

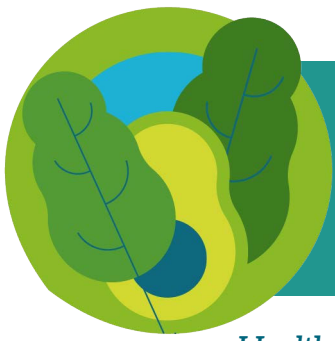
# Diabetes SOLUTIONS

*Your Answer to a  
Better Tomorrow!*

## Additional Resources

ADCES Self-Care Behaviors  
Signs & Symptoms of High & Low Blood Sugar  
Managing & Reducing Stress  
DKA & Hyperosmolar Syndrome  
ADCES Fasting with Diabetes  
ADCES Sick-Day Care





# ADCES7 Self-Care Behaviors™ HEALTHY EATING

*Healthy Eating refers to a pattern of eating high quality, nutritionally dense foods in amounts that lead to better health and wellness. A healthy eating pattern contains a variety of colorful vegetables, fruits, whole grains, dairy, lean sources of protein and oils, while keeping salt, added sugars, saturated and trans fats to a minimum.*

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## TRACK YOUR FOOD

Everything you eat or drink can affect your blood glucose (sugar), blood pressure, blood lipids (such as cholesterol) and weight. So how do you make sense of all that? One way is by tracking what you eat, at least for a few days until you start to see patterns that help you decide what changes you might choose to make.

Use mobile apps, paper and pencil logs, or whatever works best for you. You can achieve your weight and wellness goals by finding the right balance of calories and other nutrients to meet your goals. Tracking to identify trends to help reduce your overall calorie intake is the best way to determine how to create that balance.

## PARTNER WITH YOUR HEALTHCARE TEAM

You probably have lots of questions about making healthy food choices such as how to include favorite foods and drinks, eating out, preparing healthy meals and snacks, what to eat when exercising, travelling or at family events.

When it comes to healthy eating, no one eating pattern fits everyone. Work together with your diabetes care and education specialist and registered dietitian to come up with a plan that fits what you like and meets your health needs.



### Cardiometabolic health:

Keeping your heart and blood vessels healthy and your prediabetes or diabetes well-managed.

### Nutritionally dense foods:

Foods that have a large amount of vitamins and minerals in a relatively small quantity of food.

### Carbohydrates (Carbs)

include starches, fibers and sugars. Found in milk, fruits/juices, vegetables, rice, grains, bread, beans/lentils, sugar and honey.

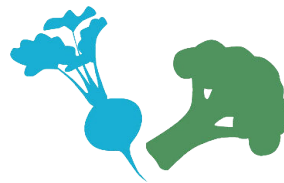
**Proteins** are made of amino acids which are the building blocks for repair and maintaining a healthy body. Found in milk, cheese, meats, poultry, fish, eggs, nuts and soy.

**Fats:** Concentrated energy source found in oils, nuts, spreads, olives, avocados, flax seed, peanut butter and salad dressings. Fat has twice as many calories per gram of food as compared to proteins and carbohydrates.



## DIABETES CARE AND EDUCATION SPECIALISTS & REGISTERED DIETITIANS CAN HELP YOU:

- Set realistic, achievable healthy eating goals.
- Review your food logs for trends and help you determine small changes that can help you meet your health goals.
- Develop a meal plan that fits into your daily routine.
- Learn about the right portions/serving sizes for you.
- Understand how to use the nutrition facts label to make healthy choices.
- Learn to count carbohydrates.
- Learn about sources of salt and saturated fat in the foods you eat and small changes that can help you meet blood pressure or cholesterol goals.
- Adjust meal plan for physical activity, holidays and travel.
- Find apps for tracking or looking up food values.



**Question:** Can people with diabetes eat sugar?

**Answer:** Yes, in moderation. Sugars are a type of carbohydrate counted as part of your total carbohydrate grams. Foods and drinks such as milk, fruit and starchy vegetables (like peas, corn and potatoes) that have natural sugars give you more than just calories. They contain nutrients that are healthier than chips or cookies. Added sugars are different and are listed under total sugars in the Nutrition Facts label. They include sugar that was added to the food during processing.

### MAKING HEALTHY CHOICES: GETTING STARTED

EAT THESE FOODS MORE OFTEN		LIMIT THESE FOODS	
<b>NONSTARCHY VEGETABLES</b>	leafy greens, green beans, cucumbers, carrots, cauliflower, brussel sprouts and more.	<b>ADDED SUGAR</b>	candy, calorie containing drinks, baked goods and desserts.
<b>LEAN PROTEIN</b>	fish (salmon, tuna, cod, catfish, sardines, trout and others), chicken, turkey, eggs, nuts and soy foods	<b>HIGH FAT MEATS</b>	beef, skin from poultry, ribs, bacon, sausage, deli and processed meats like salami, bologna and hot dogs.
<b>HEALTHY FATS</b>	plant-based oils like vegetable, olive or canola.	<b>FOODS HIGH IN SATURATED FAT</b>	butter, lard, tropical oils (coconut, palm) ice cream and desserts.
<b>FRUIT</b>	small piece like apple, orange, peach or pear. small cup of berries.	<b>SALTY SNACKS</b>	potato chips, french fries, pickles, canned soups and table salt.

## LEARN TO READ A NUTRITION FACTS LABEL

The Nutrition Facts label can help you make healthy eating and drinking decisions. Learn to read the food label to guide your choices by comparing similar foods and choices. Consult with your diabetes care and education specialist and your registered dietitian nutritionist for guidance.

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving size</b>	<b>2/3 cup (55g)</b>
<b>Amount per serving</b>	
<b>Calories</b>	<b>230</b>
<b>% Daily Value*</b>	
<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 1g	<b>5%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>13%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 12g	
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b> 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 240mg	6%

\* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

This label shows that one serving is 2/3 cup. However, it has 8 servings per container. If you eat the whole container, you would have to multiply all the values by 8 to see the right totals for all the components.

The total carbohydrate amount takes into account the sugars and fiber. If you are carb counting, this is the number to pay attention to.



What you eat, how active you are and the medications you take work together to help you reach your diabetes care goals. Healthy eating has a big impact on your diabetes management and involves important skills, such as:

- measuring foods to get familiar with your portions.
- determining the correct portions for you.
- reading labels.
- timing meals with medications.
- being aware of or counting the carbohydrate foods you eat to better understand their impact on your blood glucose.

Diabetes self-management education and support (DSMES) services teach these skills to their participants. Registered dietitian nutritionists also have this expertise and can help you. Ask your provider for a referral so that you can create your own personalized healthy eating plan to best manage your diabetes. You deserve it!

To learn how a diabetes care and education specialist can help you, visit [DiabetesEducator.org/LivingWithDiabetes](https://DiabetesEducator.org/LivingWithDiabetes).

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# ADCES7 Self-Care Behaviors™ BEING ACTIVE

*Being active means doing any type of daily physical movement, whether it's structured, like a session of exercise, or unstructured, like anything that decreases the time you spend sitting.*

## BE SAFE

You should be able to safely start doing any activity that takes about the same amount of effort as your usual activities without having to get a checkup first. However, if you are not used to a lot of activity, check with your healthcare provider to get medical clearance. They can advise you on medication adjustments that might be needed and let you know if you should avoid specific activities based on your condition.

## FIT ACTIVITY INTO YOUR DAILY LIFE

When it's hard to find the time or motivation to start being active, choose the best ways to fit activity into your daily life—whether it's walking more, doing chair exercises or working out at the gym. Even getting up more often for short activity breaks or standing up longer helps rev up your metabolism. A diabetes care and education specialist can help you decide on an impactful routine that fits with your lifestyle and that you enjoy.

## START WITH SMALL STEPS

Start by just moving more all day long, however you can. You can do an activity in multiple short sessions rather than one longer session. In time, you will find that you are feeling better and ready to go further.



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**Metabolism:** The way that chemical processes in your body cause food to be used to give you energy. For example, if you don't eat breakfast, your metabolism slows down.

**Fitness:** Physical ability to carry out daily tasks with ample energy and without feeling worn out.

**Cardio:** Continuous exercise that raises your heart rate (like walking or swimming).

**Resistance training:** Activities that help you build muscle and strength.

**Balance exercises:** Activities that help you keep your balance and prevent falls.

**Stretching:** Exercises to improve flexibility, reduce tightness and prevent injuries.



## PLAN IT OUT/MAKE IT HAPPEN

**Step 1:** Pick something you enjoy.

**Step 2:** Think about what might get in the way of you doing that activity.

**Step 3:** Brainstorm ways to start this week.

**Step 4:** Plan when to do it.

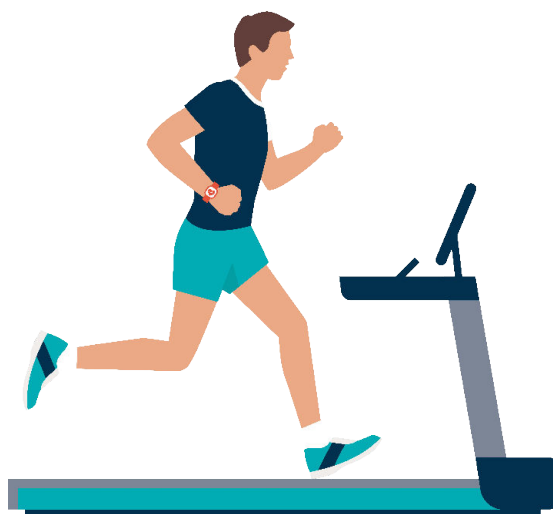
**Step 5:** Decide how long to do it.

**Step 6:** Know how hard you should be working when doing the activity. E.g. If you can talk but not sing during the activity, that is moderate intensity.

**Step 7:** Reward yourself at the end of the week for meeting your goals (and set new ones for next week).

## BE CREATIVE

- Partner with a friend or family member to find creative ways to be more active.
- Take your dog for a walk or play at the park.
- Take the stairs instead of the elevator.
- Find a gym buddy to motivate you to show up.
- Build walking meetings into your work schedule.
- Participate in an activity challenge with a friend or co-worker.
- Call a friend to go dancing or put on your favorite song and dance at home.
- If you eat lunch with a co-worker, ask them to join you for a short walk after.
- Download a fitness app for guidance on creating your own exercise program.



**Question:** Is going to the gym or taking an exercise class the only way to be active?

**Answer:** No, there are so many ways to be active! Physical activity is anything that gets your body moving and helps you get fit and stay healthy.

### Get Active for your Health

Being active has many benefits beyond fitness. Here are some of the ways being active improves your health and well-being:

- improves your muscle strength and heart health.
- helps you lose inches and fat.
- improves your cholesterol and blood pressure.
- helps you feel less stressed or anxious, enhancing your mood.
- adds years to your life.
- keeps your blood glucose closer to healthy levels, preventing health issues now and in the future.

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## ADCES7 Self-Care Behaviors™

# MONITORING

*Monitoring means checking your glucose (sugar) levels, activity and food intake, and gathering data from multiple sources and devices to make decisions about your diabetes prevention efforts or diabetes care and self-management.*

Monitoring also involves your overall health, such as blood pressure, weight, cholesterol levels, heart health, sleep, mood, medications, and eye, kidney and foot health.

### KNOW YOUR NUMBERS

For people with prediabetes or diabetes there are optimal target ranges to aim for in many areas of management. There are national guidelines to help put everything in perspective. Your provider and diabetes care and education specialist know that the best results occur when your care is geared to you and your individual needs. Ask them how your numbers compare to what is recommended for your optimal health.

### CHOOSE A MONITORING DEVICE

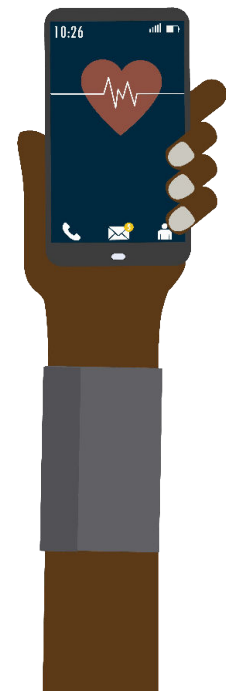
Monitoring devices provide “in the moment” data that helps you determine how well your diabetes management plan is working. Ask your diabetes care and education specialist to help you choose a monitoring device. They will personalize and advise you based on your values and preferences, helping you to compare and contrast the pros and cons of each. Here are some of the ways they can help you:

- Determine which diabetes management device you can afford and works best for you.
- Learn how and when to use the device to track your data.
- Figure out how to find patterns you can act on.
- Come up with an ongoing plan for monitoring as your health goals are met.



**Question:** Can you tell what your glucose level is by the way you feel?

**Answer:** You may have symptoms of high or low glucose, but your symptoms may disappear or change over time, so it's always best to check.



## FIND THE PATTERNS THAT TELL THE STORY

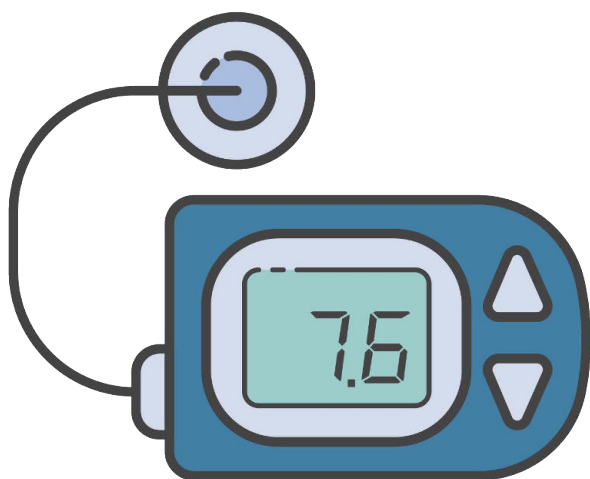
Taking multiple measurements and putting them together to identify patterns is much more meaningful than looking at numbers one at a time. Once you and your diabetes care and education specialist work together to highlight the patterns, you can begin to identify the cause and effect of the patterns and take needed action.

Examples of patterns you might see:

- Your glucose is higher after dinner on most days.
- Whenever you eat at bedtime, your glucose tends to be high the next morning.
- If you take a walk for at least 20 minutes, your glucose goes down to a better level.
- Your blood pressure is higher in the morning than the evening.

Tracking and organizing data such as food intake, activity, blood pressure, stress levels and glucose can help you see the story the data is telling. There are many easy ways to track data, including paper logs, an app on your smartphone or software program that comes with your device. Focusing on the patterns rather than every single reading also helps to keep your emotions more level.

Reach out to your diabetes care and education specialist to understand how to read the reports for the devices you are using and what patterns to look for. Many of these reports are designed to present useful patterns to the user.



**Blood Glucose Meter:** A small device that is used to check glucose levels in the blood. It uses test strips and a fingerstick device.

**Continuous Glucose Monitor (CGM):** A system with multiple parts that is worn continuously and senses glucose levels every few minutes in the fluid around the body cell, sending the readings to a reader, receiver or app on a phone. The readings are shown in graph form with trend arrows showing if the glucose levels are staying the same, dropping or going up.

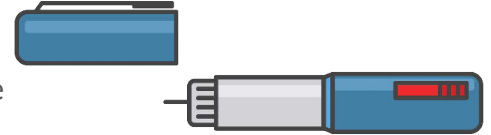
**A1C:** A test that reflects your average blood glucose level during the past 3 months.

**Time in Range (TIR) :** When using a CGM, TIR is the percentage (%) of time your glucose is between 70mg/dl and 180 mg/dl. These numbers represent the highest and lowest your glucose levels can be before they become a concern.

## TIPS FOR MONITORING GLUCOSE

If you're using a fingerstick meter, wash your hands with soap and water, and dry them thoroughly before checking. Substances on your skin (like dirt, food or lotion) can cause inaccurate results. If you are wearing a continuous glucose monitor, follow the manufacturer's information on the best ways to keep it working well for you.

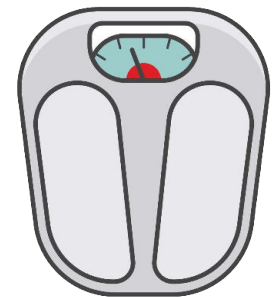
- The best time to check the effect of your meal on your glucose level is 2 hours after eating.
- Contact your diabetes care team if you are having glucose readings below 70mg/dl. You may need your medication dose adjusted or need help with problem solving to find the reason.
- Check your glucose levels more often if you think you're getting sick and during any illness.
- Bring your glucose record or download report to every appointment with your care team.
- When traveling, keep your supplies in the package with the original prescription in your carry-on luggage. If needed, advise security personnel that you are carrying diabetes supplies.



## INCLUDE MONITORING IN YOUR SELF-CARE

Monitoring helps you know if you are meeting recommended treatment goals to keep you healthy. When you self-monitor, you get the information you need to make food and activity adjustments and manage your medications so that your body can perform at its best. The numbers you get when you monitor are useful to help your care team match treatment to your needs. You'll start to recognize patterns that lead to enhanced self-care, giving you a well-deserved sense of accomplishment.

A diabetes care and education specialist can be a great resource to help you choose the right monitoring device, and one you can afford. They will work with you on how to use the device correctly and understand the results. Together, you will collaborate to stay on track and make progress by setting small, measurable goals. Ask your provider to refer you. You deserve it!



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# ADCES7 Self-Care Behaviors™ REDUCING RISKS

*Reducing risks means doing behaviors that minimize or prevent complications and negative outcomes of prediabetes and diabetes.*

Examples of these behaviors are making positive lifestyle changes, participating in a type 2 diabetes prevention or diabetes self-management education and support program, getting adequate sleep, and getting the recommended vaccines and health screenings. Reducing risks means you need to acknowledge that preventive actions you do now will benefit you years from now and that you have the power to change your health outcomes.

## LEARN ABOUT YOUR RISKS

Talk to your diabetes care and education specialist and healthcare provider about health risks such as kidney damage, nerve damage and vision loss. They can explain why complications happen and how they can be avoided. You can develop the self-management skills needed to support and maintain a healthy lifestyle by meeting with your diabetes care and education specialist.

### THE FOUR CRITICAL TIMES TO SEE A DIABETES CARE AND EDUCATION SPECIALIST

When you are first diagnosed with diabetes	At least once a year
When you experience changes that affect your self-management such as financial or emotional distress	When you have changes in your provider, insurance or living situation.



**Question:** What kinds of health checks give you the best chance of keeping your heart healthy and avoiding short and long-term complications?

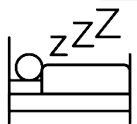
**Answer:** Research has shown that managing your glucose (sugar), blood pressure and cholesterol levels, getting regular oral health checks, eye checks, kidney checks and taking care of your feet all lead to less chance of developing complications or of existing complications getting worse.

#### HEART CHECKLIST

- GLUCOSE
- CHOLESTEROL
- EYES
- KIDNEYS
- BLOOD PRESSURE
- ORAL HEALTH
- FEET

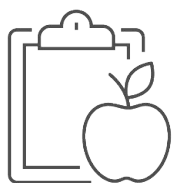
## REDUCE YOUR RISK OF COMPLICATIONS

Schedule regular medical checkups.



Get screened for sleep apnea.

Get screened for hearing loss.



Follow your healthy eating plan.

Commit to moving more and sitting less.



Take medications as prescribed.

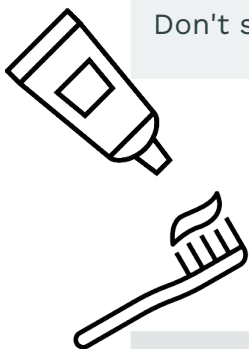
Monitor your glucose using CGM or blood glucose meters.



Don't smoke or vape.



Brush and floss your teeth daily.



Get a flu shot.



Get pneumonia and hepatitis B vaccinations.

Discuss any sadness or distress with your provider.

Check your feet daily for redness, sores, open wounds.



## Get Help When You Need It

Do you find prediabetes or diabetes too hard to handle? Do you often feel overwhelmed or sad?

Your diabetes care and education specialist or mental health expert can help. Tell them about your feelings, especially if you:

- Struggle to manage your diabetes.
- Have negative thoughts.
- Avoid seeing your healthcare providers.
- Have little interest or don't find pleasure in your activities.
- Sleep most of the day or are not able to sleep.
- Have lost your appetite or are overeating.
- Feel others in your family don't care.

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### Short-term complications

These are when you experience high or low glucose (sugar) levels that put you at risk of passing out or being hospitalized.

### Long-term complications

These can happen after many years and include heart attacks, strokes, decreased vision or blindness, decreased kidney function, numbness or tingling in your hands or feet, slowing down of stomach emptying, foot deformities, sexual problems and skin problems.

TYPE OF HEALTH CHECK	FREQUENCY
A1C (a blood test that measures your average blood glucose level during the past 3 months)	Every 3 to 6 months
Blood pressure	Every visit
Lipids (blood fats) HDL (good cholesterol) LDL (bad cholesterol) Triglycerides (blood fats that come from food and are made by the body)	At least every year
Eye checkup	Every year
Kidney function tests	Every year
Dental checkup	At least every year
Foot checkup (for nerve function and blood flow)	At least every year

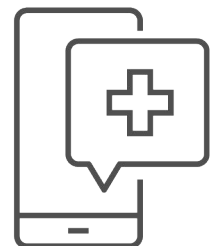
### BREAK TASKS INTO SMALLER PARTS

Your diabetes care and education specialist can help you with planning and scheduling recommended health checks. This task can be less overwhelming when you divide them up into smaller, doable tasks. Make a list of tasks and decisions, then work on them one at a time until you have completed the list. Here is a sample task list for getting an annual eye exam:

- Find out insurance coverage and cost for the eye exam.
- Identify eye providers in your network and select one.
- Call and schedule the appointment.
- Make arrangements to allow time for the appointment.
- Actively participate in the appointment.

Making sure you get recommended health checks and sticking to your treatment plan are positive steps you can take to reduce your risk of complications. Taking an active role in keeping your heart, kidneys and eyes as healthy as possible helps you achieve your desired quality of life. Act early so you can stay healthy in the long run! A diabetes care and education specialist can be a great resource for helping you understand how to reduce your risks. Ask your provider to refer you. You deserve it!

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ADCES7 Self-Care Behaviors™

# PROBLEM SOLVING

*Problem solving is when you come up with ways to solve a problem, then try it and see if it works. When you have diabetes, you can follow your treatment plan, check your blood glucose (sugar) often and still find that you don't always get the results you hope for. Diabetes changes over time so you may need new ways to manage it. Using problem solving techniques can help.*

Problems can be big or small, new or old, short-term or long-term, and everyone with diabetes faces them at some point. You can look ahead and plan for some but not others. There are 3 steps that make up the recipe for getting to the root of a problem and help you live well with diabetes:

## STEP 1 - IDENTIFY THE PROBLEM

### ■ What has changed?

New medicines? Different food? New job? New work schedule? Change in family situation? New insurance plan?

### ■ What is going to change?

Traveling? Starting exercise? Long meeting scheduled? Holiday celebration?

You can develop a plan to prevent problems by knowing what is about to change. Sometimes an unexpected problem occurs that affects your diabetes. In that case, you must pin down the cause and try to solve it. It may not always be clear what will work. A diabetes care and education specialist can guide and support you through this. This takes you to step 2.

## STEP 2 - FIND SOLUTIONS

- Think of ways to correct the problem based on your experience, tools and the support you have available.
- Check with your diabetes care and education specialist and healthcare provider to see if you have misunderstood anything about your treatment plan.

Here are some common situations where problem-solving may be needed:

### Situation 1: Flu

You get the flu and notice your blood glucose levels are higher than normal.

What do you do?

### Situation 2: Vacation

While on vacation, you don't have easy access to a gym or time for exercise. How will you handle this?

### Situation 3: Traditional Foods

You have a hard time finding healthy food choices within your family's cultural or taste preferences. What steps can you take?

- Let them know if your life situation has changed. Work with them to help you decide what plan fits best for you.
- Share any issues you are experiencing, like not being able to afford all your diabetes supplies or medications.
- Ask them for ideas about new tools that could help.
- Having the right information can help you come up with the right solution for your problem. Then you move to step 3.

### STEP 3 - TAKE ACTION

- Choose how to solve the problem once you have options.
- Set a realistic action plan.
- Pick a solution that you can handle; get help if you need it.
- Check to make sure your solution choice works.
- Try something different if one solution doesn't help.

When problem solving, be patient with yourself. Follow up with your diabetes care and education specialist to discuss how things went. They help others just like you every day to solve problems around taking medications, monitoring, healthy eating, being active and reducing risks. Ask your provider to refer you. You deserve it!"



### Improve Your Problem-Solving Skills

When you succeed in solving problems you have identified, you gain confidence. You can better handle future challenging situations. Because things change over time, you will always need to do some problem solving to keep making progress. Learning from your previous choices and then revising your plans based on that information greatly enhances your ability for successful self-care.

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ADCES7 Self-Care Behaviors™

# TAKING MEDICATION

*Taking medication means following the day-to-day prescribed treatment at the right time, dose and frequency for the required length of time. Taking medication as prescribed also means you are following your treatment plan that was developed to help you avoid complications and stay healthy.*



## UNDERSTAND YOUR MEDICATION PLAN

Since prediabetes and diabetes can affect different parts of your body, it is not uncommon for you to need several medications that work together to get you into your target range. Ask your provider and diabetes care and education specialist if you are still on the best medications based on the newest research. New medications often have multiple benefits, such as preventing heart-related problems, in addition to improving your blood glucose (sugar).

## 3 THINGS TO SHARE ABOUT YOUR MEDICATIONS WITH YOUR PROVIDER

- Any side effects you are having.
- If you have stopped taking any of your medications.
- If the medication is affecting your quality of life.

## CHECK IF YOUR MEDICATION PLAN IS WORKING

There are several ways to measure if your diabetes medication plan is working. One way is to check an A1C level. It is important to know that the A1C doesn't show how many times you have had low or high readings, so you may need to maintain a blood glucose log. If you use a continuous glucose monitor, you and your diabetes care and education specialist have access to a measure called Time in Range that will show how often your levels have been up or down. Ask your diabetes care team where your numbers are compared to your target range.

## FOLLOW THESE 4 TIPS

### 1 Keep an updated list of all your current medications.

- A medication list provides valuable information for your health care team. Be sure to include the name, dose and time you take each one.

## Questions to Ask About New Medications:

- What is the name of the medication?
- What is it for and how does it work?
- How much should I take?
- When should I take it, and should I take it with food?
- What side effects or problems should I let you know about?
- Will it affect my weight?
- Could the medication cause my glucose to drop too low?
- If I miss a dose, what should I do?
- How do I store the medication at home and when I travel?
- How will I know it's the right medication for me and if it is working?

**2 Include all prescription and over-the-counter medications on your list, including herbal remedies, supplements and vitamin products.**

- Fill your prescription immediately after your appointment.
- Work with your pharmacist to find affordable medication options, send refill reminders and streamline the timing of refills. If you don't understand or forget what the medication is for, ask your pharmacist when picking them up.

**3 Take your medication at the right time.**

- Create a daily routine for taking and tracking your medications.
- Find the best times to take your medications so they will work best for you. Ask your diabetes care team about the time of day, spacing between doses, pairing medication times with your daily schedule and grouping medications that may be taken together.

**4 Share your medication beliefs and concerns with your diabetes care and education specialist or another member of your care team.**

- Did taking your medicine have positive effects on your health?
- Did your medicine cause low blood glucose (hypoglycemia)?
- Are you concerned about the number of pills you must take every day?
- Is your medication plan too complicated for your lifestyle?

Taking medications helps lower the risk for heart attack, stroke and kidney damage by managing blood glucose, blood pressure and cholesterol levels in your body. Diabetes is a progressive disease so the longer you have diabetes, the more help you will need from medications to keep you and your heart, eyes and kidneys healthy.

Diabetes care and education specialists, like pharmacists, nurses and dietitians can be a great resource when it comes to understanding your medication plan. They can help you find assistance programs if needed, as well as work with you to address any concerns you may have. Ask your provider to refer you. You deserve it!

**Target Range:** This is the range of blood glucose, blood pressure, or cholesterol, for example, that is optimal for good health. It is determined based on evidence and consultation with expert health professionals and researchers. Your target range is set to match your situation.

**A1C:** This is a blood test that shows your average blood glucose for the past 3 months.

**Time in Range:** This is the percent of time your glucose readings are between 70mg/dl and 180 mg/dl and is usually reported on a continuous glucose monitoring report. These numbers represent the highest and lowest your glucose levels can be before they become a concern.

**Hypoglycemia:** This is the name for low blood glucose. It happens when your blood glucose goes below 70mg/dl. Typical symptoms include being shaky, sweaty, nervous and/or weak.

To learn how a diabetes care and education specialist can help you, visit [DiabetesEducator.org/LivingWithDiabetes](https://DiabetesEducator.org/LivingWithDiabetes).

For more on this and other behaviors for better diabetes management, visit [DiabetesEducator.org/ADCES7](https://DiabetesEducator.org/ADCES7).



# ADCES<sup>7</sup> Self-Care Behaviors™

# HEALTHY COPING

*Healthy coping means having a positive attitude toward your diabetes or prediabetes management, as well as positive relationships with others.*

Prediabetes and diabetes can affect both your body and your emotions. It is common to have mixed feelings about your condition and experience emotional highs and lows. These emotions can affect your ability to manage your daily life and condition. It is not uncommon to feel distressed or depressed due to the emotional burden, the daily demands and the fears of long-term problems.

To cope is to deal with or overcome a problem. There are lots of ways to cope with upsets in your life, and not all of them are good for your health. However, there are healthy coping methods that you can use to get through tough times.

## FOCUS ON HEALTHY COPING STRATEGIES

How you handled your feelings in the past can be a guide for coping with your condition. There are many ways to cope with life stresses and the challenges of having prediabetes or diabetes. Here are a few examples of healthier alternatives:

UNHEALTHY COPING	HEALTHY COPING
Smoking	Participating in faith-based activities
Overeating	Being physically active
Not finding time for activity	Meditating
Avoiding people and social situations	Finding a hobby
Drinking alcohol	Joining a support group
Taking drugs	Writing in a journal



### Find Support Networks

Having a support network is key to healthy coping. You can attend a diabetes prevention program, diabetes self-management and support classes, or a peer support group. Take the time to build healthy bonds that work for you and support you in your journey. Remember that you are not alone! Your diabetes care and education specialist is there to help you develop health coping strategies and support your efforts. Learn more about peer support, visit [DiabetesEducator.org/PeerSupport](http://DiabetesEducator.org/PeerSupport).

## START A CONVERSATION

When you are ready to have a conversation with your care team, here are the areas that are most helpful to share:

1. Tell them what is causing you the most concern about caring for yourself right now (e.g. your medicines, emotions, meal planning, stress).
2. Tell them what you find hard or frustrating about those concerns above.
3. Describe your thoughts or feelings about your concerns (e.g. confused, angry, curious, worried, frustrated, depressed, hopeful).

Healthy coping is important because diabetes-related distress can hinder your self-care and prevent you from reaching your health goals. You can live well with prediabetes and diabetes and have the quality of life you deserve with the right guidance, support and coping skills.

A diabetes care and education specialist can help you figure out where your stresses are affecting your self-care. Together you can develop healthy coping strategies that work best for you and fit with your lifestyle. Ask your provider to refer you. You deserve it!



## Get Help When You Need It

Do you find prediabetes or diabetes too hard to handle? Do you often feel overwhelmed or sad? Or do your moods change often, and even little things bother you?

If you are experiencing any of these, your diabetes care and education specialist or mental health expert can help. Tell them about your feelings, especially if you:

- Struggle to manage your self-care.
- Have negative thoughts.
- Avoid seeing your healthcare providers.
- Have little interest or don't find pleasure in your activities.
- Sleep most of the day or are not able to sleep.
- See little value in taking care of yourself.
- Feel like you can't take care of yourself.
- Have lost your appetite or are overeating.
- Feel others in your family don't care.

To learn how a diabetes care and education specialist can help you, visit [DiabetesEducator.org/LivingWithDiabetes](https://DiabetesEducator.org/LivingWithDiabetes).

For more on this and other behaviors for better diabetes management, visit [DiabetesEducator.org/ADCEST7](https://DiabetesEducator.org/ADCEST7).

# Low blood sugar (Hypoglycemia)

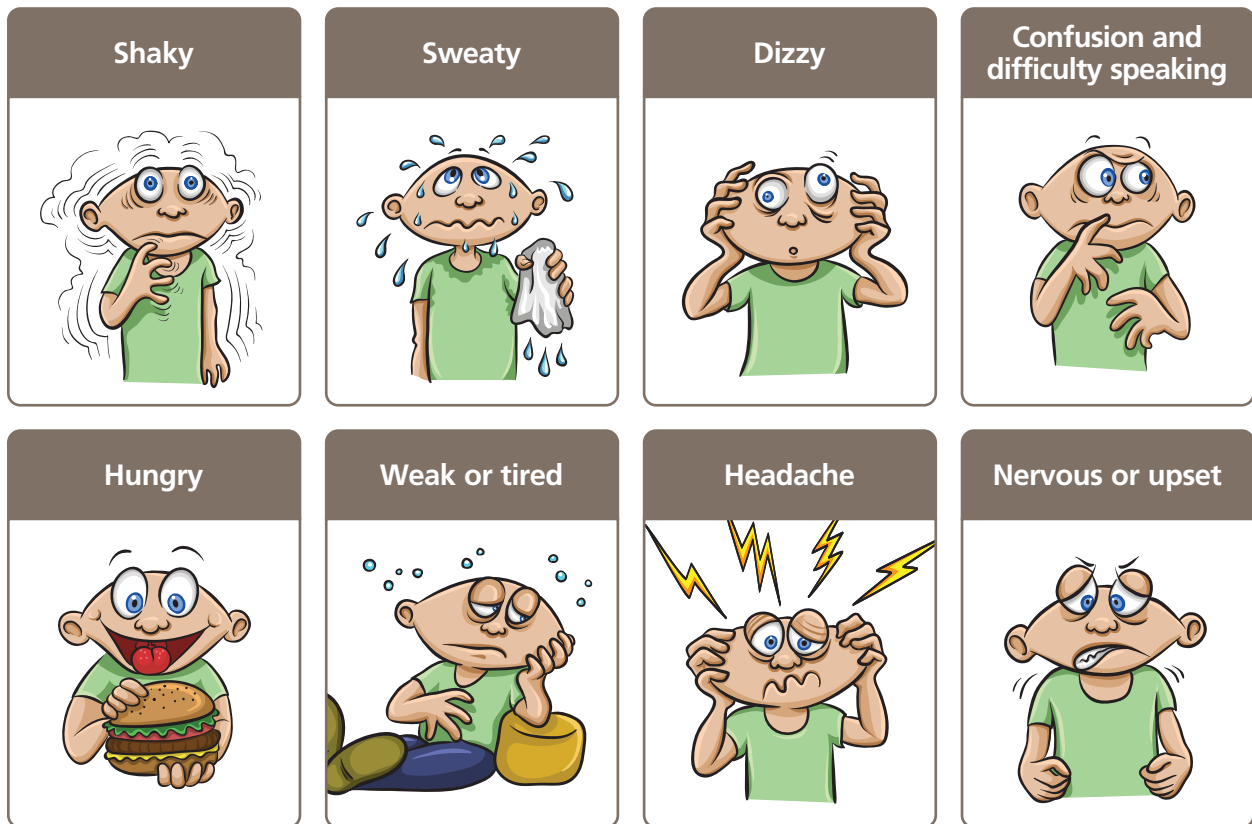
## Causes

You might get low blood sugar (also called hypoglycemia) if you:

- Take certain medicines and eat too few carbohydrates
- Skip or delay meals
- Take too much insulin or diabetes pills (ask your diabetes care team if this applies to you)
- Are more active than usual
- Are sick
- Drink alcohol without eating enough food

## Signs and Symptoms

Here's what may happen when your blood sugar is low:



Or you may have no symptoms at all.

---

**If low blood sugar is not treated, it can become severe and cause you to pass out.  
If low blood sugar is a problem for you, talk to your doctor or diabetes care team.**

---

# Low blood sugar (Hypoglycemia)

## What to do if you think you have low blood sugar

### Check



Check your blood sugar right away if you have any symptoms of low blood sugar. If you think your blood sugar is low but cannot check it at that time, treat anyway.

### Treat

Treat by eating or drinking **15 grams** of something high in sugar, such as:



4 ounces (½ cup) of regular fruit juice (like orange, apple, or grape juice)



4 glucose tablets or 1 tube of glucose gel



4 ounces (½ cup) of regular soda pop (not diet)

1 tablespoon of sugar, honey, or corn syrup



2 tablespoons of raisins

### Wait



Wait **15 minutes** and then check your blood sugar again:

- If it is still low, eat or drink something high in sugar again
- If your next meal is more than an hour away, eat a snack to keep your low blood sugar from coming back

For more information, visit [Cornerstones4Care.com](https://www.Cornerstones4Care.com)

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# TAKE 5

TO CARE 4 YOURSELF

## HIGH BLOOD GLUCOSE (HYPERGLYCEMIA)

There's a lot you can do to help keep yourself healthy with diabetes.



High blood glucose (blood sugar) is also called hyperglycemia, which happens when there is too much glucose in your blood. Over time, it can cause serious health problems.

### Causes

High blood glucose can happen if you:

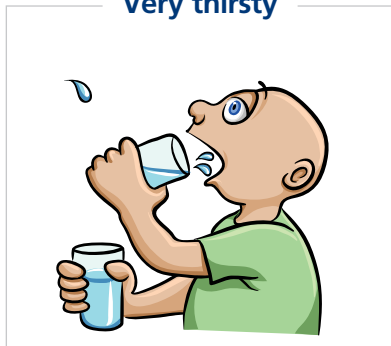
- Miss a dose of insulin or other diabetes medication
- Eat differently or more than planned
- Are less active than usual
- Are under stress or sick

High blood glucose can also happen as your diabetes changes over time.

### Signs and Symptoms

Here's what may happen when your blood glucose is high:

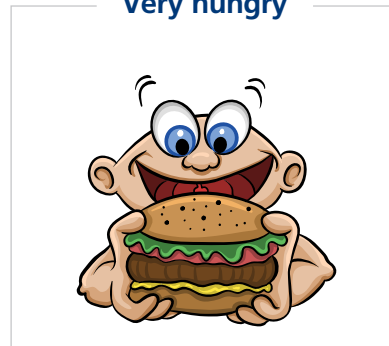
Very thirsty



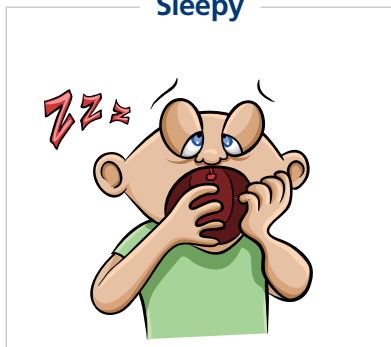
Needing to pass urine more than usual



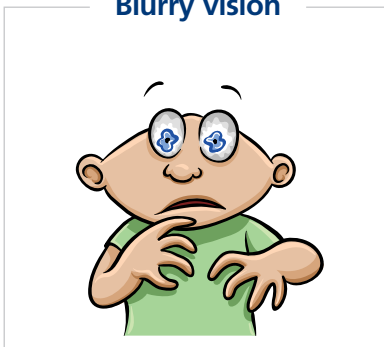
Very hungry



Sleepy



Blurry vision



Infections or injuries heal more slowly than usual



Or you may have no symptoms at all.



# HIGH BLOOD GLUCOSE (HYPERGLYCEMIA)

## What to do about high blood glucose

The best way to avoid high blood glucose is to follow your diabetes care plan:



**FOLLOW**

Take your medicines as directed



Follow your meal plan



Follow your physical activity plan

Call your diabetes care team if your blood glucose has been higher than your goal for 3 days and you don't know why.



**CALL**

The best way to know if you have high blood glucose is to check your blood glucose regularly, as directed by your doctor.



**CHECK**

Visit [Cornerstones4Care.com](https://www.cornerstones4care.com) for additional resources and to register for a FREE diabetes support program! Point your smartphone camera at the QR code for quick access to the website on your phone.

 Eating

 Moving

 Treating

 Staying on Track



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# Stress

a little something  
for all of us



Did you ever catch yourself with your shoulders pulled up around your ears, clenching your teeth, or just being edgy with someone near you and wonder to yourself, “what is happening to me?” Or maybe you find yourself thinking about an upcoming event that feels a bit unpredictable like a job interview or a final exam, and notice your breathing is shallow and your heart is racing.

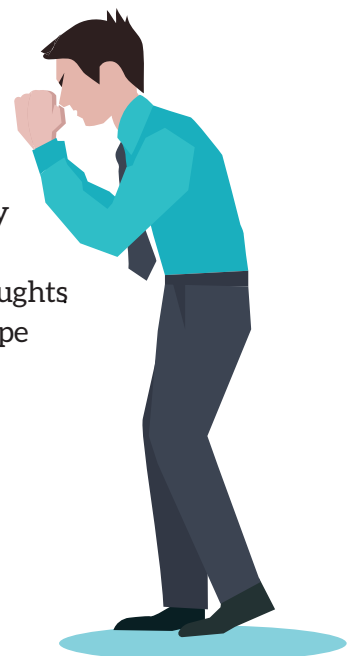
Our body is amazing; it gets us ready to handle events we think are challenging by sending hormonal messages that instruct it to get ready to meet the demands. This is the self-contained system we call the fight/flight/freeze response and it is intended to cope with stressful situations, good or bad. It helps us to confront situations by giving us extra energy and the ability to focus so we can respond appropriately.

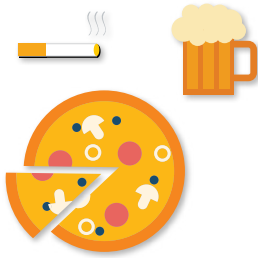
Under most conditions our stress response is a good thing; however, if we can't fight the situation, or run away from it, we might find those hormones that get us prepared, begin to build up. This leaves us with an increase in blood pressure that keeps our muscles tense, our energy high and keeps us on edge for extended periods. This puts extra pressure on the body and can make us more likely to get sick. Stress is something that we cannot get away from because it is a response to both happy and unpleasant events in our lives. Regardless of the source, managing it effectively should be a priority.

## How do you know when you are stressed?

- My muscles get tense, particularly in my lower back, neck, jaw and shoulders.
- I get a headache and/or stomachache.
- I get irritable with my family, co-workers and friends.
- I feel completely worn out and drained.

Our physical response to stress can be most easily identified as it is often the first response that we experience. If left untreated, it can affect our thoughts and attitudes. This can be more challenging to cope with in a healthy way.





## Is stress a bigger deal with diabetes?

Yes. Part of the body's system that prepares us to manage stress also releases the hormone glucagon, which causes your blood sugar to increase. For people without diabetes, their pancreas produces insulin to combat this increase, but those with diabetes have to rely on medication or other methods to decrease blood sugar levels. If you deal with stress by emotional eating or sitting around, blood sugar levels can be high for an extended period of time. If you experience chronic stress, then more damage can be done to your body.

## What negative things do you do to relieve your stress?

First find out. If you think this is happening to you, don't be surprised as it happens to many people who live with diabetes.

- Consume alcohol in excess.
- Smoke cigarettes.
- Eat chips, ice cream, candy, pizza, etc., in excess.
- Avoid people.
- Watch TV, play video games, in excess.

Each of these is identified as negative because it does not help reduce the build-up of stress. Each of these may temporarily help, but we are still left with the consequences, which have long-term health implications.

## What should I do about my stress?

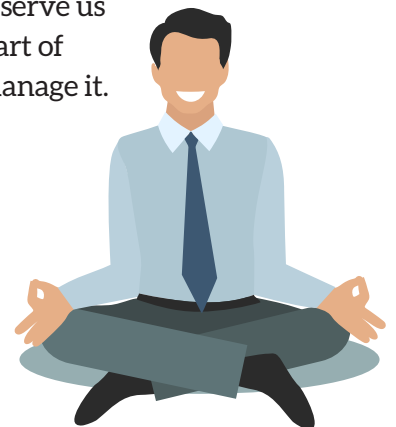
If you can't change it, change your mind. Look at it differently, as not so serious, or find a positive way to see things. While we might not be able to change a situation we often have the ability to change how we see it. For example, you might find yourself stuck in traffic and know you will be late for an appointment. You could become very tense, grip the steering wheel very tightly and try to weave around everyone to get there a minute earlier. Or you could change your mind, turn on some soothing music and remind yourself, it is not the end of the world and one or two minutes isn't going to make a difference.

If you can't change it or change your mind, then let it go. We often build anxiety over what we imagine the outcome of events might be. To practice, letting go or having faith is often the best we can do.

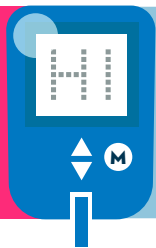
Deal with the stress after the fact. Finding positive ways to manage our stress may be our best alternative. Some examples of positive stress management are:

- Exercise.
- Meditation or deep breathing.
- Taking a walk outside.
- Talking with a supportive friend, co-worker or family member.
- Listening to music.
- Taking a break.

Stress is a significant part of life. By accepting this, we know we need to have ways of dealing with it that serve us and help us live well. Diabetes is a stressful part of your life, but you can find positive ways to manage it.



**For more information on healthy coping and diabetes, visit [DiabetesEducator.org/mhealth](https://DiabetesEducator.org/mhealth).**



# HYPERGLYCEMIC *Hyperosmolar Syndrome (HHS)*



*Like Diabetic Ketoacidosis (DKA), Hyperglycemic Hyperosmolar Syndrome (HHS) is a deadly and avoidable complication that is due to not having enough insulin for the present condition. Unlike DKA, which can be diagnosed when blood glucose (also called blood sugar) values are in the range of 250-300 mg/dl over a few hours, HHS is diagnosed when blood glucose is over 600 mg/dl and there is just a trace or no sign of ketones. This usually takes days rather than hours to occur. **Prevention is the key!***

## RISK FACTORS

- You are older than 65 years, but it may also occur in younger persons.
- You have another chronic condition such as kidney disease or congestive heart failure.
- You take medications that can increase blood glucose levels such as steroids, diuretics (water pills)

## SYMPTOMS

- Very high blood glucose levels, usually over 600 mg/dl (“HI” on most meters)
- Very thirsty
- Dry mouth

- Frequent urination
- Very tired
- Often confused or disoriented
- Fever

## PREVENTION

- Always take your diabetes medications. If you are unable to eat, call your healthcare provider for recommendations on what you should do.
- When you are sick, you should check your blood glucose level four times a day or even more often.
- When your blood glucose level remains over 300-400 mg/dl for more than a few hours, call your healthcare

provider for instructions on what to do.

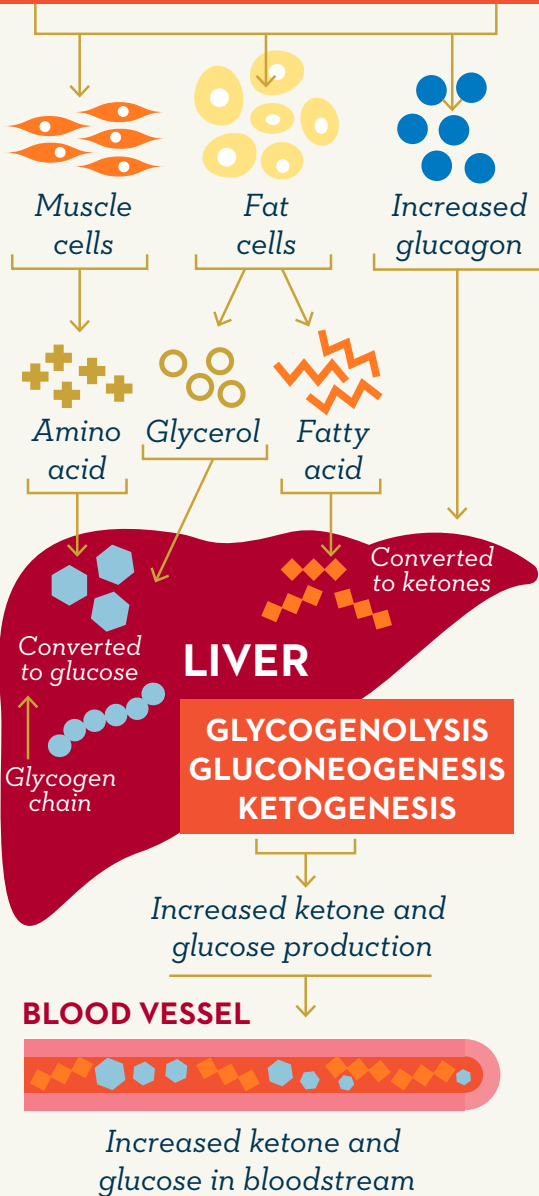
- Drink beverages that are calorie-free.
- Call if your health care provider if you are not feeling “right.”

## TREATMENT

**CALL** your health care provider if the above symptoms occur and blood glucose levels remain high. If your blood glucose levels are very high and you cannot get them into target range, go to the hospital emergency room for treatment.

# Diabetes-related Ketoacidosis

## INSUFFICIENT OR ABSENT INSULIN



**(Diabetes-related Ketoacidosis)**  
A deadly but avoidable complication of type 1 diabetes and occasionally type 2 diabetes

### WHAT IS DKA?

DKA is a series of events that starts with not having enough insulin for the present condition and leads to a serious imbalance in the blood. When there is not enough insulin, many cells of the body are starved for glucose (also called blood sugar) and the body tries to make energy from other products. This changes your blood to be more acidic. When that happens, your breathing can become labored, you can become severely dehydrated and some people can go into a coma.

### HOW IS DKA DIAGNOSED?

DKA is diagnosed when your blood tests as more acidic than normal and ketones are present. Other changes that occur in your body are changes in the level of sodium and potassium. Generally, blood glucose levels are high with DKA, but not always, especially if you are dehydrated or sick.

### CAUSES OF DKA CAN INCLUDE:

- Infection or severe illness, which stresses the body and leads to the need for more insulin to correct high glucose levels.
- Forgetting or intentionally not taking insulin to cover carbohydrates at mealtime.
- Interruption of insulin delivery when on an insulin pump.
- When a cannula (the little plastic tube connecting you to your insulin pump) gets either dislodged or kinked. When this happens, there is limited or no insulin getting into your body. The result is that DKA can happen very quickly - in hours rather than days. If your glucose values do not come down after you give a correctional bolus, give a shot via pen or syringe for the correction and replace the insertion set or pod. Remember, just because



you just replaced it, does NOT mean it is working! Recheck your glucose in two hours after changing your set. Note: Some people prefer a stainless-steel infusion set because it does not kink.

- When your insulin goes bad because it became too hot or too cold. This can happen when, for example, your insulin is left in a hot car or on a sunny windowsill or freezes due to being exposed to cold weather or your refrigerator temperature being too low.
- Delayed diagnosis of diabetes – due the difficulty in determine the cause of the symptoms of type 1 diabetes – for example weight loss, thirst and frequent urination are frequent signs and symptoms of the flu or urinary tract infection.

## SYMPTOMS OF DKA:

- *Very thirsty*
- *Frequent urination*
- *Nausea and vomiting*
- *Drowsy*
- *Deep breathing*
- *Fruity smell to the breath*
- *Stomach pain*
- *Coma if not treated*

## PREVENTION OF DKA:

### ■ ALWAYS TAKE YOUR INSULIN!

If you are not eating, you do not need to take it for food, but you need the background dose, whether basal rate through the pump or long-acting insulin given via shot. If you are eating foods that contain carbohydrates, you will need to cover the carbohydrates with insulin.

- Check your blood glucose frequently, at a minimum before every meal and prior to bed or use a continuous glucose monitor (CGM) so you can recognize when glucose levels are too high for longer periods of time (4 hours or longer).
- Always have either urine keto sticks or a blood ketone monitor with your medical supplies.
- If you cannot get your blood glucose levels to come down below 240 mg/dl, make sure to check for ketones. If they are

moderate or large, contact your diabetes team. If they are trace or small, give correctional insulin every 2-3 hours and drink lots of fluid.

- If you vomit or feel nauseated, call your diabetes care team. Sometimes people go to the hospital thinking they have the flu but have been without adequate insulin for some time and are in DKA. Or sometimes the flu can lead to DKA, due to stress and dehydration. Getting your flu shot each year will help you stay healthy and possibly avoid DKA.
- If you are on a SGLT2 oral medication to help manage your glucose levels, you can have DKA even if your glucose levels are within the normal range. Therefore, it is especially important for you to test for ketones if you are feeling ill. Additionally, avoid taking your SGLT2 medication if you are dehydrated, planning on an endurance event (for example a marathon), are on a severe carbohydrate restriction or are ill. It raises your risk of DKA.
- If you are on an insulin pump and it is not working correctly, have a written back-up plan for multiple daily injections available. As an example, you may need long acting insulin plus short acting insulin or correctional insulin every 3 hours until you receive a new insulin pump. This should be written out with someone on your diabetes team BEFORE you are sick.



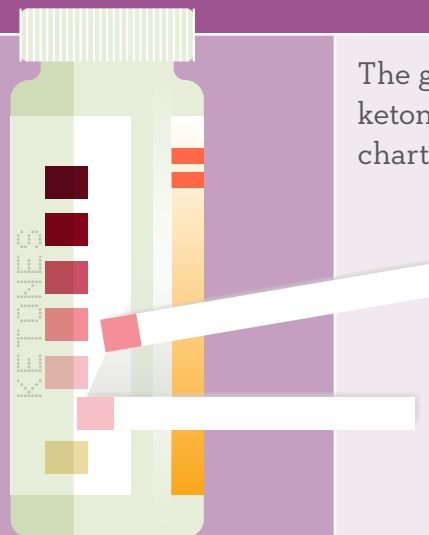
**IF YOU ARE IN DOUBT - CALL YOUR DIABETES TEAM! IF YOU IGNORE IT, DKA CAN BE DEADLY.**

**WHEN SHOULD YOU CHECK FOR KETONES?**

- If you are not pregnant and have type 1 diabetes, you should test for ketones whenever your glucose is over 300 mg/dl for several hours, especially when you are sick.
- If you are pregnant and have type 1 diabetes, you should test for ketones whenever your glucose is over 200 mg/dl. If you are on an insulin pump, you should check for ketones whenever your glucose is over 300 mg/dl without a known reason, or if your blood sugar does not come down within two hours of giving a corrective insulin dose.

**KETONES**

Ketones are chemicals made in your liver. You make them when you don't have enough insulin in your body to turn glucose (sugar) into energy. Because your body needs energy from a chemical like glucose, your body makes a "look alike" from fats. These ketones can make you very sick.



The goal is to have trace or no ketones with urine ketone chart



The goal if you are using a blood ketone meter is less than 0.6 mmol/L for blood ketones

# FASTING WITH DIABETES



Diabetes care and education specialists have the opportunity to help people with diabetes who choose to fast do so in a safe and healthy way. In this handout you'll find general considerations when working with clients.

## Fastening and the AADE7 Self-Care Behaviors<sup>®</sup>

Fasting is defined as the total or partial abstention from all foods and drinks or the exclusion of certain foods or food groups. Diabetes care and education specialists can guide people with diabetes to fast in a healthy and safe manner by assessing all elements of the AADE7: healthy eating, being active, medication taking, coping, monitoring, risk reduction and problem-solving. Prior to planning a fast, meet with the individual to establish ways to benefit from fasting and reduce risk by discussing all elements of the AADE7.

## Why do people with diabetes fast?

Many people with diabetes choose to fast as part of their religious beliefs, for spiritual reasons and for prayer, reflection and purification. Most people fast overnight while sleeping or for a set number of hours prior to a blood test or medical procedure. Health fads often include a cleanse or detox involving a period of fasting. Sometimes fasting is unintentional, such as lack of appetite, missing meals related to food insecurity and other reasons. Some people with diabetes choose to fast believing it will provide metabolic control, weight management, symptom management or for psychosocial reasons.

Intermittent fasting is a growing area of research involving alterations in the hours of the day that an individual is consuming meals with set times for eating and fasting. This can be accomplished in different ways, for example fasting for 18-20 hours and only eating during a 4-6 hour window of the day, fasting for 16-20 hours and only eating 4-8 hours per day, alternate day fasting or consecutive day fasting. Initial research has shown mixed results in terms of the impact of fasting on glucose and weight loss, and more research is needed.

## Using the AADE7 Self-Care Behaviors Framework to Assess Fasting Practices and Safety



**HEALTHY EATING:** Evaluate previous eating habits, reasons for fasting, type of fast (specific foods or drinks or complete abstinence from food and drink), relationship with food, history of disordered eating habits, and other applicable priorities. Evaluate previous attempts in weight reduction in terms of what worked, what didn't work and how it impacted diabetes care. Screen for food insecurity and disordered eating habits.

**BEING ACTIVE:** Evaluate how fasting will impact the ability to maintain physical activity and metabolic management, and other individualized priorities.

**MONITORING:** Review and assess glucose monitoring in general and potentially differing needs during fasting hypo/hyperglycemic management and other individualized priorities.

**TAKING MEDICATION:** Assess short vs long-term medication/insulin adjustments before starting fast, during vs post fasting, and other individualized priorities.

**PROBLEM-SOLVING:** Address when it may be necessary to break a fast, symptom management and other individualized priorities.

**REDUCING RISK:** Evaluate past A1C, recent and past glucose levels, ketoacidosis, renal insufficiency and macrovascular complications. Consider food insecurity and financial risk factors, for example, a parent fasting in order to save enough food for children.

**HEALTHY COPING:** Assess support system during the fast, review how the fasting will impact self-management of diabetes, consider mood changes that can occur with fasting and other individualized priorities.



## ADDITIONAL ASSESSMENT QUESTIONS

What worked or did not work if the person with diabetes has fasted previously?

What do they anticipate to be the biggest challenge in fasting?

## Potential Interventions

- Reinforce the importance of reviewing fasting strategy with the healthcare team (primary care provider, pharmacist, dietitian, nurse, other specialists, etc).
- Review the typical eating and hunger patterns with the individual to assess key times or situations that may pose challenges (times of day, family meals, group events, etc).
- Review hunger symptoms and glucose patterns and trends before the actual fasting event; reflect and adjust accordingly.
- Review glucose patterns to be consistent over a couple of recent weeks along with eating and physical activity in preparation for adjustments that may be necessary during fast.
- Consider a trial fast for different portions of the day to monitor and track glucose trends closely. Check glucose prior to a fast, if any symptoms occur during a fast and every 2-3 hours during a trial fast. Review these trends based on timing in the day and assess for high or low glucose levels and other risks. If successful, do a trial during a different portion of the day. If issues occurred, consider potential solutions and if it is safe for this individual, do another trial with alterations. If not, work with the individual to consider other options.
- Help to establish a support system.



# 4

## MAJOR POTENTIAL COMPLICATIONS WHEN FASTING

Understanding the four major complications helps to stratify risks and guide education and recommendations.

- 1** Low Glucose Levels: a glucose level below low target or < 70mg/dL
- 2** High Glucose Levels : a glucose level above target level or >300mg/dL
- 3** Diabetic Ketoacidosis (DKA): due to a lack of insulin; people with type 1 diabetes are at increased risk for DKA
- 4** Dehydration: decreasing fluid intake, either through decreasing drinks and/or food. Risk heightens in the presence of physical activity/labor, excessive perspiration, and/or hot

## Nutrition Recommendations for a Healthy Fast

A nutrition assessment is a normal part of DSMES. Nutrition needs will be the same, but meal timing and when to break the fast will be important considerations. Healthy food choices while fasting are very important to ensure satiety and reduce the risk of overeating and temptations around less healthy food choices. In addition, eliminating food groups and options or modifying eating practices to a “fasting diet” can contribute to disordered eating practices and weight regain after the fast.

Individual assessment should include questions that elicit information about the person’s fasting practices and knowledge about how to fast safely. Nutrition counseling addresses pre- and post-fasting meal recommendations.

Recommendations must be individualized and consider preferred food choices, cultural background, and a plan to address fasting-associated symptom management.



Content contributed by: Barbara Eichorst, MS, RD, CDCES; Lorena Drago, MS, RDN, CDN, CDCES; Anna Norton, MS; Joy Pape, MSN, RN, FNP-C, CDCES, WOCN, CFCN, FADE, CILC

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## Nutrition Recommendations for Healthy Fasting

Below are pre and post-fasting meal recommendations.

FOOD CATEGORY	NUTRITION RECOMMENDATIONS
<b>BEVERAGES</b>	Drink an adequate amount of water and unsweetened, caffeine-free beverages to minimize dehydration.
<b>FRUITS</b>	Select whole fruits and limit fruits with added sugars to maximize satiety and nourish your body.
<b>VEGETABLES</b>	Include a variety of fresh and cooked vegetables. Season vegetables with an appropriate amount of olive oil and vinegar/lemon juice to maximize nutrient absorption and satiety.
<b>SOUPS</b>	Prepare soups with abundant vegetables, whole grains and legumes. Whole grains and legumes contribute dietary fiber to support a healthy gut. Select lean meats to limit excess saturated fat and calories.
<b>GRAINS</b>	Choose whole grains such as brown rice, oats, whole wheat, barley groats, millet and others. Whole grains have been shown to ameliorate glucose excursions. They also contribute dietary fiber, vitamins and minerals.
<b>PROTEIN FOODS</b>	Select a variety of legumes and lean animal protein foods to decrease the amount of saturated fat and dietary cholesterol.
<b>DESSERTS</b>	Select fruits. Decrease the portions of highly processed desserts with added sugars. Choose small portions of calorie-dense desserts to reduce calories.
<b>FATS/OILS</b>	Use unsaturated oils (olive, canola, vegetable) and limit fried foods. Avoid trans fats. When substituting saturated fats for unsaturated fats, there is a decrease in LDL cholesterol.
<b>NUTS &amp; SEEDS</b>	Choose salt-free nuts and seeds in appropriate amounts. While nuts contain healthy fats, they are calorie dense and increase satiety levels. Eat nuts and seeds to add fiber, calcium, potassium and B vitamins to your diet.
<b>DAIRY</b>	Select lower fat dairy products or plant-based milk. Choose unsweetened yogurt and mix it with fresh fruits. Limit portions of cheese to reduce the amount of saturated fat. Strong cheeses add more flavor in small amounts and some people may consider lower fat cheese options.
<b>SPICES</b>	Herbs and spices are a great option to reduce added salt and reduced amount of added sugar in desserts. Use cinnamon, nutmeg, anise, cardamom, garlic, dill, parsley, cumin, turmeric, paprika, etc.

## Four Risk Categories of Fasting for People Who Have Diabetes

<b>Very High Risk</b> (One or more of the following)	<b>High Risk</b>	<b>Moderate Risk</b>	<b>Low Risk</b>
<p>Type 1 diabetes - not in target range</p> <p>Pregnant</p> <p>low glucose levels</p> <p>Severe low glucose levels within the past 3 months</p> <p>History of frequent episodes of low blood glucose</p> <p>Hypoglycemia unawareness</p> <p>History of hyperosmolar hyperglycemic coma within the past 3 months</p> <p>Acute illness</p> <p>Engages in extremely intense physical labor</p> <p>Advanced chronic kidney disease</p> <p>On hemodialysis</p> <p>History of disordered eating patterns</p>	<p>Type 2 diabetes - not in target range</p> <p>Type 2 diabetes - taking basal-bolus insulin or mixed insulin</p> <p>Type 1 diabetes</p> <p>Hyperglycemic-average glucose 150mg/dl-300mg/dl</p> <p>Lives alone</p> <p>Advanced age or frail</p> <p>Advanced macrovascular complications</p> <p>Microvascular complications</p> <p>Renal insufficiency</p>	<p>Able to manage glucose using rapid acting, short acting or meglitinides</p>	<p>A person with diabetes who manage diabetes with lifestyle (meal planning, activity, monitoring, no medications)</p> <p>Manages diabetes with lifestyle and medications that alone do not usually cause low glucose levels such as metformin, thiazolidinedione, DPP-4i, GLP-1ra</p>



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## SPECIAL CONSIDERATIONS

### Monitoring

When monitoring glucose, continuous glucose monitoring is preferred. Monitor often, at least four times per day and during symptoms of low glucose levels, high glucose levels or malaise.

### Low Glucose Levels

If the person with diabetes experiences low glucose levels (<70mg /dl), stop fast and treat, then recheck within 15 minutes and then again within an hour, or more often as needed.

### High Glucose Levels

If high glucose levels occur (>250mg/dL), check for ketones and increase intake of unsweetened fluids, preferably water. If taking insulin, take as recommended and recheck blood glucose within one hour.

**Reasons for all people with diabetes to discontinue a fast:**

**Low Glucose Levels**  
**High Glucose Levels**  
**Acute Illness**

### Taking Medications

When on medications such as sulfonylureas, evaluate glucose history for low glucose levels and adjust medications. They may be able to hold or decrease during fast. For people taking insulin, it depends on the type of diabetes and type of insulin. People with type 1 diabetes should continue basal insulin and correction as needed, but fine tuning and titration will likely be required, so communication with the referring provider is important. Check with provider if SGLT-2i can safely be stopped during a fast to avoid dehydration and/or DKA.

## SUMMARY

Safe fasting can be part of healthy diabetes management. All individuals with diabetes who choose to fast could benefit from DSMES and MNT to plan how to safely incorporate fasting into their care plan. All elements of the AADE7 should be assessed in order to have a safe fast with diabetes. A risk assessment of how to start, maintain and break a fast must be conducted in order to minimize challenges and complications.



## Managing Diabetes Safely During Sick Days

Think about what else you can do to help make your diabetes care plan successful.

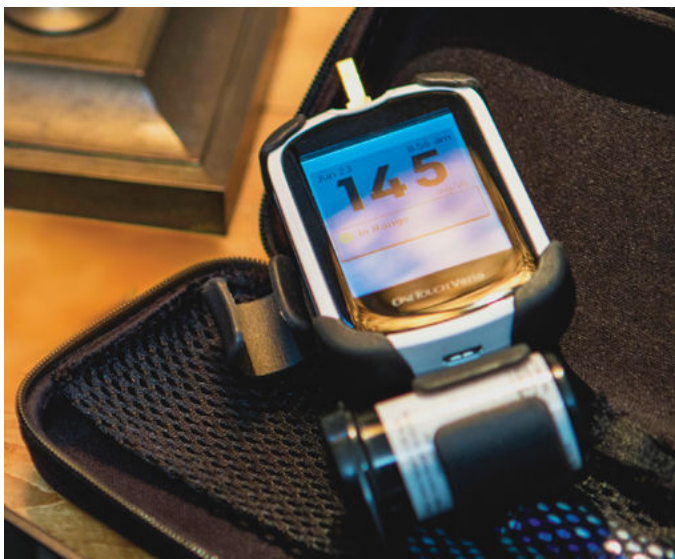


### You can stay safe when you are sick

Illness can make it harder to manage your diabetes. You and your diabetes care team can work together to develop a sick day plan before you become ill to make it easier to take care of your diabetes when you are not feeling well.

### Keep track of your blood glucose (blood sugar)

Even if your blood glucose is usually at your goal, it can vary when you're sick. So it's important to check your blood glucose often. For example, for a minor illness check it every 6 hours, and every 2 to 3 hours for a severe illness. If you use insulin, also test for ketones every 4 to 6 hours or if blood glucose is higher than 240 mg/dL.



### Continue to take your diabetes medicines

Even if you feel too sick to eat, be sure to take your diabetes pills or insulin as directed, unless your diabetes care team tells you not to.



If you use insulin, your diabetes care team may tell you to take extra injections of insulin if your blood glucose is 250 mg/dL or higher. Even if you are vomiting (throwing up) or are unable to eat, continue taking your long-acting (basal) insulin. Ask your diabetes care team about how to adjust your insulin dose when you are sick.



If you take diabetes pills, take your usual dose. If you vomit up the pills or are not eating, call your diabetes care team. Your team may tell you to stop some types of diabetes medicines. Ask your diabetes team about how to adjust your diabetes pills when you are sick.



Check with your diabetes care team or pharmacist before taking any over-the-counter (OTC) medicines, like aspirin, cough syrup, or decongestants. OTC medicines might raise or lower your blood glucose. Choose sugar-free medicines if they are available.



# Managing Diabetes Safely During Sick Days

## Eating when you are sick

Eating well is important when you are sick, so try to follow your usual meal plan as best you can. If you are unable to stick to your meal plan but are able to eat some food, choose items from the list below. Each item counts as 1 carbohydrate choice or 15 grams of carbs. Try to eat or drink enough of the items listed to equal 45 grams of carbs. Do this every 3 to 4 hours.

- 1/2 cup fruit juice (like orange or apple)
- 1/2 cup regular (not sugar-free) soda pop
- 1/2 cup regular gelatin dessert
- 1 double ice pop
- 1 cup soup
- 1 cup sports drink
- 1 slice dry toast
- 6 soda crackers

## Low blood glucose

Being sick can make it hard to eat, so have fast acting carbs handy, such as glucose tabs, juice, or hard candies. If low blood glucose happens (less than 70 mg/dL) eat 15-20 grams of fast acting carbs and re-check your blood glucose in 15 minutes. If it is still low, repeat these steps.

**Ask your diabetes care team any questions you may have about eating when you are sick.**

## Drink up

If you feel too sick to eat solid foods, be sure to drink 6 to 8 ounces of liquids every hour. Switch between drinks that contain sugar and drinks that do not. For example, for one hour, drink regular fruit juice or soft drinks. The next hour, drink sugar-free soft drinks, unsweetened tea or coffee, or water.

Also, If you can't follow your meal plan, drink fluids that contain salt, like bouillon or clear soup.

## When to call your diabetes care team

You can call your diabetes care team any time you have questions or concerns. But you should definitely call if:

- Your blood glucose level is less than 70 mg/dL
- Your blood glucose levels are over 240 mg/dL for more than 2 checks in a row
- You are unable to keep fluids down
- You have a fever over 101° F for 24 hours
- You have severe pain in your stomach, have chest pain, or have a hard time breathing
- You have been vomiting or having diarrhea more than 3 times in 24 hours
- You have moderate amounts of ketones after more than one test
- You are not sure what to do



## Your sick day plan

It's a good idea to make a sick day plan with your diabetes care team before you get sick. That way you will know what to do if you get sick. Do not make any changes to your diabetes care plan without first checking with your diabetes care team.

**Ask your diabetes care team to help you fill out this form so that you know how to take good care of yourself when you are sick.**

My Sick Day Plan for Medications				
If you take...	Product name	Current dosage	Dose adjustment (if needed) when sick	Additional instructions
Diabetes pills				
Long-acting (basal) insulin				
Mealtime insulin				
Other non-insulin injectable diabetes medicines				
Other medicines				



# Managing Diabetes Safely During Sick Days

## Your diabetes care team

Write down the contact information for the members of your diabetes care team so that you'll be able to find it quickly when you're sick.

Team member	Name	Telephone number
Primary health care professional		
Endocrinologist (diabetes specialist)		
Nurse practitioner		
Diabetes care and education specialist		
Nurse		
Registered dietitian/nutritionist		
Cardiologist (heart doctor)		
Podiatrist (foot doctor)		
Ophthalmologist or Optometrist (eye doctor)		
Nephrologist (kidney doctor)		
Dentist		
Pharmacy		
Mental health professional		
Fitness professional		
Emergency contact		
Other contacts		

Visit [www.NovoCare.com](http://www.NovoCare.com) for additional resources and helpful information! Point your smartphone camera at the QR code for quick access to the website on your phone.



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