

# HEART DISEASE: Reduce Your Risk Using the ADCES7 Self-Care Behaviors™

## CAUSE: High blood glucose



## EFFECTS:

A fatty, waxy substance called plaque builds up inside the blood vessels.



The plaque hardens and makes blood vessels stiff. This keeps the blood from delivering enough oxygen to the heart and brain.



Hard plaque can break off and cause a blood clot that blocks normal blood flow, leading to a heart attack or stroke.

## High blood glucose (blood sugar) can lead to problems with your heart and blood vessels

Many people are surprised to hear there is a connection between high blood glucose and the heart and blood vessels. People with prediabetes and diabetes have an increased risk of heart (cardio) and blood vessel (vascular) conditions, especially if their blood glucose frequently stays above the recommended range, which for most people is 70-180mg/dl. The reason for this is that high blood glucose levels damage the inner linings of both big and small blood vessels.

## There are many steps you can take to stay healthy



### If you have prediabetes...

Losing a small amount of weight can keep your heart healthy and reduce your risk for developing type 2 diabetes.

### If you already have diabetes...

Your diabetes care team can work with you to keep your blood vessels healthy through lifestyle changes and medication.

## Use this resource to:

- » Learn about the connection between prediabetes, diabetes and heart disease
- » Get tips you to reduce your risk for heart disease
- » Get questions to ask your healthcare team to be healthier



# HEALTHY COPING

Learn more at [DiabetesEducator.org/HealthyCoping](https://DiabetesEducator.org/HealthyCoping)

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## Healthy Coping Helps You Fight Stress, Heart Disease and Diabetes

None of us lives a stress-free life. Unfortunately, constant stress over a long period of time can create long-term problems for the heart and blood vessels. The chemicals your body makes in response to stress can lead to increases in your blood glucose, heart rate and blood pressure.

How you respond to stress can also affect cholesterol (blood fat) levels, so it is important to find healthy ways to cope with problems and issues as they come up, and to reduce stress levels.

### Ask your healthcare team

1. What suggestions do you have for helping me lower my stress?
2. Do you think I need a referral to a mental health professional?

## Follow these 4 healthy coping strategies to stay healthy

### 1 Move your body

When you are sad, worried, anxious or stressed, go for a walk, dance to music, play with your pet, or ride a bike. Remember, you don't need to do an exercise class to get benefits from moving your body. Even a short walk outside helps. When you are active, your brain releases chemicals that make you feel better.

### 2 Drink alcohol in moderation

Women should drink no more than 1 alcoholic drink a day and men no more than 2 drinks. Drinking less is always better. Frequent or excessive alcohol intake may increase your risk of high blood pressure, obesity and stroke. But low or moderate alcohol intake may decrease your risk for heart disease. If you don't already drink, there's no reason to start.

### 3 Meditate, stretch and relax

Yoga and regular meditation can prevent heart disease and other health risks. You can find free guided meditation sessions on several phone apps or in a quick internet search. Look for local yoga classes, in-person or online, that welcome people of all shapes, sizes and levels of experience.

### 4 Find your support network

You don't have to go it alone in your journey to health. If you have prediabetes, join a diabetes prevention program in-person or online at [cdc.gov/diabetes/prevention/find-a-program.html](https://cdc.gov/diabetes/prevention/find-a-program.html). If you have diabetes, look for a local support group or an online support group. These groups help you meet others with similar challenges in managing diabetes so you can help each other. Learn more about online peer support at [DiabetesEducator.org/PeerSupport](https://DiabetesEducator.org/PeerSupport).

# HEALTHY EATING

Learn more at [DiabetesEducator.org/HealthyEating](https://DiabetesEducator.org/HealthyEating)

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## Healthy Eating Helps More Than Just Blood Glucose

What you eat affects your blood glucose, blood pressure and cholesterol (blood fat) levels. When any of these levels are higher than recommended, this puts you at a greater risk of developing heart disease. Eating what is called a “heart healthy diet” is a good way to lower your risk for heart problems.

### Ask your healthcare team

1. How do my current eating habits compare to what is recommended for ideal heart health?
2. What are some small changes I can make that will have the biggest benefits for my heart?

## Make these small changes in food choices to make a big impact

- » **Choose whole-grain foods and whole grains over highly-processed foods and grains.** You can choose whole grain wheat bread over white bread, or choose oatmeal over breakfast cereal.
- » **Eat less than 1 teaspoon of salt per day.** Salt causes the body to hold onto water. This increases the volume of blood in the bloodstream. Increased blood volume means more work for the heart and more pressure on blood vessels.
- » **Eat 8 – 10 servings of fruits and vegetables** per day.
- » **Eat 2 – 3 servings of low-fat dairy products** per day.
- » **Eat less saturated fat and trans-fat** like those found in fried or processed foods.
- » **Eat fatty fish** like salmon, tuna, sardines, mackerel, and trout one or twice a week.
- » **Choose high-fiber foods** such as oatmeal, beans, peas, lentils, nuts, seeds, fruits and vegetables.

## See a professional for a personalized plan

You might be wondering what YOU can eat. Your diabetes care and education specialist may help you answer that question. A registered dietitian nutritionist can also develop a healthy eating plan based on your age, medications, cholesterol levels and health conditions. Ask your healthcare provider if they can provide you a personalized plan for healthy eating or if they can refer you to someone who can.

# BEING ACTIVE

Learn more at [DiabetesEducator.org/BeingActive](https://DiabetesEducator.org/BeingActive)

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## Move to Support Your Health

**Physical activity** is a general term that includes all movement that increases the amount of energy your body uses. This includes walking, dancing, stretching and even gardening.

**Exercise** is a more specific form of physical activity that is structured and designed to make you more physically fit.

Both are important and can help improve blood glucose levels, reduce heart disease risk factors, help you reach and maintain a healthy weight and improve how you feel.

## Ask your healthcare team

**1.** Knowing my medical condition and problems, how should I increase my activity?

**2.** Is there anything I need to change with my medication when I become more active?

## Start by reducing time spent sitting

You can lower blood glucose levels by decreasing your overall amount of time sitting. If you have to sit for long periods of time, try doing an activity every 30 minutes such as briefly standing, walking, or performing other light physical activities.

## Schedule time for physical activity

- » Schedule **150 minutes** of physical activity spread out over at least **3 days per week**. This can be 30 minutes a day for 5 days of the week. And that thirty minutes can be broken up into three brisk 10-minute walks each day.
- » Do not go more than 2 consecutive days without being active.
- » Train with weight or resistance twice per week. This includes any exercise where you lift, push or pull against resistance, including working out with dumbbells, resistance bands, or your own body weight, such as doing pushups.

SUN	MON	TUE	WED	THU	FRI	SAT
11 AM: Gardening	8 AM: Morning walk 12 PM: Lunch walk	5 PM: 45 minutes of yoga video	8 AM: Morning walk 6 PM: Dancing	Take the stairs at the office.	9 AM: - 20 jumping jacks - 10 squats	12 PM: Ride bike

**The most important action is to just get started. Do something you enjoy and track your progress on a calendar or any other device.**

## Taking Medication As Prescribed Helps Your Heart

Taking medications to lower blood glucose, blood pressure and cholesterol (blood fat) may be necessary (in addition to lifestyle changes) to reduce your risk of heart disease. The good news is that some medications prescribed for people with prediabetes and diabetes have been proven to have other positive effects that keep your heart healthier.

### Ask your healthcare team

1. Am I on the best medication plan for lowering my heart disease risk?
2. Are there any supplements, such as vitamins and minerals, I should take that would help and be safe or that I am taking and should stop?

*Also let them know if you are experiencing any side effects*

## Medications work together with having a healthy lifestyle, so it's important to do both

Here are a few of the common medications you may be prescribed to lower your risk of heart disease and other complications:

- » **Statin medications** lower cholesterol and may decrease your risk for heart attack, stroke and death.
- » **ACE or ARB** medications lower blood pressure and help blood pressure management, and protect the kidney and heart. They can also reduce heart attacks and strokes.
- » **Aspirin** reduces the risk of developing blood clots, especially for people over 50 with risk factors for heart disease, or clogged arteries.
- » **SGLT2 inhibitors** may be prescribed for people with type 2 diabetes. These lower blood glucose, help you lose weight, lower blood pressure, decrease your risk of heart disease and delay worsening of kidney disease.
- » **GLP1 receptor agonists** are a medication for type 2 diabetes and higher-weight bodies. They lower blood glucose, help you lose weight and decrease your risk of heart problems.
- » **A prescription form of purified fish oil** that lowers triglycerides has been shown to decrease heart disease in people who are already on a statin medication.

# MONITORING

Learn more at [DiabetesEducator.org/Monitoring](https://DiabetesEducator.org/Monitoring)

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## Monitor Your Levels to Stay Informed on Your Current Health

Monitoring your glucose, blood pressure and cholesterol levels lets you know if you are at risk for heart disease.



### Ask your healthcare team

1. What are my results for A1C, blood pressure and cholesterol?
2. Is there an app I could use for tracking the food I eat, ways I'm being physically active or my weight? How about blood pressure, cholesterol and A1C?
3. How can I find out more about using a continuous glucose monitor if I have diabetes?

## Check your levels regularly and share the results with your healthcare team

With more healthcare offices offering remote monitoring and telehealth visits, you may start playing more of an active role in your health and communication with your healthcare team. For this form of care to work well, you may need to buy monitoring equipment, such as a home blood pressure monitor and weight scale.

## Get to know the recommended target ranges, how often to check and what to monitor

Check	How often	Target numbers
<b>Glucose</b> using either blood glucose monitoring or continuous glucose monitoring (CGM)	Best times to monitor are when fasting, before meals, 1-2 hours after meals, and bedtime. If using a CGM, it's best to look at 14 days of data to determine trends.	- 7 out of 10 readings should be between <b>70-180mg/dL</b> . - Less than 3 out of 10 readings should be less than 70mg/dL. - No more than 1 out of 10 of readings should be less than 54mg/dL.
<b>Blood pressure</b>	At every office visit and when you change medications.	- <b>140/90 mmHg</b> or less - If at a high risk for heart problems, 130/80 mmHg or less.
<b>Cholesterol levels</b>	At least once per year.	- <b>HDL cholesterol:</b> higher than <b>40mg/dL</b> for men or <b>50mg/dL</b> for women - <b>LDL cholesterol:</b> less than <b>100mg/dL</b> - <b>Triglycerides:</b> less than <b>150mg/dL</b>
<b>A1C</b>	Every 3 to 6 months.	<b>Less than 7%</b> for most people.
<b>Weight</b>	At every office visit and at home if possible.	<b>Losing 5 to 7 lbs for every 100 lbs</b> of your body weight improves your health. That would be 10 to 14 pounds for a person who weighs 200 pounds. This amount of weight loss can lower A1C by up to 1%.

# REDUCING RISKS

Learn more at [DiabetesEducator.org/ReducingRisks](https://DiabetesEducator.org/ReducingRisks)

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## Reducing Risks Helps More than Just Your Heart

Quitting smoking, keeping a healthy weight for your body, and taking good care of your teeth and gums are all important to reducing risks of heart disease. Just like diabetes, health issues don't develop overnight, but you may not have any signs or symptoms until many years have passed. A dentist can spot a cavity long before you have a toothache. An eye doctor can see changes in your vision before you have trouble reading fine print. And your healthcare team can spot other health issues, as long as you are seeing them regularly.

### Ask your healthcare team

1. What preventive care do I need to stay as healthy as possible?
2. What can I do at home to stay healthy in between visits?



## Know your risks and prevent them to stay healthier longer

- » **Smoking:** Smoking doubles the risk of heart attack and death. However, 24 hours after quitting smoking, your risk of having a heart attack decreases. One year after you stop smoking, your heart disease risk decreases by half. After 5 years of not smoking, your risk of stroke is the same as a non-smoker. The earlier you can stop, the better.
- » **Overweight:** If you have been told you are overweight, losing a modest amount of weight, around 5 to 7 lbs for every 100 lbs of body weight can help. Weight loss makes your body more sensitive to insulin and may also lower cholesterol and blood pressure.
- » **High Blood Glucose:** High blood glucose and the health of your gums and teeth are connected. The more excess glucose you have in your blood, the more glucose you have in your saliva. This can cause teeth and gum problems. These problems can make diabetes harder to manage and raise your risk of heart disease. Therefore, brushing and flossing daily and getting regular dental checkups can help keep your mouth and heart healthy.

## Ask your healthcare team to help you check for other risks



Type of check	When to get checked
Vaccines and immunizations	<b>Ask your healthcare team</b> what vaccines you need. Depending on your age and other factors, you may need a vaccine or booster for COVID19, pneumonia, tetanus, hepatitis B and/or influenza (flu).
Foot exam	At least once <b>every year</b> .
Dilated eye exam	At diabetes <b>diagnosis</b> and <b>every 1 to 2 years</b> after.
Dental exam	At least once <b>every year</b> .
Hearing loss	At least once <b>every year</b> and when you have symptoms.
Sleep apnea	If you have problems with snoring or are constantly tired during the day.
Diabetes distress or depression	If you are struggling with the demands of managing your health, no longer enjoy things you used to, or have a change in appetite or sleep.

# PROBLEM SOLVING

Learn more at [DiabetesEducator.org/ProblemSolving](https://DiabetesEducator.org/ProblemSolving)

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## Use Problem Solving Skills When Your Health Changes

Sometimes problems arise and your health status changes. After years of managing your prediabetes, you may develop diabetes. Or, after years of thriving with diabetes, you may find that lifestyle changes are not enough to manage your blood pressure. Applying problem solving skills will help you find solutions to stay on track and lower your risk of heart disease. The earlier new problems are identified, the better.

### Ask your healthcare team

**1.** I am finding  
*(you fill in)* \_\_\_\_\_

challenging. What can I realistically do to make it easier?

**2.** What changes do you recommend to help me reach my goal when it comes to

*(you fill in)* \_\_\_\_\_  
*weight, blood pressure, blood sugar, cholesterol, etc*

## Identify Problems and Get the Help You Need to Solve Them

**Step 1:**  
**Identify your problem.**

Example:

You have been staying active and eating healthy but you're no longer able to reach your targets that you know lower your risk for heart disease.

**Step 2:**  
**Think through possible explanations for why you have this problem.**

Example:

You realize prediabetes and diabetes are progressive diseases. You may need medication, or additional medications, to meet your health goals over time. This is not a failure on your part, just normal progression of the disease.

**Step 3:**  
**Think of solutions or about who can help you come up with solutions.**

Example:

Don't wait too long to make changes or discuss changes with your healthcare team. Change is a normal part of diabetes care.