Preventing Diabetes

• Understanding Diabetes • Knowing Your Risks • Lowering Your Risk Of Diabetes • 50 Ways To Prevent Diabetes • Diet & Exercise •

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What Is Diabetes?

Diabetes is a disease in which blood glucose levels are above normal. People with diabetes have problems converting food to energy. After a meal, food is broken down into a sugar called glucose, which is carried by the blood to cells throughout the body. Cells use the hormone insulin, made in the pancreas, to help them process blood glucose into energy.

Types Of Diabetes

The three main kinds of diabetes are type 1, type 2, and gestational diabetes.

Type 1 Diabetes. Type 1 diabetes, formerly called juvenile diabetes or insulin dependent diabetes, is usually first diagnosed in children, teenagers, or young adults. In 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 shots or using an insulin pump, making wise food choices, exercising regularly, taking aspirin daily (for some), and controlling blood pressure and cholesterol.

Type 2 Diabetes. Type 2 diabetes, formerly called adult-onset or non-insulin 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 taking diabetes medicines, making wise food choices, exercising regularly, taking aspirin daily, and controlling blood pressure and cholesterol.
Gestational Diabetes. 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.

What Are The Signs And Symptoms Of Type 2 Diabetes?

Many people have no signs or symptoms. Symptoms can also be so mild that you might not even notice them. More than five million people in the United States have type 2 diabetes and do not know it. Here is what to look for:

✔ increased thirst
✔ increased hunger
✔ fatigue
✔ increased urination, especially at night
✔ weight loss
✔ blurred vision
✔ sores that do not heal

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Am I At Risk For Type 2 Diabetes?

Sometimes people have symptoms but do not suspect diabetes. They delay scheduling a checkup because they do not feel sick. Many people do not find out they have the disease until they have diabetes complications, such as blurry vision or heart trouble. It is important to find out early if you have diabetes because treatment can prevent damage to the body from diabetes.

Should I Be Tested For Diabetes? Anyone 45 years old or older should consider getting tested for diabetes. If you are 45 or older and overweight, it is strongly recommended that you get tested. If you are younger than 45, overweight, and have one or more of the risk factors, you should consider testing. Ask your doctor for a fasting blood glucose test or an oral glucose tolerance test. Your doctor will tell you if you have normal blood glucose, pre-diabetes, or diabetes.

What Does It Mean To Have Pre-Diabetes? It means you are at risk for getting type 2 diabetes and heart disease. The good news is if you have pre-diabetes you can reduce the risk of getting diabetes and even return to normal blood glucose levels. With modest weight loss and moderate physical activity, you can delay or prevent type 2 diabetes. If your blood glucose is higher than normal but lower than the diabetes range (what we now call pre-diabetes), have your blood glucose checked in 1 to 2 years.
Body Mass Index

Body Mass Index (BMI), is one of the best measures of our true weight status. Put simply, BMI is a common measure expressing the relationship of weight-to-height, and is an easy calculation using inches and pounds.

When calculated, your BMI will help you determine your true weight status as either underweight, normal, overweight, or obese. These BMI ranges are based on the effect of weight status on disease and death. Generally, as a person's BMI increases, so does their risk for a number of health conditions and diseases.

These include the risk of premature death, heart disease, high blood pressure, osteoarthritis, cancer, and diabetes.

Calculating Your BMI

The BMI Chart found below (Chart 2) makes determining your BMI easy. Simply find your height and weight and circle the number where the two lines intersect. This is your BMI. Once you have determined your BMI, you can use this number to determine weight status (using Chart 1—underweight, normal, overweight, or obese). BMI values for adults are interpreted using a fixed number, regardless of age or sex, using the following guidelines:

<table>
<thead>
<tr>
<th>BMI</th>
<th>Weight Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5 – 24.9</td>
<td>Normal</td>
</tr>
<tr>
<td>25.0 – 29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30.0 and above</td>
<td>Obese</td>
</tr>
</tbody>
</table>

**Body Mass Index Table**

<table>
<thead>
<tr>
<th>Height (inches)</th>
<th>Body Weight (pounds)</th>
</tr>
</thead>
<tbody>
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<td>91 96 100 105 110 115</td>
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<td>59</td>
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<td>152 160 168 176 184 192</td>
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<td>76</td>
<td>156 164 172 180 189 197</td>
</tr>
</tbody>
</table>

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**Source:** Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.
Lowering Your Risk Of Diabetes

Check Your Risk
To assess your general risk for type 2 diabetes, check each item that applies to you.

☐ I have a parent, brother, or sister with diabetes.
☐ My family background is African American, American Indian, Asian American, Pacific Islander, or Hispanic American/Latino.
☐ I’m overweight.
☐ My blood pressure is 140/90 or higher, or I have been told that I have high blood pressure.
☐ My cholesterol levels are not normal. My HDL cholesterol (“good” cholesterol) is 40 or lower, or my triglyceride level is 240 or higher.
☐ I am fairly inactive. I exercise fewer than three times a week.

How Do I Reduce My Risk?
Believe it or not, you can do a lot to lower your chances of getting type 2 diabetes. Exercising regularly, reducing fat and calorie intake, and losing weight can all help you reduce your risk of developing type 2 diabetes. Lowering blood pressure and cholesterol levels also help you stay healthy.

1. If you checked I am overweight, then take these steps:
   ✔ Reach and maintain a reasonable body weight.
   ✔ Make wise food choices most of the time.
   ✔ Be physically active every day. (Be sure to check with your healthcare provider before starting an exercise program.)

2. If you checked I am fairly inactive, then take these steps:
   ✔ Be physically active every day.

3. If you checked my blood pressure is 140/90 or higher, then take these steps:
   ✔ Reach and maintain a reasonable body weight.
   ✔ Make wise food choices most of the time.
   ✔ Reduce your intake of salt and alcohol.
   ✔ Be physically active everyday.
   ✔ Talk to your doctor about whether you need medicine to control your blood pressure.
4. If you checked my cholesterol levels are not normal, then take these steps:

- Make wise food choices most of the time.
- Be physically active every day.
- Talk to your doctor about whether you need medicine to control your cholesterol levels.

**Doing Your Part**

Although you can't change some things like your family history and your ethnicity, you can change some personal health habits. Making these changes in your life can be hard, especially if you are faced with more than one change. You can make it easier by taking these steps:

- Make a plan to change behavior.
- Decide exactly what you will do and when you will do it.
- Plan what you need to get ready.
- Think about what might prevent you from reaching your goals.
- Find family and friends who will support and encourage you.
- Decide how you will reward yourself when you do what you have planned.

Your doctor, a dietitian, or a counselor can help you develop a plan. In the next section we have highlighted some of the areas you may wish to change to reduce your risk of diabetes.

**Reach & Maintain A Reasonable Body Weight**

Your weight affects your health in many ways. Being overweight can keep your body from making and using insulin properly. It can also cause high blood pressure. Research has shown that losing even a few pounds can help reduce your risk of developing type 2 diabetes because it helps your body use insulin more effectively. Moreover, people who lost between 5 and 7 percent of their body weight significantly reduced their risk of type 2 diabetes. For example, if you weigh 200 pounds, losing only 10 pounds could make a difference.

Body mass index (BMI) is a measure of body weight relative to height. You can use BMI to see whether you are underweight, normal weight, overweight, or obese. Use the BMI tables found in this publication to assess your BMI.

- Find your height in the left-hand column.
- Move across in the same row to the number closest to your weight.
- The number at the top of that column is your BMI. Check the word above your BMI to see whether you are normal weight, overweight, or obese.

If you are overweight or obese, choose sensible ways to get in shape:

- **Avoid crash diets.** Instead, eat less of the foods you usually have. Limit the amount of fat you eat.
- **Increase your physical activity.** Aim for at least 30 minutes of exercise most days of the week.
- **Set a reasonable weight-loss goal, such as losing 1 pound a week.** Aim for a long-term goal of losing 5 to 7 percent of your total body weight.
Lowering Your Risk Of Diabetes

Make Wise Food Choices
What you eat has a big impact on your health. By making wise food choices, you can help control your body weight, blood pressure, and cholesterol.

✔ Take a hard look at the serving sizes of the foods you eat.
✔ Reduce serving sizes of main courses (such as meat), desserts, and foods high in fat. Increase the amount of fruits and vegetables.
✔ Limit your fat intake to about 25 percent of your total calories. For example, if your food choices add up to about 2,000 calories a day, try to eat no more than 56 grams of fat. Your doctor or a dietitian can help you figure out how much fat to have. You can check food labels for fat content too.
✔ You may also wish to reduce the number of calories you have each day. Research indicates that people can lower their daily calorie total by an average of about 450 calories. Your doctor or dietitian can help you with a meal plan that emphasizes weight loss.

✔ Keep a food and exercise log. Write down what you eat, how much you exercise—anything that helps keep you on track.
✔ When you meet your goal, reward yourself with a nonfood item or activity, like watching a movie.

Be Physically Active Every Day
Regular exercise tackles several risk factors at once. It helps you lose weight, keeps your cholesterol and blood pressure under control, and helps your body use insulin. Research indicates that people who are physically active for 30 minutes a day 5 days a week reduced their risk of type 2 diabetes. Many chose brisk walking for exercise.

If you are not very active, you should start slowly, talking with your doctor first about what kinds of exercise would be safe for you.

Make a plan to increase your activity level toward the goal of being active at least 30 minutes a day most days of the week.

Choose activities you enjoy. Here are some ways to work extra activity into your daily routine:

✔ Take the stairs rather than an elevator or escalator.
✔ Park at the far end of the lot and walk.
✔ Get off the bus a few stops early and walk the rest of the way.
✔ Walk or bicycle instead of drive whenever you can.
Take Your Prescribed Medications

Some people need medication to help control their blood pressure or cholesterol levels. If you do, take your medicines as directed.

✓ Ask your doctor whether there are any medicines you can take to prevent type 2 diabetes.

Hope Through Research

We now know that many people can prevent type 2 diabetes through weight loss, regular exercise, and lowering their intake of fat and calories. Researchers are intensively studying the genetic and environmental factors that underlie the susceptibility to obesity, pre-diabetes, and diabetes. As they learn more about the molecular events that lead to diabetes, they will develop ways to prevent and cure the different stages of this disease. People with diabetes and those at risk for it now have easier access to clinical trials that test promising new approaches to treatment and prevention.

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50 Great Ideas To Prevent Diabetes

Take the first step today. If you’re overweight, you may be at high risk for developing type 2 diabetes. Talk to your health care provider today.

1. Put less on your plate.
2. Keep meat, poultry and fish servings to about 3 ounces (about the size of a deck of cards).
3. Make less food look like more by serving your meal on a salad or breakfast plate.
4. Try not to snack while cooking or cleaning the kitchen.
5. Try to eat sensible meals and snacks at regular times throughout the day.
6. Make sure you eat breakfast every day.
7. Use broth and cured meats (smoked turkey and turkey bacon) in small amounts. They are high in sodium. Low sodium broths are available in cans and powder.
8. Share your desserts.
9. When eating out, have a big vegetable salad, then split an entrée with a friend or have the other half wrapped to go.
10. Stir fry, broil or bake with non-stick spray or low sodium broth and try to cook with less oil and butter.
11. Drink a glass of water or other “no-calorie” beverage 10 minutes before your meal to take the edge off your appetite.
12 | Select the healthier choice at fast food restaurants. Try grilled chicken instead of the cheeseburger. Skip the French fries or replace the fries with a salad.

13 | Listen to music while you eat instead of watching TV (people tend to eat more while watching TV).

14 | It takes 20 minutes for your stomach to send a signal to your brain that you’re full. Eat slowly.

15 | Eat smaller meals.

16 | Teaspoons, salad forks, or child-size utensils may help you take smaller bites and eat less.

17 | You don’t have to cut out the foods you love to eat. Just cut down on your portion size and eat it less often.

18 | Dance it away.

19 | Show your kids the dances you used to do when you were their age.

20 | Turn up the music and jam while doing household chores.

21 | Deliver a message in person to a co-worker instead of e-mailing.

22 | Take the stairs to your office. Or take the stairs as far as you feel comfortable, and then take the elevator.

23 | Make a few less phone calls. Catch up with friends during a regularly scheduled walk.

24 | March in place while you watch TV.

25 | Park as far away as possible from your favorite store at the mall.

26 | Select an exercise video from the store or library.

27 | Get off the bus one stop earlier and walk the rest of the way home or to work at least two days a week.

28 | Snack on fruits and veggies.

29 | Try getting at least one new fruit or vegetable every time you grocery shop.

Continued on the following page...
50 Ways To Prevent Diabetes

30 | Macaroni and low-fat cheese can be a main dish. Serve it with your favorite vegetable dish and a salad.

31 | Try eating foods from other countries. Many international dishes feature more vegetables, whole grains and beans and less meat.

32 | Cook with a variety of spices instead of salt.

33 | Find a water bottle you really like (church or club event souvenir, favorite sports team, etc.) and drink water from it wherever and whenever you can.

34 | Always keep a healthy snack with you.

35 | Choose veggie toppings like spinach, broccoli and peppers for your pizza.

36 | Try different recipes for baking or broiling meat, chicken, and fish.

37 | Try to choose foods with little or no added sugar.

38 | Gradually work your way down from whole milk to 2% milk to 1% milk until you’re drinking and cooking with fat free (skim) milk.

39 | Try keeping a written record of what you eat for a week. It can help you see when you tend to overeat or eat foods high in fat or calories.
40 | Eat foods made from a variety of whole grains such as whole wheat bread, brown rice, oats, and whole grain corn—every day. Use whole grain bread for toast and sandwiches; substitute brown rice for white rice for home-cooked meals and when dining out.

41 | Don't grocery shop on an empty stomach and make a list before you go.

42 | Read food labels. Choose foods with lower fat, saturated fat, calories, and salt.

43 | Fruits are colorful and make a welcoming centerpiece for any table. Have a nice chat while sharing a bowl of fruit with family and friends.

44 | Slow down at snack time. Eating a bag of low-fat popcorn takes longer than eating a slice of cake. Peel and eat an orange instead of drinking orange juice.

45 | Don't try to change your entire way of eating and exercising all at once. Try one new activity or food a week.

46 | Manage your stress.

47 | Find mellow ways to relax—try deep breathing, take an easy paced walk, or enjoy your favorite easy listening music.

48 | Give yourself daily “pampering time” and honor this time like any other appointment you make... whether it’s spending time reading a book, taking a long bath, or meditating.

49 | Try not to eat out of boredom or frustration. If you’re not hungry, do something else.

50 | Honor your health as your most precious gift.

“Live long and live well.”
Portion Your Platter

You don’t have to stop eating all your favorite foods in order to eat healthy. In fact, you can still enjoy ice cream or occasional fast food, as long as you control your portions and are physically active on most days of the week. Remember, like most things in life, the key to eating healthy is moderation.

So how much is too much? Well, serving sizes are designed to help you determine how much to eat at meals so you won’t over-indulge on some of your favorites. Check out the suggestions listed here to help you judge if you’re eating the right serving sizes. With the help of some visual aids, eating the right amounts won’t be such a challenge.

How Much Is That?
The following comparisons will help you estimate the right amount of food to eat in one sitting.

✓ Three ounces of meat is about the size of a single deck of cards
✓ One serving of meat, fish, or poultry is about the size of a computer mouse
✓ One-half cup of cut fruit or vegetables, pasta, or rice is about the size of a small fist
✓ One cup of milk, yogurt, or chopped fresh greens is about the size of a tennis ball
✓ One ounce of snack food (e.g., pretzels, chips) is about one large handful
✓ Three ounces of grilled fish is about the size of your checkbook
✓ One ounce of cheese is about the size of four dice
✓ Two tablespoons of peanut butter is about the size of a ping pong ball
✓ An average-sized bagel is about the size of a hockey puck (about half the size of the gigantic bagels we’re used to!)

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Start A Walking Program

Walking does wonders in helping to reduce the harmful effects of diabetes.

But you have to leave time in your busy schedule to follow a walking program that will work for you. In planning your walking program, keep the following points in mind:

✓ **Choose a safe place to walk.** Find a partner or group of people to walk with you. Your walking partner(s) should be able to walk with you on the same schedule and at the same speed.

✓ **Wear shoes with thick flexible soles** that will cushion your feet and absorb shock.

✓ **Wear clothes that will keep you dry** and comfortable. Look for synthetic fabrics that absorb sweat and remove it from your skin.

✓ **For extra warmth in winter, wear a knit cap.** To stay cool in summer, wear a baseball cap or visor.

✓ **Do light stretching** before and after you walk.

✓ **Think of your walk in three parts.** Walk slowly for 5 minutes. Increase your speed for the next 5 minutes. Finally, to cool down, walk slowly again for 5 minutes.

✓ **Try to walk at least three times per week.** Add 2 to 3 minutes per week to the fast walk. If you walk less than three times per week, increase the fast walk more slowly.

✓ **To avoid stiff or sore muscles or joints, start gradually.** Over several weeks, begin walking faster, going further, and walking for longer periods of time.

The more you walk, the better you will feel. You also will use more calories.

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**Is It OK For Me To Walk?**

Answer the following questions before you begin a walking program.

- Has your health care provider ever told you that you have heart trouble?
- When you are physically active, do you have pains in your chest or on your left side (neck, shoulder, or arm)?
- Do you often feel faint or have dizzy spells?
- Do you feel extremely breathless after you have been physically active?
- Has your health care provider told you that you have high blood pressure?
- Has your health care provider told you that you have bone or joint problems, like arthritis, that could get worse if you are physically active?
- Are you over 50 years old and not used to a lot of physical activity?
- Do you have a health problem or physical reason not mentioned here that might keep you from starting a walking program?

If you answered yes to any of these questions, please check with your health care provider before starting a walking program or other form of physical activity.

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