valid for a year.
- All school, work, and sports physicals need to be done by your primary physician.



what is diabetes?

Diabetes is a serious, lifelong illness that affects how the body uses food. The food we eat is broken down into glucose (sugar). Glucose is our body's main source of energy. Here is how our body uses sugar:

- The food we eat is turned into sugar through digestion.
- The sugar moves into the blood stream.
- When our body senses an increase in the blood sugar, it sends a signal to your pancreas.
- The pancreas makes insulin and sends it into the bloodstream.
- Insulin allows the sugar to move from the bloodstream into the cells. The cells can then use the sugar as energy.

Just as a car will not run without gasoline, our bodies will not "run" without sugar for fuel. Think of this being similar to a car with plenty of gas (or fuel) but there is not a key to start it. The sugar (the fuel) in our body will not do us any good unless we have insulin (the key) to allow it to go into the cells.

In people with diabetes, this system doesn't work. A person with diabetes has either lost the ability to produce insulin or does not respond to the insulin normally.

1. Due to a lack of insulin, sugar builds up in the bloodstream instead of going into the cells.
2. The increased blood sugar causes water and electrolytes to begin to leave cells and enter the bloodstream. This leads to increased urinating, dehydration and thirst.
3. Although the sugar is elevated, the body cannot use the sugar due to the lack of insulin. Even with very high blood sugar, the inability to use the sugar misleads the body into believing it is starving.
4. Because the body believes it is starving, it begins to use a back-up fuel source: fat cells. As the body breaks down fat cells for fuel, a substance called ketones are produced. As ketones accumulate in the body, water in the body and electrolytes get out of balance. This can eventually make the child very ill. When this happens, we call it diabetic keto-acidosis (DKA)

signs of diabetes and high blood sugar

- Increased thirst
- Increased hunger
- Recent weight loss
- Increased urinating
- Decreased energy level

types of diabetes

characteristics	type 1: insulin dependent	type 2: non-insulin dependent
Insulin production	Absent	Normal or abnormal
Age at onset	Usually before 40 Usually in children	Usually after 40 but is increasing in children
Appearance	Often thin	Often overweight
Symptoms	Symptoms start all of the sudden. Includes greater thirst, urination, hunger, weight loss, decreased energy, have ketones	Symptoms start slowly, or may not have symptoms
Treatment	Insulin, meal plan and exercise	Meal plan, exercise, oral agents and/or insulin

what caused my child's diabetes?

Heredity may play a part in who develops diabetes. Having diabetes in the family does not mean that it will automatically be passed on. But, it does tend to run in families.

- Type 2 diabetes tends to run in families more than type 1.
- Many diagnosed with type 1 have no history of diabetes in their family.

In type 1 diabetes, the exact cause is not known. There is one main theory:

- The body forms antibodies against the cells in the pancreas that make insulin. These cells are called beta cells. This means the body begins to destroy its own insulin-producing beta cells. This is called an "autoimmune response."
- Research has shown that some viruses may cause the antibodies to go after the beta cells. This destruction is not reversible! All beta cells will eventually be destroyed.

how to manage type 1 diabetes

Diabetes is a chronic condition that cannot be cured, but it can be managed. A treatment plan that includes insulin, food and exercise can help manage diabetes.

goals for diabetes management

1. Blood sugar levels as normal as possible
2. Normal physical growth and development
3. Normal social development
4. The ability to care for your child, or for your child to care for themselves depending on age
5. Freedom from serious and long-term complications

honeymoon period

- This is a period of time shortly after diagnosis where the pancreas has a "last hurrah."
- When your child is started on insulin, this allows the remaining beta cells to "rest". The remaining beta cells may be able to briefly increase their insulin production. This may cause your child to have lower blood sugars. When this occurs, the insulin doses may need to be decreased.
- Some people may actually not need any insulin for a short period of time or some may only require smaller and/or fewer doses during the day.
- Remember, this is temporary and it is NOT a cure!
- When your child is having lower blood sugars, it is very important to report the blood sugars to the diabetes team so that the insulin doses can be adjusted.

A1C

what is A1C?

A1C is a blood test that measures how much a person's blood sugar levels have been in and out of the healthy range during the last 2-3 months. A higher A1C can happen when someone's blood sugars have been higher than their healthy range.

what is the goal for A1C?

In the Standards of Medical Care in Diabetes - 2019, the American Diabetes Association (ADA) recommends:

- Children and teens (under 18 years old): A1C target less than 7.5%
- Non-pregnant adults (18 years old and older): A1C target less than 7%

The ADA also says that A1C targets should be personalized by his/her doctor. Your child's doctor will look at the following before giving a target specific to your child:

- Age
- Risk for low blood sugar and if he/she can tell when having a low
- How long has he/she had diabetes
- If he/she has complications

you will learn how to balance your child's blood sugar by remembering:

food		raises blood sugar
insulin		lowers blood sugar
exercise		lowers blood sugar

A1C (%)	average blood sugar	A1C (%)	average blood sugar	A1C (%)	average blood sugar
5.0	97	8.1	186	11.2	275
5.1	100	8.2	189	11.3	278
5.2	103	8.3	192	11.4	280
5.3	105	8.4	194	11.5	283
5.4	108	8.5	197	11.6	286
5.5	111	8.6	200	11.7	289
5.6	114	8.7	203	11.8	292
5.7	117	8.8	206	11.9	295
5.8	120	8.9	209	12.0	298
5.9	123	9.0	212	12.1	301
6.0	125	9.1	214	12.2	303
6.1	128	9.2	217	12.3	306
6.2	131	9.3	220	12.4	309
6.3	134	9.4	223	12.5	312
6.4	137	9.5	226	12.6	315
6.5	140	9.6	229	12.7	318
6.6	143	9.7	232	12.8	321
6.7	146	9.8	235	12.9	324
6.8	148	9.9	237	13.0	326
6.9	151	10.0	240	13.1	329
7.0	154	10.1	243	13.2	332
7.1	157	10.2	246	13.3	335
7.2	160	10.3	249	13.4	338
7.3	163	10.4	252	13.5	341
7.4	166	10.5	255	13.6	344
7.5	169	10.6	258	13.7	346
7.6	171	10.7	260	13.8	349
7.7	174	10.8	263	13.9	352
7.8	177	10.9	266	14.0	355
7.9	180	11.0	269	Over 14	**Too high to measure**
8.0	183	11.1	272		

key:

green = goal

yellow = caution/higher than recommended

red = concern/discuss with your diabetes doctor

blood sugar testing, ketone testing, and insulin injections

blood sugar (glucose) testing

blood sugar testing at home

The most accurate way to monitor diabetes control is by checking your child's blood sugar. Blood sugar is also called blood glucose. This can be done easily at home by using a glucose meter. The diabetes nurse educator will provide a glucose meter for your child and show you how to use it. The unit of measurement for the blood glucose reading is mg/dl.

Keep the following points in mind for using your meter:

1. You should only use a meter that has date, time and memory.
2. Make sure the correct date and time are programmed in the meter. This is really important to be able to review the blood sugars in the meter.
3. Each meter also has a 1-800 number on the back for help. You can call that number 24 hours a day, seven days a week. The meter manual is also helpful if you have problems or forget information.
4. It is important to use the proper strip for your glucose meter. Each meter has strips specifically made for that meter. Check the expiration date on each new bottle of strips.
5. Your meter will alert you to when the batteries need to be replaced. The batteries can be bought at local pharmacies.
6. Do not expose the meter to extreme heat or cold, such as leaving it in the car in the winter or summer.
7. For your child's safety and best interest, check blood sugar at least four times a day.
    - Before breakfast
    - Before lunch
    - Before dinner
    - Before bedtime snack
8. Check if your child complains of feeling ill or has symptoms of low blood sugar.
9. You will need to check more often when your child starts a sport or their activity increases. This will affect their blood sugar.
10. When insulin changes are made, you will sometimes need to check the blood sugar at midnight and/or 3:00 am. This is for your child's safety. Follow your care team's instructions.
11. The first week that your child is home you will also be checking blood sugar at midnight and 3:00 am. These are more of safety checks to make sure they're not dropping low. Please check with your doctor on when you can stop these checks.

what to do with blood sugar results

1. **At first, keep a written record of your results.** These records will help you see patterns and manage them correctly, and understand dose adjustments. The diabetes team can provide you with blood sugar records that you can use.

Example of a glucose record: You will need to write the following information in the hour closest to the time the event occurs.

date		12am	3am	6am	7am	8am	9am	10am	11am	12pm
Blood sugar	BG									
Number of carbs	Carbs									
Units of insulin given	Insulin dose									
Gym class, etc.	Exercise									
Ketone level	Ketones									

2. **After being discharged from the hospital, you will need to call in blood sugars daily or every other day as instructed by the diabetes team.** You will receive discharge instructions with your doses, basic daily instructions, and the phone numbers needed to contact the diabetes team. These numbers are in the beginning of this manual.

   - Each glucose meter has software you can use to load the blood sugars from the meter to a computer. You can often download the software from the meter manufacturer's website.

3. **After the diabetes physician (called an endocrinologist) sees you for your follow-up appointment, you should call as your physician directs and when you suspect a need for insulin adjustments.**

   - Blood sugars will increase when your child has growth spurts, has an illness or is stressed (example: school tests).
   - Even though the child is doing nothing wrong, sometimes they will feel that they will get in trouble if their blood sugars are high. It is important not to label blood sugars as good or bad. The numbers are just measurements.

ketone testing

when to test for ketones

- Always if blood sugar is above 300 mg/dl.
- Always if your child feels sick or nauseated, even if the blood sugar is under 300 (especially if she/he vomits, even once).
- For the first week after diagnosis, also check the urine for ketones every morning.

Always confirm written records with the meter's memory. If the wrong blood sugars are given to the team, it could lead to harmful dose adjustments.

how to check for ketones: using strips

- Completely cover the colored square on the end of the strip by dipping into fresh urine.
- You can hold the strip directly in the urine stream or the urine can be collected in a cup.

- If the child is in diapers, cotton balls can be placed in the diaper and the strip can then be pressed on the wet cotton ball.
- Compare the test area closely with the color chart. Hold the strip close to the color block and match the colors carefully. The timing is very important.
- Ketostix: Read the ketones at exactly 15 seconds after dipping the strip.

blood ketone meter: Precision Xtra

For toddlers who aren't potty trained, and older kids in the middle of the night, Precision Xtra could be a good option. Follow up with your care team to see if it will be a good fit for your child.

what to do if ketones are positive

1. Notify the diabetes nurses or physician if ketones are moderate to large. More insulin may be needed due to the illness and ketones.
2. Have your child rest or play quietly. They should avoid exercise until ketones are gone. Exercise can make ketones worse.
3. Encourage fluid intake, especially water.
4. Recheck urine every 2-3 hours until ketones are negative.
5. Give insulin as ordered by physician or by your ketone correction scale. If you do not have a ketone correction scale, please contact your provider.
6. Record the result of the ketones in your blood sugar record. You can use the following letters or numbers to record the result:

ketone results	blood ketone results	what to write in record
Negative	0.0-0.6	N or O
Trace	N/A	T or 5
Small	0.7-1.0	S or 15
Moderate	1.1-1.5	M or 40
Large	Above 1.5	L or 80
Large-Large	N/A	LL or 160

insulin and injections

Insulin is a hormone made by the beta cells in the pancreas. Insulin allows sugar to go from the bloodstream into the body's cells so it can be used for energy. Insulin lowers blood sugar.

insulin facts

- A person cannot survive without insulin. Insulin is needed in the body 24 hours a day, even if you are not eating.
- People with type 1 diabetes make little or no insulin. So, they need multiple insulin injections in a day. This is because there is not a single insulin which can completely control the blood sugars throughout the day. Therefore, an injection will be needed with each meal and at bedtime.
- People with type 2 diabetes may still produce insulin, but are unable to use it well. Some may need insulin to help control blood sugar levels.
- At this time, insulin does not come in a pill. But, this is being researched.

storage of insulin

Unopened vials or insulin pens should be stored in the refrigerator. **Do not freeze.** Once opened, the vial or insulin pen can be left at room temperature.

what you need to know about your insulin

In the United States, insulin is synthetically made in a laboratory and is most like human insulin.
What you need to know about your child's insulin:

1. Name of each insulin.
2. Types of your insulin(s).
3. Doses: Insulin is measured in units.
4. Always have an extra supply of each insulin available.

insulin types				
Name	**Onset of action**	**Peak action**	**Working time**	**Appearance**
Rapid acting				
Admelog	10-15 minutes	1-2 hours	3-5 hours	Clear
Apidra	10-15 minutes	1 hour	2-4 hours	Clear
Humalog	10-15 minutes	1-2 hours	3-5 hours	Clear
Novolog	10-15 minutes	1-2 hours	3-5 hours	Clear
Faster acting				
Fiasp	5-15 minutes	30-60 minutes	2-5 hours	Clear
Lyumjev	5-15 minutes	30-60 minutes	2-5 hours	Clear
Long acting*				
Basaglar/Lantus	1-2 hours	None	Up to 24 hours	Clear
Levemir	1-2 hours	None	Up to 24 hours	Clear
Tresiba	1 hour	None	Up to 42 hours	Clear

*Long acting insulins are also known as basal insulins. **Insulin can also have a generic form. For example, the generic of Humalog is Insulin Lispro, and the generic of Novolog is Insulin Aspart.

basal-bolus insulin regimen basics

Basaglar or Lantus insulins – Long-lasting insulins

These are basal or "background" insulins. These insulins control the blood sugar when you're not eating.

- Basal insulins need to be given daily. For kids school age or older, this will be at bedtime. For younger kids, this may be in the morning.
- Basal insulins are to be given at the same time each day.
- The dose will be determined by your physician and will increase as your child grows.
  Example: A 2-year-old will have a much smaller dose than a 16-year-old.
- Eating causes blood sugar to rise. Basal insulins are not able to keep the blood sugar at the ideal level due to the sugar from the food. So, a second insulin is needed. We suggest Novolog or Humalog.

Novolog or Humalog insulins – Short-acting insulins (SAI)

These are rapid-acting insulins used at mealtimes and at times when blood sugar is too high.

- Novolog and Humalog insulins are basically the same type of insulin. But, they are made by different companies. There are also generic versions of Novolog and Humalog. Your insurance will determine which insulin is preferred for your child. Based on this, the appropriate insulin will be prescribed by your provider.
- Each short-acting insulin meal dose will be based upon the following:
  - Blood sugar just before the meal
  - Amount of carbohydrates (carbs) eaten at the meal. This is called carb dose.
  - Once given, SAI starts lowering the blood sugar in 15 minutes.
    - Short-acting insulin works strongest or peaks 1-2 hours after being given. This is the time at which SAI lowers the blood sugar the most. Due to this peak, SAI should not be given for a high blood sugar sooner than 2 hours from the last SAI dose. This would put your child at risk for low blood sugar.

We recognize that patients could be on different short-acting insulins. So, we will use SAI in all examples and instructions.

- The dose for a high blood sugar is known as the correction dose.
  - You will be given a target range for your child's blood sugars (example: 80–150mg/dL).
  - When a blood sugar is above the target range, extra short-acting insulin will need to be given to correct the blood sugar down to the target range.

Example target range and correction dose for child who is school age or older

For a younger child, the correction scale will be weaker, meaning less insulin will be needed to correct the blood sugar to the target range.

answer

Joe's blood sugar before lunch was 230mg/dL. Joe will need to take 2 units of Novolog to correct the blood sugar down from 230 to the target range of 80–150mg/dL.

Joe's target blood sugar range is 80-150	
Correction Scale	
Blood Sugar (mg/dL)	Units of Novolog
150–200	1
201–250	2
251–300	3
301–350	4
351–400	5
Above 400	6

carb dose

The short-acting insulin dose for carbs is determined by the carb-to-insulin ratio. The ratio(s) will be determined by your doctor.

The following are examples of different ratios that may be prescribed:

- Example A: Your child has a carb-to-insulin ratio of 10 grams of carbs to one unit of SAI. This means that your child will take 1 unit of SAI for every 10 grams of carbs eaten.
  - Your child eats 30 grams of carbs. 30 ÷ 10 = 3 units
  - This means that your child needs 3 units of SAI for eating 30 grams of carbs.
- Example B: The carb to insulin ratio is 15 grams of carbs to one unit of SAI.
  - Your child eats 46 grams of carbs. 46 ÷ 15 = 3.067
  - Round to the nearest ½ unit. The dose would be 3 units.
- Example C: The carb to insulin ratio is 20 grams of carbs to one unit of SAI.
  - Your child eats 68 grams of carbs. 68 ÷ 20 = 3.4
  - Round to the nearest ½ unit. The dose would be 3.5 units.

formula to determine the total meal dose

Correction dose + Carb Dose = Total # of units of short-acting insulin (SAI)

Correction Scale	
Blood Sugar (mg/dL)	**Units of short-acting insulin**
150–200	1
201–250	2
251–300	3
301–350	4
351–400	5
Above 400	6

Correction dose = **2 units of SAI**

example:

First, determine the correction dose. The pre-lunch blood sugar was 244 and 71 grams of carbs were eaten. The ratio for this meal is 10 grams: 1 unit SAI

Next, determine the carb dose. 71 grams of carb eaten ÷ 10 (ratio) = 7.1 (round to nearest ½ unit) = 7 unit carb dose

Finally, determine the total # of units of SAI needed for lunch. 2 units (correction dose) + 7 units (carb dose) = 9 units (total units of SAI needed for lunch)

other examples

Pre-lunch blood sugar is 287 and 59 grams of carbs were eaten.

- Correction dose: 287 blood sugar range = 3 units (from correction scale)
- Carb dose: 59 ÷10 = 5.9 (round to nearest ½) 6 units
- Total units of SAI: 3 units + 6 units = 9 units

Pre-dinner blood sugar is 144 and 85 carbs were eaten.

- Correction dose: 144 blood sugar range = 0 units (from correction scale)
- Carb dose: 85 ÷ 10 = 8.5 (round to nearest ½) 8.5 units
- Total units of SAI: 0 units + 8.5 units = 8.5 units

other factors to consider for determining the short-acting insulin dose

If activity is after a meal, you may pre-treat by giving less insulin (round down). If activity is several hours after the meal, you may pre-treat by giving an additional 15 gram carb snack. No additional insulin would be needed with the snack.

What will your child's activity level be after the meal?		
Activity level	**Example of activity**	**Round up or down?**
Inactive	Being in school	↑ Round the dose up
Active	Playing outside	↓ Round down, or even pre-treat for activity

schedule for meal times

Short-acting insulin meal doses can be given either right before or after the meal. Physicians will determine their doses.

- **Older children (8 years and older) pre-meal:** School age or older will need to give the short-acting insulin just prior to the meal. We recommend no more than 15 minutes before the meal.
  - By giving the short-acting insulin just prior to the meal, the blood sugars will not go as high after eating. This results in better blood sugar control.
- **Younger children (under 8 years old) post-meal:** For younger children, short-acting insulin needs to be given right after the meal.
  - Younger children are given their insulin right after eating due to the child not being able to tell what they are going to eat specifically. If the short-acting insulin was given before and the child does not eat the full carb amount, this will put them at risk of low blood sugars. We recommend limiting meal time to 20-30 minutes.
  - Once younger children are able to tell what they are going to eat at meals, the short-acting insulin dose should be given before the meals.

Check blood sugar → Count carbs → Determine total short-acting insulin dose

Correction dose + Carb dose = Total short-acting insulin dose

insulin syringes or shots

using syringes

Insulin may be given by using insulin syringes. These syringes are made specifically for giving insulin. Using other types of syringes may result in the wrong amount of insulin being given.

- There are three (3) sizes of insulin syringes. The smaller syringes are marked in either one unit or ½ unit amounts.
  - Note: The needle size (gauge) for all the syringes is the same. They just differ in the amount of insulin they hold.

Syringe	can hold up to ...	units they come in...
3/10 cc syringe	30 units	Half or whole units
½ cc syringe	50 units	Whole units
1 cc syringe	100 units	A line is 2 units.

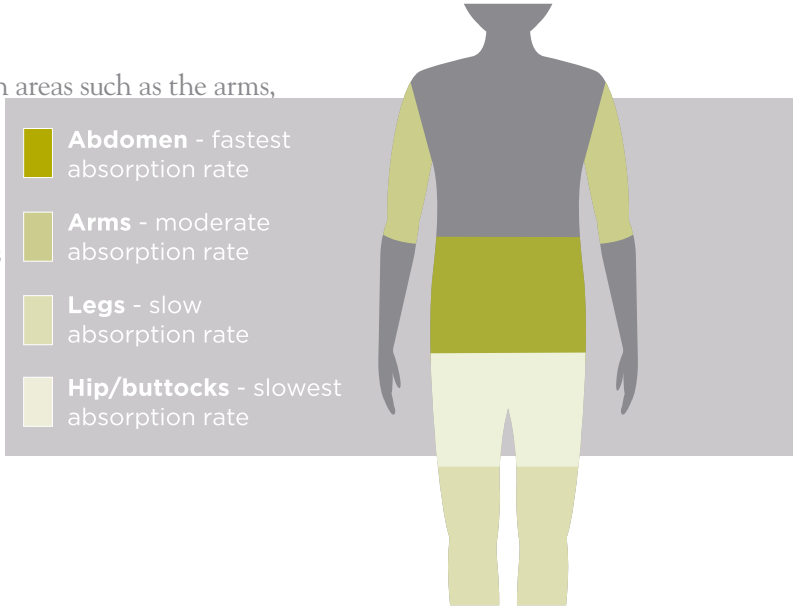
- Insulin syringes that are prescribed have either short or mini needle length. Make sure that the pharmacy provides insulin syringes with the correct needle length.

using insulin pens

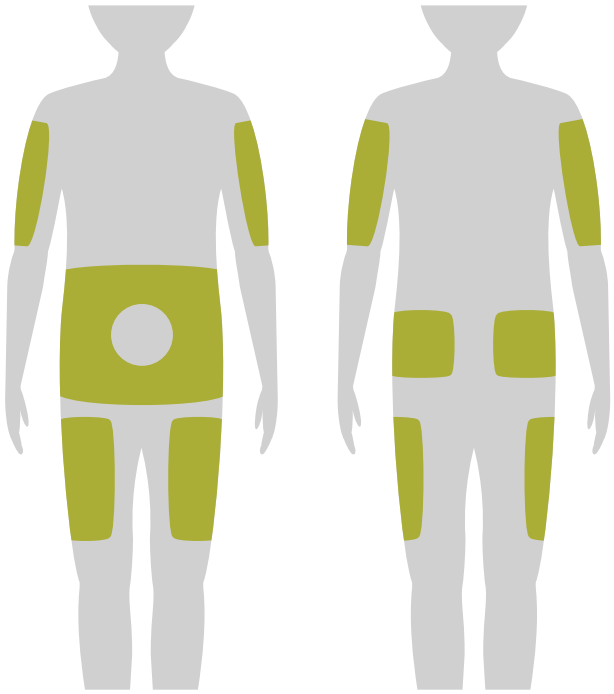
Insulin may also be given using insulin pens. This will require insulin pen needles. Typically the length is 4mm to 6mm, and it is usually a 32 gauge.

rotation of insulin injections

Insulin is injected into the fatty areas just under the skin in areas such as the arms, abdomen, thighs, and buttocks. Injections for these areas of the body are known as "subcutaneous" injections.



- Rotating sites means following a pattern as you move your injections around from site to site. Every person's pattern may be different.
- Insulin enters the blood:
  - Fastest from the abdomen
  - A little slower from the arms
  - Even more slowly from the legs
  - Most slowly from the hip/buttocks
  - Note: You may want to use an area at a certain time because of its absorption rate.
- Do not give your injection in the same spot every day! This can cause lumps and hard places under the skin (hypertrophy). Hypertrophy or scar tissue prevents insulin from being absorbed correctly. If your child is developing scar tissue locations, please contact your doctor for recommendations.
- We recommend using all sites in one location, keeping injections approximately ½ inch apart. Jumping from site to site makes it difficult to remember where the last injection was given. You may choose to have all your morning injections in the belly, all afternoon in the arm and all bedtime injections in the hip or leg.
- Don't inject too closely to scars, bruises, belly buttons or moles. Stay away from the inner thighs. Rubbing between the legs can make the injection site sore.
- Use the entire site area for injections, such as the top and outer aspect of the leg.



steps to drawing up insulin

1. Wash your hands with soap and water. Then, gather these supplies: syringe, alcohol, swab, insulin and doses.
2. Wipe off the top of the insulin vial with an alcohol swab.
3. Pull the plunger down to pull air into the syringe. You will need the same number of units of air as the number of units of insulin that you are going to withdraw. This is important because if you skip this step, the air pressure in the vial will change enough that it will make it hard to draw insulin out of the vial.

Always make sure you're preparing the correct insulin. Giving the wrong insulin can greatly affect blood sugars. Call the diabetes team immediately if the wrong type of insulin is given.

4. Push the needle into the vial.
5. Push the plunger so that the air goes into the vial.
6. Turn the insulin vial over with the needle still inside it (so the syringe is under the vial).
7. Pull plunger down to the number of units needed at that time. You may need to draw extra insulin out, flick air bubbles to the top, and slowly push to the correct dose.

steps for insulin injection

1. Gather needed supplies: syringe filled with correct amount of insulin and alcohol swab.
2. Choose an injection site. Remember, insulin is absorbed best from (in order):
   a. Abdomen
   b. Arm
   c. Thigh
   d. Hip

3. Clean skin at site with an alcohol swab. Let alcohol dry.
4. Pinch a large area of skin with one hand.
5. Hold your syringe like a dart or pencil with the opposite hand.
6. Push the needle all the way into the skin, going straight in at a 90 degree angle. Be sure the needle is all the way in.
7. Use a finger to push the plunger all the way down. This will push the insulin into the body. Leave the needle under the skin for three seconds.
8. Pull the needle straight out of your skin. Do not rub the place where the injection was given. Check the area for any redness, bleeding or bruising.
9. Safely dispose of used needles and syringes. See the next section for instructions on how to do this.
10. Some restaurants and airports now have "sharp containers" in their bathrooms for your use.

steps for using insulin pens

1. Check the pen before you use it:
   a. Make sure the dial turns easily.

b. Make sure there is enough insulin for your dose.

c. Check insulin pen for any discoloration and cloudiness. If you see either, discard and get a new pen from the refrigerator.

2. Take the cap off the insulin pen.
3. Wipe the seal with an alcohol swab.
4. Peel the foil of the pen needle off, and turn clockwise until it does not go any more.
5. Remove the clear cap. Be sure to save it.
6. Remove the green part and throw it away.
7. Prime the pen by dialing the insulin pen with 1-2 units of insulin. Hold the pen up so that the insulin needle is pointed to the ceiling. Press the bottom of the pen until you see insulin come out. As long as you see insulin come out of the pen, the pen is primed. If you do not see insulin come out, prime again and press the pen again.
8. Clean the skin with alcohol. Inject the insulin and press the bottom of the pen all the way until the dial returns to 0. Once this occurs, start your count. For insulin pens it is usually a 6-10 second hold. A good rule of thumb is 8 seconds. Insulin pens are a longer hold because the insulin comes out in a drip fashion.
9. After the injection is complete, remove the pen from the skin.
10. Place the clear cap over the insulin pen and turn counter clockwise until the pen needle comes off. Discard the pen needle in the sharps container or coffee can that is being used as the sharps container.

disposing of sharps at home

Like anything else we throw out, lancets, syringes, and pen needles need to be thrown out properly. If they end up in a place they shouldn't, like a beach or loose in the trash, they could accidentally hurt someone!

steps for disposal

1. After you've checked your blood sugar or given an insulin shot, put your lancet, syringe, or pen needle directly into a strong plastic or metal container with a tight cap or lid. Do not bend, break or put the cap back on your needle. You might hurt yourself!
2. When the container is full, tightly secure the lid and reinforce it with heavy-duty tape before throwing it in the trash. Mark it "Sharps." Be sure not to put it in the recycling bin!

container do's

- The best containers to use are those that:
- Are made of strong plastic or metal, so needles can't poke through.
- Have a small opening on top with a cap or lid.
- Examples: Bleach bottles, liquid detergent bottles, coffee cans.

container don'ts

- Don't use glass containers or lightweight plastic containers.
- Don't use any container that will be returned to a store.
- If you use a container that can be recycled, be sure it doesn't end up in the recycling bin by mistake.

high and low blood sugars

high blood sugar

hyperglycemia/diabetic ketoacidosis

Problems that come with high blood sugar occur more slowly than those of low blood sugar.

causes of high blood sugar

- Too much food
- Missed insulin injection or not enough insulin
- Being sick with an infection or increased stress
- Being inactive
- Growth

early symptoms

- A blood sugar above the target range
- Increased thirst
- Increased urination
- Hunger
- Decreased energy
- Blurred vision
- Headache
- Stomachache

An occasional high blood sugar is treatable with the appropriate insulin dose. If the high blood sugar is not treated and these symptoms are ignored, it can worsen. Having higher blood sugar increases the risk of developing ketones. This can make a child feel very sick. It can also put them at risk for developing **diabetic ketoacidosis** (DKA). **DKA results when high blood sugars and ketones have accumulated, resulting in an imbalance of body water and electrolytes. DKA is a medical emergency and needs to be treated by your physician. DKA can result in a coma or even death.**

symptoms of ketoacidosis include

- Moderate to large ketones
- Dehydration
- "Fruity" odor to breath
- Deep, rapid respirations (difficult or labored breathing)
- Lethargy/fatigue
- Vomiting

what to do when your child has symptoms of high blood sugar

1. **First check the blood sugar.**
2. **If the blood sugar is above 300mg/dl, check for ketones. If the ketones are moderate or large, call the diabetes nurses or physician.** Or, give blood sugar and ketone correction if you already have a ketone correction scale. When in doubt, call.
   - If Monday through Friday, 8:00 am–4:30 pm, call 937-641-3487. Press option 5 for ill or vomiting.
   - If after 4:30 pm or on a weekend or holiday, call 937-641-3000 to have the physician paged.
   - The office is closed after hours and on the weekend.

   Note: Do not leave a message on the office voicemail.
3. If the ketones are negative, then SAI can be given to correct for high blood sugar. SAI can be given every 2–3 hours. Use your blood sugar correction scale to determine the dose.
   - Example: If the lunch insulin was given at 12:00 pm, you could give SAI at 2:00 pm or after to correct for the high blood sugar.
4. Before correcting for a high blood sugar, think about your child's activity level after the insulin will be given.
   - If active, a reduced dose may be more appropriate. Remember insulin and activity both lower blood sugar.
   - If your child is ill and inactive due to the illness, remember that illness and inactivity both can cause higher blood sugars. You should give the correction at this time.
   - **Note**: Your physician may change these guidelines as you become more experienced with your child's care.

low blood sugar or hypoglycemia

If your child's blood sugar drops below the target range, he/she may have the symptoms of low blood sugar. This is also called hypoglycemia. The body and brain do not work well without the needed sugar. **For children, a blood sugar less than 80 any time during the day is considered a low blood sugar.**

causes of low blood sugar

- The honeymoon period (referenced in the "What is diabetes?" section of this manual)
- Too much insulin
- Exercise/increase in activity
- Vomiting/diarrhea
- Drinking alcohol

When sugar levels drop, signals are sent out that more sugar is needed.

early symptoms include:

- Paleness
- Shakiness
- Sweating
- Irritability
- Mood changes
- Headache
- Hunger
- Nightmares

later, more serious symptoms are:

- Confusion
- Unconsciousness
- Seizure

treatment of low blood sugar

1. If your child is having symptoms of low blood sugar, check the blood immediately. Do not leave a child with a low blood sugar alone!
    - If a monitor is not available, treat the symptoms and recheck the blood sugar as soon as possible. This is not ideal as a glucose meter should be readily available at all times
2. Treat with 15 grams of a quick-acting carbohydrates (carbs). In younger children, we may recommend that 8-10 grams of carbs be used.
3. Sources of quick acting carbs include (15 grams of carbs):
    - ½ cup fruit juice
    - Small pack of fruit snacks (check label for carbs)
    - 3–4 glucose tabs
    - A fun size pack of Skittles® (23 Skittles)
    - 8 Lifesavers®
    - ½ cup regular soft drink
    - 1 tablespoon honey or Karo® syrup
4. Recheck the blood sugar 15 minutes after treatment is given. This is known as the 15-15 rule: 15 grams treatment with recheck in 15 minutes. If it is still less than 80, treat again.
5. If the low occurs at a scheduled mealtime, give the quick acting carbs and then allow your child to eat their meal. Do not add the treatment carbs to the total carbs eaten for the meal.
    - Example: Blood sugar before lunch = 64
        - 4 oz juice (15 grams of carbs for treatment of low)
        - Carbs from rest of lunch = 50 grams
    - Dose of insulin is only given for 50 grams. The 15 grams of carbs from the juice is strictly to treat the low blood sugar. If you gave insulin for the total amount of carbs (65 instead of 50 grams), this could cause the blood sugar to drop too low again.
6. If the low blood sugar occurred at a mealtime, you do not need to recheck the blood sugar unless your child is still showing symptoms for low blood sugar.

treatment of low blood sugar at bedtime

blood sugar at bedtime check	number of extra carbs
Less than 100 (between 80 and 99)	15 grams
Less than 80	30 grams

Recheck blood sugar in 30 minutes, and again in two hours to ensure that the blood sugar is over 100 before leaving the child alone for the night. Please note many times the child gets a free snack at bedtime. The treatment of lows above are in addition to the bedtime snack.

If you have to treat low blood sugar frequently, call in the blood sugars for review. We may adjust your child's insulin dose.

severe low blood sugar

Late signs of low blood sugar are decreased coordination and eventually, a loss of consciousness. Treatment is needed immediately.

glucose gel

Glucose gel should be given if your child is awake but "spacey" or uncoordinated, and you are not certain they could safely drink juice.

- Twist the cap off and squirt a small amount of gel inside the jaw.
- Keep giving small amounts of gel until your child has improved coordination and/or is able to speak.

glucagon

If you should find your child asleep and are unable to wake him/her, or if your child is having a seizure, their blood sugar may be severely low. Treatment should begin immediately!

Remember, never put food or juice into an unconscious person's mouth. They can choke. In this case, an injection of glucagon will be needed to raise the blood sugar

what is glucagon?

Glucagon is a hormone that causes the liver to release a quick burst of sugar. Glucagon is given by injection or through the nose to the unconscious person with low blood sugar as an "extra boost" to help raise the blood sugar.

instructions for emergency glucagon treatments

Gvoke and Baqsimi are two glucagon options. See below for instructions to administer, or scan the QR codes to watch a video.

Gvoke

Baqsimi

Gvoke (given by injection):

1. Open the pouch
2. Choose injection site (upper arm, stomach, or thigh)
3. Pull the red cap off, push the yellow end on bare skin.
4. Hold for 5 seconds.
5. When window turns red, pull up pen from injection site.
6. Roll child onto their side as it can cause nausea and vomiting. Call 911.

Baqsimi (given in the nose):

1. Remove shrink wrap by pulling on red stripe.
2. Open the lid and remove Baqsimi from the tube. Do not press the plunger until ready to give dose.
3. Hold device between fingers and thumb. Do not push plunger yet.
4. Insert tip gently into one nostril until fingers touch the outside of the nose.
5. Push plunger firmly all the way in. Dose is complete when the green line disappears.
6. Roll child onto their side as it can cause nausea and vomiting. Call 911.

sick day tips

sick days

how can being sick affect my diabetes?

Illness makes blood sugar control more difficult and increases insulin needs. The physical stress of being "sick" or having surgery causes the blood sugar to go higher. Vomiting and diarrhea can make blood sugar go low.

Illness includes any condition in which the body is physically stressed. This includes things like:

- Colds
- Flu
- Diarrhea
- Ear infections
- Fever
- Poison ivy
- Viruses
- Sunburns

what to do when your child is ill

1. Check blood sugar and ketones. Call the diabetes team during business hours, or the endocrinologist on call if after office hours. See below for details. Check the ketones even if the blood sugar is less than 300 or even low. Ketones can develop as a result of the illness. If ketones are moderate or large, or your child is vomiting, call the office or physician on call.
    - Monday–Friday, 8:00 am–4:30 pm: 937-641-3487, press option 5 for ill and vomiting.
    - After office hours, on weekends or holidays: 937-641-3000. This is the Dayton Children's operator phone number. The operator will talk to you first and then page the endocrinologist on-call.
2. Contact the diabetes team/endocrinologist for sick day care instruction and insulin dosing instruction. It is often necessary for insulin doses to be adjusted during illness.

continued on next page

3. If insulin is not taken, especially with illness, high blood sugar and ketones more than likely will occur. This

can make your child severely ill. If not treated appropriately, this can quickly progress to DKA (diabetic ketoacidosis). This requires hospitalization and close monitoring in the Intensive Care Unit.

4. You can still use over-the-counter medications such as Tylenol or cough medicine.
    a. Note: There is not a significant amount of sugar in these medicines even though they taste sweet.
5. If your child is ever prescribed an oral steroid, this will make the blood sugar go up drastically. Please call the office to report the blood sugars so that the insulin doses may be adjusted.
6. For other illness concerns, such as strep, cold, a rash, etc., please call your primary care provider to be seen.

what should my child eat when sick?

Your child will still need to take in some carbohydrates during illness. **If your child does not take in any carbs, starvation ketones may develop.** These ketones are due to the body needing sugar for fuel. If no carbs are eaten, the body resorts to breaking down fat cells as a back-up source of fuel.

If your child does not take in any carbs starvation ketones may develop.

- If your child is unable to or refuses to eat regular foods, liquids with carbs such as regular 7Up®, Sprite®, or Gatorade® may be used instead.
- Fluids are also important to avoid becoming dehydrated.
- Offer at least an ounce (2 tablespoons) of fluid every 20–30 minutes to help prevent dehydration.

carbohydrate alternatives

Remember, during illness there is no need to eat meat, protein or fat. There are minimal carbs, if any, in these foods and they may upset the stomach. Milk products and higher fat foods should also be avoided during vomiting and diarrhea.

Foods with approximately 15 g carbohydrates for sick day diet:

- ½ cup apple juice or other 100% fruit juice
- ½ cup 7Up, ginger ale
- 1 tablespoon honey or corn syrup (if child is 1 or older)
- 1 tablespoon jelly
- 8 Lifesavers®
- 1 tablespoon sugar
- 1 cup Gatorade
- 1 juice box (60 calories)
- 1 slice toast

Foods with approximately 15 g carbohydrates for sick day diet (continued):

- ½ cup cooked cereal
- 6 saltines
- ½ cup sweetened Jell-O®
- ½ cup ice cream
- ¼ cup sherbet
- ¼ cup sweetened pudding
- 1 sugar-free pudding pop
- 1 ¼ cup chicken noodle soup
- 1/3 cup frozen yogurt
- 1 cup cream soup
- 1 cup vegetable soup
- 8 animal crackers

general health care tips, complications and foot care

general health care tips

Good hygiene is important for everyone. People with diabetes need to be aware that diabetes control may be affected if good health habits are not maintained.

- **Watch cuts closely.** Tell your doctor about any cut that is healing too slowly or not at all.
- **Don't get sunburned.** Sunburns are damage to the skin. They can cause higher blood sugars and maybe even ketones.
- **Dress warmly for cold weather**. Frostbite could be very damaging.
- **Get plenty of sleep.** Fatigue affects everyone's performance.
- See the following doctors regularly:
  - Your endocrinologist
  - Your pediatrician or family doctor for annual check-ups, including immunizations and acute illness. This doctor will also provide sports physicals. Immunizations, including the flu shot, are an important part of preventing illness. Being ill, especially having the flu, can make it harder to manage blood sugars. It can also lead to ketones forming.
  - Dentist: Having diabetes can increase your risk for gum disease. You should see your dentist every six months.
  - Ophthalmologist (eye doctor)
    - Type 1 diabetes: After diagnosed with diabetes for 5 years, then every 1-2 years as recommended by the opthalmologist.
    - Type 2 diabetes: At diagnosis, then every 1-2 years as recommended by the opthalmologist.

always carry with you

The following is a suggested list of items you should carry with you:

- Blood glucose testing supplies including meter, test strips, lancets, and alcohol wipes
- Insulin syringes or pen needles with the insulin pen or insulin vial of your short acting insulin
- Ketostix
- Treatment for low BG, including food (juice box, fun size Skittles®, fruit snacks), glucose chew tabs, glucose gel and/or glucagon.
- A copy of your child's current insulin regimen when using multiple daily injections.
- Medical identification card with contact information for your physician and emergency contacts

long-term complications

what causes complications?

The most important factor is high blood sugar over a long period of time. Eventually, high blood sugar may cause damage to the small and large blood vessels. The blood vessels in the eyes and kidneys are the most frequently damaged. Complications can occur after the person has had diabetes for at least 10 years. You can delay or lessen how severe the complications are by helping to keep your child's diabetes in good control.

affected body part/system	complications
Eyes	• Blurred vision/double vision: These are temporary states due to high blood sugars. • Retinopathy: Damage to the small vessels in the eye that can lead to blindness.
Kidneys	• Diabetic nephropathy: This can be caused by high blood sugars and/or high blood pressure. Protein leaks out of the kidney. Damaged kidneys cannot remove wastes from the bloodstream. Your diabetes doctor will regularly check your child's blood pressure and labs to monitor for kidney disease and other complications from diabetes.
Heart	• People with diabetes are more likely to have fat build-up in their arteries. This may cause heart disease, stroke and high blood pressure.
Nervous system	• Neuropathy: Prolonged high blood sugar can damage nerve endings, especially in the feet. This is why foot care is important.
Complications due to infection	• Uncontrolled blood sugars can lead to yeast infections. • Uncontrolled blood sugars can slow healing, leading to infection.

foot care

Because diabetes may affect the blood circulation in our legs and feet, people with diabetes must take especially good care of their feet. Diabetic children usually have good circulation. However, as your child grows into adulthood, this circulation may decrease. Good foot care will become more important.

For foot care to become routine, children need to be taught how to take care of their feet early. Taking a few extra minutes every day to do foot care may prevent serious complications later.

1. **Inspect (look over carefully) your feet every day.** Watch for cracks, blisters, cuts, sores and any signs of infection (redness, discoloration, swelling, pus). Call your pediatrician or family doctor if you notice any signs of infection.
2. **Avoid injuries to your feet**. For a person with uncontrolled diabetes, the chances of a blister or cut becoming infected are greater.

3. **Keep your feet covered.** Wear shoes or slippers everywhere, even around the house or at the pool or beach.
4. **Wear clean cotton socks, which help absorb moisture.**
    a. Diabetic socks are not necessary.
    b. Avoid wearing anything tight on the feet or ankles that would slow the blood flow to the feet.
5. **Wash your feet every day in warm (not hot) soapy water and rinse them well.** Dry your feet by patting with the towel until dry instead of rubbing. At this time, apply lotion to any rough spots so that the skin will not crack.
6. **Keep toenails trimmed straight across.** File down any sharp edges.
7. **Avoid shoes that rub or do not fit well.** These could cause blisters.
8. **Rub corns daily with a pumice stone.** Trimming them or applying commercial corn remedies may cause harm to your feet.
9. **Keep feet warm by wearing socks.** Do not use hot water bottles or heating pads on your feet. Avoid sun burning your feet.

medic alerts

Carrying medical identification is a must for a person with diabetes. This could be lifesaving! All children with diabetes need to wear a bracelet, necklace or anklet stating that they have type 1 diabetes.

Medic alert jewelry will protect your child's health or even their life if they need medical help due to complications related to their diabetes or if they are involved in an accident. It is very important that the medical people taking care of your child know that they have diabetes!

You can obtain medic alert jewelry from a variety of sources:

- The Medic Alert Foundation – 1-800-432-5378. They provide neck chains and wrist bracelets containing medical information tied to a 24-hour emergency response service.
- Lauren's Hope for a Cure Bracelets – 1-800-360-8680. Bracelets made of beads and crystals.
- Fifty 50 Pharmacy – 1-800-746-7505. Neoprene ID bracelets and bags to carry diabetes supplies.
- DiBon Systems – 1-941-923-2608. Maker of Just 4 U temporary, washable tattoos.
- Also available at most pharmacies and jewelry stores.

Contact your diabetes nurse educator if you have any questions or concerns about medic alert identification necklaces or bracelets.

exercise and its benefits

Exercise helps control diabetes! Eating right, taking your medications and exercising are the three main things you need to do for good diabetes control.

Eating right, taking your medications and exercising are the three main things you need to do for good diabetes control.

- Exercise can make your blood sugar go down. The drop in blood sugar can occur hours after the activity.
- Exercise helps burn fat.
- Exercise will help keep your blood pressure and cholesterol down.
- Exercise can help you cope with the stress of daily life.

exercise and insulin

- Test your blood sugar before you exercise. Treat if low before starting.
- Pre-treat for exercise. Follow the exercise and food chart in this manual.
- Carry fast-acting foods with you when you exercise.
  - Examples: fruit juice, fruit snacks, runners' gels, or glucose tabs.
- If you will be exercising one part of your body very hard, try not to inject your insulin in that part of your body that day.
- Ask your doctor if you need to change your insulin doses!

getting started

- Choose an exercise that keeps you going at a steady pace, like walking, jogging, biking, swimming, dancing or stair climbing.
- Exercise safely:
  - Always warm up before you exercise.
  - Always cool down after you exercise.
  - Don't overdo it.
  - You need to be able to exercise 30 minutes each time you exercise. Work up to it.
  - Remember to drink plenty of water.
  - Contact your diabetes team about any exercise questions.

school and other information

how to coordinate with your child's school

- **School nurse.** Before your child returns to school after diagnosis, set up a meeting with the school nurse to talk to them about your child's diabetes.
  - Each school has a plan for students with diabetes. Meeting with the school nurse will allow you to learn about your child's school plan and ask questions before your child returns to school.
- **School forms.** The diabetes team will provide your child's school with forms specific to your child's diabetes care needs.
- **Sports.** Your child can participate in any sport.
  - A statement regarding diabetes care may be requested by the coaches or trainers. The diabetes team can provide that.
  - Sports physical forms will need to be completed by your primary care physician.

parent's checklist	
Blood sugar testing and insulin	• Where are my child's meter and diabetes supplies kept?. • Does my child know the times for testing during the school day? • What is my child to do if feeling low or ill?
Food	• Is the staff or student able to count carbs? • Where are the supplies for low blood sugar treatment to be kept?
Exercise	• Will this be a day of normal or unusual activity? • Will food and insulin balance with the scheduled activity? • Will my child need pre-treatment for the activity?
Timing	• At what times will my child eat snacks and lunch? • At what time will physical activity take place? • Will my child be home from school in time for an afternoon snack, or should the afternoon snack be eaten at school?
Emergencies	• Have teachers been educated to recognize signs of low blood sugar? • Can a parent or other knowledgeable person be reached quickly for help? • Does the teacher know what to do until I arrive?

special occasions

It is possible to take care of your diabetes and still go to birthday parties, sleepovers or slumber parties at your friends' homes, trick-or-treating on Halloween, and enjoy parties at school!

school parties

Have the teacher let you know when there is going to be a party. Then you can find out what foods or treats are planned for the party. If you need help with the carb content of the foods or treats, contact your dietitian or diabetes team member.

slumber parties

Your child does not have to miss the fun of a slumber party at the home of a friend. Ask an adult in the home if they can go through a diabetes education course. Call the office to discuss these offerings.

If you are having a special occasion and are having difficulty figuring out the carb amounts, contact your dietitian or diabetes team member.

At a minimum, talk with the friend's parents about what foods will be served, and about the best time foods will be available during the slumber party. Remember that your child will probably be up later than usual and may be more active. The blood sugar may need to be checked more often on these nights.

travel tips

Having diabetes should not interfere with vacation or travel plans. It is very important, though, that you plan ahead. By planning ahead for diabetes care, you will minimize or prevent any diabetes-related problems. Also, you should discuss your travel plans with your child's diabetes doctor in advance.

what should you do on vacation?

- Always carry food for meals and snacks with you.
- Always carry a quick sugar source available to treat low blood sugars or to pre-treat for activity. Plan on extra snacks any time he/she is to be especially active.
- Have the child carry identification and wear their medic-alert necklace, bracelet, or anklet at all times.
- Keep doing blood and ketone testing like you do at home. You will need to do more frequent checking when traveling and when being more active than usual.
- Always carry your child's insulin with you. Do not place it in the trunk, glove compartment, or dashboard of the car. Always keep it with you in your carry-on luggage.
- Be prepared with extra diabetic supplies. This includes syringes/pen needles (depending on your child's regimen), insulin and testing supplies. Carry a prescription from your doctor for extra insulin and syringes/pen needles in case you lose your supply.

air travel, cruises and international travel

- If traveling by plane or going on a cruise, you may need a travel letter specific to diabetes care and supplies. Please give your travel dates as early as possible to the diabetes care coordinators. Check with the airline to see what they require. At times, airlines have required that specific amounts of supplies be listed on the travel letter.

- If traveling in different time zones, insulin adjustments for the different time zones may be necessary. Please request assistance with this as soon as possible.
- If you travel to other countries, you need to remember that in the US, insulins are 100-unit strength (U–100), meaning there are 100 units of insulin per milliliter (ml) of liquid. A 10 ml bottle of U–100 strength insulin contains 1,000 units of insulin. Other countries may have different strengths insulins which will affect your blood sugars.
- Know where to go in an emergency situation. You may either call the local diabetes association or go to the local hospital emergency room. To find either one of these things search the city name and "diabetes association" online, or look in the phonebook under "diabetes."

community resources

There are many organizations that work with diabetes locally, by state and nationally. Some of these organizations provide information, support groups and education. Other organizations aid in funding research for a cure.

The following organizations or groups are available to support you! For more information and to find the most up-to-date contact information, check their websites or childrensdayton.org.

- **Diabetes Dayton (DD)** – A group of health professionals who offer telephone counseling, support, literature, and information expos.
  - **diabetesdayton.org or 937-220-6611**
- **Camp Ko-Man-She** – This is a summer camp for children and teens with type 1 diabetes solely sponsored by DD.
- **Juvenile Diabetes Research Foundation (JDRF)** – This is a not-for-profit voluntary health agency, whose primary objective is to support and fund research to find the cause, cure, treatment and prevention of diabetes and its complications. They have an annual walk for the cure that families can participate in, and there are many opportunities for people interested in volunteering their time.
  - **jdrf.com or 937-439-2873**
- **American Diabetes Association** – This is a national organization for health professionals and people with diabetes that is also active on the local and state level. They publish the "Forecast" magazine.
  - **diabetes.org or 937-297-0002**
- **Dayton Children's Hospital** – At Dayton Children's, the diabetes team is available to every family of a child with diabetes. Our team is made up of pediatric endocrinologists, diabetes nurse educators, dietitians, a medical social worker and a psychologist.
  - **childrensdayton.org** and **childrensdayton.org/diabetesresources** for online forms, handouts and resources
  - Individual counseling is available through a referral by your primary pediatrician or family doctor.

online resources and useful apps

Please be aware that the information found on the internet is not always accurate. The information may also be sponsored by pharmaceutical companies. The people who you encounter online may have a different level of education and may not have good diabetes control. Please discuss any questions you have with your child's diabetes team.

additional online resources

To look up food to get nutritional information (carbohydrate content, calories, fat, etc.), both **nutritiondata.com** and **calorieking.com** are helpful.

Check out childrensdayton.org/diabetesresources for online forms, handouts and resources, including Pinterest boards with snack and meal ideas.

smartphone apps

Don't have an iPhone? Go to your app store on your smartphone and search "diabetes." For Apple products, visit the app store to check out the following apps and more. Some are free, some cost up to $5.00.

- Carb counting with Lenny the Lion (free app from Medtronic) shows children how many carbs are in various foods by showing serving sizes and pictures. It also offers games on carbs.
- Glucose Buddy and AgaMatrix: Free apps to track and log glucose, insulin, carbs, weight, etc. all in one place. The information can be emailed to you, your family members, or the diabetes doctor.
- Go Meals (free), Carb Master (costs $0.99), and Fast Food Calories (costs $0.99 for Pro version, non-pro version is free) help you to count carbs in meals.

notes

notes

inpatient prescriptions list

rapid acting insulins	
Novolog	Vials
	Penfill cartridges / Novopen Echo
	Flextouch pens
Humalog	Vials
	Kwikpens
Other Types of Rapid-Acting Insulin	Vials
	Solostar pens

long acting insulins	
Lantus	Vials
	Solostar pens
Basaglar	Kwikpens
Tresiba	FlexTouch

Please refer to page 14 for more information.

emergency tx supplies
Emergency Kit (Glucagon, Baqsimi or Gvoke)
Glucose gel
Glucose tablets

Please refer to page 27 for more information.

bg testing supplies	
AccuChek Aviva Connect - AccuChek Guide Test Strips - AccuChek Fastclix Lancets	**One Touch Verio Meter** - One Touch Verio Strips - One Touch Delica Lancets
Pogo Meter - Pogo Cartridge	**True Metrix Meter** - True Metrix Test Strips - True Test Lancets

ketones testing supplies
Ketone test strips
Precision Xtra Meter & Precision B-Ketone Strips

pen needles
BD Nano

other supplies
Alcohol swabs
CGM (continuous glucose monitor)

diabetes team school attendance policy

Student Name:	Date of Birth:
School:	Year:
Parent/Guardian:	Phone #:
Emergency Contact:	Phone #:
Physician:	Dayton Children's Phone #: 937-641-3487 (endocrinology direct line) 937-641-3000 (hospital operator)

1. A child with diabetes should not miss any more school than other students without diabetes. Please review your child's school policy regarding absences and truancy.
2. A child with diabetes may attend school with elevated blood sugars and/or ketones as long as they are not vomiting.
3. If a child does have an acute illness resulting in elevated or low blood sugar levels or ketones, the diabetes team must be contacted the morning of the illness for a school excuse. Please do not call after-hours to the on-call physician for a school excuse. Calling the physician after-hours is for emergency situations or blood sugar management during acute illness only.
4. A school excuse will be provided only if you have called the diabetes team the morning of an illness. The diabetes team does not sign school chronic illness waivers.
5. Your child's school performance may be affected if he or she misses excessive days of school. The diabetes team will contact you and your child's school staff to evaluate recurrent absences and will work with you to reduce the amount of school missed due to diabetes.

Parent's signature:	Date:

STANDARD AUTHORIZATION FORM

Fields marked with an asterisk (*) are required to be completed. Failure to provide additional identifying information in Section I may result in the inability to respond to this request. This form is not a patient access request under 45 CFR 164.524. *Records released pursuant to this authorization may include information concerning testing, diagnosis or treatment of HIV/AIDS, psychiatric and/or drug/alcohol treatment, and/or sexual assault.*

FORM A – AUTHORIZATION FOR RELEASE OF INFORMATION FROM COVERED ENTITIES (OTHER THAN PART 2 PROGRAMS)

Section I

First Name*	M.I.	Last Name*	Date of Birth*	Social Security Number 000-00-0000

Address	City	State	Zip Code

I hereby authorize the disclosure of health information about the above individual as follows.

Section II

Disclosing Entity* *(Covered Entity such as a health plan/insurer or provider)*
Dayton Children's Hospital

Address		Telephone Number
One Children's Plaza		(937) 641-3100
City Dayton	**State** OH	**Zip Code** 45404

Recipient (Person or Entity) *

Contact Information *(e.g. telephone number, email address, fax number, street address, etc.)*

Section III

Reason for Disclosure* Verbal and written communication with school staff regarding diabetes care.

Health information to be disclosed*

Specify time period, if desired:
Release only information from the period _____ *(mm/dd/yyyy)* to _____ *(mm/dd/yyyy)*

Section IV

This authorization will remain in effect until revoked or shall expire on date or event specified below. I understand that I may revoke or cancel this authorization at any time by submitting written revocation in the manner specified by the disclosing entity, except to the extent that action has been taken in reliance on this authorization. If this authorization has not been revoked, it will expire on the date or completion of the event stated below. If no date or event is specified below, this authorization will expire in one year.

Expiration Date or Event _____ *(mm/dd/yyyy)*

- I understand that I may not be denied treatment, payment, and enrollment in the health plan, or eligibility for benefits for refusing to authorize disclosure unless such denial is permitted under state and federal law.
- I understand that information disclosed by this authorization, except as prohibited by 42 CFR Part 2 or other applicable law, may be subject to re-disclosure by the recipient and may no longer be protected by the Health Insurance Portability and Accountability Act Privacy Rule [45 CFR Part 164].

Signature of Individual*	Date* *(mm/dd/yyyy)*
Signature of Personal Representative (if applicable)* *(identify relationship to individual below)*	**Date*** *(mm/dd/yyyy)*

Relationship of Personal Representative to Individual *(Personal representative shall submit proof of authority to the disclosing entity)*
☐ Parent ☐ Legal Guardian ☐ Healthcare Power of Attorney ☐ Executor/Administrator ☐ Other ☐ N/A

For administrative use only:

Method of Delivery (e.g. paper, fax, electronic,)	Date Released

STANDARD AUTHORIZATION FORM

Fields marked with an asterisk (*) are required to be completed. Failure to provide additional identifying information in Section I may result in the inability to respond to this request. This form is not a patient access request under 45 CFR 164.524. *Records released pursuant to this authorization may include information concerning testing, diagnosis or treatment of HIV/AIDS, psychiatric and/or drug/alcohol treatment, and/or sexual assault.*

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City Dayton	State OH		Zip Code 45404	
Recipient (Person or Entity) *				
Contact Information *(e.g. telephone number, email address, fax number, street address, etc.)*				
Section III				
Reason for Disclosure*				
Health information to be disclosed*				
Specify time period, if desired: Release only information from the period _____ *(mm/dd/yyyy)* to _____ *(mm/dd/yyyy)*				
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Signature of Individual*				Date* *(mm/dd/yyyy)*
Signature of Personal Representative (if applicable)* *(Identify relationship to individual below)*				Date* *(mm/dd/yyyy)*
Relationship of Personal Representative to Individual *(Personal representative shall submit proof of authority to the disclosing entity)* ☐ Parent ☐ Legal Guardian ☐ Healthcare Power of Attorney ☐ Executor/Administrator ☐ Other ☐ N/A				

For administrative use only:

Method of Delivery (e.g. paper, fax, electronic,)	Date Released

dayton children's

Name:	Phone #:
Date:	Doctor:

Basaglar / Lantus / Levemir Record (circle insulin you are using) **Dose:** **units given at:** **am/pm**		
Carb : Insulin ratios	**Daytime Correction Scale**	**Bedtime Correction Scale**
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EP12681 (Rev. 10/2022)

******PLEASE BRING METERS TO ALL APPOINTMENTS *****

dayton children's

Name:	Phone #:
Date:	Doctor:

Basaglar / Lantus / Levemir Record (circle insulin you are using) **Dose:** **units given at:** **am/pm**		
Carb : Insulin ratios	**Daytime Correction Scale**	**Bedtime Correction Scale**
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dayton children's

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EP12681 (Rev. 10/2022) ******PLEASE BRING METERS TO ALL APPOINTMENTS *****

PATIENT PREPAREDNESS PLAN

DO YOU OR A LOVED ONE HAVE DIABETES AND USE INSULIN?

Make a plan to stay healthy during natural disaster or emergency

Managing diabetes can be even harder when you are dealing with a major storm, loss of electricity, and possible evacuation from your home. Building a "diabetes kit" now can save a lot of worry and time when a disaster strikes. A checklist template is included for your use.

Your diabetes kit can be stored in an easy-to-carry waterproof bag or container to hold the documents, information, and supplies that you will want to have with you.

Important Information to Keep In Your Kit - Write down or copy the following:

- Type of diabetes you have
- Other medical conditions, allergies, and previous surgeries
- Current medications, doses, and time you take them. Include your pharmacy name, address and phone number.
- Previous diabetes medications you have taken
- A letter from your diabetes care team with a list of your most recent diabetes medications, if possible.
- A copy of your most recent laboratory result, like A1C results
- Make, model and serial number of your insulin pump or CGM. Include pump manufacturer's phone number in case you need to replace your device.
- Doctor's name, phone number, and address
- Phone numbers and email addresses for your family, friends, and work. Include out-of-town contacts.
- A copy of your health insurance card
- A copy of your photo ID
- Cash

Source: Adapted from American Association of Clinical Endocrinologists (AACE) - My Diabetes Emergency Plan.
For additional emergency preparation resources for people with diabetes, visit: http://mydiabetesemergencyplan.com/

Diabetes Supplies

- Additional week supply (or more) of all medications, including insulin and Glucagon, if prescribed.

If you lose power and you have unused insulin, don't throw it out! In an emergency, it is okay to use expired or non-refrigerated insulin.

- Protect your insulin pump from water.
- Supplies to check your blood sugar, like testing strips and lancets. Don't forget extra batteries!
- Extra supplies for insulin pump or CGM
- Cooler and reusable cold packs
    - Note: Do NOT use dry ice and do not freeze the medication
- Empty plastic bottle or sharps container to safely carry syringes, needles and lancets
- Items to treat high blood sugar such as pump supplies (infusion sets) and/or syringes
- Items to treat low blood sugar (hypoglycemia), like:
    - Juice
    - Regular soda
    - Honey
    - Hard candy (not sugar-free)
    - Glucose tablets
    - Glucagon

Other Supplies to Pack

- 2-day supply of non-perishable ready-to-go food, like:
- Pre-packaged tuna, beans, cheese and cracker snacks etc.
- Nuts or nut butters
- High-fiber/protein granola bars
- Dried fruits
- Anything according to dietary restrictions
- A 3-day supply of bottled water (or more)
- Pen/pencil and notepad to record blood sugar, other test results and any new signs/symptoms
- First aid supplies like bandages, cotton swabs, and antibiotic ointments or creams
- Extra clothing, including socks and undergarments
- Cell phone and charging supplies for phone and pump including battery pack
- Flashlight and batteries

Other Recommendations

- Make sure that all your vaccinations are up-to-date.
- Choose a meeting place with your family in case you are separated. Write down location and include in your kit.
- Wear a medical ID or medical alert bracelet or other form of identification in case you are evacuated to a relief shelter.
- For children, write down name of school, address and phone number.

Checklist	
Important Information to Keep in Your Kit - Write down or copy the following:	**Check if Completed**
Type of diabetes you have	
Other medical conditions, allergies, and previous surgeries	
Current medications, doses, and time you take them. Include your pharmacy name, address and phone number.	
Previous diabetes medications you have taken	
A letter from your diabetes care team with a list of your most recent diabetes medications, if possible.	
A copy of your most recent laboratory result, like A1C results	
Make, model and serial number of your insulin pump or CGM. Include pump manufacturer's phone number in case you need to replace your device.	
Doctor's name, phone number, and address	
Phone numbers and email addresses for your family, friends, and work. Include out-of-town contacts.	
A copy of your health insurance card	
A copy of your photo ID	
Cash	
Diabetes Supplies	
Additional week supply (or more) of all medications, including insulin and Glucagon, if prescribed.	
Supplies to check your blood sugar, like testing strips and lancets. Don't forget extra batteries!	
Extra supplies for insulin pump or CGM	
Cooler and reusable cold packs: Note: Do NOT use dry ice and do not freeze the medication	
Empty plastic bottle or sharps container to safely carry syringes, needles and lancets	
Items to treat high blood sugar such as pump supplies (infusion sets) and/or syringes	
Items to treat low blood sugar (hypoglycemia), like: Juice, regular soda, honey, hard candy (sugar free), Glucose tablets, Glucagon	
Document for others that identifies specific signs of high and low blood sugar.	
Helpful if a person is unable to communicate, signs can be mistaken for drug or alcohol intoxication.	
Other Supplies to Pack	
2-day supply of non-perishable ready-to-go food, like: Pre-packaged tuna, beans, cheese and cracker	
snacks; nuts or nut butters; high fiber cereals; high-fiber/protein granola bars; dried fruits; anything according to dietary restrictions	
A 3-day supply of bottled water (or more)	
Pen/pencil and notepad to record blood sugar, other test results and any new signs/symptoms	
First aid supplies like bandages, cotton swabs, and antibiotic ointments or creams	
Extra clothing, including socks and undergarments	
Cell phone and charging supplies for phone and pump including battery pack	
Flashlight and batteries	

Checklist	
Important Information to Keep in Your Kit - Write down or copy the following:	**Check if Completed**
Other Recommendations	
Make sure that all your vaccinations are up-to-date	
Choose a meeting place with your family in case you are separated. Write down location and include in your kit.	
Wear a medical ID or medical alert bracelet or other form of identification in case you are evacuated to a relief shelter. For children, write down name of school, address and phone number	

Additional phone numbers/websites that might be useful:

Customer Care Insulin Manufacturers
Lilly: 800-545-5979
Sanofi-Aventis: 800-633-1610
Novo Nordisk: 800-727-6500

Customer Care Insulin Pump Manufacturers
Omnipod/Insulet: 800-591-3455
Dexcom: 888-738-3646
Medtronic: 800-633-8766

Health Insurance

Centers for Medicare and Medicaid Service - www.cms.hhs.gov.
Insure Kids Now! - Every state in the nation has a health insurance program for people under 18. This website is offered by the US Health and Human Services Department - www.insurekidsnow.gov; 800-877-Kids-Now.
National Drugstores and Pharmacy Chain Patient Assistance - Speak with your local pharmacist about their prescription programs. Stores with these programs include Costco, CVS, K-mart, Rite Aid, Target, Wal-Mart, and others.
NIDDK - Publication called "Financial Help for Diabetes Care" which offers programs, that may provide coverage for medical expenses for a person with diabetes. The publication can be viewed online at www.diabetes.niddk.nih.gov/dm/pubs/financialhelp/; 800-860-8747.
Partnership for Prescription Assistance - Assistance program available to help offset the cost of supplies or prescription medicines 888-477-2669 or www.pparx.org.
United Healthcare Children's Foundation - The Foundation provides financial assistance toward the family's share of the cost of medical services; www.uhccf.org.
www.freemedicine.com - Provides prescription medication for people who do not have adequate insurance coverage or are experiencing financial hardship – no toll-free number but can be reached at 573-996-7300.

Companies that Donate Supplies

Aventis – Donates Lantus insulin; 800-221-4025.
Becton, Dickinson and Company (BD) – Money saving coupons for syringes and patients just need to call and request coupons. The company also offers a one-time only coupon for a free box of syringes. Lifescan – contact for assistance with glucose monitor supplies at 800-227-8862 or send an email request with name and address to CustomerService@Lifescan.com.

BlinkHealth - https://www.blinkhealth.com/.
Lilly Cares – Donates insulin (basalglar, Glucagon, Trulicity, Humalog, Humulin and Mumalog Mix) – a patient can apply for a 3-month supply of insulin for free. A patient must submit a new application each time he/she is applying. The patient needs the doctor's involvement or letter stating the need for insulin; 800-545-6962.
Novo Nordisk - A prescription savings program for Novolin R, N or 70/3010 ml vials to help uninsured patients or patients enrolled in a high deductible health plan at any pharmacy in the CVS Caremark retail network. You will pay $25 per vial after downloading a prescription savings card; https://www.reducedrx.com/.
Novo Nordisk Patient Assistance Program (PAP) - Provides free medicine (to those who qualify) including: Levemir, Novolog, Novolog Mix 70/30, Novolin, GlucaGen Hype Kit, Victoza and disposable needles for FlexPens and Victoza. (Insulin is vial only no pens); http://novonordisk-us.com/patients/patientassistance-programs/diabetes-care.html.
Sanofi Patient Connection Program - No insurance. Provides Apidra, Lantus, Soliqua 100/33 and Toujeoat no cost to patients who meet program eligibility requirements; http://www.sanofipatientconnection.com/patient-assistance-connection.

Additionally, drug companies that sell insulin or diabetes medications usually have patient assistance programs. Such programs are available only through a physician.

Other programs are at:

www.rxassist.org

www.freemedicinefoundation.com

www.needymeds.org

www.cr3diabetes.org

www.ncsl.org/programs/health/drugaid.htm

Source: Adapted from American Association of Clinical Endocrinologists (AACE) - My Diabetes Emergency Plan.
For additional emergency preparation resources for people with diabetes, visit: http://mydiabetesemergencyplan.com/

T1D Support Groups in Southwest Ohio

Whatever age or stage you're at with type 1, you will find practical support, timely information, and a passionate and powerful camaraderie through the type 1 diabetes community.

Below are local support groups that would love to connect with you and your family.

Forever US

T1D Families is a NKY area based support group for families with children living with T1D. The group's goal is to bring together families to share experiences and information, learn from each other, and have fun. Diabetes impacts your whole family so everyone is always welcome to attend these meetings. Membership to the Facebook group is limited to those located in or near the NKY area and over 18 years of age.

Contact: Michelle Adamson
Facebook Page: Forever US T1D Families
Location: Varies, check the group's Facebook page for details
Meeting Dates: 3rd Thursday of each Month

Friends of T1PP (Type 1 Pupils & Parents)

Friends of T1PP is a place for family, friends and students of local schools affected by T1D to go for information, support, and a empathetic ear. It is our hope that through sharing our stories, experiences, trials and tribulations we can help each other and enhance our children's lives and education.

Contact: Amy Maggard, amy.maggard@gmail.com
Facebook Page: Friends of T1PP (Type 1 Pupils & Parents)
Location & Meeting Dates: Varies, check the group's Facebook page for details

NKY Type 1 Troopers

NKY Type 1 Troopers is a type 1 diabetes support group for parents and families in the Northern Kentucky area. Our purpose is to offer a forum for T1D families to share ideas, strategies, resources, questions and information on T1D management.

Contact: Angie Wright, 859-802-5216, angiewright@twc.com
Facebook Page: NKY Type 1 Troopers
Location & Meeting Dates: Varies, check the group's Facebook page for details or e-mail Angie Wright

Ohio River Valley T1D Support Group

This group is based in Portsmouth, Ohio and is open to children, adults and families.

Contact: Malissa Sarver, 740-991-1430
Facebook Page: Ohio River Valley T1D
Location: Lower lobby of King's Daughters Medical Center Ohio
Meeting Dates: Varies, check the group's Facebook page for details

Taking on Type 1 Together

Taking on Type 1 Together is based on the east side of Cincinnati and its purpose is to provide an uplifting, casual atmosphere for parents of Type 1 kids, and to share resources, strategies for home and school, and social opportunities with the goal of moving forward in the daily management of T1D. The group is open to adults only, with occasional events for families.

Contact: Tracy Huebner, tracy@zimcom.net or 513-470-6788
Facebook Page: Taking on Type 1 Together
Location & Meeting Dates: Varies, check the group's Facebook page for details or email Tracy

T1D Families for Families

T1D Families for Families is a west-side Cincinnati area based support group for families with children living with T1D. The group's goal is to bring together families to share experiences and information, learn from each other, and have fun. Diabetes impacts your whole family so everyone is always welcome to attend these meetings. Membership to the Facebook group is limited to those located in or near the Tri-state area and over 18 years of age.

Contact: Marianne Dressman
Facebook Page: T1D Families for Families
Location: Varies, check the group's Facebook page for details
Meeting Dates: 3rd Wednesday of each month

T1D Support – Lima, OH

This group is to provide support to T1D families in the Lima, OH and surrounding areas. We welcome parents, caregivers, and T1Ds looking to build up their support system.

Contact: Sara Harrod, 419-604-9406 (call/text)
Facebook Page: T1D Support – Lima, OH
Location: Varies, check the group's Facebook page for details
Meeting Dates: 3rd Thursday of each month, check the group's Facebook page for details

Type One Kids Play Group

Type One Kids Play Group is a northern Cincinnati area based support group for families with children living with type 1 diabetes. The group meets for monthly play dates that include their T1D heroes and families.

Contact: Lindy Mathes, lindymathes@hotmail.com & Jenn Mosier, (jennrmosier@gmail.com
Facebook Page: Type 1 Kids Play Group
Location & Meeting Dates: Varies, check the group's Facebook page for details

Type One Support for Greene County & Beyond

Type One Support for Greene County and Beyond is a support group based in Greene County Ohio for families and adults affected by Type One Diabetes.

Contact: Melissa Litke, melissaalitke@gmail.com
Facebook Page: Type One Support for Greene County and Beyond
Location & Meeting Dates: The group meets on the third Thursday of the month at various locations. See the group's Facebook page or contact Melissa Litke for more information

Type One Teens

This group is based in Cincinnati and meets monthly. Meeting updates and event postings are made via the group's Facebook page and website. Type One Teens was created to connect teens with T1D in a fun, social environment and to provide an environment where teens can share and have fun. This group is open to teens only, with and without T1D.

Contact: Hadley George, 513-377-1531
Facebook Page: Type One Teens
Website: typeoneteens.com
Location & Meeting Dates: Varies, check the group's Facebook page for details

Warren County T1D Warriors

This group is based in Warren County and hosts monthly meetups for people with T1D and parents of kids with T1D. Meetings will be family friendly and typically include a guest speaker or topic of discussion to help with T1D management. The main goal of the group will be to connect local area T1D families so we can be a support system for one another.

Contact: Elizabeth Sako, lizsako@gmail.com
Location & Meeting Dates: Varies, contact Elizabeth Sako for more details about upcoming events. Meetups will be throughout Warren County, OH