



HELPING TO MANAGE YOUR TYPE 2 DIABETES THROUGH DIET AND EXERCISE

It's hard to believe that a phrase as simple as “eating better and moving more” can have such an impact on your diabetes. But it does.

Studies have shown that a loss in body weight can help. That weight loss can lead to less insulin resistance, improved blood glucose (A1C) levels, and lower blood pressure and LDL (bad) cholesterol levels.

The same holds true with exercise. Other studies found that 8 or more weeks of moderate exercise helps reduce A1C blood sugar levels—at any weight. This means that a brisk walk on a flat surface, water aerobics, or riding on a stationary bicycle only 20 to 30 minutes a day may help keep your blood sugar more balanced.

Of course, eating right and exercising are easier said than done. Here are some tips to help you stay on track to manage your type 2 diabetes (T2D) along with taking the medication your doctor prescribes.

Healthy eating

- **Eat regular meals.** Eating every 4 to 5 hours can help manage blood sugar. Talk to your care manager about finding a dietitian and/or choosing a meal plan that will work best for you and your lifestyle
- **Eat a variety of healthy foods,** such as fruits and vegetables. Be adventurous. Eat a fruit or vegetable you've never tried before. You may like it!
- **Eat less fat.** That means avoiding fried foods, fatty meats, and high-fat creams and yogurts. Instead, think baked, broiled, grilled, boiled, or steamed
- **Eat less sugar.** You may find that eating less sugar helps you manage your blood glucose levels. How can you stay away from sugary foods? Eat whole-grain breads, beans, fruits, and vegetables. Drink water and other drinks that have no added sugar. As tempting as they are, stay away from cookies, cakes, candy, brownies, and sugary breakfast cereals. Your care manager and/or dietitian can give you tips on ways to sweeten food and drinks without using sugar

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- **Watch the salt shaker.** Using less salt may help manage your blood pressure. Try herbs and spices instead of salt to season your food. And always taste your food before heading for the salt; you might not need any
- **Limit how much alcohol you drink.** It can cause health problems, especially in people with diabetes. Alcohol adds empty calories, and it may create dangerous reactions with the medicines you take. Your blood glucose can go down too low if you drink beer, wine, or liquor on an empty stomach
- **Get in touch with your appetite.** Before you start to eat, take a moment to ask yourself if you are truly hungry. Sometimes we use food as a way of feeling better if we are sad, anxious, or bored. Emotional eating can sabotage any well-meaning diet. Try distracting yourself with a call or an e-mail to a friend. Take a bath. Do a few yoga stretches

Get moving!

- **Start slowly.** Don't think a 10K marathon the first time you put your sneakers on to take a walk. If it's been a while since you've been physically active, talk to your care manager or other members of your health care team about good ways to start. As you become stronger, you can add a few extra minutes
- **Pain is no gain.** If you start to feel any pain, stop and wait for it to go away. If your pain returns, talk to your care manager or other members of your health care team right away
- **Do some physical activity every day.** It's better to walk 10 or 20 minutes every day than 1 hour once a week
- **Choose an activity you enjoy.** If you hate walking, chances are you won't stay with it longer than a few days. If the thought of dancing reminds you of your 2 left feet, leave the dance floor to someone else. Do an activity you really like. The more fun it is, the more likely you will do it each day
- **Think partner.** If possible, try to exercise with a family member or a friend. It will help keep you motivated on the days you don't want to move, plus the conversation will help make the minutes fly

Lifestyle management is an important part of your diabetes program. Exercise and diet go hand-in-hand with the medication you're also taking to help ensure your blood sugar levels remain balanced.

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- **Break through barriers to activity.** Excuses.

We've all heard them; we've all used them. Here are some of the more common ones—and the positive self-talk you can give yourself to overcome them:

—**“I don't have time to exercise.”** Maybe you can't block out 20 or 30 minutes every day. But what about 10 minutes 3 times a day? Breaking your exercise time into smaller segments can help you reach your exercise goals more easily

—**“I've never been active and don't know where to start.”** Don't discount your everyday activities. Housework? Raking leaves? Carrying grocery bags? These all count as “being active”

—**“I'm too tired after work to start exercising.”** There's always the morning before work—or lunch time. And on the plus side: the more you exercise, the more energy you'll have, and you just might not be too tired to exercise after your work day is over!

—**“I'm too shy to join a gym or take an exercise class.”** No problem. Try following an aerobics class on TV or DVD or simply take a walk around the block

—**“I'm afraid my blood glucose level will drop too low.”** If you have diabetes and are taking insulin, this may be a real concern. Talk to your physician about ways to exercise safely. If you have T2D and aren't taking insulin, it's still a good idea to be prepared. Make sure you have a regular (not diet) exercise drink, fruit juice, glucose tablets, hard candy, or raisins handy to treat low blood sugar if symptoms should occur. Wearing a diabetes ID is another important safety precaution

Examples of moderate-level physical activities*

Common chores	Activities
Raking leaves	Brisk walking
Gardening	Bicycle riding
Pushing a stroller 1½ miles	Water aerobics
Stair walking for 15 minutes	Swimming laps for 20 minutes
Washing and waxing a car for 45-60 minutes	Playing basketball for 15-20 minutes
Shoveling snow for 15 minutes	Jumping rope for 15 minutes

*Activities are 30 minutes total except where indicated.

For additional resources, ask your care manager.



HYPOGLYCEMIA

What is hypoglycemia?

Hypoglycemia, or low blood sugar, happens when your blood glucose drops below normal levels, usually below 70 mg/dL. Hypoglycemia can occur suddenly, but it can be treated. Eating or drinking a small amount of sugar-rich food should help. If left untreated, hypoglycemia can lead to confusion, clumsiness, or fainting. In its most severe stage, hypoglycemia can lead to seizures, coma, and even death.

Who is at risk for hypoglycemia?

Hypoglycemia may be a side effect of a diabetes treatment you are taking. This includes insulin or oral diabetes pills. It is, therefore, very important for you to be aware of the signs of hypoglycemia. It is also important for you to know how to treat hypoglycemia if you are having low blood sugar symptoms. Each person's symptoms are different, so it's important for you to recognize your own signs and symptoms.

Symptoms of hypoglycemia include:

- Shakiness
- Nervousness or anxiety
- Sweating, chills, and clamminess
- Irritability or impatience
- Confusion
- Rapid heartbeat
- Lightheadedness or dizziness
- Hunger and nausea
- Sleepiness
- Blurred/impaired vision
- Tingling or numbness in the lips or tongue
- Headaches
- Weakness or fatigue
- Anger, stubbornness, or sadness
- Lack of coordination
- Nightmares or crying out during sleep
- Seizures
- Unconsciousness

Remember that “hypoglycemia” is low blood sugar and should not be confused with “hyperglycemia,” which is high blood sugar.

HYPOGLYCEMIA

If you are experiencing any of these symptoms, a blood glucose test should be done. If the reading is below 70 mg/dL, one of these quick-fix foods, containing approximately 15 grams of carbohydrates, should be consumed right away to raise your blood glucose:

- 4 glucose tablets
- 1 tube of glucose gel
- 1/2 cup (or 4 ounces) of a regular — **not diet** — soft drink
- Hard candies (see package to determine how much to consume)
- 1 tablespoon of sugar or honey

You should then recheck your blood glucose 15 minutes after eating one of the quick-fix foods. If your blood glucose is still below 70 mg/dL, another round of quick-fix food should be consumed. Once your blood glucose is back to 70 mg/dL, you should eat a small snack if your next meal is 1 hour or more away.

Hypoglycemia unawareness

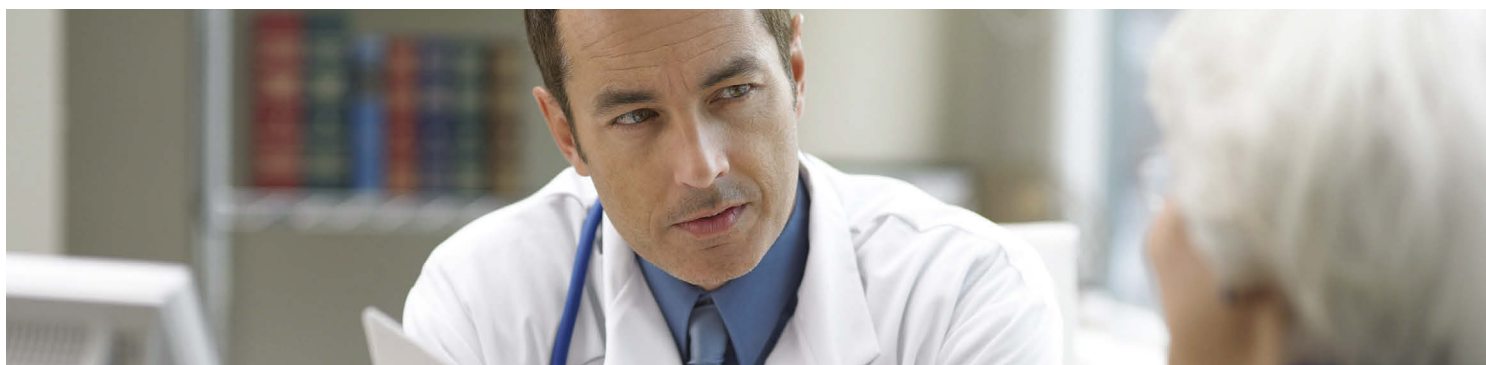
Very often, people whose blood glucose level has fallen below 70 mg/dL may not feel any of the symptoms of hypoglycemia. This is referred to as “hypoglycemia unawareness.” People with hypoglycemia unawareness need to check their blood glucose regularly so they know when their blood glucose has fallen below 70 mg/dL. You should talk to your doctor if you think you are hypoglycemia unaware.

For additional resources, ask your care manager.

How to best avoid hypoglycemia

Knowing the symptoms of hypoglycemia will help you with your diabetes care. If you are taking insulin or an oral or injectable diabetes medication, you should always be prepared for hypoglycemia. Things you can do to help prevent and treat hypoglycemia are:

- Learn what can trigger low blood glucose levels
- Have your blood glucose meter handy to test your glucose levels
- Carry quick-fix foods with you or have drinks handy
- Wear a medical identification bracelet or necklace
- Tell your family, friends, and coworkers about the symptoms of hypoglycemia and how they can help you if needed



DIABETES OVERVIEW

Right now, your mind must be swimming with a million questions. What will my life be like now? Will I be able to handle eating different foods and exercising more? What if my diabetes can't be controlled—will I lose my sight or need an amputation?

Getting that initial diabetes diagnosis can be scary. No doubt about it, diabetes is a loaded wake-up call. But understanding your disease and learning how to take care of yourself can go far in helping to ease your fears.

Keeping diabetes under control

You can learn to live with the “new normal” of diabetes—enjoying many of the same things you enjoyed before your diagnosis. Even better news: by eating right, monitoring your blood sugar, and increasing your physical activity, you might have more energy and manage your diabetes.

Remember, you are not alone. Over 29 million people in the United States had diabetes in 2012, including almost 12 million seniors (diagnosed and undiagnosed).

What exactly is diabetes?

Basically, the pancreas, an organ in your body that produces the hormone insulin, is unable to do so. Or when the pancreas produces insulin and releases it into your bloodstream, the cells in your body do not properly respond to insulin (this is called insulin resistance). It's a problem if insulin cannot be utilized by your body because it allows your body to convert sugar and starches from food into the energy you need for daily life.

When your pancreas is not working right

If your pancreas does not produce insulin or your cells don't get the signal to use it, the sugar in your blood (called glucose) can build up—causing damage to different parts of your body, including the nerves in your lower legs, your eyes, your kidneys, your blood vessels, and your heart.

You can help lower and control your blood sugar levels (known as glycemic control) through medication and/or lifestyle changes.

DIABETES OVERVIEW

Before you developed type 2 diabetes (T2D), you were probably diagnosed with **prediabetes**—blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes. With lifestyle changes, some people with prediabetes do not always develop T2D.

Type 1 diabetes (T1D) is when the pancreas does not make insulin. Only approximately 5% of people with diabetes have T1D.

Type 2 diabetes (T2D) is by far the most common form of the disease, accounting for approximately 95% of all diagnoses. Some of the risk factors for T2D include having close family members who have or had diabetes, being overweight, doing very little exercise, getting older, smoking, and eating too much fatty and sugary food.

A diagnosis of T2D is complicated by the fact that your symptoms can be so mild that you don't realize you may have the disease. Symptoms of T2D may include:

- Urinating often
- Feeling very thirsty
- Feeling very hungry—even while you are eating
- Extreme fatigue
- Blurry vision
- Cuts and bruises that heal slowly
- Tingling, pain, or numbness in the hands or feet

Don't wait until complications appear. See your doctor on a regular basis and have your blood tested for diabetes.

Diagnosing and monitoring diabetes

Several tests are used to diagnose and monitor diabetes. Your doctor may use one or more of the following:

- **A1C:** Measures average blood glucose for the past 2 to 3 months. Fasting or special liquids are not required
- **Fasting plasma glucose (FPG):** This test also measures blood glucose levels. As its name implies, fasting is required for this test—at least 8 hours beforehand
- **Postprandial glucose (PPG):** This test measures the spikes in glucose that occur 1 to 2 hours after eating. You can take this test using a test strip
- **Oral glucose tolerance test (OGTT):** This is a 2-hour test that checks your blood glucose levels both before and 2 hours after drinking a sugary liquid. It determines how well your body absorbs the sugar in your blood
- **Random (or casual) plasma glucose test:** Your doctor may prescribe this test if your diabetes symptoms are severe

Diabetes does not have to turn your world upside down. It is in your control to live well and healthy by taking your prescribed medications, making changes to what you eat, moving more, and reaching out to your physician, people who care about you, support groups, and your care manager.



QUESTIONS TO ASK MY DOCTOR ABOUT MY DIABETES

Finding out you have diabetes may make you feel overwhelmed. It's not always easy to hear you'll have to make lifestyle changes and/or take medication. You might find it hard to remember what your doctor says or understand his or her instructions. Bringing someone with you can help you remember the information correctly; so can this list. It offers questions you may want to ask your doctor—and gives you space to write down the answers. It might make it easier for you to manage your disease.

What does it mean to have high blood sugar (hyperglycemia)?

What tests do I need to take for my diabetes?

What is an A1C level?

What does it mean to have low blood sugar (hypoglycemia)?

QUESTIONS TO ASK MY DOCTOR ABOUT MY DIABETES

What are the symptoms of hypoglycemia (low blood sugar)?

What is the connection between diabetes and high blood pressure?

What are some foods or drinks I should carry with me to help manage hypoglycemia (low blood sugar)?

Why am I more at risk for heart disease because I have diabetes?

Why do I need to lose weight if I have diabetes?

How can diabetes affect my eyesight? Why? What about my hands and feet?

QUESTIONS TO ASK MY DOCTOR ABOUT MY DIABETES

Will I have to check my blood sugar levels every day? If so, at what hours of the day?

Will I have diabetes for the rest of my life?

How often do I have to see my doctor for checkups?

Can I really control my diabetes so it doesn't get worse?

Will I ever be able to eat dessert or a high-fat food I always liked before I got my diagnosis?

I've never been physically active. How do I start?

For additional resources, ask your care manager.





PATIENT SUPPORT ASSISTANCE

Dealing with the “new normal” of your diabetes diagnosis isn’t easy. And coping with your feelings about diabetes can be difficult, too. The good news is that reliable information is available to help you. The following websites offer information and other support as well.

Diabetes education

Centers for Disease Control and Prevention (CDC), Division of Diabetes Translation
www.cdc.gov/diabetes

American Diabetes Association (ADA)
www.diabetes.org

National Diabetes Education Program (NDEP)
www.yourdiabetesinfo.org

National Diabetes Information Clearinghouse (NDIC)
www.diabetes.niddk.nih.gov

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
www.niddk.nih.gov

Type 2 Diabetes Risk Test
<http://www.diabetes.org/are-you-at-risk/diabetes-risk-test/>

Support for special populations and ethnic groups

Asian American Diabetes Initiative Joslin Diabetes Center
<http://www.aao.org/eye-health>

Diabetes Sisters
<https://diabetessisters.org/>

Department of Veterans Affairs
www.va.gov/diabetes/#veterans

Indian Health Service (IHS)
www.ihs.gov/medicalprograms/diabetes

PATIENT SUPPORT ASSISTANCE

Financial support

American Diabetes Association/

Financial Support

<http://www.diabetes.org/in-my-community/diabetes-camp/financial-assistance.html>

<http://www.diabetes.org/living-with-diabetes/health-insurance/prescription-assistance.html>

National Diabetes Information Clearinghouse (NDIC)/Financial Support

<http://diabetes.niddk.nih.gov/dm/pubs/financialhelp/>

Needy Meds

<http://www.needymeds.org/index.htm>

Comorbidities education and support

American Heart Association

www.heart.org

Academy of Nutrition and Dietetics

www.eatright.org

EyeSmart

<http://www.aao.org/eye-health>

National Eye Institute (NEI)

www.nei.nih.gov

National Institute of Neurological Disorders and Stroke

www.ninds.nih.gov

National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC)

www.kidney.niddk.nih.gov

www.urologic.niddk.nih.gov

National Kidney Disease Education Program (NKDEP)

www.nkdep.nih.gov

National Kidney Foundation (NKF)

www.kidney.org

Weight-Control Information Network (WIN)

www.win.niddk.nih.gov

Lower Extremity Amputation Prevention Program

www.hrsa.gov/leap

Legal issues

Americans with Disabilities Act

<http://www.ada.gov/>

Disability Rights Legal Center

<https://disabilityrightslegalcenter.org/>

Employment Discrimination

<http://www.diabetes.org/living-with-diabetes/know-your-rights/discrimination/employment-discrimination/>

LawHelp.org

<http://www.lawhelp.org/>

PATIENT SUPPORT ASSISTANCE

Caregiver support and guidance

Caregiver Action Network
<http://caregiveraction.org/>

dLife
<http://www.dlife.com/>

Caring Today
<http://www.caringtoday.com/>

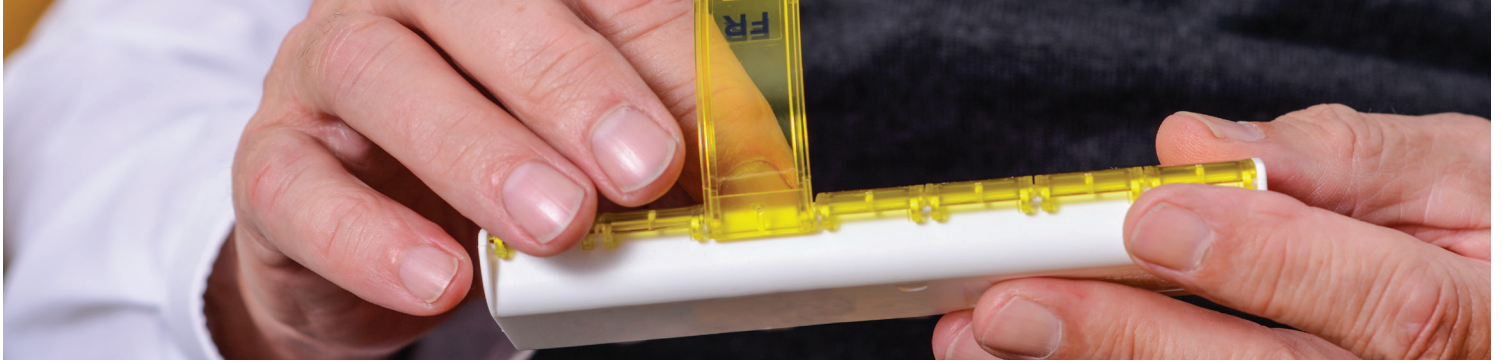
Caring.com
<http://www.caring.com/support-groups/diabetes>

Travel outreach

Air Care Alliance
<http://www.aircarealliance.org/>

Transportation Security Administration
<https://www.tsa.gov/travel/special-procedures>

American Diabetes Association/Air travel and diabetes
<http://www.diabetes.org/living-with-diabetes/know-your-rights/discrimination/public-accommodations/air-travel-and-diabetes/>



WHY IT'S IMPORTANT TO TAKE YOUR DIABETES MEDICINE AS PRESCRIBED

Managing diabetes can be challenging. Many patients closely follow their physician's disease management recommendations and take their medications as directed.

Taking care of your diabetes

It's important for you to understand why sticking to your treatment as prescribed is necessary.

Simply put, better adherence (taking your medicine as prescribed) usually means glycemic control.

Nonadherent patients with diabetes are far more likely to go to the hospital with diabetes-related problems. They may also have higher health care costs.

There are many benefits of taking care of your diabetes every day.

Taking care of yourself means:

- Following your healthy eating plan
- Doing a physical activity every day
- Taking your medicines every day or as prescribed
- Checking your blood glucose levels
- Monitoring blood pressure
- Monitoring cholesterol levels

Because diabetes can damage nerves and blood vessels, following your treatment as prescribed is very important. Uncontrolled diabetes can lead to damage of the:

- Heart
- Eyes
- Kidneys

Studies show that you can reduce the risk of developing these diabetes-related problems by sticking to your diabetes routine. But, despite knowing this, adherence to diabetes routines is low.

WHY IT'S IMPORTANT TO TAKE YOUR DIABETES MEDICINE AS PRESCRIBED

Reporting side effects and removing the barriers of cost

It is important to know the name of your diabetes medicine (or medicines), how it is taken, the reasons for taking it, and all of the possible side effects. If you experience any side effects from your diabetes medication, you should contact your doctor immediately.

If you are faced with financial difficulty and can't afford your diabetes medicine, contact your doctor. Ask your care manager for the **Patient Support Assistance** tool, which includes the names of organizations that can help you with the cost of your treatment.

Yes, diabetes is a disease you must manage every day, but taking care of yourself can lead to glycemic control.

For additional resources, ask your care manager.



WHEN PATIENTS WITH DIABETES CAN NO LONGER TAKE CARE OF THEMSELVES

It's not easy watching a loved one with diabetes become sick. The best-case scenario is one in which your loved one is monitoring his or her blood glucose levels and living a healthy life. But, as with any chronic condition, diabetes may get worse and cause health problems.

Some sobering facts:

- Diabetes has been linked to kidney failure, nontraumatic lower-limb amputations, and blindness
- Adults with diabetes have heart disease death rates that are 1.7 times higher than adults without diabetes, and hospitalization rates for stroke is 1.5 times higher among people with diabetes
- A total of 228,924 people with kidney failure due to diabetes are being treated with dialysis (blood filtered by a machine) or have had a kidney transplant in the United States
- More than 60% of nontraumatic lower-limb amputations are performed annually in people with diabetes

Diabetes complications that may get worse—and how you can help

You can help your loved one with diabetes. You can help him or her get through daily life with dignity, comfort, and ease. Here are some of the most common conditions that can progress to the point where a loved one can't do it alone—and how you can recognize and offer the help that really counts.

If your loved one has had a heart attack or a stroke....

The danger in patients with diabetes is that nerve damage can affect the ability of your loved one to recognize that he or she is having a heart attack. It can be painless or “silent.”

WHEN PATIENTS WITH DIABETES CAN NO LONGER TAKE CARE OF THEMSELVES

Warning signs of a stroke*

- Weakness or numbness on one side of the body
- Sudden confusion or trouble understanding
- Trouble talking
- Dizziness, loss of balance, or trouble walking
- Trouble seeing out of one or both eyes
- Double vision
- Severe headache

Warning signs of a heart attack*

- Chest pain
- Discomfort in one or both arms, back, jaw, neck, or stomach
- Shortness of breath
- Sweating
- Indigestion, nausea, or vomiting
- Tiredness, fainting, or feeling light-headed

If your loved one has a stroke or heart attack, he or she will usually need some rehabilitation to help regain memory, language skills, walking, and/or counseling to improve mental acuity. You may have to help with feeding and getting your loved one from room to room while he or she recuperates. You may have to drive your loved one to and from rehabilitation outpatient facilities.

If your loved one has serious eye problems or blindness....

Eye disorders caused by diabetes are associated with the retina, the part of the eye that records images the eye sees and then sends to the brain. These eye conditions are called diabetic retinopathy.

Diabetic retinopathy can worsen over time. The tiny blood vessels in the retina become so damaged that they close up. New blood vessels start growing in the retina, but they are weak and can leak blood, blocking vision. They can also cause scar tissue to grow, which, as it shrinks, can pull the retina out of place. There are treatments available for diabetic retinopathy, especially if it's diagnosed when vision is still normal.

Watch your loved one for any signs of weak vision and make sure he or she keeps her doctor appointments.

If your loved one becomes blind, you don't have to be the only pair of eyes for him or her. There are support groups for the blind. Ask your care manager to recommend the websites of organizations that can help.

If your loved one has kidney failure...

Our kidneys act as filters, removing the waste from our blood. Diabetes can damage the kidneys so that they are unable to filter out waste.

*If you or a loved one exhibits any of these symptoms, contact your healthcare professional immediately.

WHEN PATIENTS WITH DIABETES CAN NO LONGER TAKE CARE OF THEMSELVES

The high levels of blood sugar in people with diabetes can force the kidneys to filter too much blood. This extra work is hard on the kidneys' filters and, after many years, it's possible that they start to leak; useful protein is then lost in the urine. If detected early, there are treatments available to help keep kidney disease from worsening.

But if this condition continues without treatment, it can become very serious. Add the stress that the kidneys have from being overworked and the waste that starts to build up in the blood from poor filtering, and the kidneys will fail. This is called end-stage renal disease (ESRD).

If your loved one has kidney failure, he or she will need to have a kidney transplant or dialysis.

ESRD requires a lot of attention. You have to make sure your loved one gets to his or her dialysis appointments. You also need to make sure your loved one gets his or her name on an organ transplant list. Talk to your case manager for information and support about organ donations.

If your loved one has had an amputation....

It's hard to imagine your loved one without a foot or a leg; however, people with diabetes are far more likely to have a foot or leg amputated than people without diabetes. Your loved one may have peripheral arterial disease (PAD), which reduces blood flow to the feet. Poor circulation combined with loss of sensation, or neuropathy, can make it easy for your loved one to develop

infections or foot ulcers from a scrape or cut without realizing it. If left untreated, the infection can grow and lead to amputation.

Peripheral Arterial Disease (PAD)

PAD occurs when blood vessels in the legs are narrowed or blocked by fatty deposits, and blood flow to the feet and legs decreases. An estimated 1 out of every 3 people with diabetes over the age of 50 have this condition. However, many people with diabetes don't recognize the warning signs and don't realize they have PAD. The result? Missed treatment opportunities and the risk of complications.

Symptoms can include leg pain (particularly when walking or exercising, which disappears after a few minutes of rest), numbness, tingling, or feeling cold in the feet or lower legs, and sores or infections on the feet that heal slowly.

If your loved one has suffered an amputation, you may need to help him or her walk and get in and out of a car. You may have to help your loved one learn how to use a wheelchair, cane, or artificial leg. Your case manager will be able to help you with recommendations, insights, and support. The *Patient Support Assistance* tool in this Case Manager Toolkit may also help.

No, it is not easy to watch a loved one with diabetes become sick. But caring for him or her isn't something you have to do alone.

For additional resources, ask your care manager.



CARE FOR THE CAREGIVER

When someone you love is first diagnosed with diabetes, your stress level may be high as a result of the lifestyle changes you may need to help your loved one make. For instance, you might join him or her with healthier eating and exercising. You'll also want to make sure your loved one is taking medicine as prescribed by the doctor so that his or her blood levels stay steady.

But as time goes by, this "new normal" may become more stressful. He or she may have diabetes-related complications that require more doctors' appointments or visits to the hospital. You may find you're taking days off from work or changing your daily routines. You might find yourself getting irritable and tired. In short, you may start feeling burnt out.

Remember: You can't take care of anyone else if you don't take care of yourself first. Check out this list of suggestions.* They'll not only give you a sense of well-being, but may help you be a better caregiver, too.

*This information is provided as general knowledge only and is not medical advice. If you have questions or concerns, you should talk to your health care professional.

For additional resources, ask your care manager.

- **Don't neglect your own health.** It's easy to overlook a doctor or dentist appointment when you're busy taking care of someone else. Make sure you are taking your own medicines and keeping any appointments you've made
- **Get enough sleep.** No one can function well when they haven't had a good night's sleep
- **Help reduce your stress with yoga, meditation, or a massage.** Some health plans offer discounts for these services. And who knows? You might find a relaxing activity you can do with your loved one
- **Ask for help!** Your friends and family are happy to do something for you if it'll make you feel better. Food shopping. Walking the dog. Going to the dry cleaner. These little things might not seem like much to them, but having someone else do them can give you a much-needed break
- **Make some "me" time.** It doesn't have to be a big night out. You can watch a TV show or go to a movie. Take a nap. Read a few pages of a book. Something that is just for you
- **Be on the lookout for any signs of physical and emotional stress.** Are you feeling tired? Experiencing lower back or neck pain? Are you gaining or losing too much weight? Are you worrying too much or feeling overwhelmed and alone? If any of these symptoms sound familiar, talk to your health care professional



COMPLICATIONS OF DIABETES: TRACKING AND MANAGEMENT OF YOUR DISEASE

If you have diabetes, your blood glucose (blood sugar) levels are too high. Over time, this can cause problems with your kidneys, heart, eyes, nerves, and feet. Other problems can occur with your skin, teeth, digestion, and sexual performance.

The good news is that you can manage many of these problems. Eating healthy, exercising regularly, and checking your blood glucose, blood pressure, and cholesterol levels are all important steps to staying healthy.

This handout will help to explain some of the problems you may (or may not) have with diabetes.

How does diabetes affect my heart health?

People with diabetes often are obese, have high cholesterol, and/or high blood pressure. If you have a combination of any of these conditions, you can be at greater risk of heart attack and stroke than people who do not have diabetes.

To help manage your heart health, you need to:

- eat the right foods
- exercise regularly
- stop smoking
- check your blood glucose, blood pressure, and cholesterol levels

Working with a dietitian can help you choose a healthy diet. If you are overweight, you can also talk with a dietitian to help you lose weight safely. You can also get recommendations for physical activities that are right for you. And, if you smoke, you should quit.

The following tests are important for people with diabetes:

- A1C—at least twice a year
- Cholesterol—at least once a year
- Blood pressure—at every doctor's visit

If your doctor prescribes medications for you, make sure you take them as prescribed.

COMPLICATIONS OF DIABETES: TRACKING AND MANAGEMENT OF YOUR DISEASE

What effect does diabetes have on my kidneys?

The job of the kidneys is to filter out waste. When the kidneys are damaged and can't function properly, waste builds up in your bloodstream. When the kidneys fail, you will need to have your blood filtered through a machine several times a week; this is called dialysis. In more severe cases, you may need a kidney transplant.

In people with diabetes, kidney disease happens slowly and silently. You may not even know there is a problem with your kidneys until something goes wrong. But there's a lot you can do to help manage potential kidney problems.

Managing your blood glucose and keeping your blood pressure under control is important. It is also important to get your blood and urine checked for kidney problems each year. Your doctor can perform tests to see how well your kidneys are working.

If you develop cloudy or bloody urine, experience pain or a burning sensation when you urinate, or have an urgent need to urinate often, you may have a bladder or kidney infection. Other symptoms of bladder and kidney infection include back pain, chills, or fever.

How does diabetes affect my vision?

In people with diabetes, high blood glucose and high blood pressure can cause small blood vessels to swell. The blood vessels leak liquid into the eyes, causing blurred vision; sometimes this leaking can cause blindness. Other eye diseases more likely to occur in people with diabetes are cataracts and glaucoma.

Treating eye problems early can help save your sight. Have an eye doctor give you a dilated eye exam at least once a year. The doctor will check for signs of cataracts or glaucoma. It's important to check your eyes, because diabetic eye disease may develop.

Symptoms of eye disease include:

- Trouble reading
- Blurred vision
- Seeing rings around lights or dark spots
- Flashing lights

Tell your health care team or your eye doctor about any changes in your vision.

COMPLICATIONS OF DIABETES: TRACKING AND MANAGEMENT OF YOUR DISEASE

What about nerve damage and infection? Can this lead to amputation?

Long-term diabetes can damage blood vessels and nerves. As a result, numbness, pain, and weakness in the hands, arms, feet, and legs can occur. An estimated 50% of people with diabetes have some form of neuropathy—the medical term for damage to the nervous system.

Nerve damage can deform or misshape your feet. It can lead to blisters, sores, or ulcers on your limbs as well. Poor circulation can make these injuries slow to heal. A sore or ulcer that does not heal or becomes infected can lead to amputation of a toe, foot, or leg.

Take good care of your feet. Have them examined by your doctor at least 4 times a year. Have them tested for nerve damage at least once a year.

Things you can do to help you have healthy feet:

- Look for cuts, cracks, sores, red spots, swelling, infected toenails, splinters, blisters, and calluses on your feet every day. Call your doctor if any cut or infection doesn't heal after 1 day
- Ask your doctor or podiatrist (foot doctor) how to care for corns and calluses, if you have them
- Wash your feet in warm water (not hot) and dry them thoroughly
- Cut your toenails (but not too short) as needed. Toenails should be cut when they are soft after washing, and the edges should be filed with an emery board
- Rub lotion on the tops and bottoms of your feet—but not between the toes—to prevent cracking and drying
- Wear shoes that fit well. Break in new shoes slowly
- Wear stockings or socks to protect your feet against blisters and sores
- Wear clean, lightly padded socks that fit well
- Avoid walking barefoot because it's easy to step on something harmful—always wear shoes or slippers
- Protect your feet from extreme temperatures (heat and cold)
- When sitting, keep the blood flowing by propping your feet up; move your toes and ankles for a few minutes at a time
- Don't smoke. Smoking reduces blood flow to the feet

Remember to always keep your blood sugar, blood pressure, and cholesterol levels under control. Eating healthy foods, staying active, and taking your diabetes medicines will help you prevent or delay complications.

For additional resources, ask your care manager.



DIABETES COMORBIDITIES: OBESITY, HIGH BLOOD PRESSURE, AND HIGH LDL (BAD) CHOLESTEROL

Comorbidities refers to the presence of another medical condition in addition to the primary disease (diabetes). If you have diabetes, chances are you may have a comorbidity—another condition that may impact your blood sugar level and vice versa. These comorbidities include obesity, high blood pressure, and high LDL (bad) cholesterol.

Let's review the most common comorbidities with diabetes:

Obesity

Did you know that there is a strong association between obesity and diabetes that they are sometimes referred to with a single term: “diabesity”? It makes sense: more than 85% of people with type 2 diabetes (T2D) are overweight or obese.

Obesity may increase your blood sugar levels and make it harder to control your diabetes.

If you are overweight or obese, your care manager can help you lose weight by offering advice, support, and insights on nutrition, physical activity, and changing your feelings about food. And talk to your physician if you are obese.

High blood pressure, or hypertension

If you have high blood pressure along with diabetes, you are not alone. Seventy-one percent of adults 18 years of age and older with diabetes have high blood pressure, and many of them need medication to keep their blood pressure under control.

What's the difference between being overweight and being obese?

Health care professionals use the body mass index (BMI) to see if a patient is at normal weight, overweight, or obese. The BMI measures body fat. Normal weight has a BMI between 18.5 to 24.9. If your BMI is 25 to 29.9, you are considered overweight, while a BMI of 30 or more signals obesity.

To determine your BMI, go to http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html and follow the instructions.

DIABETES COMORBIDITIES:

OBESITY, HIGH BLOOD PRESSURE, AND HIGH LDL (BAD) CHOLESTEROL

What do your blood pressure numbers mean?

Blood pressure is the force of blood pushing against the walls of the arteries as your heart pumps blood. The more force it takes to do the job, the harder your heart has to work and the higher your blood pressure.

The top number in your blood pressure reading is called systolic blood pressure and refers to blood pressure while your heart is pumping blood. The lower number is called diastolic blood pressure and refers to blood pressure when your heart is at rest between beats. (The mm Hg in your reading is the millimeters of mercury that is used to measure blood pressure.)

If you have diabetes, the American Diabetes Association recommends, your blood pressure goal is 140/90 mm Hg or less. A lower target of 130/80 may be appropriate for some patients.

LDL (or bad) cholesterol

You know that your LDL cholesterol numbers need to be low, but do you know why?

Your body needs cholesterol, a waxy fat-like substance, to make hormones, vitamin D, and substances that help you digest your food. Cholesterol travels through your bloodstream in small packages called lipoproteins because they are made of fat (lipids) on the inside and proteins on the outside.

There are 2 kinds of cholesterol: high-density lipoproteins (HDL), also called good cholesterol because it helps remove LDL cholesterol from your arteries. The other type of cholesterol, low-density lipoproteins (LDL), is called bad cholesterol because it can help block blood flow in your arteries. The higher the LDL level in your bloodstream, the greater your chance of getting heart disease.

The American Diabetes Association recommends that patients with diabetes have an LDL cholesterol level less than 100 mg/dL. If you have a higher number, speak to your physician and your care manager.

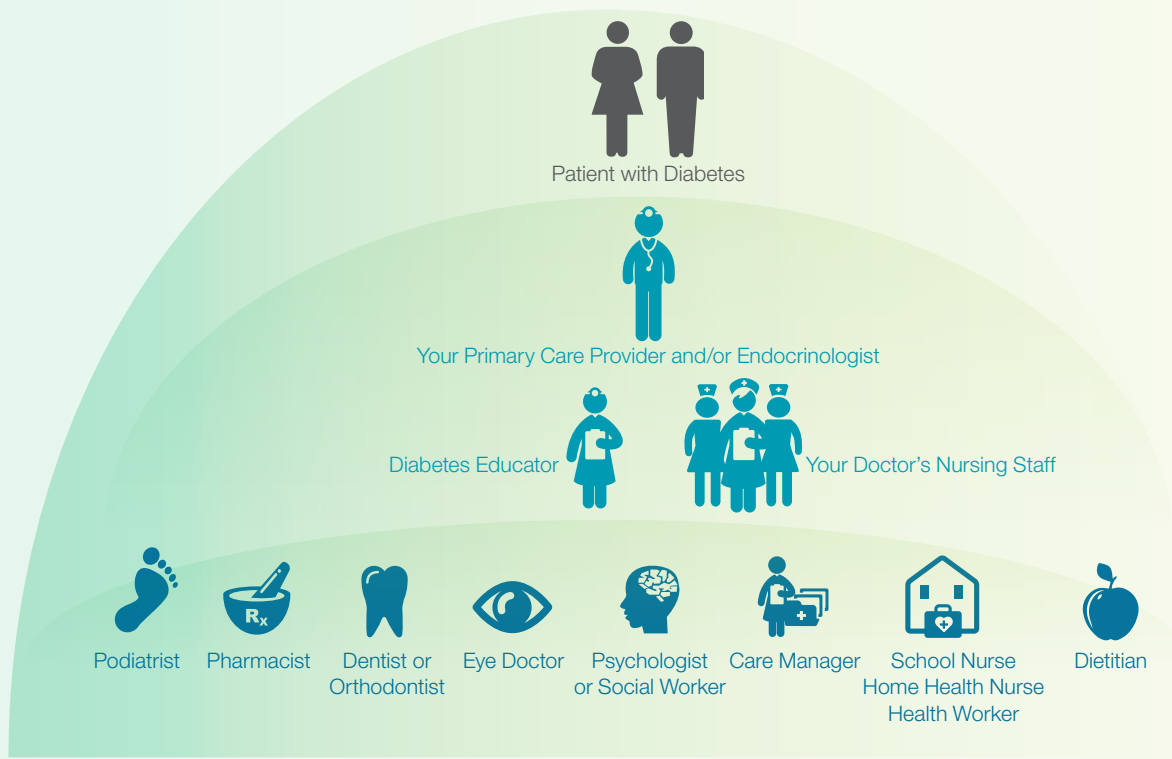


YOUR DIABETES CARE TEAM

Your primary care doctor and his or her staff are the main source of support for treating your diabetes. But there are other health care professionals (HCPs) who can also help you. It's very important for you to know who these other HCPs are, what they do, and what they offer.

Health care teams that work closely together are very important for patients with chronic diseases like diabetes.

WHO MAY BE PART OF THE PATIENT'S DIABETES CARE TEAM?



YOUR DIABETES CARE TEAM

The benefits of diabetes care team include:

Help reduce your diabetes risk factors	Increase your treatment satisfaction
Improve disease management	Lower your risk of complications
Provide better patient education	Improve your quality of life
Improve control of your blood sugar	Help keep you out of the hospital
Help you maintain appointments	Lower your health care costs

Your Diabetes Care Team: Roles and responsibilities

A flexible plan helps make the best use of Diabetes Care Team resources, because each team member has their own responsibilities. For example:

Podiatrists	<ul style="list-style-type: none"> • Treat people with foot-related injuries and conditions. Provide routine foot care examinations • Provide yearly diabetes foot care examinations
Pharmacist	<ul style="list-style-type: none"> • Assist patients who need drug therapy for their diabetes
Nurse educators, diabetes educators, and care managers	<ul style="list-style-type: none"> • Provide patient education, support, and drug management services
Eye care professionals (optometrists and ophthalmologists)	<ul style="list-style-type: none"> • Provide comprehensive eye and vision care for patients
Psychologist/social worker	<ul style="list-style-type: none"> • May be part of a team providing child and adolescent care
Dental professionals	<ul style="list-style-type: none"> • Conduct oral examinations; provide oral health education

Speak up!

No one understands your diabetes better than you do. If you or your caregiver has questions about your treatment, don't wait to speak up.

Your primary care doctor and nursing staff are a great place to start. If they don't have an answer, they can help you speak with the care team member who does.

For additional resources, ask your care manager.

Helpful hint

Always carry a list with your Diabetes Care Team members' contact information, including:

- Name
- Specialty (doctor, nurse, pharmacist, etc)
- Address
- Telephone number

Make an extra copy to keep at home, or for your caregiver.