

Introduction

If your doctor says you have diabetes. You can learn how to take care of your diabetes and how to prevent some of the serious problems that diabetes can cause. You may want to share this booklet with your family and friends so they too will understand more about diabetes and how they can help you live a healthy life. And remember, you can always ask **hammer home the glucose team** any questions regarding your diabetes.

What Diabetes?

Diabetes means your blood [glucose](#), also called blood sugar, is too high. Your blood always has some glucose in it because your body needs glucose for energy to keep you going. But too much glucose in the blood isn't good for your health.

How do you get high blood glucose?

Glucose comes from the food you eat and is also made in your liver and muscles. Your blood carries the glucose to all the cells in your body. [Insulin](#) is a chemical, also called a hormone, made by the [pancreas](#). The pancreas releases insulin into the blood. Insulin helps the glucose from food get into your cells. If your body doesn't make enough insulin, or if the insulin doesn't work the way it should, glucose can't get into your cells. It stays in your blood instead. Your blood glucose level then gets too high, causing pre-diabetes or diabetes.

What is prediabetes?

Prediabetes is a condition in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes. People with prediabetes are at increased risk for developing type 2 diabetes and for heart disease and stroke. The good news is, if you have prediabetes, you can reduce your risk of getting diabetes. With modest weight loss and moderate physical activity, you can delay or prevent type 2 diabetes and even return to normal glucose levels.

What are the signs of diabetes?

The signs of diabetes are

- being very thirsty
- urinating often
- feeling very hungry or tired
- losing weight without trying
- having sores that heal slowly
- having dry, itchy skin
- losing the feeling in your feet or having tingling in your feet
- having blurry eyesight

You may have had one or more of these signs before you found out you had diabetes. Or you may have had no signs at all. A blood test to check your glucose levels will show if you have prediabetes or diabetes.

What kind of diabetes do you have?

People can get diabetes at any age. Type 1, type 2, and gestational diabetes are the three main kinds. Type 1 diabetes, formerly called juvenile diabetes or insulin-dependent diabetes, is usually first

diagnosed in children, teenagers, or young adults. With this form of diabetes, the [beta cells](#) of the pancreas no longer make insulin because the body's [immune](#) system has attacked and destroyed them. Treatment for type 1 diabetes includes taking insulin and possibly another injectable medicine, making wise food choices, being physically active, taking aspirin daily for some and controlling blood pressure and [cholesterol](#).

Type 2 diabetes, formerly called adult-onset diabetes or noninsulin-dependent diabetes, is the most common form of diabetes. People can develop type 2 diabetes at any age even during childhood. This form of diabetes usually begins with insulin resistance, a condition in which fat, muscle, and liver cells do not use insulin properly. At first, the pancreas keeps up with the added demand by producing more insulin. In time, however, it loses the ability to secrete enough insulin in response to meals. Being overweight and inactive increases the chances of developing type 2 diabetes. Treatment includes using diabetes medicines, making wise food choices, being physically active, taking aspirin daily for some and controlling blood pressure and cholesterol.

Some women develop [gestational](#) diabetes during the late stages of pregnancy. Although this form of diabetes usually goes away after the baby is born, a woman who has had it is more likely to develop type 2 diabetes later in life. Gestational diabetes is caused by the hormones of pregnancy or a shortage of insulin.

Why do you need to take care of your diabetes?

After many years, diabetes can lead to serious problems with your eyes, kidneys, nerves, and gums and teeth. But the most serious problem caused by diabetes is heart disease. When you have diabetes, you are more than twice as likely as people without diabetes to have heart disease or a stroke.

If you have diabetes, your risk of a heart attack is the same as someone who has already had a heart attack. Both women and men with diabetes are at risk. You may not even have the typical signs of a heart attack.

You can reduce your risk of developing heart disease by controlling your blood pressure and blood fat levels. If you smoke, talk with “**Hammer Home the Glucose**” team about quitting. Remember that every step toward your goals helps!

["Why Taking Care of Your Diabetes Is Important"](#) to learn how you can try to prevent or delay long-term problems. The best way to take care of your health is to work with “**Hammer Home the Glucose**” team to keep your blood glucose, blood pressure, and cholesterol in your target range.

What's a desirable blood glucose level?

Everyone's blood has some glucose in it. In people who don't have diabetes, the normal range is about 70 to 120 mg/dl or 3.9mmol/L to 6.7 mmol/L. Blood glucose goes up after eating but 1 or 2 hours later returns to the normal range.

Ask with “**Hammer Home the Glucose**” team when you should check your blood glucose with a meter. Talk about whether the blood glucose targets listed below are best for you. Then write in your own targets.

<i>Blood Glucose Targets for Most People with Diabetes</i>		
When	Target levels	My target levels

Blood Glucose Targets for Most People with Diabetes		
When	Target levels	My target levels
Before meals	70 to 130	_____ to _____
1 to 2 hours after the start of a meal	below 180	below _____

It may be hard to reach your target range all of the time. But the closer you get to your goal, the more you will reduce your risk of diabetes-related problems and the better you will feel. Every step helps.

Taking Care of Your Diabetes Every Day

Do four things every day to take care of your diabetes:

- Follow your meal plan.
- Be physically active.
- Take your diabetes medicines every day.
- Check your blood glucose as recommended.

Experts say most people with diabetes should try to keep their blood glucose level as close as possible to the level of someone who doesn't have diabetes. The closer to normal your blood glucose is, the lower your chances are of developing serious health problems.

Check with “**Hammer Home the Glucose**”team the right range for you.

“**Hammer Home the Glucose**”team will help you learn how to reach your target blood glucose range.

A diabetes educator is a health care worker who teaches people how to manage their diabetes. Your educator may also be a nurse, a dietitian, or other kind of health care worker.

A dietitian is someone who's specially trained to help people plan their meals

Follow your meal plan

You should have your own meal plan. Ask your doctor to give you the name of a dietitian who can work with you to develop a meal plan. Our dietician can help you plan meals that include foods that you and your family like to eat and that are good for you too. Come and meet our dietician who help you to include foods that are heart-healthy that will reduce your risk of heart disease.

Your diabetes meal plan will include breads, cereals, beans, ukwa or bread fruit, rice, and grains; fruits and vegetables; meat and fish; dairy products; and fats. People with diabetes don't need to eat special foods. The foods on your meal plan are good for everyone in your family! Making wise food choices will help you

- reach and stay at a weight that's good for your body
- keep your blood glucose, blood pressure, and cholesterol under control
- prevent heart and blood vessel disease
- Follow your meal plan.
- Don't skip meals, especially if you've already taken your insulin, because your blood glucose may go too low.

- Follow your meal plan.
- Don't skip meals, especially if you take diabetes medicines, because your blood glucose may go too low. Eat several small meals during the day instead of one or two big meals.

Be Physically Active

Physical activity helps you stay healthy. Try walking, swimming, dancing, riding a bicycle, playing baseball, or bowling, trek to market or to church. You can even get exercise when you clean your house or work in your yard or farm. Physical activity is especially good for people with diabetes because it

- helps keep weight down
- helps insulin work better to lower blood glucose
- is good for your heart and lungs
- gives you more energy

Before you begin exercising, talk with “**Hammer Home the Glucose**” team . We will check your heart and your feet to be sure you have no special problems. If you have high blood pressure or eye problems, some exercises like weightlifting may not be safe. We can help you find safe exercises.

Being active helps you stay healthy.

Try to be active almost every day for a total of about 30 minutes. If you haven't been very active lately, begin slowly. Start with 5 to 10 minutes, and then add more time. Or exercise for 10 minutes, three times a day.

If you use insulin or take diabetes pills that help your body make insulin, you may need to eat a snack before you exercise. Check your blood glucose before you exercise. If your blood glucose is below 100mg/dl or 5.6mmol/L, have a snack before you exercise.

- Liase with “**Hammer Home the Glucose**” team before starting a physical activity program.
- Check your blood glucose before, during, and after exercising. Don't exercise when your blood glucose is high and you have ketones in your blood or urine
- Don't exercise right before you go to sleep because it could cause low blood glucose during the night.

When you exercise, carry glucose tablets, or sweet with sugar or a [carbohydrate](#) snack with you in case you have low blood glucose. Wear or carry an identification tag or card that says you have diabetes.

Take Your Diabetes Medicines Every Day

Three kinds of diabetes medicines can help you reach your blood glucose targets: pills, insulin, and other [injectable](#) medicines.

Many people with type 2 diabetes take pills to help keep blood glucose in their target range.

If You Take Diabetes Pills

If your body makes insulin but the insulin doesn't lower your blood glucose enough, you may need diabetes pills. Some pills are taken once a day, and others are taken more often. Ask “**Hammer**

Home the Glucose team when you should take your pills. Be sure to tell us if your pills make you feel sick or if you have any other problems.

Sometimes, people who take diabetes pills may need insulin for a while. If you get sick or have surgery, the diabetes pills may no longer work to lower your blood glucose.

You may be able to stop taking diabetes pills if you lose weight. Always check with us before you stop taking your diabetes pills. Losing about 4.5kg or 6.8kg can help you reach your target blood glucose levels.

If You Use Insulin

You need insulin if your body has stopped making insulin or if it doesn't make enough. Everyone with type 1 diabetes needs insulin, and many people with type 2 diabetes do too. Some women with gestational diabetes also need to take insulin.

You may need insulin to control your blood glucose.

Your doctor can tell you which of these ways to take insulin is best for you.

- Taking shots, also called [injections](#). You'll use a needle attached to a [syringe](#)—a hollow tube with a plunger—that you fill with a dose of insulin. Some people use an insulin pen, a pen-like device with a needle and a cartridge of insulin.
- Using an insulin pump. A pump is a small device, worn on a belt or in a pocket, that holds insulin. The pump connects to a small plastic tube and a very small needle. The needle is inserted under the skin and stays in for several days.
- Using an insulin jet injector. This device sends a fine spray of insulin through the skin with high-pressure air instead of a needle.
- Using an insulin infuser. A small tube is inserted just beneath the skin and remains in place for several days. Insulin is injected into the end of the tube instead of through the skin.

If You Use Other Injectable Medicines

Some people with diabetes use other injectable medicines to reach their blood glucose targets. These medicines are not substitutes for insulin.

If You Don't Use Pills, Insulin, or Other Injectable Medicines

Many people with type 2 diabetes don't need diabetes medicines. They can take care of their diabetes by using a meal plan and exercising regularly.

Check Your Blood Glucose as Recommended

You'll want to know how well you're taking care of your diabetes. One way to find out is to check your blood to see how much glucose is in it. If your blood has too much or too little glucose, you may need a change in your meal plan, physical activity plan, or medicines.

Checking your blood glucose will help you see if your diabetes treatment plan is working.

Ask “**Hammer Home the Glucose**”team how often you should check your blood glucose. Some people check their blood glucose once a day. Others do it three or four times a day. You may check before and after eating, before bed, and sometimes in the middle of the night.

“**Hammer Home the Glucose**”team will show you how to check your blood using a blood glucose meter. “**Hammer Home the Glucose**”team should also check your blood glucose levels with a lab test called the [A1C](#) test.

Take Other Tests for Your Diabetes

Tests for Ketones

You may need to check your blood or urine for [ketones](#) if you're sick or if your blood glucose is above 240mg/dl. Your body makes ketones when you burn fat instead of glucose for energy. Ketones can make you very sick. If you have ketones, you are at risk for having a serious condition called [ketoacidosis](#). If ketoacidosis isn't treated, it can cause death. Signs of ketoacidosis are vomiting, weakness, fast breathing, and a sweet smell on the breath. Ketoacidosis is more likely to develop in people with type 1 diabetes.

Your “**Hammer Home the Glucose**”team will show you how to test for ketones.

The A1C test

Another test for blood glucose, the A1C, also called the [hemoglobin](#) A1C test, shows what your average blood glucose was for the past 2 to 3 months. The doctor does this test to see what your blood glucose is most of the time. Have this test done at least twice a year.

Ask your doctor what your A1C test showed. A result of below 7 usually means that your diabetes treatment is working well and your blood glucose is under control. If your A1C is higher, your blood glucose may be too high. You'll then have a greater risk of having diabetes problems, like kidney damage. You may need a change in your meal plan, physical activity plan, or diabetes medicines. Talk with your doctor about what your target should be. Your personal target may be lower or higher than the target shown below. Even if your A1C is higher than your target, remember that every step toward your goal helps reduce your risk of diabetes problems.

A1C results	
Target for most people with diabetes	below 7
Time to change my diabetes care plan	8 or above
My last result	_____
My target	below _____

Keep Daily Records

Order daily diabetes record page from “**Hammer Home the Glucose**”team..

Then write down the results of your blood glucose checks every day. You may also want to write down what you ate, how you felt, and whether you exercised.

By keeping daily records of your blood glucose checks, you can tell how well you're taking care of your diabetes. Show your blood glucose records to us. They can use your records to see whether you need changes in your diabetes medicines or your meal plan. If you don't know what your results mean, ask “**Hammer Home the Glucose**”team.

Keep a daily record of

- your blood glucose numbers
- the times of the day you took insulin
- the amount and type of insulin you took
- whether you had ketones in your blood or urine

Things to write down every day in your record book are

- results of your blood glucose checks
- your diabetes medicines: times and amounts taken
- if your blood glucose was very low
- if you ate more or less food than you usually do
- if you were sick
- if you found ketones in your blood or urine
- what kind of physical activity you did and for how long

Keep a daily record of

- your blood glucose numbers
- the times of the day you took your diabetes medicines
- your physical activity

When Your Blood Glucose Is Too High or Too Low

Sometimes, no matter how hard you try to keep your blood glucose in your target range, it will be too high or too low. Blood glucose that's too high or too low can make you feel sick.

What You Need to Know about High Blood Glucose

If your blood glucose stays above 180, it may be too high. High blood glucose means you don't have enough insulin in your body. High blood glucose, also called [hyperglycemia](#), can happen if you miss taking your diabetes medicines, eat too much, or don't get enough exercise. Sometimes, the medicines you take for other problems cause high blood glucose.

Having an infection, being sick, or being under stress can also make your blood glucose too high.

When you're sick, be sure to check your blood glucose and keep taking your diabetes medicine.

If you're very thirsty and tired, have blurry vision, and have to go to the bathroom often, your blood glucose may be too high. Very high blood glucose may also make you feel sick to your stomach.

If your blood glucose is high much of the time, or if you have symptoms of high blood glucose, “**Hammer Home the Glucose**”team. You may need a change in your diabetes medicines or your meal plan.

What You Need to Know About Low Blood Glucose

Low blood glucose, also called [hypoglycemia](#), happens if your blood glucose drops too low. It can come on fast. Low blood glucose can be caused by taking too much diabetes medicine, missing a

meal, delaying a meal, exercising more than usual, or drinking alcoholic beverages. Sometimes, medicines you take for other health problems can cause blood glucose to drop. Low blood glucose can make you feel weak, confused, irritable, hungry, or tired. You may sweat a lot or get a headache. You may feel shaky. If your blood glucose drops lower, you could pass out or have a seizure.

If you have any of these symptoms, check your blood glucose. If the level is below 70, have one of the following right away:

- 3 or 4 glucose tablets
- 1 serving of glucose gel—the amount equal to 15 grams of carbohydrate
- 1/2 cup, or 4 ounces, of any fruit juice
- 1/2 cup, or 4 ounces, of a regular not diet soft drink
- 1 cup, or 8 ounces, of milk
- 5 or 6 pieces of hard candy
- 1 tablespoon of sugar or honey
- A bottle of fanta or coke (Not diet).

Have one of these "quick fix" foods when your blood glucose is low.

After 15 minutes, check your blood glucose again to make sure your level is 70mg/dl or above.

Repeat these steps until your blood glucose level is 70mg/dl or above. Once your blood glucose is stable, if it will be at least an hour before your next meal, have a snack or white bread.

If you take diabetes medicines that can cause low blood glucose, always carry food for emergencies. You should also wear a medical identification bracelet or necklace.

If you take insulin, keep a glucagon kit at home and at other places where you often go. Glucagon is given as an injection with a syringe and quickly raises blood glucose. Show your family, friends, and co-workers how to give you a glucagon injection if you pass out because of low blood glucose.

- Tell **"Hammer Home the Glucose"** team if you have low blood glucose often, especially at the same time of the day or night several times in a row.
- Tell us if you've passed out from low blood glucose.

Glucagon is a medicine that raises blood glucose.

You can prevent low blood glucose by eating regular meals, taking your diabetes medicines, and checking your blood glucose often. Checking will tell you whether your glucose level is going down. You can then take steps, like drinking fruit juice, to raise your blood glucose.

- Tell us if you have low blood glucose often, especially at the same time of the day or night several times in a row.
- Be sure to tell us about other medicines you are taking.
- Some diabetes pills can cause low blood glucose. Ask us whether your pills can cause low blood glucose.

Why Taking Care of Your Diabetes Is Important

Taking care of your diabetes every day will help keep your blood glucose, blood pressure, and cholesterol in your target range and help prevent other health problems that diabetes can cause over the years. You can do a lot to prevent diabetes problems.

- Follow your meal plan every day.
- Take your diabetes medicines every day.
- Be physically active every day.
- Check your blood glucose as recommended.

Diabetes and Your Heart and Blood Vessels

The biggest problem for people with diabetes is heart and blood vessel disease. Heart and blood vessel disease can lead to heart attacks and strokes. It also causes poor blood flow, also called [circulation](#), in the legs and feet.

To check for heart and blood vessel disease, we can suggest some authentic laboratories. At least once a year, have a blood test to see how much cholesterol is in your blood. **“Hammer Home the Glucose”** team. should take your blood pressure at every visit. Your provider may also check the circulation in your legs, feet, and neck.

The best way to prevent heart and blood vessel disease is to take good care of yourself and your diabetes.

- Eat foods that are low in sodium. Check the amount of sodium by looking at the Nutrition Facts on food packages. Limit the amount of salt you use when you cook and at the table. Choose foods naturally low in sodium, such as vegetables, fruits, dry beans and peas, and unprocessed meats, poultry, and fish.
- Limit how much you have of these kinds of fat:
 - saturated fat, such as bacon, butter, cream, lard, and high-fat dairy products such as whole milk
 - trans fat, found in processed foods with partially hydrogenated or hydrogenated oil
 - cholesterol, found in high-fat dairy products, high-fat meats and poultry, egg yolks, and liver
- Keep your blood glucose on track. Know your A1C. The target for most people is below 7%.
- Keep your blood pressure on track. The target for most people is below 140/80MMHg. If needed, take medicine to control your blood pressure.

- Keep your cholesterol level on track. The target for LDL cholesterol for most people is below 100. If needed, take medicine to control your blood fat levels.
- If you smoke, quit.
- Ask us whether you should take an aspirin every day.

What's a desirable blood pressure level?

Blood pressure levels tell how hard your blood is pushing against the walls of your blood vessels. Your pressure is given as two numbers: The first is the pressure as your heart pushes blood out into your blood vessels and the second is the pressure as your heart rests. If your blood pressure is higher than your target, talk to us about changing your meal plan, exercising, or taking medicine.

Blood Pressure Results

Target for most people with diabetes below 140/80MMHg

My last result _____

My target below _____

What are desirable blood fat levels?

Cholesterol, a fat found in the body, appears in several forms. If your LDL cholesterol, also called "bad" cholesterol, is 100 or above, you are at increased risk of heart disease and may need treatment. A high level of total cholesterol also means a greater risk of heart disease. But HDL cholesterol, also called "good" cholesterol, protects you from heart disease, so the higher it is, the better. You should keep your [triglyceride](#)—another type of fat—levels below 150. All of these target numbers are important for preventing heart disease. But the most important target to reach first is for your LDL cholesterol.

Target Blood Fat Levels for People with Diabetes

	My Last Result	My Target
Total cholesterol below 200	_____	below _____
LDL cholesterol below 100	_____	below _____
HDL cholesterol above 40 (men)	_____	above _____
	_____	above _____

Target Blood Fat Levels for People with Diabetes

above 50 (women)

Triglycerides
below 150

below _____

Diabetes and Your Eyes

Have your eyes checked once a year. You could have eye problems that you haven't noticed yet. Yearly examinations may catch eye problems early so problems can be treated. Treating eye problems early can help prevent blindness.

High blood glucose can make the blood vessels in the eyes bleed. This bleeding can lead to blindness. You can help prevent eye damage by keeping your blood glucose and blood pressure as close to normal as possible. If you already have eye problems, your eye doctor may be able to suggest treatments that can help.

The best way to prevent eye disease is to have a yearly eye exam. In this exam, the eye doctor puts drops in your eyes to dilate your pupils. When the pupils are dilated, or big, the doctor can see into the back of the eye. This type of exam is called a dilated eye exam and it doesn't hurt. If you've never had this kind of eye exam before, you should have one now, even if you haven't had any trouble with your eyes. Be sure to tell us that you have diabetes.

Follow these tips to take care of your eyes:

- For adults and adolescents—10 years old and older—with type 1 diabetes: Have your eyes examined within 5 years of being diagnosed with diabetes. Then have an exam every year.
- For people with type 2 diabetes: Have an eye exam every year.
- Have an eye exam before becoming pregnant or as soon as possible after becoming pregnant.
- If you smoke, quit.
- Keep your blood glucose and blood pressure as close to normal as possible.

Tell your eye doctor right away if you have any problems like blurry vision or seeing dark spots, flashing lights, or rings around lights.

Diabetes and Your Kidneys

Your kidneys help clean waste products from your blood. They also work to keep the right balance of sodium and fluid in your body.

Too much glucose in your blood is hard on your kidneys. After a number of years, high blood glucose can cause the kidneys to stop working, a condition called kidney failure. If your kidneys stop working, you'll need [dialysis](#)—a treatment that does some of the work your kidneys used to do or a kidney transplant.

Make sure you have the following tests at least once a year to make sure your kidneys are working well:

- a urine test for protein, called the [microalbumin](#) test
- a blood test for [creatinine](#), a waste product made by your body

Some types of blood pressure medicines can help prevent kidney damage. Ask us whether these medicines could help you. You can also help prevent kidney problems by

- taking your medicine if you have high blood pressure
- asking your doctor or your dietician whether you should eat less high-protein foods, such as meat, poultry, cheese, milk, fish, and eggs
- keeping your blood glucose and blood pressure as close to normal as possible
- quitting smoking

You should see your doctor right away if you get a bladder or kidney infection. Signs of bladder or kidney infections are cloudy or bloody urine, pain or burning when you urinate, and having to urinate often or in a hurry. Back pain, chills, and fever are also signs of kidney infection.

Diabetes and Your Nerves

Over time, high blood glucose can harm the nerves in your body. Nerve damage can cause you to lose the feeling in your feet or to have painful, burning feet. You may not feel pain from injuries or sore spots on your feet. If you have poor circulation because of blood vessel problems in your legs, the sores on your feet can't heal and might become infected. If the infection isn't treated, it could lead to amputation.

Nerve damage can also cause pain in your legs, arms, or hands or cause problems with digesting food, going to the bathroom, or having sex.

Nerve damage can happen slowly. You may not even realize you have nerve problems. We can check the nerves in your feet at least once a year. We can check your sense of feeling and the pulses in your feet.

Tell us about any problems with your feet, legs, hands, or arms. Also, tell us if you have trouble digesting food, going to the bathroom, or having sex, or if you sometimes feel dizzy.

whether you already have nerve damage in your feet. If you do, you should take good care of your feet. To help prevent complications from nerve damage, check your feet every day.

You can prevent nerve problems by

- keeping your blood glucose and blood pressure as close to normal as possible
- limiting the amount of alcohol you drink
- checking your feet every day
- quitting smoking

Foot Care Tips

You can do a lot to prevent problems with your feet. Keep your blood glucose in your target range and follow these tips to take care of your feet and help protect them.

- Check your bare feet every day. Look for cuts, sores, bumps, or red spots. Use a mirror or ask a family member for help if you have trouble seeing the bottoms of your feet.
- Wash your feet in warm not hot water every day, but don't soak them. Use mild soap. Dry your feet with a soft towel, and dry carefully between your toes.
- After washing your feet, cover them with lotion before putting your shoes and socks on. Don't put lotion or cream between your toes.
- File your toenails straight across with an emery board. Don't leave sharp edges that could cut into your toe.
- Don't try to cut calluses or corns off with a razor blade or knife, and don't use wart removers on your feet. If you have warts or painful corns or calluses, see a podiatrist a doctor who treats foot problems.
- Wear thick, soft socks. Don't wear mended socks or socks with holes or seams that might rub against your feet.
- Check your shoes before you put them on to be sure they have no sharp edges or objects in them.
- Wear shoes that fit well and let your toes move. Break new shoes in slowly. Don't wear flip-flops, shoes with pointed toes, or plastic shoes. Never go barefoot.
- Wear socks if your feet get cold at night. Don't use heating pads or hot water bottles on your feet.
- Have your “**Hammer Home the Glucose**” team check your feet at every visit. Take your shoes and socks off when you go into the examining room to remind the doctor to check your feet.

Diabetes and Your Gums and Teeth

Diabetes can lead to infections in your gums and the bones that hold your teeth in place. Like all infections, gum infections can cause blood glucose to rise. Without treatment, teeth may become loose and fall out.

Help prevent damage to your gums and teeth by

- seeing your dentist twice a year
- brushing and flossing your teeth at least twice a day
- quitting smoking
- keeping your blood glucose as close to normal as possible
- having regular checkups with your dentist

Taking Care of Your Diabetes at Special Times

Diabetes is part of your life. You can learn how to take care of yourself and your diabetes when you're sick, when you're at work or school, when you travel, when you're thinking about having a baby or are pregnant, or when there's an emergency or natural disaster.

When You're Sick

Having a cold, the flu, or an infection can raise your blood glucose levels. You can have serious health problems leading to a coma if your blood glucose levels are very high.

Be prepared for illness. Make a plan ahead of time for sick days. Ask us

- how often to check your blood glucose levels
- whether you should check for ketones in your blood or urine
- whether you should change your usual dose of your diabetes medicines
- what to eat and drink
- when to call your health care provider
- Take your insulin, even if you are sick and have been throwing up. Ask us how to adjust your insulin dose based on your blood glucose test results.

“**Hammer Home the Glucose**” team may recommend the following:

- Check your blood glucose level at least four times a day and write down the results in your record book. Keep your results handy so you can report results to your health care team.
- Keep taking your diabetes medicines, even if you're not able to eat.
- Drink at least 1 cup, or 8 ounces, of water or other calorie-free, caffeine-free liquid every hour while you're awake.
- If you can't eat your usual food, try eating or drinking any of the following:
 - juice
 - saltine crackers
 - dry toast
 - soup
 - broth or bouillon
 - popsicles or sherbet
 - regular not sugar-free gelatin
 - milk
 - yogurt
 - regular not sugar-free soda
- Take your diabetes medicines, even if you are sick and have been throwing up.

Your health care provider may say you should call right away if

- your blood glucose levels are above 240 even though you've taken your diabetes medicines

- your urine or blood ketone levels are above normal
- you vomit more than once
- you have diarrhea for more than 6 hours
- you have trouble breathing
- you have a high fever
- you can't think clearly or you feel sleepier than usual

You should call your health care provider if you have questions about taking care of yourself.

When You're at School or Work

Take care of your diabetes when you're at school or at work:

- Follow your meal plan.
- Take your medicines and check your blood glucose as usual.
- Tell your teachers, friends, or close co-workers about the signs of low blood glucose. You may need their help if your blood glucose drops too low.
- Keep snacks nearby and carry some with you at all times to treat low blood glucose.
- Tell your company nurse or school nurse that you have diabetes.

When You're Away From Home

These tips can help you take care of yourself when you're away from home:

- Follow your meal plan as much as possible when you eat out. Always carry a snack with you in case you have to wait to be served.
 - Limit your drinking of beer, wine, or other alcoholic beverages. Ask your diabetes us how much alcohol you can safely drink. Eat something when you drink to prevent low blood glucose.
 - If you're taking a long trip by car, check your blood glucose before driving. Stop and check your blood glucose every 2 hours. Always carry snacks like fruit, crackers, juice, or soft drinks in the car in case your blood glucose drops too low.
 - Bring food for meals and snacks with you if you're travelling by plane.
 - Carry your diabetes medicines and your blood testing supplies with you. Never put them in your checked baggage.
 - Ask your health care team how to adjust your medicines, especially your insulin, if you're travelling across time zones.
 - Take comfortable, well-fitting shoes on vacation. You'll probably be walking more than usual, so you should take good care of your feet.
- take a special insulated bag to carry your insulin to keep it from freezing or getting too hot

- bring extra supplies for taking insulin and testing your blood glucose in case of loss or breakage
- ask your doctor for a letter saying that you have diabetes and need to carry supplies for taking insulin and testing blood glucose

When There's an Emergency or Natural Disaster

Everyone with diabetes should be prepared for emergencies and natural disasters, such as power outages or hurricanes. Always have your disaster kit ready. Include everything you need to take care of your diabetes, such as

- a blood glucose meter, lancets, and testing strips
- your diabetes medicines
- a list of your prescription numbers
- if you take insulin—some insulin, syringes, and an insulated bag to keep insulin cool
- if you take insulin or if recommended by your doctor—a glucagon kit
- glucose tablets and other foods or drinks to treat low blood glucose
- antibiotic cream or ointment
- a copy of your medical information, including a list of your conditions, medicines, and recent lab test results
- phone numbers of “**Hammer Home the Glucose**” team .

You also might want to include some nonperishable food, such as canned or dried food, along with bottled water.

Check and update your kit at least twice a year.

When You're Planning a Pregnancy

Keeping your blood glucose near normal before and during pregnancy helps protect both you and your baby. Even before you become pregnant, your blood glucose should be close to the normal range.

Your health care team can work with you to get your blood glucose under control before you try to get pregnant. If you're already pregnant, see your doctor right away. It's not too late to bring your blood glucose close to normal so that you'll stay healthy during the rest of your pregnancy.

Your insulin needs may change when you're pregnant. Your doctor may want you to take more insulin and check your blood glucose more often. If you take diabetes pills, you'll take insulin instead when you're pregnant.

- work with us to get your blood glucose as close to the normal range as possible before you get pregnant.
- see a doctor who has experience in taking care of pregnant women with diabetes
- don't smoke, drink alcohol, or use harmful drugs

- follow the meal plan we will give you to make sure you and your unborn baby have a healthy diet

Be sure to have your eyes, heart and blood vessels, blood pressure, and kidneys checked. Your doctor should also check for nerve damage. Pregnancy can make some health problems worse.

Where to Get More Help with Your Diabetes

People Who Can Help You

- Your doctor. You may see your regular doctor for diabetes care or someone who has special training in caring for people with diabetes. A doctor with special training in diabetes is called an [endocrinologist](#) or [diabetologist](#).
You'll talk with your doctor about what kind of medicines you need and how much you should take. You'll also agree on a target blood glucose range and blood pressure and cholesterol targets. We will do tests to be sure your blood glucose, blood pressure, and cholesterol are staying on track and you're staying healthy. Ask your doctor if you should take aspirin every day to help prevent heart disease.
- Your family and friends. Taking care of your diabetes is a daily job. You may need help or support from your family or friends. You may want to bring a family member or close friend with you when you visit your doctor or “**Hammer Home the Glucose**” team . Taking good care of your diabetes can be a family affair!
- A counselor or mental health worker. You might feel sad about having diabetes or get tired of taking care of yourself. Or you might be having problems because of work, school, or family. If diabetes makes you feel sad or angry, or if you have other problems that worry you, you can talk with a counselor or mental health worker. Your doctor or diabetes educator can help you find a counselor.

What is diabetes?

Diabetes is a serious disease. It means your blood glucose (often called blood sugar) is too high. Your blood always has some glucose in it because your body needs it for energy, but too much glucose in your blood is not good for your health.

What does it mean to manage my diabetes?

It means that you can take steps to stay healthy and keep your ABCs (A1C (Average blood glucose), blood pressure, and cholesterol) close to normal. To manage diabetes you need to:

- make healthy food choices
- get 30 to 60 minutes of physical activity on most days of the week
- stay at a healthy weight
- take any medicines your doctor prescribes
- check your blood glucose as advised by your health care team

Other self-care actions:

- Stop smoking. Ask for help to quit or call 1-800-QUITNOW (1-800-784-8669).
- Ask for help if you feel down or have trouble handling stress. A mental health counselor, support group, member of the clergy, friend, or family member who will listen to your concerns may help you feel better.
- Check your feet every day for cuts, blisters, red spots, and swelling. Call your health care team right away about any sores that do not go away.
- Brush your teeth and floss every day to avoid problems with your mouth, teeth, or gums.
- Report any changes in your eyesight to your doctor.
- Get regular check of your eyes, kidneys, and nerves.

If you manage your diabetes you may have more energy. Taking good care of yourself can also lower your chances of having [heart](#), [eye](#), [kidney](#), and [nerve](#) problems.

Make a self-care plan and review it with your health care team.

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Why should I manage my diabetes?

You are likely to feel better when your blood glucose is within your target range. Taking good care of your diabetes can also lower your chances of having heart, eye, kidney, and nerve problems.

What diabetes numbers do I need to know?

You need to know your A1C (Average blood glucose), blood pressure, and cholesterol numbers (also called the ABCs). It is important that they stay within your target range to lower your risk for a heart attack or stroke.

Ask your health care team what your ABC numbers and targets are. Keep track of your ABC numbers.

What are the ABCs of diabetes?

A is for A1C.

The A1C goal for many people with diabetes is below 7%. The A1C test is a simple blood test that reflects your average blood glucose over the past 3 months. You should have this test at least twice a year.

People who often have low blood glucose or people who have had a heart attack or are at high risk for a heart attack may need a higher A1C goal.

B is for blood pressure.

The blood pressure goal for most people with diabetes should be below 140/80 unless your doctor helps you set a different goal.

High blood pressure makes your heart work too hard. It can cause a heart attack, stroke, or kidney disease. You may need to check your blood pressure at home.

C is for cholesterol.

Ask what your cholesterol numbers should be.

Bad cholesterol, or LDL, can build up and clog your blood vessels. It can cause a heart attack or stroke.

Should I check my blood glucose at home?

Checking your blood glucose will help you make sure it does not get too high or too low. It will help you and your doctor adjust your treatment plan for your needs. Ask your doctor if you need to check your blood glucose.

How do I check my blood glucose?

You use a [blood glucose meter](#) (also called a monitor) and a lancing device (a tool to get a drop of blood) to check your blood glucose. The meter will read how much glucose is in your blood and give you a number. There are many types of meters. Some are made for people who have trouble seeing. Ask a member of your health care team to show you the right way to use your meter. Your team will help you decide when and how often to check your blood glucose.

Be sure your health care team teaches you how to use your blood glucose meter. Ask how and when to test your blood glucose and how to use the results to manage your diabetes.

What should my blood glucose levels be?

Set your blood glucose targets with your health care team. The target range for most people is:

- Before meals: 70 to 130
- 1 to 2 hours after meals: below 180

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What should I do with the results when I check my blood glucose levels?

Write down all your blood glucose numbers in a log book. Make a note of things on the list below that seem to raise or lower your blood glucose. If your numbers are outside your target range your team may suggest changes to your meal plan, activity level, or medicines.

Call your health care team if your blood glucose numbers are outside your target range for 2 to 3 days. Show your log to your health care team at every visit.

What can raise or lower my blood glucose levels?

Your blood glucose may get too high if you:

- Eat more than usual
- Eat foods high in sugar
- Exercise less than usual
- Have a lot of stress

Have an infection or other illness

- Take certain medicines
- Do not take enough insulin or other diabetes medication

Your blood glucose may get too low if you:

- Eat less than usual
- Delay or skip a meal
- Exercise more than usual

- Take too much insulin or other diabetes medication

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Medicare for People with Diabetes

What is Medicare?

[Medicare](#) is health insurance for people age 65 or older, under age 65 with certain disabilities, and any age with end-stage renal disease (permanent kidney failure requiring dialysis or a kidney transplant). People with diabetes who are eligible for Medicare can get the most from their Medicare benefits by learning about the types of services that are available. People with diabetes are encouraged to ask their health care team about the benefits they qualify for and should visit the [Medicare website](#) to get specific details.

What Benefits Does Medicare Offer for People with Diabetes?

People with diabetes enrolled in Medicare may be covered for all or part of the cost for:

- A “Welcome to Medicare” physical exam when they enroll
- A1C testing
- Cholesterol testing
- Diabetes self-management training to learn how to manage diabetes
- Medical nutrition therapy: nutrition assessments, diet management information, and nutrition counseling
- Diabetes equipment and supplies for self-monitoring of blood glucose, including special equipment for persons with low vision
- Foot exams by podiatrist or foot care specialist if medically necessary
- Therapeutic shoes and inserts if medically necessary
- A dilated eye exam and glaucoma screening
- Flu and pneumonia shots
- Diabetes medications
- Insulin pumps
- Kidney function tests
- Counseling to stop smoking

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What Benefits Does Medicare Offer for People At Risk for Diabetes?

People enrolled in Medicare who are at risk for type 2 diabetes may be covered for all or part of the cost for:

- A “Welcome to Medicare” physical exam when they enroll
- Yearly diabetes screening for people who are at risk for diabetes and twice yearly screening for people diagnosed with prediabetes. People are considered at risk if they have any of the following: high blood pressure, history of abnormal cholesterol and triglyceride levels, obesity, or a history of high blood glucose.
- Cholesterol screening – every five years

Points to Keep in Mind:

- **Make a self-care plan and review it with your health care team.**
- **Learn your ABCs: A1C (Average blood glucose), blood pressure, and cholesterol. Keep track of your numbers.**
- **Ask your health care team if you need to check your own blood glucose levels. If so, learn the right way to use your blood glucose meter. Keep track of your numbers in a log. Discuss your results at each diabetes care visit.**
- **Ask your health care team about the Medicare benefits you qualify for. Contact Medicare for more details.**

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Here are some questions to ask your health care team:

- What are my A1C, blood pressure, and cholesterol numbers? What are my targets?
- Should I check my blood glucose? If so, when, and how often?
- What is the correct way to use my meter?
- What is my blood glucose target range?
- What should I do if my readings are too high or too low?
- Do I qualify for any Medicare benefits such as diabetes self-management training or medical nutrition therapy services?
- Are there classes to help me learn more about how to manage my diabetes?
- [How should I take care of my feet?](#)

- Doctor's name and phone number

HAMMER HOME THE GLUCOSE

November 2011 – With almost 350 million people worldwide now suffering from diabetes, and the number expected to keep rising, the United Nations today called on governments and drug companies to ensure that sufferers have the care and treatment they deserve.

[Secretary-General Ban Ki-moon](#) used his [message](#) for [World Diabetes Day](#), which is observed on 14 November each year, to raise awareness about the needs of people living with diabetes, which is becoming particularly prevalent in developing countries.

“Too often, the disease hits the poorest especially hard, leading to heart attacks, strokes, blindness, limb amputations, kidney failure and premature death,” Mr. Ban said.

“I call on governments and pharmaceutical companies to give real meaning to our commemorations by developing joint strategies to make essential medicines more available and affordable in developing countries, especially for the poorest people who need them.”

An estimated 346 million people have diabetes worldwide, with 277 million living in developing countries. The UN World Health Organization ([WHO](#)) has projected that the number of deaths from diabetes will double between 2005 and 2030.

A chronic disease that occurs when the pancreas either does not produce enough insulin or the body cannot effectively use the insulin it produces, diabetes can lead over time to serious damage to the body, particularly the nerves and blood vessels.

In his message Mr. Ban noted that in September the General Assembly held its first-ever high-level meeting on the subject of non-communicable diseases, producing a political declaration that included a pledge to make it possible for more people to get quality medicines for diabetes by 2013.

The declaration also called for partnerships between governments and pharmaceutical companies to ensure access to affordable drugs in poorer countries.

“We have seen meaningful progress in this direction. One company has introduced a differential pricing scheme to supply generic insulin to the least developed countries (LDCs), benefiting three dozen States to date. But this facility cannot respond alone. We must bring in other partners. And we must address inefficient distribution systems, and the lack of sufficient public funding for medicines.”

News Tracker: past stories on this issue

[UN gathering on non-communicable diseases considers ways to combat scourge](#)