

Living Well With Diabetes

A Diabetes Self-Management Education* Guide





**American
Diabetes
Association®**

*The American Diabetes Association Recognizes this education service as meeting the National Standards for Diabetes Self-Management Education and Support.



Living Well with Diabetes

Medical Outreach Ministries Diabetes Self-Management Education*

Our Mission

As a witness for Jesus Christ, the Medical Outreach Ministries diabetes self-management education and support team provides collaborative, comprehensive diabetes education to equip individuals and families with information and skills to promote positive health outcomes within a welcoming and inclusive experience.

Dear Friend,

Please know your diabetes team at Medical Outreach Ministries (MOM) is here to help you live your best life. It is possible to live a long and healthy life with diabetes, so we hope you will use this booklet to learn all you can to know and manage YOUR diabetes. Our Heavenly Father assures us He loves us with an everlasting love and underneath are His loving arms.

Let's work together with His help to live well with diabetes. Many thanks to Carol Correia, Dr. Jane K. Dickinson, Pamela Green, Molly Stone, Dr. Heather Whitley, the MOM Diabetes Advisory Board, MOM staff, volunteers, and healthcare providers for mentoring, proofing, and caring as *Living Well with Diabetes* took shape. Thanks also to Travis Parker, Alex Wolf, and Baptist Healthcare Foundation for putting the polish on it.

Chris Anderson MS, RN, CDCES
MOM Diabetes Educator

Take your cares to God, for He cares for you.

I Peter 5:7

Table Of Contents

Glossary	6
Chapter 1: What Is Type 2 Diabetes and Why Should I Care?	8
Chapter 2: Meds for Diabetes	12
Chapter 3: What About My Blood Glucose?	18
Chapter 4: Why Do I Need To Move My Body?	26
Chapter 5: Eating To Live Well With Diabetes	32
Chapter 6: What Else Needs Care Besides My Glucose?	38
Chapter 7: Taking Care Of My Diabetes On Sick Days	46
Chapter 8: What Do I Need To Know If I Want To Get Pregnant?	50
Chapter 9: Diabetes Is Daily.	53
Chapter 10: Type 1 Extras	59
Knowing Your Diabetes	72

Glossary

Health Care Provider (HCP)

Your doctor or nurse practitioner. In this booklet, health care provider will be written as HCP.



A1C

Hemoglobin A1C is a lab test your HCP will send you to the lab to get checked 2 to 4 times per year. The A1C is an average of what your blood glucose has been over the last 3 months. It is expressed in a percentage, like 6%, 7% and so on. Our goal with most people with diabetes is to get that A1C below 7% and keep it there. Keeping your A1C where you and your HCP says is best can help to prevent more health problems from diabetes or put them way off in the future.

Carbohydrate

We will call them carbohydrate “carb” in this book. Carb is the main food group that makes our blood glucose go up, and carb is the body’s fuel. We need some carb, and eating healthy carb foods will be the best for your body, instead of unhealthy carb foods like sweets, white bread, white rice, and sweet drinks. Other foods may be used as fuel too, but carb is the main fuel for our bodies.

Cells

Cells are like the factories of our body. Cells do the work of our body. Fuel has to get into cells to give us energy. Carb foods are the fuel that needs to get inside the cells to give our body energy.

Diabetes Educator

A person trained to help you know your diabetes and how to live well with diabetes. This can also be a diabetes teacher.

EMS

Emergency Medical Service. Paramedics

Fasting Blood Glucose

Blood glucose you check before you eat or drink anything in the morning. If you do shift work at night, your fasting blood glucose will usually be the one you check after you wake from your longest sleep of the day.

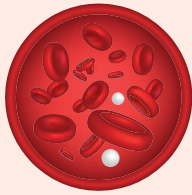
Glucose

When carb is broken down, it gives your body glucose. Glucose is sugar that our bodies can use for fuel.

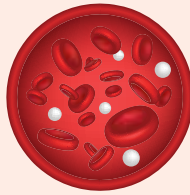
Insulin

The hormone made by your pancreas to help the carb foods you eat move into your cells. Your body knows to put insulin into your bloodstream after you eat carb foods so your body can get energy from the food.

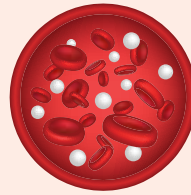
Glucose Levels (The Sugar Levels)



Hypoglycemia
(low blood glucose)



Normal level



Hyperglycemia
(high blood glucose)

Hypoglycemia

Low blood glucose = a blood glucose less than 70. See the section on low blood glucose and how to treat it. You can treat it, and it is important to know how to do it safely. See Chapter 3.

Hyperglycemia

High blood glucose. A fasting blood glucose that is too high is usually above 130. The rest of the day, you usually don't want your blood glucose to be above 180. See Chapter 3 to see what to do if your blood glucose is high.

Medication (Meds)

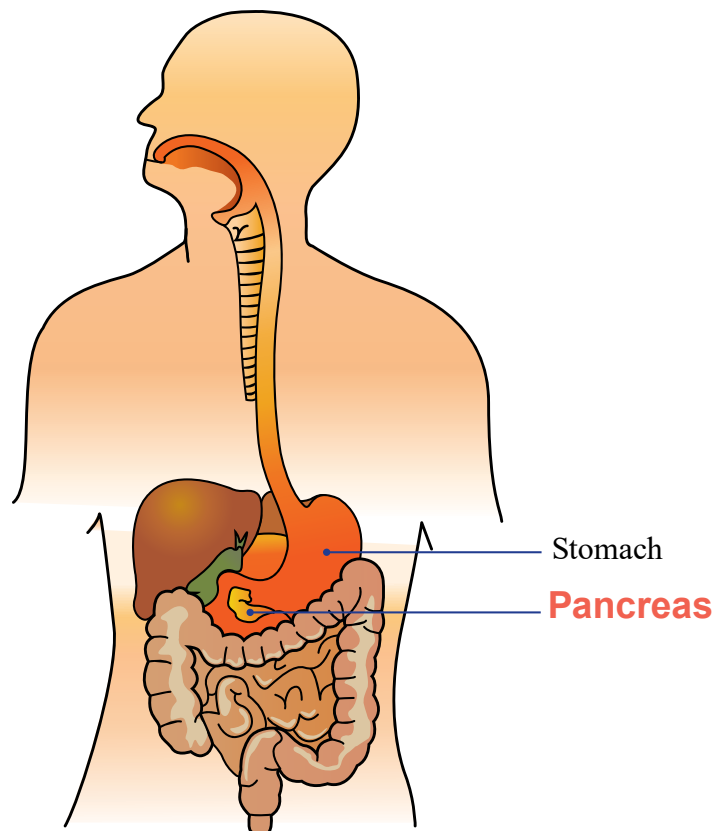
Medicine you take to help you feel better and help you manage diabetes. In this booklet, we will say Meds for medication. See Chapter 2.

MOM

Short for Medical Outreach Ministries.

Pancreas

A gland about the size and shape of two fingers together. The Pancreas lies behind the stomach and makes insulin for you. Insulin helps carb foods get from your blood into your cells so you can have fuel to live.



Chapter 1

What Is Type 2 Diabetes and Why Should I Care?



Type 2 Diabetes...

- Is lifelong, but can be managed.
- Is affected by your food, exercise, meds, sleep, and blood glucose levels.
- Can cause other health problems. We can help you learn to manage your diabetes.
- Is not curable, but it is possible to live well with diabetes.
- Is YOUR diabetes. Your healthcare team can help you with meds, knowing how to manage your diabetes, and support you as you manage diabetes, but you will supply most of your diabetes care away from your medical clinic by the food you eat, your exercise, taking your medicine, and checking your blood glucose.

Most problems related to diabetes are caused by blood glucose that is too high or too low. One of the most important things you can do about your diabetes is learn how to manage diabetes so your blood glucose does not often get too high or too low. **Meet with your diabetes educator. We are here to help you live well with diabetes.**

Causes/Risks That May Work Together To Lead To Type 2 Diabetes

- Someone else in your family bloodline has type 2 diabetes
- Being overweight
- Being over 40
- Too little exercise
- If you had diabetes during pregnancy
- Gave birth to a baby weighing 9 pounds or more
- Some ethnic groups have it more often (African Americans, American Indians, Hispanic/Latino, Asian Americans, Pacific Islanders)

Symptoms Of Type 2 Diabetes

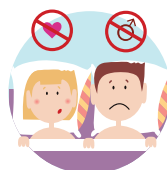
Early in type 2 diabetes, you may not feel bad or different. It is important to work with your HCP and diabetes educator to manage diabetes once you know you have it. You may feel these symptoms come on slowly in type 2 diabetes:



Very, very tired



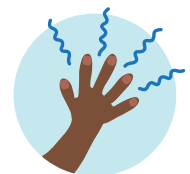
More hungry



Problems with sex



More thirsty



Dry mouth or skin, itchy skin, or numb or tingly hands or feet



Need to pass urine more often



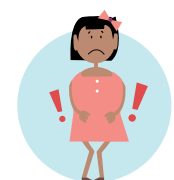
Dizziness



Cuts or sores that heal slowly



Blurred vision that comes and goes



More infections, like urinary tract, vaginal or skin infections

To Explain Diabetes, Let's Look At What Happens When You Eat

Carb foods give your body fuel just like gas gives your car fuel. We will look at what carb foods are later in Chapter 5.

When you eat, carb foods are broken down into glucose and sent into your blood. When that happens, the brain sends a signal to the pancreas that you have some glucose in your blood.

The pancreas puts out insulin into your blood. The insulin is the key that opens the cells so the glucose can leave the blood and go inside the cells to be used as fuel to give you energy.

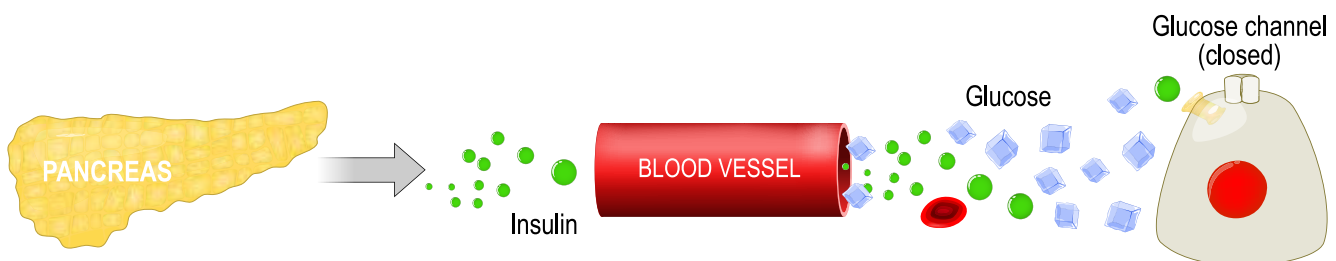
Here's What Happens In A Body Without Type 2 Diabetes

Insulin is the key that unlocks the cell so that glucose can go inside to fuel the cell so the cell can do it's work.




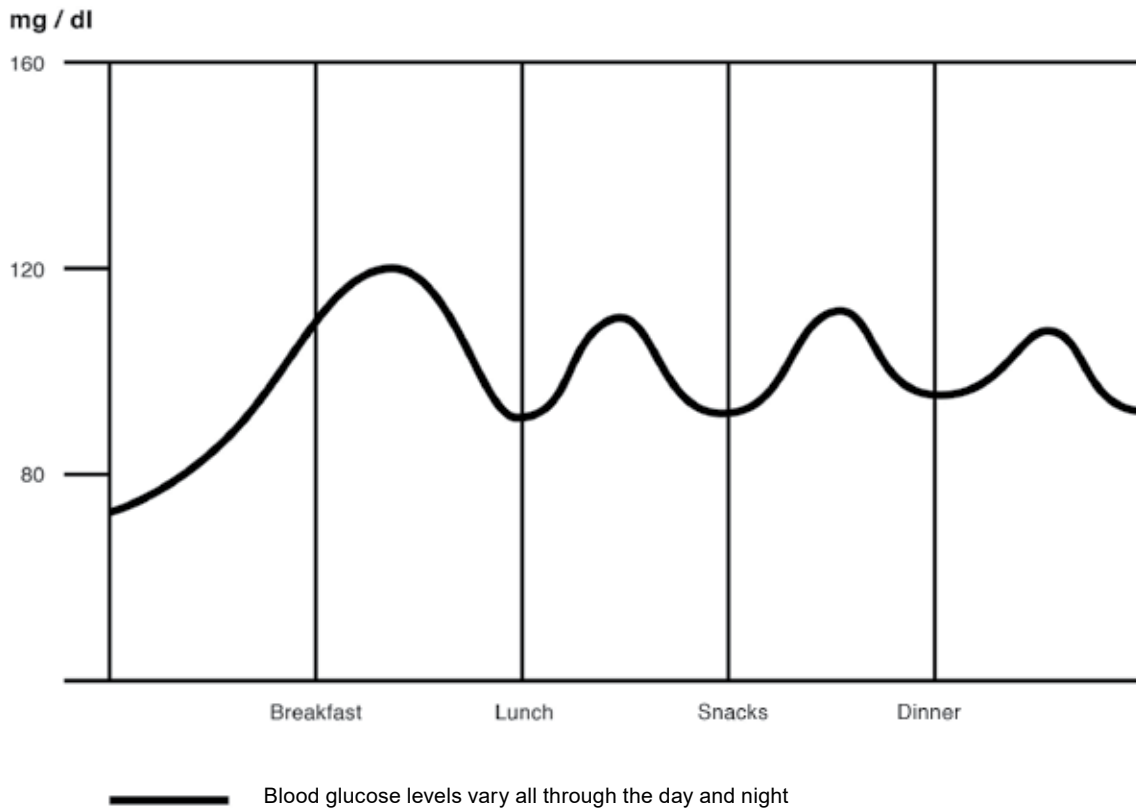
Here's What Happens In A Body With Type 2 Diabetes

With type 2 diabetes, our body resists the work of insulin so too much glucose can stay in our blood vessel instead of going into the cell. This can make blood glucose go too high.



What Happens Differently When You Eat If You Have Type 2 Diabetes?

The carb food is still broken down, but the pancreas does not make enough insulin and/or the body resists the work of insulin in your body. Either way, there is not enough insulin to open the cells, so more of the glucose stays in the blood. Too much glucose in the blood can hurt your body over time. Also, the cells don't get enough fuel to do the work of the body.



Questions You May Want To Ask Your HCP Or Diabetes Educator

- What type diabetes do I have?
- What can help my insulin do its job better?

I am the Lord Your God Who Holds Your Hand. Do Not Fear. I Will Help You.

Isaiah 41:13

Chapter 2

Meds for Diabetes



Why Must I Take Meds?

If you have type 2 diabetes, your body may be making enough insulin or it may not be making enough. Either way, your body resists the work of insulin to help your body use carb as your fuel. There are many meds your HCP can prescribe to help you take care of your diabetes.

There are over 75 meds in more than 12 classes of meds to choose from. Each class of med works in a different way, so you and your HCP may choose the meds that are just right for your diabetes. Your diabetes educator can help you know how each med works.

Diabetes Pills Can Work In Some Of These Ways

- Help your body use the insulin you make.
- Slow down how quickly food moves through your body.
- Help your pancreas put out more insulin.
- Work with your gut hormones to release more of the insulin your body makes.
- Keep your liver from making extra glucose and putting it into your blood.
- Helps you pass extra glucose in your urine.

There is also a class of meds you will take in a shot or pill, and this med is not insulin. These are some of the meds in this class: Trulicity, Victoza, Ozempic, and Rybelsus.

These meds can slow down how quickly food moves through your body and helps you feel full sooner. These meds also tell your pancreas to release more of your body's insulin after you eat.

These meds also keep your body from releasing extra glucose from your liver. These meds may also help your heart and kidneys. Knowing how these meds work may help you use them to lose weight as well as manage your blood glucose levels.



Trulicity



Victoza



Rybelsus

Will I Ever Need Insulin?

As the pancreas slows down over time, it cannot make as much insulin for you. If this happens, your body cannot keep your blood glucose at your goal, even if you are trying really hard to keep it at goal.

Your HCP may prescribe insulin for you. Your HCP may even add insulin to the meds you already take. That is OK.

The main thing is to keep your blood glucose at goal, without letting it go too low. Your HCP, nurse, or diabetes educator will show you how to give yourself a shot and will help you know how to use your insulin.

You are not alone!

Here Are Some Different Types Of Insulin

- **Basal:**

These insulins are called long-acting insulins and are taken 1 or 2 times each day, usually in the evening, but sometimes in the morning. Some basal insulins cannot be mixed with other insulins.

Your HCP can help you know when to take your basal insulin. It gives you some insulin all day long and does not have to be taken with a meal, but should be taken at the same time each day.

Some basal insulins are: **Lantus, Levemir, Toujeo, Tresiba, and Basaglar.** Levemir lasts 18 to 24 hours in your body. The other basal insulins last 24 hours or more.

- **Bolus:**

These insulins are used right before a meal, usually based on your blood glucose level right before the meal and how many carb foods you plan to eat. Bolus insulin helps keep your blood glucose from going too high after you eat.

- **Fast-acting or regular insulin:** A type of bolus insulin you **take within 30 minutes before you eat.** **Humulin R** lasts 4 to 6 hours after you take it. **Novolin R** lasts about 8 hours.

- **Rapid Acting insulin:** A type of bolus insulin you **take within 15 minutes of eating.** These include **Humalog, Novolog, Apidra, Fiasp, and Admelog.** These insulins last 3 to 5 hours after you take it.



- **Mixed insulin:**

These insulins are a mix of basal and bolus insulin in one shot.

The first number in the name of the insulin tells you the percent of basal insulin in the shot and the second number is the bolus insulin. For example:



- **Humalog 75/25** has 75% basal insulin and 25% bolus insulin. It is important to take a mixed insulin before meals, for example before breakfast and before supper. Humalog 75/25 lasts 10 to 16 hours in your body.

- **Novolog 70/30** lasts up to 12 hours in your body.

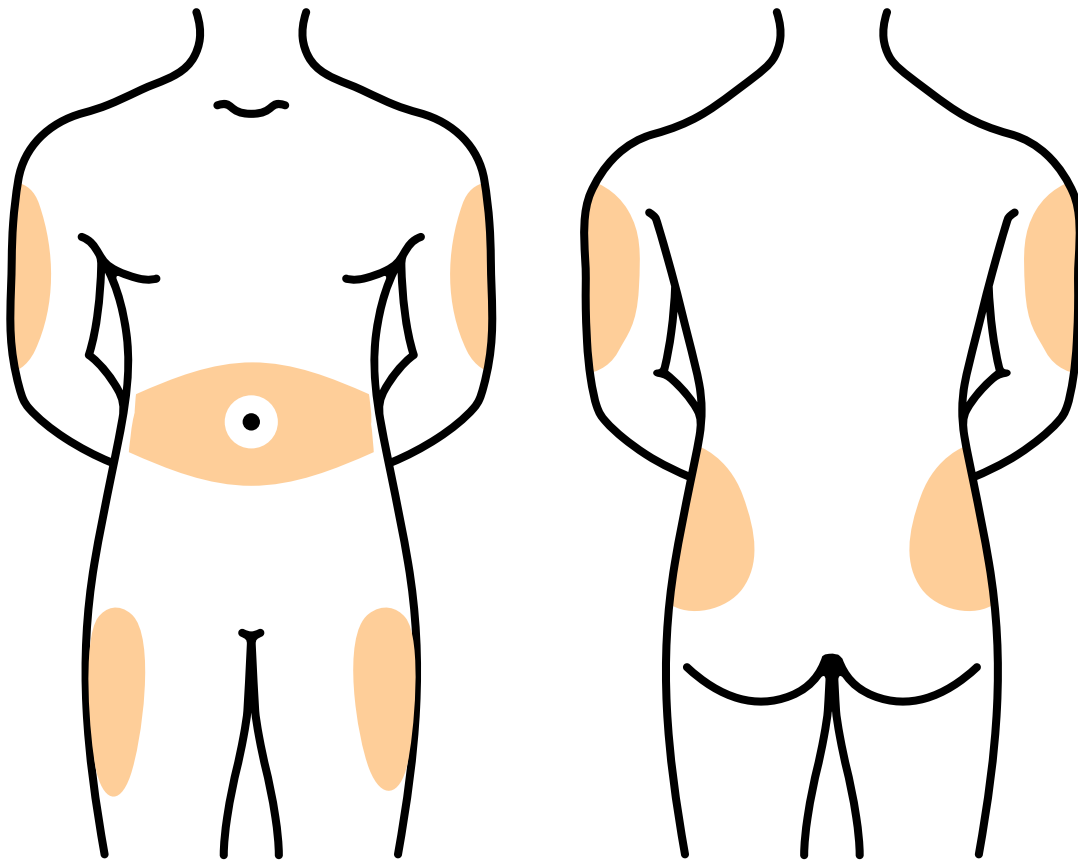


- **Humulin 70/30** lasts 18 to 24 hours.

- **Novolin 70/30** lasts up to 24 hours.

Tips To Keep In Mind When Taking Insulin

- Insulin shots may be given in the:
 - Tummy fat (stay 3 fingers away from your belly button)
 - Back of the arm fat
 - Outer side of the thigh fat
 - Upper hip fat
- Use a different syringe or pen needle for each dose.
- Be sure and take shots in different places each time to help your insulin work best.
- Do not ever mix different types of insulin in the same syringe unless your HCP asks you to.
- Insulin has a strong effect on your blood glucose, so it should be taken **exactly** as your HCP says. Do not change your dose without checking with your HCP.
- The main side effect of insulin is low blood glucose, so always carry your meter and some quick sugar with you. (See Chapter 3 to see how you can treat low blood glucose).
- Never share insulin with others.




Places You May Give Insulin Shots

Insulin Storage

- Store **unopened** insulin in the refrigerator until the date it expires.
- Do not freeze or put by heat.
- Once opened, any insulin **pen** should be stored at room temperature away from light and heat (except Tresiba. Tresiba can also be stored in the refrigerator).
- **Vials** can usually be stored in the refrigerator or room temp once opened.
- When you open a vial or pen, write the date on it. See the chart on the right to see when to throw away unused insulin. Insulin used past this date may not work as well.

Basal Insulins	Throw Away Unused Insulin After This Many Days
Lantus	28 (for vials and pens)
Levemir	42 (for vials and pens)
Toujeo	28
Tresiba	56
Basalgar	28
Fast Acting Insulins	
Humulin R	31
Novolin R	42
Rapid Acting Insulins	
Humalog	28
Novolog	28
Apidra	28
Fiasp	28
Admelog	28
Mixed Insulins	
Humalog 75/25	Vial: 28 / Pen: 10
Novolog 70/30	Vial: 28 / Pen: 14
Humulin 70/30	Vial: 31 / Pen: 10
Novolin 70/30	Vial: 42 / Pen: 28

Questions You May Want To Ask Your HCP Or Diabetes Educator

- 
- What type med am I taking?
 - How does my med work?
 - How do I store my meds?
 - How do I give a shot to myself?
 - Where do I give a shot?
 - Should I take my meds with or without food?
 - What are the main side effects of my meds?
 - Will my med cause low blood glucose? If so, how do I treat low blood glucose?
 - What can I do to help keep my pancreas healthy?

God is Your Safe Place. He Holds You In His Arms.

Deuteronomy 33:27a

Chapter 3

What About My Blood Glucose?



Let's Start With A1C

Hemoglobin A1C is a lab test your HCP will send you to the lab to get checked 2 to 4 times per year. The A1C is an average of what your blood glucose has been over the last 3 months. It will be in a percent, like 6%, 7% and so on.

Our goal with most patients is to get that A1C below 7% and keep it there. For some patients an A1C of less than 8% is OK. Keeping your A1C where you and your HCP agree is best can help you live well with diabetes.

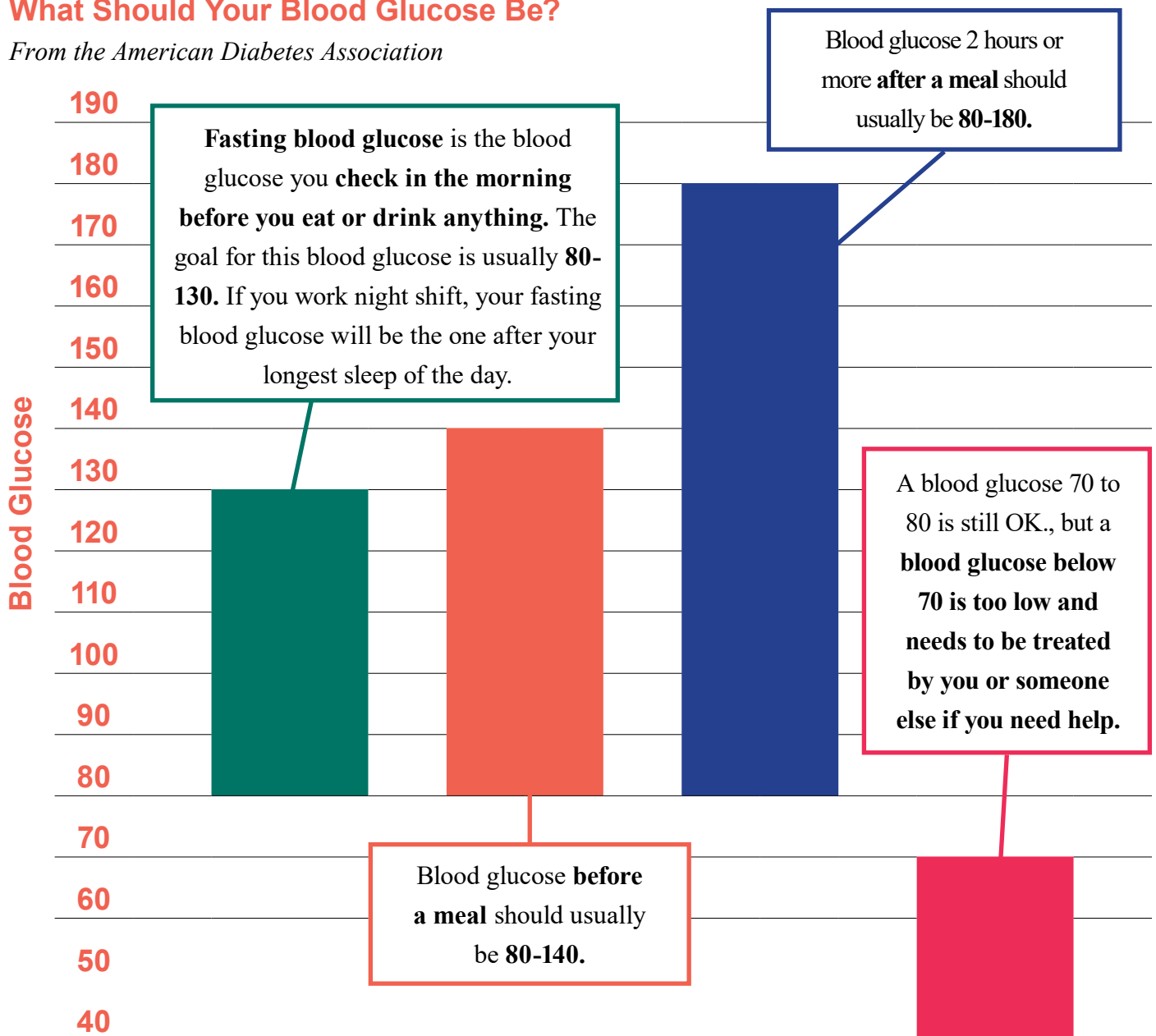
If this is your A1C:	This is what your blood glucose has averaged over the last 3 months:
6%	126
6.5%	140
7%	154
7.5%	169
8%	183
8.5%	197
9%	212
10%	240

Why Check Blood Glucose As The HCP Asks?

- So you can see the effect of your food, exercise, and taking your meds.
- We don't want to wait until you get an A1C to find out your blood glucose is out of whack.
- When you bring your meter or blood glucose levels written down to your HCP, it will help him/her know what meds will work best for your diabetes.
- If you are taking meds that may make your blood glucose go too low, you can be more aware of what your blood glucose is doing and treat it more quickly if your blood glucose is low.

What Should Your Blood Glucose Be?

From the American Diabetes Association



What Is Low Blood Glucose And How Do I Handle It?

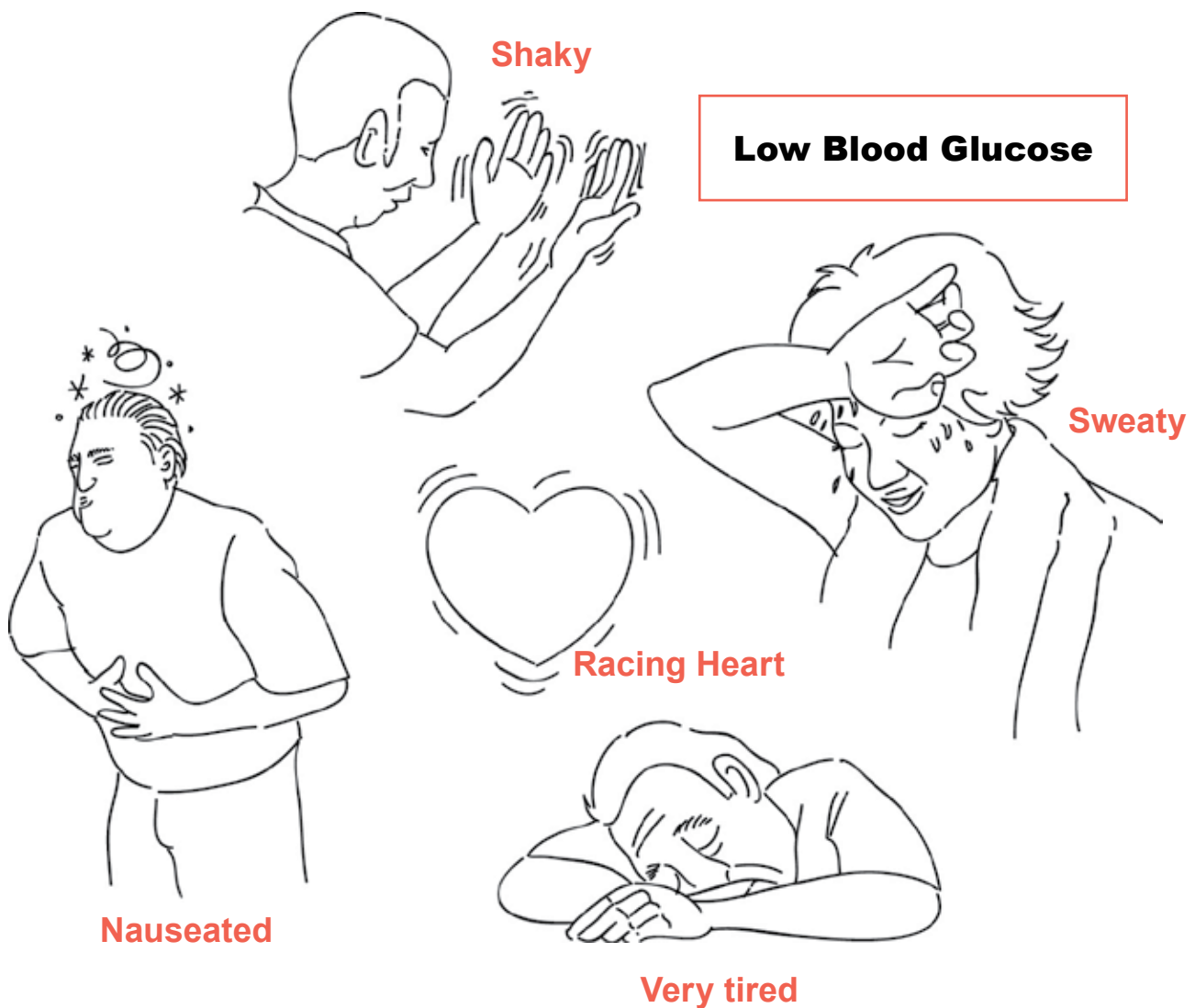
Low blood glucose is less than 70 on your meter, but you may “feel” low at higher levels if your blood glucose has been very high for a while. The medical word for low blood glucose is hypoglycemia.

If you feel dizzy, sweaty, shaky, nauseated or “just don’t feel good”, you may have a high or low blood glucose.

Use your meter right then to see if it is high or low. Do not treat a feeling...treat the number on your meter.

Some people do not ever “feel” low if their blood glucose is below 70, so if you are one of those people, it is important to let your HCP know. Ask your HCP to guide you on how often you should check your blood glucose.

Either way, if you have low blood glucose, it must be treated right now to avoid bad problems. If untreated, it can lead to seizures and you may pass out. Always take your meter and quick sugar with you if you take a med that can cause low blood glucose (your HCP or diabetes educator can tell you if you are taking any of these meds).



If blood glucose is less than 70, you can treat it with the 15/15 Tool. Treat it right then. Do not wait to treat a low blood glucose. This is the 15/15 Tool:

1. Check your blood glucose. Treat the number on your meter, not how you feel.
2. If your blood glucose is between 50 and 69, eat or drink some quick sugar in these amounts:
 - 1/2 cup of sugary drink: juice, regular soda **OR** 1 Tablespoon of sugar or honey **OR** 5 lifesavers, peppermints (or other hard candy) **OR** 4 glucose tablets. If you treat with candy or glucose tabs, chew (not suck) it to get it into your body quickly.
 - If your blood glucose is below 50, double the amounts above.
 - **Do not treat low blood glucose with cookies, cakes, chocolate, ice cream, or anything with fat in it.**
3. If you take the med Glyset or Precose, you must treat low blood glucose with glucose tablets or milk (regular sugar will not work).
4. It's important to re-check your blood glucose 15 - 20 minutes after you treat it. If it is above 70 at that time and it's time for a meal, eat your meal. If it is not time for a meal, have a small snack (2 -3 peanut butter or cheese crackers, small fruit, ½ sandwich). Strive to not overeat when you treat a low blood glucose.
5. If your blood glucose is not above 70, 15 minutes after you treat a low blood glucose, repeat steps 1 and 2 above.
6. You may want to check your glucose more frequently on a day your glucose dropped below 70. Also, try and think why it may have dropped low. Sometimes you may be able to know what made your blood glucose too low and sometimes you cannot, but it is good to try so you may avoid a low blood glucose next time.



Quick Sugar Choices If Your Blood Glucose Is 50 to 69

If your blood glucose is below 50, double the amount of quick sugars listed below.

Food	Amount
Glucose tablets	4 tablets
Glucose gel	1 tube
Table sugar	1 tablespoon (or 3 teaspoons)
Fruit juice or regular soda pop	½ cup
Fat-free milk	1 cup
Honey	1 tablespoon
Jelly beans	10 - 15
Raisins	2 tablespoons
Gum drops	10
Candy (like Life Savers)	5–7 pieces
Hard candy (like Jolly Ranchers)	3 pieces



Honey



Hard Candy



Fruit Juice



Raisins



Fat-free Milk

What If My Blood Glucose Is So Low I Pass Out?

- If you have diabetes, buy and wear a medic alert bracelet or necklace. When you buy, if the maker of the medic alert jewelry allows, you may want to engrave your type of diabetes and your meds on the back of the jewelry.



- Keep a list of all your meds on a card. Place the card behind your driver's license where Emergency workers will look if you are unable to tell them your meds.
- Train your loved ones how to help you if you pass out from low blood glucose. Ask your HCP or diabetes educator how to teach them.
- Ask your HCP if you need to have glucagon.

These Things Can Cause Low Blood Glucose

- Take too much diabetes medicine.
- Skip meals or wait too long between meals.
- Exercise more that day than usual.
- Drink alcohol without food.

What Is High Blood Glucose And How Do I Handle It?

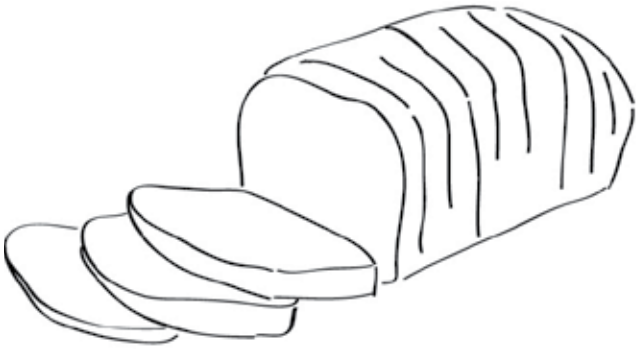
High blood glucose is when:

- Your fasting blood glucose is above 130.
- Your blood glucose is higher than 140 before a meal.
- Your blood glucose is higher than 180 two or more hours after a meal.

The medical word for high blood is hyperglycemia. Hyperglycemia happens to most people with diabetes from time to time, but if it happens often, let your HCP know.



These Things Can Cause High Blood Glucose



Eating more carb foods than your body can use at the moment



Your liver dumping extra glucose into your blood.



Stress



Not taking enough diabetes meds

Some meds you buy at the store can also cause blood glucose to go up. Tell your HCP if you take any meds you buy at the store that he or she did not ask you to take.

What Can I Do If My Blood Glucose Is Too High?

If your blood glucose is up and you already took your blood glucose meds:

- Drink plenty of water.
- If your blood glucose is less than 250, take a walk inside or outside your home or do any exercise you do on most days.
- If your blood glucose is above 250, check your urine for ketones. If there are no ketones in your urine, you may take a walk. If you have moderate to high ketones, become confused, or have muscle cramps, check with your HCP or emergency room right now (see Chapter 10).

If your blood glucose is too high, this may happen:

- Pass lots of urine
- Be very thirsty
- Be very hungry
- Blurred vision that may come and go
- Itchy skin
- Fast weight loss
- Be very tired
- Have infections or illness
- Hurt places take a long time to heal
- Become confused

Important:

High blood glucose over time can cause more problems from diabetes, so keeping blood glucose at your goal most of the time may help you live a long and healthy life with diabetes.



NOTE:

Please bring your blood glucose meter to each clinic visit or if you are writing them down, bring your list of blood glucose levels.

Questions You May Want To Ask Your HCP Or Diabetes Educator

- Show me how to check my blood glucose.
- What should my blood glucose goal be?
- What should my A1C goal be?
- What quick sugar may be best for me when I treat low blood glucose?
- How do I teach my loved ones to help me with high or low blood glucose?
- Tell me about ketones, please.

You Will Keep Him/Her in Perfect Peace Who Keeps Their Mind on You.

Isaiah 26:3

Chapter 4

Why Do I Need To Move My Body?



People with diabetes have a higher risk of heart disease and stroke. Exercise can help make that risk less. Exercise can also help you:

- Lower blood pressure
- Lower cholesterol (the gunk we don't want to line the inside of blood vessels)
- Keep your blood glucose at goal
- Make your heart and blood vessels strong
- Lower weight if you do it enough and regularly. (Ask your diabetes educator what is a healthy weight for you)
- Burn calories
- Give you more muscle tone and strength (Muscle tone helps burn calories even while you sleep)
- Help your bones be strong
- Ease stress
- Ease fibromyalgia
- Ease depression

The American Diabetes Association suggests that we get some of each of these kinds of exercises:



Flexibility

These exercises help you stretch: yoga, and Tai chi. These exercises can help you with balance and stay less stiff as you move.



Aerobic

Aerobic exercises get your heart pumping. These are some aerobic exercises: walk, run, cycle, swim, dance, and sports like basketball.



Weight Bearing

These exercises include push-ups, pull-ups, sit-ups, lift weights, use stretch bands, or weight machines at the gym.

When doing weight-bearing and aerobic exercise in the same session, doing the weight bearing first can help reduce the chance of low blood glucose.

How Do I Start Exercising?

Check with your HCP before you start to exercise to find if you have any limits on what you can do safely. These guides on exercise are for people with type 2 diabetes. If you have type 1 diabetes, read Chapter 10 and work with your HCP and diabetes educator to get a safe exercise plan for you.

Sit Less

- Every 30 minutes, do 3 minutes of activity while awake to help your heart, blood glucose, and blood vessels.

You can start slowly and work up to your goal

- If you have not been exercising, begin slowly. Start with 10 minutes each day and work up to your goal.
- Do more activity each day such as housework, errands, walk your dog, or yard work.
- Park away from the store and walk in. If possible, take steps instead of the elevator.



Exercise Regularly

- **Walking** 10 or 15 minutes after each meal can help manage blood glucose. Read on to see what can bring other healthy results.
- People with diabetes should do both aerobic and weight-bearing exercise to help blood glucose, heart and blood vessels, and help manage weight. Flexibility exercise can help with balance and help you enjoy moving your body.
- Start with 10 minutes of **aerobic exercise** each day. Work up to 30 minutes 5 days per week, and no more than 2 days in a row with no exercise.
- Do 2 to 3 days each week of weight bearing exercise, but skip a day between **weight-bearing exercise** days. Do 5-10 different exercises that work all the muscle groups. Start with 1-3 sets of each exercise, doing each exercise 10-15 times with a weight you cannot lift more than 10-15 times.
- **Flexibility** exercises, such as stretching, yoga, or tai chi can help with balance, flexibility, and strength. Flexibility exercises are good for everyone with diabetes, but especially older people.
- If you exercise at the YMCA or gym, ask a trained employee there to help you get an exercise plan that is right for you as long as it is approved by your HCP. If you get your care at Medical Outreach Ministries, we can help you join the YMCA for less money. Ask your HCP or diabetes educator.



Check Your Blood Glucose Before You Exercise

- If your blood glucose is less than 70, treat it with the 15/15 Tool and do not exercise at that time (see Chapter 3)
- If your blood glucose is > 250 , check your urine for ketones.
 - If none are present, you may exercise cautiously and drink plenty of water before, during, and after exercise.
 - If ketones are present, do not exercise at that time and follow the guide to reduce blood glucose in Chapter 3.
 - If you have moderate to large ketones call your HCP or go to the emergency room.



If your blood glucose is between 70 and 90, eat a carb snack before exercising. Eat something like:



Half Sandwich

OR



1 Piece of Fruit

OR



3 or 4 Peanut Butter Crackers

Exercise Safely

- Drink water before and after exercise. Also drink every 30 minutes during exercise.



- To slowly warm your muscles before exercise, walk or march in place for 5 or 10 minutes. Ask your diabetes educator how to safely stretch before exercise.
- Wear a diabetes medic alert bracelet. Also, put a list of your meds behind your driver's license in your wallet.
- If you have one, keep your phone with you.
- If you feel any of these things while exercising, get some help where you are and call 9-1-1:
 - Pain or squeeze in your chest, arm, neck, jaw, or back
 - Dizzy or faint, with or without nausea
 - Your heart beating out of rhythm
- At the end of exercise, slow down. Don't stop quickly. Ask your diabetes educator how to safely stretch after exercise.
- Check your blood glucose after exercise. Exercise may lower blood glucose and can lower it for several hours, even up to 48 hours after exercise. You may want to check more often when you are just starting a new exercise plan.

Tips To Keep Exercising

- Start slowly and do more as you get more fit.
- Exercise with a friend or family member.
- Set the same time each day to exercise.
- Choose an exercise you enjoy.
- Plan exercise you can do on bad weather days, too.
- Set goals and reward yourself when you reach them. Use rewards that are not food or alcohol.

Especially if you are taking insulin or insulin secretagogues (your HCP or diabetes educator can let you know if you take these meds):

- Know how you may feel if your blood glucose goes too low (less than 70). You may feel shaky, sick to your stomach, feel wobbly, be unable to think normally, or have blurred vision.
- Always carry some quick sugar with you and have your meter handy. Use the 15/15 Tool to treat blood glucose less than 70 and stop exercising right then. You can review the 15/15 Tool in Chapter 3.

These Ideas May Be Helpful to Avoid Low Blood Glucose

- Check your blood glucose before and after you exercise.
- If you exercise more than 30 minutes, you may want to check your blood glucose during exercise.
- If you exercise regularly, talk with your HCP about lowering your insulin dose on exercise days.
- Exercising at about the same time each day may make it easier to manage insulin doses and snacks needed before exercise.
- Avoid exercise 1 to 2 hours after your rapid acting insulin dose.
- Exercising in the evening can make it more possible for your blood glucose to go low in the night.
- If you drink alcohol before or after exercise, have a carb snack with the alcohol.

Questions You May Want To Ask Your HCP Or Diabetes Educator



- What exercise is right for me?
- What exercise is not good for me?
- How does alcohol affect my blood glucose?
- Why can exercise help my diabetes?
- What is the best time for me to exercise?

I will help you. I will help you be strong. I will hold you up.

Isaiah 41:10b

Chapter 5

Eating To Live Well With Diabetes



In Chapter 1, we learned that carb foods become glucose after we eat. This can make blood glucose go up. If you want to review, please look back at Chapter 1.

What you eat is **your** choice. Eating for diabetes does not have to be boring. We want you to be able to eat what you like and not be scared to try new foods that may help your diabetes.

Your diabetes educator can help you know how much food and what kind of foods may help your diabetes. Our first thing to learn is what foods have carb in them.

There Are 5 Kinds Of Carb Foods To Know



1. Starches

Pick foods with fiber. Your diabetes educator can help you know how.

- All bread. Whole grain bread is best.
- All cereal. Whole grain without raisins or dried fruit is best.
- Rice. Brown rice is best.
- All noodles. Whole grain is best.
- Crackers, chips, popcorn, pretzels. Whole grain is best.



2. All fruit

- All fresh fruit
- All other fruit: fresh, frozen, or canned, even if the can says “unsweetened”.
If you eat fruit from a can, pick fruit packed in juice, not syrup.
- Fruit juice has lots of carb. Pick water or your diabetes educator can help you find drinks that do not have carb in them.

One piece of fruit at a time can help, but more can hurt diabetes. Your diabetes educator can help you know how to use fruit.

Canned in syrup



Canned in juice





3. Milk Products

- Milk. Skim or 1% milk is best

- Yogurt

- Ice Cream

- Cream in your coffee



4. These veggies are starchy.

Eat them in small amounts. Don't worry, there are many veggies you may choose to eat that are not starchy.

- Corn

- Black-eyed peas and lentils

- Butter beans

- Potatoes (sweet or white)

- Black beans, white beans, red beans

- Butternut squash

- English peas



5. Sweets

- Cakes

- Pies

- Candy

- Ice cream

- Cookies

- Donuts

- Candy bars

- Any other sweets you can think of

- Sweet drinks: **These are some sweet drinks that hurt diabetes:** fruit juice or punch, regular soda, Powerade, Gatorade, sweet tea, lemonade, green tea.

- **These are drinks that help diabetes:** water is best, but you can use these drinks sometimes: Crystal Light, diet soda, Powerade Zero, and G2.

How Often Should I Eat?

- Your body works best when you eat about the same amount of food at the same time of day.
- Eat 3 meals per day. Eat breakfast, lunch or a snack lunch, and dinner.
- Eat meals 4 to 5 hours apart.
- If you are not on a med that will make your blood glucose go too low, close your kitchen after supper and skip a late night snack. If you do snack, eat carrots, cucumbers, tomatoes, a small piece of fruit, or a small graham cracker, not sweets or chips. This may help blood glucose **and** weight.
- If you **are** on a med that can make your blood glucose go too low, your diabetes educator can help you know late night snacks that can help.



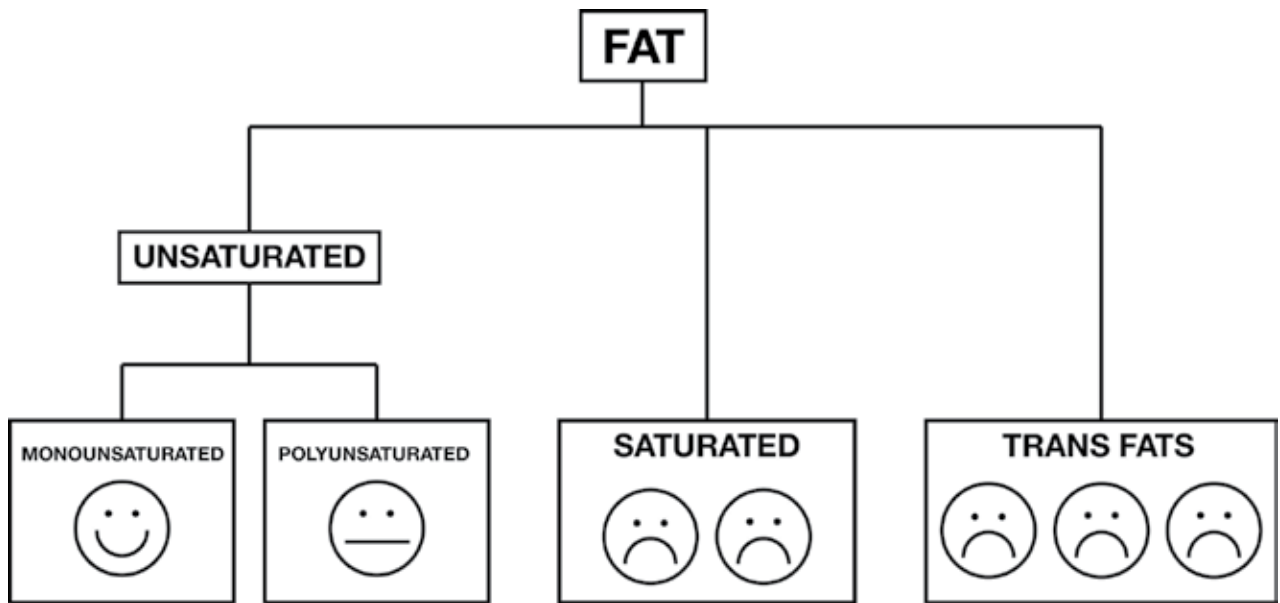
What About Fat In My Food?

These foods have saturated or trans fat that do not help your body and can bring weight gain and hurt your heart and blood vessels:

- Pork
- Beef
- Cream
- Butter
- Bacon
- Bologna
- Sausage
- Margarine
- Shortening
- Baked goods: home cooked or from the store

These foods have fat that can help your body, but eat them in small amounts. They can bring weight gain if you eat too much.

- Olive oil and olives
- Canola oil
- Peanut oil
- Other vegetable oils
- Avocados
- Nuts and seeds
- Peanut butter or other nut butters



Since all fats can bring weight gain, try and eat less fat. Here are some tips:

- Use Pam spray when cooking in a pan.
- Grill, broil, or bake meats, not fry.
- Eat chicken or fish that is not fried.
- Cut off the fat you can see on meats.
- Do not eat chicken skin.
- Cook veggies with smoked turkey necks, not ham hocks.
- Use spices and herbs to season food, not butter, cheese, or cream sauce.
- Put soups, sauces in the fridge and throw away the hard fat that comes to the top before reheating to eat soups and sauces.

If you have high blood pressure, you may want to watch the salt in your food. Here are some tips:

- Use fresh or frozen veggies. Canned food has lots of salt.
- If you use canned, rinse foods before cooking.
- Cook foods with herbs, spices, or other veggies like peppers, onions, and garlic.
- Take salt off of the table where you eat.



How Do I Pick Foods In The Store?

There is no need to pick foods made only for people with diabetes. Your diabetes educator can learn what foods you like and show you how to use those and pick other foods that can help diabetes, too. Here are a few tips:

- Usually, foods already made by the store will not help as much as food you cook at home.
- Pick veggies, like greens, tomatoes, broccoli, asparagus, peppers and onions, and so many more veggies without much carb.
- Pick meat with less fat, like chicken and fish.
- Pick bread and cereal with whole grain.
- Pick fresh or frozen veggies, not canned.
- Foods that say, “low-fat” may have lots of carb and foods that say “low-carb” may have lots of fat. Pick real food and eat small amounts.
- Choose skim or 1% milk. Ask your diabetes educator about almond, soy, or other plant milks.



- If you know a food will not help your diabetes, do not buy it.
- Diabetes runs in families. Your children and grandchildren will see how you eat. Let them see how to eat to help their body as you pick foods that help you.

Questions You May Want To Ask Your HCP Or Diabetes Educator

- Ask anything you like about how to eat to help your diabetes.
- May I eat the foods I like?
- Does my family have to eat like I do?
- What meat is good for me?

The Lord is with me. He is my helper.

Psalms 118:7

Chapter 6

What Else Needs Care Besides My Blood Glucose?



Diabetes can hurt many parts of your body. Following tips in this booklet can help your body live well with diabetes. Here are the parts of your body and more tips to help:

Teeth and Gums

Diabetes can hurt your teeth and gums. Tell your HCP if you see or feel painful teeth or jaw, swelling of gums or jaw, or sore or bleeding gums. Things you can do to help your teeth and gums:

- Keep your blood glucose at the level you and your HCP agree.
- Brush your teeth at least 2 times each day. You may try to brush at least when you wake up and when you go to bed.
- Floss your teeth each day.
- Let a dentist clean your teeth and check your mouth each 6 months. Tell your dentist you have diabetes.
- Eat less sugar and do not drink sugary drinks.
- **DO NOT SMOKE.**

Eyes

Eyes can get sick early in diabetes when you may not feel it, so here are some tips:

- See an eye doctor each year or how often the eye doctor says after you see him/her. Your HCP can send you to one.
- Try to keep blood glucose at the goal you and your HCP agree is best.
- Try to keep your blood pressure at the goal you and your HCP agree is best.
- Take any cholesterol medicine (like Lipitor, Crestor, or Zocor) as your HCP says and take it at night.
- When your blood glucose is very high, your sight may blur. Also, when you are working to get your blood glucose back to where you want them, your sight can blur. As your blood glucose returns to goal, your sight should return to your normal eyesight.



- Ask your HCP or diabetes educator what exercises are good for your eyes.
- **DO NOT SMOKE.**

Tell Your HCP If You Have Any Of These

- Blurry sight
- See spider webs or lines in your sight
- See a gray or black film in your sight
- See dark spots or flashing light in your sight
- See dark spots floating in your sight
- See less from the side of your eyes
- Hard to read
- See two of things
- Ache behind the eyes

Kidneys

Here are some things that can happen to kidneys with diabetes:

- Kidneys get rid of things we do not want in our body. Diabetes can hurt the kidneys so they cannot do this job. If this is true a long time, a person may need dialysis.
- You may have more urinary tract infections: stings when you pass urine and you feel badly. Some diabetes meds can cause this. Let your HCP know if it stings when you pass urine or any other problems with your private parts.
- You may have more yeast infections. Some diabetes meds can cause this. Let your HCP know right now if you have problems with your private parts.

Things you can do to help your kidneys:

- Try to keep blood glucose at the goal you and your HCP agree is best.
- Try to keep your blood pressure where your HCP says.
- Your HCP will send you to the lab to get tests done to check for ways diabetes can hurt you. Do labs when he or she asks.
- **DO NOT SMOKE.**

Tell your HCP if you have any of these problems:

- Stinging when you pass urine
- Red or brown urine
- Pain in the sides, or upper middle of your back
- Itch all over
- Do not feel like eating
- Very, very tired



Diabetes Can Hurt Your Nerves

Diabetes can hurt your feet, sex organs, stomach, heart, and other parts of your body.

Feet and Skin

Tell your HCP if you see or feel these things:

- Tingling or burning in hands or feet. This can happen more at night.
- Numb hands, feet, legs or arms. Other things can cause this, but tell your HCP so he or she can check it.
- Injuries that do not heal well. Injuries may include cuts, scrapes, sores, bruises, and blisters.
- Injuries that become red, swollen, hot, painful, or giving out pus.
- Think you have an in-grown toenail.



Things you can do to help your skin and feet:

- Try to keep blood glucose at the goal you and your HCP agree is best.
- Keep skin clean and dry.
- Change your underwear and socks each day.
- Do not take a very hot bath or shower. Use a moisturizing soap if you can.
- After you bathe, use lotion or cream. It does not have to be diabetes lotion, just a lotion or cream you like that has no alcohol in it. Remember to put lotion or cream on your feet. Do NOT put it between your toes.



**Do not put lotion
or cream between
your toes.**

- Check your skin every day for any cuts, sores, or other hurts.
- If you see a small cut, clean it with soap and water. You may cover the hurt with sterile gauze. Ask your HCP how he or she wants you to care for a skin or foot hurt. Do not use any creams unless you ask your HCP. If the hurt does not start to heal after 2 days or it gets red, hot, hurts, swells, or gives out pus, call your HCP.
- Call your HCP right now if you have larger skin or foot hurts, like burns or large cuts, or a cut is more sore each day or getting red or swollen.



Dry your toes and feet well.

- Check your feet each day for any cuts, broken blisters, or sores. Check your shoes to see if there are any small things in your shoes, like rocks or dirt or sticks that can hurt your foot. White, cotton socks are best with shoes.



Cut straight across and file edges carefully.

- Wear shoes that feel good, even if you are inside.
- Your diabetes educator can help you know what shoes are best for your feet.
- Shoe shop in the afternoon.
- Show your feet to your HCP at every visit.
- **DO NOT SMOKE.**

Sex Organs

The best way to help with sex organ problems are to stop smoking and keep blood glucose and blood pressure where you and your HCP agree. If you feel these things, tell your HCP:

- Men cannot get hard.
- Women may have less or no sexual feelings

Stomach and Bowels

Diabetes can cause problems with your tummy and bowels. If you have any of these, let your HCP know:

- Stinky burps
- Feel so bloated you do not want to eat
- Feel full after you eat a few bites
- Vomit food you ate yesterday
- Acid reflux or heart burn
- Constipation, diarrhea or both

Things to help stomach and bowel hurts with diabetes:

- Keep blood glucose where you and your HCP agree is best from the first time you know you have diabetes, or start today to get blood glucose at your goal. This will help you try and avoid stomach and bowel hurts.
- Your HCP and diabetes educator can help you know what to do if you have stomach or bowel hurts with diabetes.
- **DO NOT SMOKE.**



Heart and Blood Vessels

People with diabetes have more chance of having a heart attack and stroke than people who do not have diabetes. People who have diabetes **and smoke** have the most risk of heart attack and stroke. Tell your HCP if you feel any of these things:

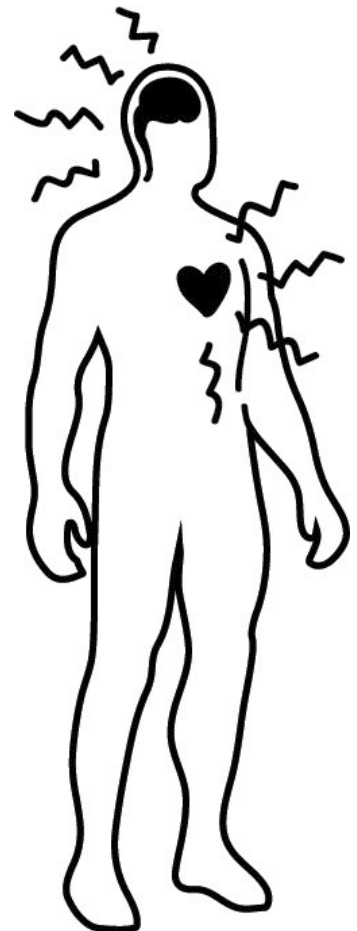
- Feel dizzy or faint when you go from sit to stand
- A fast heart rate all the time
- Your heart does not beat faster when you exercise
- Your heart beats in different ways
- Change in the color of your legs or feet
- Skin on your legs or feet get shiny or lose hair
- Cold feet or legs
- Leg pain after walking that goes away when you stop

Things you may see with a stroke:

- If you or your family sees this in you, call 9-1-1 right now. Early medicine may help.
 - Feel weak or numb on one side of the body
 - Suddenly do not know what others are saying
 - Suddenly cannot say what you mean
 - Dizzy, poor balance, hard to walk
 - Hard to see out of one or both of your eyes
 - Seeing two of everything
 - Bad sudden headache

Things you may see with a heart attack:

- If you or your family sees this in you, call 9-1-1 right now. Early medicine may help. People do not always see the same thing with a heart attack. But here are some of the things you may see or feel:
 - Pain or a squeeze in your chest (ladies may see the other signs of heart attack and no chest pain)
 - Pain or a squeeze in your arm, neck, jaw, or back
 - Cannot breathe well; short of breath
 - Feel sick to your stomach
 - Dizzy or faint
 - Feel very, very tired



Things you can do to help your blood vessels and heart:

- Do not smoke. If you do, stop. Your diabetes educator may be able to help.
- Keep your blood glucose where you and your HCP agree is best.
- Keep your blood pressure where you and your HCP agree is best.
- Eat less fat (see Chapter 5).
- Get or keep your weight at the level that can help you best. Your diabetes educator can help you know how.
- Get exercise. Talk with your HCP and diabetes educator about what exercises are best for you and if there are any that could hurt you.
- Take meds as your HCP asks. Your HCP and diabetes educator can help you know how your meds work. Ask them.
- **DO NOT SMOKE.**

Questions You May Want To Ask Your HCP Or Diabetes Educator



- What type of fat can I eat?
- What do I do if I think I am having a stroke or heart attack?
- Anything more you may like to know from this chapter.

Come near to God, and He will draw near to you.

James 4:8

Chapter 7

Taking Care Of My Diabetes On Sick Days



Everyone gets sick at times. If you have diarrhea, stomach ache, vomiting, a cold, or if you feel sick, this is called a “Sick day”.

How to Help You Not Get Sick

- Tell every HCP who cares for you that you have diabetes.
- To help you not get the flu, take the flu shot each year. You can get that at MOM. You cannot get the flu from the flu shot.
- To help you not get pneumonia, get a pneumonia shot. Your HCP can help you know where to go for the pneumonia shot.
- To help you not get or share COVID-19, take the COVID-19 vaccine.
- Wash your hands often and ask ones who live with you to wash hands often.



Make a sick day plan with your diabetes educator before you get sick so you can be ready if you get sick.

When To Call Your HCP If You Are Sick

- If you have diarrhea or vomiting for more than 6 hours and cannot keep any food or drink down.
- If your blood glucose is less than 70 or more than 250 for two blood glucose checks in a row. Treat any blood glucose below 70 right now, as it says in Chapter 3. Try the 15/15 Tool before you call your HCP.
- If your temperature is more than 101 degrees.
- If you feel very tired, have muscle cramps, and cannot think clearly.
- If you have stomach pain with fast, deep breaths and/or fruity breath, or cannot think clearly.
- If you have moderate to large ketones, call your HCP. If MOM is not open, go to the emergency room. Talk to your diabetes educator at your next clinic visit about ketone strips **before you get sick.**
- It is hard to breathe.
- If you think you may be having a heart attack or stroke, call 9-1-1.



NAUSEA & VOMITING



FEVER & CHILLS



INJURY OR SURGERY

What To Do When You Are Sick

- Talk to your diabetes educator about how to take care of yourself when you are sick **before you get sick.**
- Wash your hands often while sick.
- Keep taking your diabetes meds.
- Check your blood glucose more often, like every 2 or 4 hours.
- Drink a full glass of something each hour you are awake. Your diabetes educator can help you know whether to use a drink with sugar or with no sugar based on your blood glucose checks.
- Use ketone strips to check for ketones. If you have moderate to large ketones, call your HCP or go to the emergency room.
- You may want to write down your meds, blood glucose levels, temperature, and weight to give your HCP if you call him or her.

If you do not feel like eating, use this chart of food or drink to help you.

- Try to eat or drink about 30 grams of carb foods every 3-5 hours.
- If your blood glucose is above 250, you are vomiting, or have moderate to large ketones in your urine, call your HCP or go to the emergency room.

Food	How Much?	Grams of Carb
Creamy soup	1 cup	15
Regular pudding	½ cup	30
Sugar-free pudding	½ cup	15
Yogurt with fruit	1 cup	40 to 60
Sugar-free or plain yogurt	1 cup	17
Regular Jell-O	½ cup	20
Regular soda	1 cup	30 to 50
Ginger ale	¾ cup	25
Apple juice	½ cup	15
Cranberry or grape juice	⅓ cup	15
Gatorade	1 cup	15
Kool-Aid or lemonade	½ cup	15
Popsicle	1 single bar	15
Chicken noodle soup	1 cup	15
Broth	1 cup	0
Saltine crackers	6 crackers	15

What To Have Ready Before You Get Sick

Find out from your HCP what meds to keep at home in case you get sick with:

- Diarrhea
- Vomiting
- Pain or fever
- A cold

Keep these things to help with sick days:

- List of phone numbers:
 - MOM clinic
 - Friends or family who may help you if you are sick
 - Hospital
- Tissues
- Ketone strips: your diabetes educator can help you know how to use these (see Chapter 10)
- Thermometer to check for fever
- Foods and drink for sick days from chart on page 48 (Ask your diabetes educator about foods you may like to use when you are sick)
- Your diabetes meds
- Your meter and strips
- Any other diabetes things you need to care for your diabetes
- A notebook to write down your temperature, blood glucose levels, food you ate, or other things you may want to tell your HCP if you call

Questions You May Want To Ask Your HCP Or Diabetes Educator



- What is the best way for me to call you if I get sick?
- Anything more you want to know about sick days.

I will lay down in peace and sleep.

Psalm 4:8

Chapter 8

What Do I Need To Know If I Want To Get Pregnant?



Getting ready to have a baby is a time of joy and thinking of good things ahead. It is also a time to plan to help a baby grow well inside of you and to keep you safe.

When you have diabetes and want to have a baby, it is very important to talk to your HCP and diabetes educator **BEFORE** you get ready to start a family. There are some things you can do to help keep your baby and your body safe. Having a baby when you have diabetes takes a little more planning and help from your HCP to keep you and your baby safe.



Important Things To Know Before You Choose To Make A Baby

Start 3 – 6 months ahead

- If you smoke, drink alcohol, or take a drug your HCP did not ask you to take, stop smoking, alcohol, and drugs your HCP did not ask you to take before you get ready to make a baby. Smoking can hurt you **and** your baby. **Any** alcohol can hurt your baby. Ask your HCP about any drugs you take that he or she did not ask you to take. These drugs may hurt you or your baby.
- Blood glucose levels that are too high or too low are not good for you **and** your baby. Your baby's organs will be made in the first 5 to 8 weeks your baby is inside you, so talk with your HCP about how to keep your blood glucose at the right number all through pregnancy, but for sure at the start.
- Your blood glucose goal may change before you make a baby and while your baby is growing inside of you. You will want to begin work on your blood glucose and A1C goals before you make a baby. This will help your body be ready to help your baby grow well. Talk with your HCP about this.
- You may need to have your eyes checked before you make a baby. Ask your HCP.
- To give your baby the best chance to grow well, you will not want to start making a baby until your blood glucose and A1C are at your goal.
- Work with your diabetes educator to help get your food, exercise, and medicines just where they need to be before you make a baby.



- Talk with your HCP to help you set your own blood glucose goals. For most ladies with diabetes who are having a baby, these are healthy blood glucose goals:
 - Fasting blood glucose less than 95
 - Less than 140 one hour after meals
 - Less than 120 two hours after meals
 - For most ladies, keeping your A1C safely at less than 6% will help you and your baby stay healthy while the baby grows inside you.
 - Treat any blood glucose less than 70 right now (see Chapter 3).
- Have a check-up with your MOM HCP to let him or her know you want to make a baby. You may have your partner come with you to help ask questions of how you can keep you and your baby safe before and when you make a baby.

When You Make A Baby

- After you make a baby, you will get your care from another HCP who is not at MOM. Your new HCP will be trained to help your baby grow well and help you be safe, too. Your MOM HCP can help you know when to go to your new HCP. See your new HCP often. Do not miss your times with your new HCP.
- Your new HCP may change your diabetes meds when you have a baby inside. This will help keep your blood glucose at a safe number.
- Your new HCP can help you work with a new diabetes team who can help you know how to take care of your baby while he or she is growing inside of you.
- You can help your baby grow by working with your new diabetes team to know how to do your food, exercise, and meds each day.



You are the main person on the team to help you and your baby be safe, but you will have lots of others who can help you along the way. Do not be scared to ask for help. Working with your team can help your baby come into the world safely and help you enjoy being a new mommy even before your baby is born!

Questions You May Want To Ask Your HCP Or Diabetes Educator

- Anything more you want to know about making a baby safely.
- Anything more you want to know about how to take care of yourself and your baby when you are pregnant.

Peace, Be Still.

Mark 4:39

Chapter 9

Diabetes Is Daily



People with diabetes are like other people. We just need to think a little more. Here are some things to think about while you take care of your diabetes. But always know, MOM is here to help you.

Stress

When a person finds out he or she has diabetes, it can cause stress and sadness. Taking care of diabetes includes taking meds, finding an exercise you can and will do; checking blood glucose; eating for health, and can also mean making sure your blood glucose does not go too high or too low.

All this can cause stress. This is very normal. But if you feel stressed with diabetes more than two weeks, you may want to ask your HCP for help. At MOM, we have a diabetes educator and

counselors who can help you with diabetes stress. As a MOM patient, you need never run out of your meds or diabetes supplies. Call us at 334-281-8008 or go to momclinic.org, click on Patients, then fill out the medication refill request. Do this when you have 10 days of meds left and we will refill your meds. You do not have to stress over how to pay for your meds.

You can call when you have one day of strips or needles left and you can pick these up from MOM.

Here are some things you may try to help with diabetes stress:

- Work with your diabetes team to learn all you can to manage your diabetes. Knowing how to do diabetes can help you be less stressed.
- See your MOM diabetes educator. She can help you know all the tools you need to manage your diabetes.
- Pray about it. God loves you. Your diabetes team at MOM cares for you, too. Call MOM for help if you need it. Or ask your HCP or diabetes educator for help.
- Ask to see a MOM prayer partner.
- Set up a time to see a MOM counselor. This may help you find ways to help your stress.
- Take goals slowly. Maybe work on one at the time. Be kind to yourself.
- Take a walk.
- Read a good book.
- Take time each day to do a thing or two you enjoy.
- Volunteer to help others.
- Talk to others who have diabetes and like their life.
- Know you are not alone. We are here to help.
- Read your favorite Bible verses.



Work and Diabetes

Diabetes should not keep you from working. There are laws that protect you from not being able to work if you have diabetes. It may be best to let your boss know you have diabetes in case you need to be able to check blood glucose at work or take meds.

It may be helpful to let those you work with know you have diabetes in case you need help at some time. AND YOU get to choose who you share your diabetes with. Having diabetes should not keep you from working in most jobs.

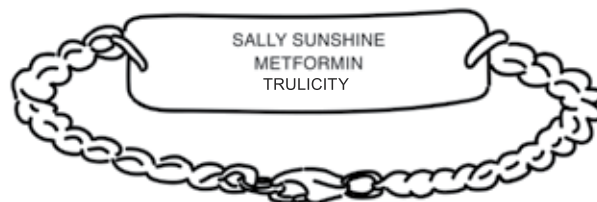
See this website for more info:
eeoc.gov/laws/types/diabetes.cfm



Medic Alert

It may be helpful for you to wear medic alert jewelry. If you are in a car wreck or need medical help and you cannot speak to medical workers, medic alert jewelry can help them help you.

You can also list your own diabetes meds on some medic alert jewelry. Also, write your meds on a card and put it behind your driver's license so the EMS workers can help you if you cannot speak to them.



Traveling With Diabetes

Go on a trip if you like, but still keep an eye on your diabetes. Before you go:

- Check with your HCP or diabetes educator about things you will do that may affect your blood glucose and what to do about it.
- Ask your HCP how to dose insulin if you are going to another time zone.
- Do you need to take a doctor's order for meds in case you lose your meds?
- Wear medic alert jewelry.
- You may want to set a phone alarm to remind you to take meds.
- Pack an extra supply of your diabetes meds.
- Pack quick sugar (glucose tabs, juice box, hard candy...) in case blood glucose goes low. (See Chapter 3 for how to avoid low blood glucose or treat a low blood glucose.)
- You may pack snacks like fruit, nuts, raw veggies to keep from eating junk food.

If you are flying:

- Put your meds in a bag you will carry on the plane. Do not put in checked bags.
- Bring your meds in the bag or bottle they came in with your name and the name of the med on it. If you bring insulin, you may bring pen needles or syringes with you also.
- Get a cooler bag to carry insulin with you. You can buy these at any drug store. Do not put insulin on ice...it should not freeze. But you may use a cool gel pack.

**You may want to get a TSA card to help the screen process:
[tsa.gov/sites/default/files/disability_notification_card_508.pdf](https://www.tsa.gov/sites/default/files/disability_notification_card_508.pdf)**

If you are going by car:

- Stop every two hours to walk a bit to keep blood flowing well.
- Do not leave insulin or meters or strips in a hot car.



Taking Care Of Diabetes In The Heat Of Summer

In the South, summer is hot! Think about these tips to stay healthy in heat:

- Drink lots of water. Avoid alcohol, sports drinks, and caffeine to keep your body from losing water.
- Check your blood glucose often.
- Keep your meds, meter, and strips out of the heat. Do not put insulin on ice.... It may freeze. You may use a cool gel pack.
- Wear sun screen and a hat to keep from burning from the sun.
- Do not go bare foot, even at the pool or beach.
- Stay inside with some cool air in the hot part of the day.
- Exercise as early in the morning as is safe for you.
- Wear loose, light clothes.
- Make a plan in case you lose power. Keep a go-bag ready in case you need to leave your home.

Sleep

1 out of 3 people do not get enough sleep. Adults need 7 to 9 hours of sleep each night. Your body needs enough good sleep to manage your weight and diabetes well. If you think you may have sleep apnea, talk to your HCP about this. Here are some tips to get good sleep:

- Go to bed and get up at the same time each day, even on weekends.
- Sleep in a quiet, dark, cool room.
- Avoid screen time an hour before bed (TV, computer, phone).
- Do not leave the TV on while you sleep.
- Do not stay in the bed awake more than 20 minutes. If you cannot sleep, get up and either read a book or sit in a dimmed room to let your mind rest until you are sleepy and return to bed.
- Avoid alcohol within 3 hours of bedtime.
- Drink any caffeine before 2pm.
- Exercise before 2pm to help you sleep better at night.




For Ladies: Diabetes and Your Period

The week before your period, you may have higher or lower blood glucose than you do at other times. Your body makes hormones that may make this happen.

It may also make you want to eat more or eat foods that are not great for you. So watch your blood glucose during this time and if you need help from your HCP or diabetes educator to keep your blood glucose at your goal, ask for help.



Questions You May Want To Ask Your HCP Or Diabetes Educator

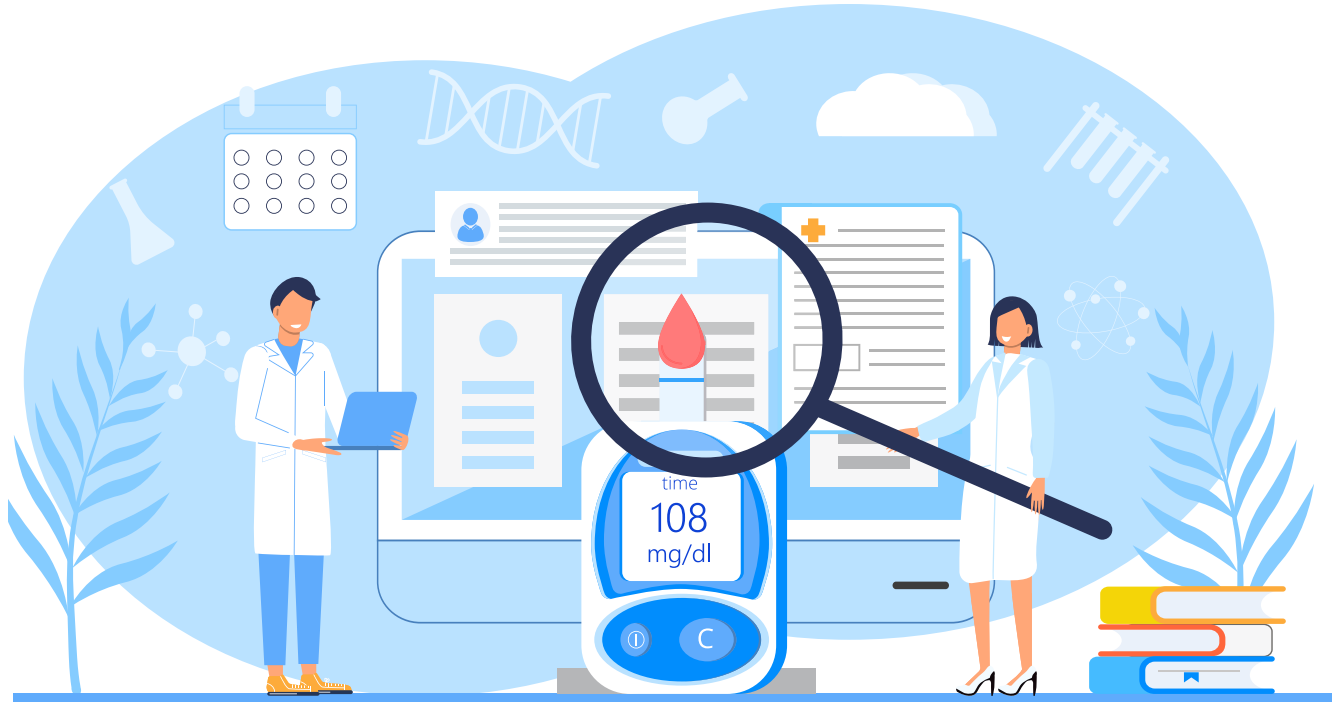
- 
- Ask for any helps you need for stress.
 - Any questions about taking care of your diabetes at work.
 - If you are going on a trip...ask any questions about taking care of your diabetes on your trip.
 - Anything else you want to ask more about this chapter.

Call to me and I will answer you.

Jeremiah 33:3

Chapter 10

Type 1 Extras



This chapter is for those living with type 1 diabetes. As you know, living well with type 1 diabetes requires some extra thinking. We at Medical Outreach Ministries know that, too. We are here to help you learn all you can and want to know about living well with type 1 diabetes. We are with you. We are here for you! We hope this booklet will help you live well.

One more word to know and one to review:

Expiration Date: The date on the package or bottle of something to let you know how long it will work for you. Do not use anything to help you manage diabetes past the expiration date.

Insulin: Carbohydrate foods (Carb foods) you eat are broken down into glucose (sugar) in your body. Insulin is a hormone made by the pancreas to help glucose move into your cells. Insulin is the key that tells your cells to pull in the glucose from your blood so your body can use it for energy. Without insulin, all that glucose would stay in your blood stream and cause you harm.

What is Type 1 Diabetes?

With type 1 diabetes, the pancreas makes little or no insulin. Without insulin, our body cannot use the food we eat to fuel the work of our body. We cannot live without insulin, so people with type 1 diabetes take insulin in a shot.

Sometimes people with type 2 diabetes need insulin, too. Even though type 1 diabetes can begin in very young children, it can also occur at any age. Less than 10% of people with diabetes have type 1 diabetes.

Causes/Risks that may work together to lead to type 1 diabetes:

- Sometimes, but not always, someone else in your family bloodline has type 1 diabetes before you.
- White people get type 1 diabetes more often than non-white people.
- A virus or some other cause may lead your body's immune system to stop the cells of the pancreas that make insulin, so your pancreas can no longer make insulin.

Symptoms of type 1 diabetes may come on quickly:



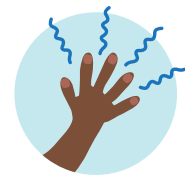
Very, very tired



More or less hungry depending on ketones.
Read on.



More thirsty



Dry mouth or skin, itchy skin, or numb or tingly hands or feet



Need to pass urine more often



Feel ill



Sudden weight loss



Blurred vision that comes and goes

What happens differently when you eat if you have Type 1 Diabetes:

Food you eat is broken down into fuel for the body. Carbohydrate foods (carb foods) are our main source of fuel. Carb foods are broken down into glucose (sugar). If your pancreas makes little or no insulin, the glucose cannot get into the cells to give your body the energy it needs.

Insulin you take in a shot will help get the glucose into the cells. Without insulin, glucose will build up in your blood and give you high blood glucose. High blood glucose can harm your body. People with type 1 diabetes need insulin shots several times each day.



Meds for Type 1 Diabetes:

In type 1 diabetes, the pancreas makes little or no insulin, so the main medicine your HCP will prescribe is insulin shots you take several times each day. Someone on your healthcare team will show you how to give yourself a shot and will help you know how many times each day to take it. Sometimes your HCP will prescribe a pill to go along with the insulin.

See Chapter 2 in Living Well with Diabetes to learn about YOUR insulin.



Exercise

Be sure to read Chapter 4 in Living Well with Diabetes first.

Exercise Safely:

Exercise can help with type 1 diabetes, and exercise can sometimes cause blood glucose to go too high or too low. It is important to choose exercise that is healthy and safe for you.

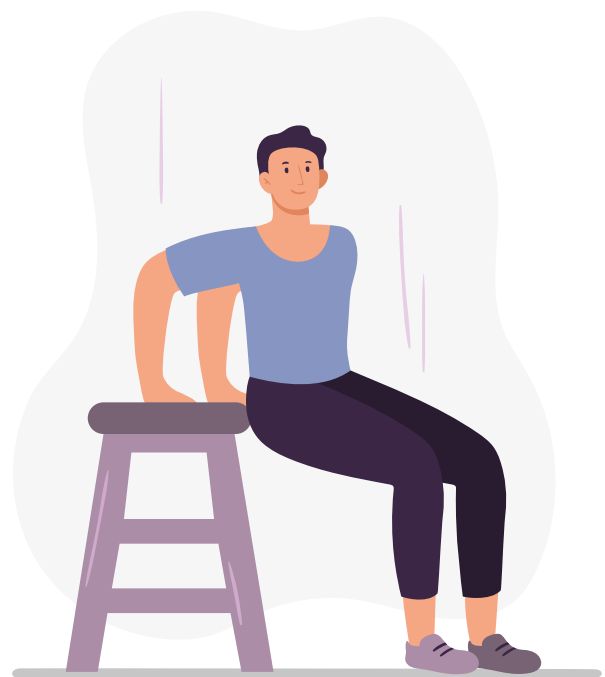
Since every body reacts in its own way to exercise, you may want to work with your diabetes educator and HCP to learn how to manage YOUR exercise safely. Read on to see some things to think about as you work with your diabetes educator or HCP.

How does exercise affect my blood glucose?

Usually, aerobic exercise after a meal will help blood glucose go down. In fact, there is a risk of blood glucose going too low during or after aerobic exercise.

Low blood glucose can happen 6 to 15 hours after exercise and even up to 48 hours after exercise. So, talk with your HCP or diabetes educator to choose what YOUR blood glucose should be before exercise.

- For most people with type 1 diabetes, the blood glucose target is at least 90 and not more than 250 before exercise.
- Exercising before breakfast may cause a little increase in blood glucose right after the exercise.
- When doing weight-bearing and aerobic exercise in the same session, doing the weight-bearing first can help reduce the chance of low blood glucose.





- Check blood glucose before exercise. If it is less than 90, you may want to eat some extra carb. Also, you and your HCP may talk about taking less insulin around your exercise. Talk with your diabetes educator or HCP about how to adjust carb/insulin for your exercise. Do not make changes without talking to your diabetes team at MOM unless they have asked you to do so.
- Very hard, long exercise can cause blood glucose to go up.
- Work with your diabetes educator or HCP to see if you need to adjust your insulin or carb intake around your exercise.
- Check your blood glucose before exercise. If your blood glucose is above 250, check for ketones.....read on.

Let's Talk About Ketones

What are ketones and why do I need to know this?

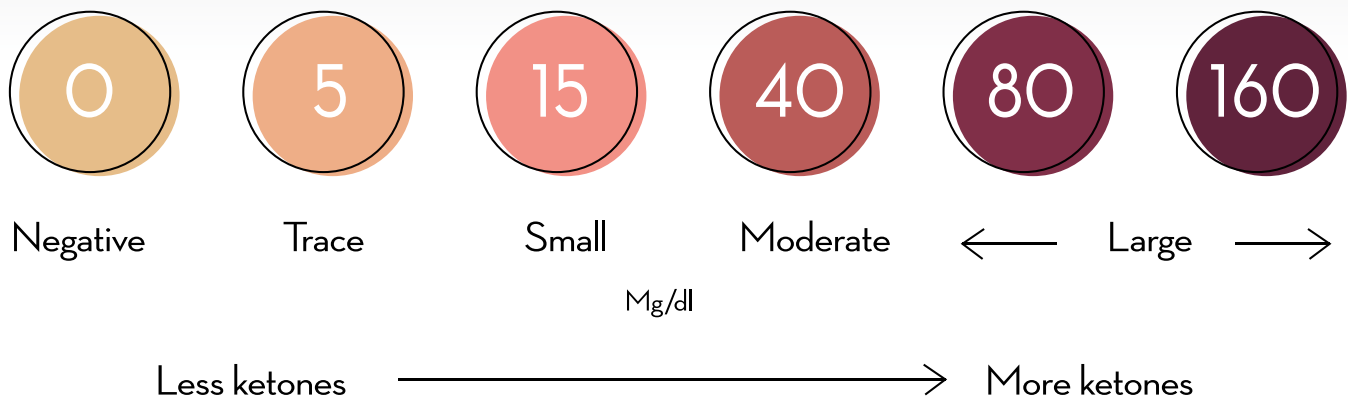
When your body does not have enough insulin to get glucose out of the blood stream and into the cells, your body burns fat for fuel, causing your body to make ketones.

Ketones make ketone acid, which is not healthy for your body. Ketone acids can cause a dangerous sickness called diabetes-related ketoacidosis, or DKA for short. DKA makes your blood have too much acid, which can make you sick.

DKA usually comes on slowly, but if you are vomiting, it can come on in a few hours. If DKA is left alone, it can make a person very ill, can quickly become very dangerous, and can even cause death.

Finding out you have ketones as soon as you can, can help you fix the problem and avoid DKA. Ask your HCP what to do if you find ketones. Do not exercise if you have ketones.

KETONES CHART



How can I check ketones?

You can buy a ketone meter, which works much like a blood glucose meter, but these can cost a lot of money.

You may also check for ketones in your urine using ketone strips you buy at your drug store or online. Ask your diabetes educator if MOM has some to give you.

To check for ketones in your urine:

- Dip the strip into your urine or pass urine onto the strip.
- Follow the directions on the package to know how long to wait after dipping your urine.
- The strip will change color.
- Hold your ketone strip up to the color chart on the back of the ketone strip package to see if you have ketones in your urine and if so, how much.

How long do ketone strips last?

Ketone strips usually last 3 to 6 months after you open them. Each package of ketone strips will have an expiration date, which tells you when the strips will no longer work. Be sure to use ketone strips that are not out of date.



- To help ketone strips last until the expiration date, store them in a dry place.
- The bathroom may be too humid to store them there.
- When you open the bottle to take a strip out, put the cap all the way back on right away to keep humidity out.
- If your ketone strips stop telling you how many ketones are in your urine, the strips may no longer be good.
- Check the date on the package to be sure they are not out of date.

When should I check for ketones?

- ANY time you have a blood glucose above 250 and you don't know why it is high.
- If your blood glucose is above 250, check for ketones every 4 to 6 hours.
- When you are sick, check for ketones every 4 to 6 hours. If you are vomiting, you may have high ketones within a few hours. Also, check ketones if you are sick in other ways, like a cold or flu.
- If you have an infection or injury.
- If you are getting ready to exercise and your blood glucose is above 250.



What does DKA feel like?

At first, you may feel and see these things:

- Be very thirsty and have a dry mouth
- Pass lots of urine
- Have high blood glucose
- May not be hungry
- Have moderate to large ketones in your urine.

Later, you may:

- Feel very, very tired
- Have dry skin or flushed skin
- Have stomach pain with or without nausea and vomiting
- Find it hard to breath or have fast, deep breathing
- Have fruity breath odor: smells like Juicy Fruit gum
- Be confused or foggy in your head



What should I do if I have ketones in my urine?

- If you have moderate to large ketones in your urine, call your HCP right now or go to the emergency room.
- If you do not have ketone strips and have some of the symptoms on the list above, call your HCP right now. If you cannot reach him or her, go to the emergency room right now.
- Teach your family and trusted friends how ketones can make you feel so they can get help for you if you need it.

What things may help me not get DKA?

- Take insulin as you and your HCP agree is best.
- Follow the eating and exercise plan you, your HCP, and diabetes educator agree is best.
- Check blood glucose often, and more often if you are sick, injured, stressed, or exercising. Check at least every 4-6 hours if you are sick or injured.
- Work with your diabetes educator to have a sick-day plan and have supplies you need at home.
- If your blood glucose is above 250, check for ketones.
- Check the date on your insulin to be sure it is not out of date before using it. Be sure your insulin is not left in too much heat or has frozen. If it has expired or been exposed to heat or has frozen, do not use it. Open a new bottle or pen of insulin.
- Check the date on your blood glucose strips and ketone strips to be sure they are not out of date.
- Keep your blood glucose and A1C where you and your HCP agree is best as much of the time as possible.

Can I exercise with ketones in my urine?

Have a talk with your HCP or diabetes educator about what to do if your blood glucose is more than 250 and you are about to exercise. These are some things to talk about:

- Check for urine ketones if your blood glucose is above 250. If there are no ketones in your urine, you may start mild exercise. Drink water before, during, and after exercise. Wait for hard or long exercise until your blood glucose is less than 250.
- If you have ketones, do not exercise. At a clinic visit, discuss with your HCP or diabetes educator how you can reduce a high blood glucose. (Also see Chapter 3 of Living Well with Diabetes).
- If you have moderate to large ketones, do not exercise at that time. Call your HCP or go to the emergency room. Do not wait.
- Continue to check for ketones on a day your blood glucose is high. Let your HCP know or go to the emergency room if you have moderate to large ketones, fruity breath, or stomach pain with or without nausea and vomiting, or if you feel confused. Also, know you may have ketones in your urine even if your blood glucose is not high, so keep checking for ketones even if your blood glucose comes back to your target blood glucose range.

Insulin, Blood Glucose, and Food

You will take a long acting (basal) insulin 1 or 2 times each day. You may also take some short or rapid acting insulin (bolus) before each meal. Your HCP may give you a sliding scale to choose your bolus dose before each meal.

Another way to choose your bolus dose before meals that may fit more closely to your needs is to learn how to count grams of carb in your food and use a correction factor.



Your HCP and diabetes educator can help you know how to use a sliding scale.

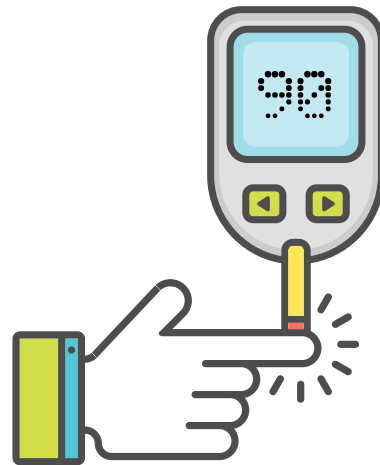
OR

You may choose to work with your diabetes educator to learn how to use a correction factor (CF) and insulin to carb ratio (I:C). This way of choosing your bolus dose may seem like a lot of steps at first, but you will get the hang of it soon.

Carb is measured in grams just like body weight is measured in pounds.

First, work with your diabetes educator to know how many grams of carb are in each food you eat. This will be helpful whether you use a sliding scale or use I:C and CF.

You and your diabetes educator can help choose a CF and I:C that is just right for you. Your CF and I:C are yours. Another person with type 1 diabetes may have a different CF and I:C. Your CF and I:C can also change with illness, aging, or weight changes. Talk with your diabetes educator if you feel your factors need to be changed.



Insulin is measured in units.

- The CF tells you how much 1 unit of insulin can bring down your blood glucose.
- The I:C tells you how many grams of carb 1 unit of insulin will help your body use.
- Your target blood glucose is the blood glucose number you would like to see most of the time.
Working with your HCP and diabetes educator, you can choose a target blood glucose that is safe and comfortable for you.

Here's how it works:

If you want your blood glucose to be 120 most of the time, your target blood glucose is 120.

EXAMPLE:

- If you have a CF of 10
- If you have an I:C of 5
- If you have a target blood glucose of 120

Let's say your blood glucose when you check it before a meal is 180 and you are going to eat 45 grams of carb foods.

1

First, let's see how much insulin you need to get your blood glucose back to your target of 120:

- 180 (blood glucose now) minus 120 (target blood glucose) equals 60. So, you want to bring your blood glucose down 60 points.
- 60 divided by 10 (CF) equals 6, so you need 6 units of bolus insulin to bring your blood glucose back to target.

2

Next:

- You are going to eat 45 grams of carb. 45 grams divided by your I:C of 5 equals 9.
- So, you will need 9 units of bolus insulin to handle the carb you are about to eat.

3

Finally:

- Add 6 units + 9 units and you have a total of 15 units of bolus insulin to take before your meal.
- Well done!!



Another thing to consider when choosing your bolus dose is how much and when you exercised or will exercise today.

Your diabetes educator can help you know when and how to change your insulin dose when you exercise.

Sometimes you may need to eat extra carb foods if you exercise, but not always. Your diabetes educator can help with that, too.

How Can I Help Myself with Type 1 Diabetes?


- Gather your team. Managing diabetes can be a challenge. Let your trusted family, friends, and your health care team at MOM be on your team.
- Think about how you feel in your mind, body, and spirit. Learn the things that can help you stay healthy in your mind and body and spirit...then strive to do them. Let your team help you when you need them.
- Learn everything you can. As you have read, only about 10% of people with diabetes have type 1 diabetes, so you COULD feel like there is not much help for YOU and YOUR type of diabetes, so read on!



Here are some websites/diabetes support groups online that may be helpful:

- Tudiabetes.org is a free online support forum for people with diabetes. You can choose to be in the type 1 diabetes group.
- Beyondtype1.org
- Diatribe.org is a free website of articles about diabetes. So great! It has a weekly newsletter “Making Sense of Diabetes” that is very helpful.
- Diabetes.org is the American Diabetes Association website.
- Janekdickinson.com: Dr. Dickinson’s blog, “It’s All about Balance” is a breath of fresh air. Dr. Dickinson’s insights are fun and helpful. Read about her. And enjoy her thoughts.

What Are Your Goals?



Work with your team at MOM to learn how to handle your food, take your meds, check your glucose, exercise often and safely, take care of your mind, body and spirit, and stay on track with your self-care.

Diabetes will be with you for life, and we live in a time when there are many tools to manage it well. Be your own best helper by learning all you can and let your team help you when you need it.

MOM is here for you. Call us when we can help. God bless you as you live well with type 1 diabetes!

**The love of the Lord never ends. His mercies never stop.
Great is His faithfulness. His mercies are new each morning.**

Lamentations 3:22-23

Knowing Your Diabetes

You know so much about YOUR diabetes. And we are learning new things about diabetes all the time. Be sure to meet with your diabetes educator at MOM from time to time to know all you can to manage your diabetes. We are here to help! God bless you as you live well with diabetes!

Websites That May Help

- Calorieking.com
(There is also a phone app: Calorie King)
- CDC.gov/diabetes
- Diabetesfoodhub.org
- Diabetes.org
- Eatright.org
- Joslin.org
- Smokefree.gov for help to stop smoking

Shop For Medic Alert Jewelry

- Medicalert.org
- walgreens.com/store/c/medical-bracelets/ID=362533-tier3
- walmart.com/c/ep/medical-alert-pendants
- walmart.com/browse/health/medical-id-bracelets/976760_1005860_2979341_4697498

Sources available upon request

Jesus said, “Please know, I am with you always.”

Matthew 28:20