

The VNS Health Guide to Managing Diabetes



If you have diabetes, learning how to manage your disease is important for staying healthy and independent. By being careful about your diet, getting more exercise, and taking your medications, you can take charge of diabetes and keep it under control. You'll feel better, have more energy, and can continue doing the things you love. Most importantly, you'll lower your risk of dangerous diabetes complications.

Overview

Diabetes is a complex disease, but simple changes in your life can make a big difference. You can stay in charge of your health and feel your best.

What is type 2 diabetes?

There are two types of diabetes:

- Type 1 diabetes is an autoimmune disease that usually starts in young teenagers. People with type 1 diabetes can't produce insulin in their pancreas, so they need to inject insulin instead. About 1.3 million people in the US have type 1 diabetes.
- Type 2 is the most common type of diabetes. Over 90 percent of people with diabetes have type 2. It usually starts later in life, usually when you are over age 40. The symptoms often develop slowly, so you might not realize you have it until you have a serious problem, such as a heart attack.

Type 2 diabetes is a serious disease that happens when your blood sugar, also called blood glucose, is too high. Blood glucose is your body's source of energy. It comes mainly from the food you eat. When you have diabetes, the cells of your body can't take in the blood sugar very well. Too much sugar stays in your blood and not enough gets into your cells. Over time, all that extra sugar in your blood can cause serious health problems, including heart disease, kidney disease, and vision loss.

When you eat starchy or sugary foods (carbohydrates), your body breaks them down into sugar (glucose) that enters your bloodstream. When your blood sugar goes up, it tells your pancreas (a special organ in your abdomen near your stomach) to release insulin. The hormone insulin acts like a key to let blood sugar into your body's cells so it can be burned for energy. When you have diabetes, though, you have insulin resistance. Your cells don't respond well to insulin. It's like the lock for the key is rusty – it doesn't work as well, so less sugar gets in.

Diabetes by the Numbers

21 million

More than 21 million adults have diabetes.

3 million

Almost 3 million more people have diabetes but don't know it.

14 million

Nearly 25% of adults over age 65, or about 14 million people, have diabetes.

What causes type 2 diabetes?

Type 2 diabetes has several different causes:

- Being overweight or obese
- Not being physically active
- Insulin resistance (your cells don't let enough insulin into them)
- Family history of diabetes
- Getting older

The more risk factors you have, the greater your chances of getting diabetes.

Managing Your Diabetes

There's no cure for diabetes, but you can do many things to manage your condition yourself and prevent complications. Lifestyle steps such as eating healthy food, losing weight, and being more active can really help. Keeping track of your blood sugar and taking the medicines your doctor prescribes for your blood sugar, your blood pressure, and your cholesterol are also very important. Diabetes raises your blood pressure and makes cholesterol more likely to clog your arteries and cause heart disease.

Smoking when you have diabetes sharply increases your risk of serious complications that can shorten your life. If you smoke, quit.

Your risk of a heart attack or stroke is doubled if you have diabetes. Diabetes is the top cause of kidney failure, lower-limb amputations, and adult blindness.

Tracking Your Blood Sugar

Checking your blood sugar often is one of the most important things you can do to control your diabetes. When you track your blood sugar, you can see how your numbers go up and down, and you can see how being careful with your diet, getting more exercise, and taking your medicine help your blood sugar.

To track your blood sugar, you will need a blood sugar meter. Your VNS Health nurse can help you get a blood sugar meter and show you how to use it. Testing your blood sugar means pricking your finger or arm to get a drop of blood. Doing this is simple and almost always painless.

Keeping a record of your blood sugar numbers is important. Write the numbers down, store them in your meter, or use a phone app so you and your VNS Health nurse can see how you are doing over

the long run. Bring your record with you when you see your doctor.

What your blood sugar number means

The number that appears on your glucose meter tells you how much sugar is in your blood at any one time. This number goes up and down depending on when you last ate and what you had. People without diabetes normally have blood sugar levels that range from 70 to 110 mg/dL first thing in the morning, before eating breakfast. Two hours after eating, people without diabetes usually have blood sugar levels that are below 140 mg/dL.

If you have diabetes, the guideline for your blood sugar before eating is between 70 to 130 mg/dL. Two hours after a meal, the guideline is no higher than 180 mg/dL. These numbers can vary a lot, however, depending on what you eat and drink at a meal, how much exercise you do, your other health conditions, and other factors – there's no rule about what your blood sugar number should be at any one time. Talk to your VNS Health nurse and your doctor about what numbers are best for you.

Your A1c number

Your blood sugar numbers are helpful for seeing how well you're managing your diabetes from day to day. To get a better idea of how you're doing over the long run, your doctor will use a blood test called hemoglobin A1c, or just A1c. This test measures your average blood sugar levels over the past three months. It's a good way to see how well you've been controlling your blood sugar.

The [American Diabetes Association guidelines](#) recommend an A1c number of 7 percent or less. If your number is higher than 7 percent, you may be at greater risk of diabetes complications such as kidney disease and heart disease. The higher the number, the greater the risk.

Your blood sugar numbers and your A1c number are important tools for managing your diabetes, but they don't tell your whole health story. You're more than just your numbers! Eating a healthy diet, getting exercise, taking your medicine, and quitting smoking are just as important.

Eating a Healthy Diet

You can make some simple changes to your diet to help you manage your blood sugar. As a bonus, those changes can help manage your blood pressure as well.

Foods that are high in carbohydrates, such as white rice, white bread, pasta, french fries, cookies, ice cream, and other starchy or sugary foods, make your blood sugar go up. So do sugary drinks such as fruit juice, regular soda, and regular sports and energy drinks.

Replace these foods as much as you can with more fruits and vegetables, beans, whole grains, poultry, fish, lean meats, and nonfat or low-fat milk and cheese. Drink plain water or club soda instead.

The more you can change your diet to reduce high-carbohydrate and high-sugar foods, the better you can manage your blood sugar. Cutting back on salty foods at the same time will help you manage your high blood pressure. Your VNS Health nurse or diabetes educator can help you find ways to change your diet yet still eat the foods you like.

When to eat

Sticking to a regular meal schedule can make managing your blood sugar easier and help you avoid high blood sugar spikes. If you take oral medicine such as metformin (Glucophage) to help control your diabetes, your doctor will tell you to take it with a meal. This helps the medicine work best to control your blood sugar and keep it from dropping too low. People who use injected

medicine such as insulin need to be careful about when they eat. Work with your VNS Health nurse or diabetes educator to understand when to inject your insulin before eating.

Weight loss

Diabetes happens most often in people who are overweight or obese. Losing even a small amount of weight can help improve your blood sugar control and reduce your risk of diabetes complications. Weight loss of just five or ten percent of your body weight can make a big difference. You may find that eating a healthier diet, with less processed and prepared foods, will lead to weight loss. Your VNS Health nurse or diabetes educator can help you find a diet plan that works well for you.

Self-Help Steps for Diabetes

You can take many self-help steps that will help you manage your diabetes.

Exercise

The most important step is getting more exercise. Moving more helps lower your blood sugar and also helps keep your heart and muscles healthy. The [American Diabetes Association](#) and other experts say you should aim for at least thirty minutes of moderate exercise five days a week. Moderate exercise is exercise that makes your heart beat faster and feels a little hard to do. Good examples are climbing up stairs, walking briskly, or dancing. You can add lifting weights to build strength and stretching to improve your flexibility and balance. The important thing is to move your body in ways that are safe, comfortable, and fun for you.

Sometimes thirty minutes of exercise all at once is too hard to manage. You can break your exercise into ten-minute chunks

instead. Think of them as exercise snacks. After a few weeks of getting more exercise, you'll start to see improvements in your blood sugar and overall health and energy.

Because exercise lowers your blood sugar, it can drop too low if you exercise hard or for more than half an hour. Check your blood sugar before you start and when you're done – this is especially important if you use insulin or oral drugs such as glyburide (Glynase) or glipizide (Glucotrol). You may need to eat a small carbohydrate snack if your blood sugar drops too low.

When you exercise or go for a walk, wear socks and comfortable sneakers or walking shoes. Be sure to avoid blisters on your feet.

Quit smoking

Smoking makes diabetes harder to manage and makes you more likely to have serious health problems. If you smoke, you're more likely to have heart disease, kidney disease, eye problems, and peripheral neuropathy, or nerve damage in the legs and arms that causes weakness, numbness, and pain. You're also more likely to have poor blood flow to your legs and feet, which can lead to infections, ulcers (open sores that don't heal), and amputation.

Talk to your doctor or your VNS Health nurse about how they can help you quit smoking. You can also call 1-800-QUIT NOW or go to smokefree.gov to get free help.

Avoid alcohol

Drinking alcohol can be a problem if you have diabetes. Alcohol alone can make your blood sugar drop. If you also take drugs to help keep your blood sugar down, alcohol can make it drop too low. When your blood sugar is too low, you may slur your speech,

have trouble walking, and act in other ways that are like being drunk.

Not everyone reacts in the same way to alcohol, and you may be able to enjoy moderate drinking (one drink a day for women and up to two per day for men) without problems. Talk to your doctor or VNS Health nurse or diabetes educator about how much alcohol and what kind is safe for you.

Mental health

Mental health issues can make it harder to manage your diabetes. Studies show that people with diabetes are two to three times more likely to have depression compared to people without diabetes. Stress can raise your blood sugar. When you're feeling stressed-out or depressed, you may have trouble sticking to a healthy diet, getting exercise, and taking your medicine.

When managing your diabetes becomes hard to deal with every day, you can start having diabetes burnout, sometimes called diabetes distress.

Diabetes burnout is very common. At some point just about everyone with diabetes feels overwhelmed by it. You may feel that even though you're doing your best to manage your diabetes, your blood sugar is still too high – it may feel like your diabetes is controlling you, instead of you controlling your diabetes. That can make you feel that you can't be bothered to keep trying.

Diabetes burnout isn't the same as depression or anxiety, so the ways to help are different. Talk to your doctor or VNS Health nurse or diabetes educator about your feelings. Many people find that being in a diabetes support group (in person or on line) is very helpful.

Taking Your Medicines

Being careful about your diet and getting more exercise are very important for managing your blood sugar, but for many people they aren't enough to bring your numbers down to healthier levels. You may need some help from diabetes medicines.

Most people take oral diabetes medicines – pills that help bring down blood sugar, help your body use insulin better, and help your pancreas produce more insulin. Today there are many different types of oral diabetes drugs. Your doctor will work with you to find the one that's right for you. The drugs work best if you take them regularly at the right time of day and follow any other instructions your doctor gives you.

People who have severe diabetes or who have had diabetes for a long time may lose their ability to make insulin in their pancreas. They need to inject themselves every day with insulin instead. If you need to use insulin, your VNS Health nurse or diabetes educator can teach you how to do it.

Your doctor may prescribe drugs to treat other conditions that often go along with diabetes, such as high blood pressure (hypertension) and high cholesterol. Taking these medicines is very important for helping to prevent problems such as a heart attack or stroke in the future. If you have questions about these drugs, talk to your doctor or your VNS Health nurse.

Watching Out for Problems

Diabetes can lead to other serious health problems. With good self-management, you can avoid or delay health problems, but you should be aware of warning signs.

Blood sugar problems

Your blood sugar level changes over the course of the day, going up after meals and coming down a few hours later. Exercise lowers your blood sugar. Sometimes the changes are too large, however, and your blood sugar can become too low or too high.

When your blood sugar drops below 70 mg/dL on your glucose meter, you have hypoglycemia. You might feel shaky, sweaty, irritable, or anxious. Your heart beats faster and you might feel hungry or dizzy. Hypoglycemia is caused by many things, including not eating enough, drinking alcohol, very hot or humid weather, exercising too hard, and taking too much insulin. You're more likely to have periods of hypoglycemia if you've had diabetes for a long time and if you need to use insulin.

To treat hypoglycemia, eat or drink something that has about 15 grams of carbohydrates, such as half a cup of fruit juice or regular soda, three or four hard candies or jelly beans, or a tablespoon of honey, sugar, or maple syrup. Wait 15 minutes and then check your blood sugar again. If it hasn't gone up above 70 mg/dL, call your VNS Health nurse right away. You may need to go to the emergency room for treatment.

When your blood sugar rises above 180 mg/dL and stays high, you have hyperglycemia. Symptoms of hyperglycemia include feeling very tired, feeling very thirsty and/or hungry, needing to urinate often, and having blurry vision.

High blood sugar can be caused by being sick or having an infection, eating a lot of carbohydrates, skipping or forgetting your diabetes medications, or not giving yourself enough insulin. It's more likely to happen in people who need to inject insulin. If you're having hyperglycemia, call your VNS Health nurse for advice on what to do.

Severe hyperglycemia, when your blood sugar stays above 250, can lead to a very serious condition called diabetic ketoacidosis (DKA), caused by insulin levels that are too low. Symptoms

include shortness of breath, nausea and vomiting, breath that smells fruity, and dry mouth. DKA is a medical emergency. Call 911.

Heart problems

Having diabetes makes you much more likely to have heart disease. You're also at high risk for heart failure, where your heart can't pump blood around your body well.

Most people with diabetes also have high blood pressure and high cholesterol, which damage the heart and blood vessels and put you more at risk for a heart attack or stroke.

To keep your heart disease risk factors under control, manage your blood sugar and take the drugs your doctor prescribes for your blood sugar, blood pressure, and cholesterol. If you smoke, quit.

Regular exercise, a healthy diet, weight loss, and stress reduction are all important for preventing diabetic heart disease.

Chronic kidney disease

About a third of all adults with diabetes also have chronic kidney disease, or CKD. Over time, high blood sugar and high blood pressure damage the tiny blood vessels of the kidneys. They stop working as well to remove waste from your blood.

CKD develops slowly and doesn't have symptoms at first. You won't know you have it unless your doctor checks for it with blood and urine tests.

To help prevent or slow down CKD, work to keep your blood sugar,

blood pressure, and cholesterol in good ranges. Avoid salty foods, get regular exercise, and take your medicine. If you smoke, quit.

Eye problems

People with diabetes can have serious eye problems that can lead to vision damage and blindness. Diabetic retinopathy is the most common eye disease in people with diabetes. It happens when the tiny blood vessels of the retina are damaged from too much sugar in the blood and start to leak or bleed. Diabetic retinopathy is the leading cause of blindness in adults – about 7.7 million Americans have it.

The longer you've had diabetes, the greater your risk for diabetic eye disease. There aren't any warning symptoms, so early detection is important. Have a complete eye exam once a year.

Foot problems

Diabetes can affect your nerves, especially the nerves in your feet. Peripheral neuropathy, as this is called, can cause pain, a pins-and-needles sensation, and a loss of feeling in your feet. Many people with diabetes also have peripheral arterial disease, or PAD, which restricts blood flow to your feet.

When you can't feel your feet very well and the blood flow is poor, you can hurt your feet and not know it. Even a tiny cut or scrape can heal slowly or not at all and can turn into a serious infection that is very hard to treat. The infection can be so severe that you need to have a toe, foot, or leg amputation. Every year, more than 70,000 people with diabetes need an amputation.

Daily foot care is very important for finding problems early. Your VNS Health nurse will show you how to check your feet for

redness, sores, blisters, cuts, scrapes, and other damage. They can also teach you how to care for the skin on your feet and your toenails. Call your nurse or doctor if you notice a problem.

Sick days

Getting sick when you have diabetes can make your blood sugar hard to manage. If you're sick with a cold, stomach virus, flu, COVID-19, or something else, you may not be able to eat and drink as you usually do. In addition, your body is making extra hormones to fight the sickness, which makes your blood sugar go up.

When you're sick, continue to take your diabetes medicine or insulin as usual. Check your blood sugar every four hours. Be sure to drink lots of sugar-free liquids and try to eat as you normally do. If your blood sugar gets too high or low, call your VNS Health nurse or doctor. You may need to go to the emergency room for treatment.

To help keep you from getting sick, get your recommended vaccine shots for flu, RSV, pneumonia, COVID-19, and shingles.

Talking to Your VNS Health Nurse and Your Doctor

People with diabetes need regular medical check-ups to help them manage their diabetes and avoid or treat complications. Your doctor will want to see you every three to six months to check your overall health, your A1c level, your feet, and discuss vaccines with you. They will also want to review your medications and make any changes you might need. You should also have an annual complete eye exam to check for diabetic eye problems.

Your VNS Health nurse is available to answer your questions and help you with problems that may arise. Your nurse can also help you arrange for home delivery of diabetes supplies such as medicines, glucose meters, test strips, needles, and insulin.

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