LIVING WITH PREDIABETES AND DIABETES

RESOURCE AND REFERRAL GUIDE TO MANAGING DISEASE

Will County
MAPP
COLLABORATIVE

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More than a Disease

Diabetes is not only a disease in itself, it can lead to other serious conditions that can shorten life or dramatically impact your life. The American Diabetes Association reports that 30.3 million people in the United States have diabetes. 48% of all adults 65 and over have diabetes.

An estimated 33.9% of adults have prediabetes, based on their fasting glucose or A1C. In Illinois over 1.3 million adults have diabetes and it is estimated that over 3.5 million adults are individuals living with prediabetes. The cost in Illinois is over $12 billion each year due to health care costs and reduced productivity. Every year, approximately 66,000 people in Illinois are diagnosed as individuals with diabetes.

You are not alone and there are people who can help.

What is Diabetes?

Diabetes is a disease in which the body does not make or properly use insulin. Insulin helps the body use energy from food you eat. Diabetes cannot be cured but it can be treated and controlled. Diabetes is the 7th leading cause of death in the United States and Illinois. Each year, approximately 1.5 million new cases of diabetes are diagnosed in Illinois, according to IDPH 2019.

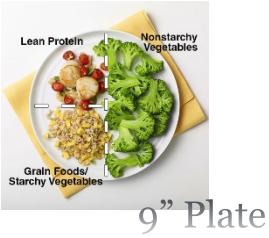
What are the Complications of Uncontrolled Diabetes?

Complications resulting from uncontrolled diabetes include; eye, foot and skin complications, heart disease, kidney disease, nerve damage, dental problems, and depression. Complications like these can often be prevented or delayed through proper diabetes management and healthy lifestyle changes.

What are the best ways to control diabetes and lead a healthy life?

Maintain a healthy weight
Lose 7% of your body weight

Exercise 30 minutes
6 days a week



Eat a Balanced Diet

RISKY BUSINESS

How Many Boxes Can You Check to Decide Your Risk?

- ☐ 1) Are you overweight or obese? (Body Mass Index over 25)
- ☐ 2) Do you have a family history of diabetes ?
- ☐ 3) Are you over age 60?
- ☐ 4) Are you Latino, African American, Asian American, Native American, Hawaiian or other Pacific Islanders origin?
- ☐ 5) Did you have a baby that weighed over 9 lbs at birth?
- ☐ 6) Do you live a sedentary/inactive lifestyle?
- ☐ 7) Do you have high blood pressure?
- ☐ 8) Do you have high blood cholesterol levels?

What are the Types of Diabetes?

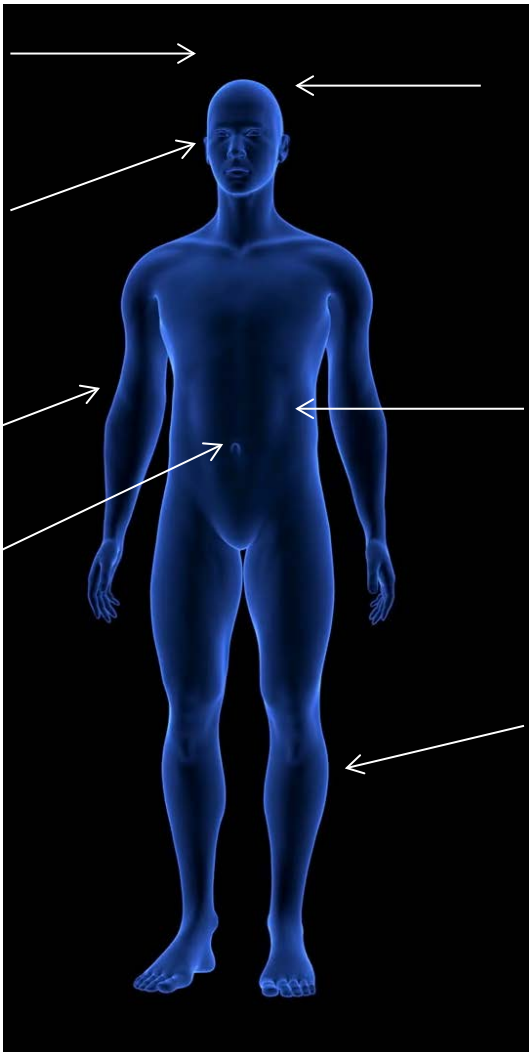
Type 1 Diabetes: the body no longer makes insulin. (5-10% of cases)

Type 2 Diabetes: the body's cells do not use insulin properly. Sometimes this is called "Insulin Resistance" (90-95% of cases). It is a progressive disease and insulin may be necessary.

Gestational Diabetes: A form of diabetes first diagnosed during pregnancy. Usually goes away after pregnancy ends. Increased risk for developing Type 2 in future.

PreDiabetes: a condition that occurs when a person's blood glucose (blood sugar) levels are higher than normal, but not high enough for a diagnosis of Type 2 diabetes. Lifestyle changes may prevent progression to a diabetes diagnosis.

Symptoms you might experience if you are living with diabetes:



SOME OR NONE OF THESE SYMPTOMS MAY BE PRESENT.

Have diabetes and Don't know it.

American Diabetes Association

Getting Tested?

Talk with your health care provider. It is important that you find a medical home/primary care provider if you do not have one. You should also look for someone who has an interest and specialized training in treating patients with diabetes.

A fasting* blood glucose (blood sugar) test or Oral Glucose Tolerance Test (blood glucose is measured after a fast and then 2 hours after drinking a high glucose beverage) may be used to test for pre-diabetes or diabetes.

The blood glucose test measures the amount of glucose (sugar) in the blood at one point in time. A hemoglobin (A1C) test indicates the blood glucose (sugar) level over time and is frequently used to indicate how well the diabetes is being controlled.

Test Results: What do they mean?

Pre-Diabetes: a fasting* blood glucose level of 100-125 mg/dl or a two-hour blood glucose level between 140 and 199 mg/dl., or a Hemoglobin A1C (A1C) of 5.7% -- 6.4%.

Diabetes: a fasting blood glucose level of 126mg/dl or higher or a two-hour blood glucose level at 200 mg/dl or higher during a 2 hour glucose tolerance test, or a Hemoglobin A1C (A1C) higher than 6.5%.

*Fasting is defined as no food or beverages for at least 8 hours.

SOURCE: American Diabetes Association Standards of Medical Care 42 (Supplemental1): S13-S28,2019

Managing Diabetes

If you have been diagnosed with diabetes, here are some questions to ask your health care provider as well as some steps to help you in managing your diabetes.

When you see your health care provider, ask these questions at each visit:

- How is my hemoglobin A1C?
- What is my target A1C number?
- When do I need to test again? Every 3 to 6 months
- Are there any other screenings I may need?

- How is my Blood Pressure?
- What is my target blood pressure number? 140/90

- How is my Cholesterol?
- What is my target cholesterol number? <100

- Do I need an eye exam?
- Will you check my feet today?

- Where can I attend diabetes education classes?
- Are there support groups available for persons living with diabetes?

Discuss these tests with your health care provider:

Hemoglobin A1C (at least twice a year, and sometimes more often.)
Blood pressure (every visit with your healthcare provider)
Blood Cholesterol (once a year)
Micro albumin to test kidneys (once a year)
Dilated Eye Exam (once a year)
Foot Exam (once a year)
Dental Exam (twice a year)

Make sure to practice routine self-care:

Create an action plan to stay healthy.
Check your blood glucose (blood sugar).
Engage in regular physical activity.
Follow a healthy meal plan.
Take care of your heart.
Take your medications as prescribed.
Take care of your feet.
Take care of your teeth.
Develop techniques to manage stress.
Reduce your risk for other health problems.

Who is on your health care team?

Physicians-Diabetes Specialists (Endocrinology)
Endocrinology deals with the hormone-secreting glands (ex: thyroid, pituitary, adrenal, pancreas, ovaries, testes, etc.) and also deals with diabetes.

Podiatrists/ Foot Care
Diabetes can affect the blood circulation to your legs and feet. If you have diabetes, it is recommended that you get an annual foot exam by a podiatrist.

Eye Health and Vision Resources
Eye disease is a common complication from diabetes. You should receive an annual dilated eye exam from an ophthalmologist. Ophthalmologists are physicians who deal with structure, functions, and disease of the eye. There are also many local optometrists that you could see. Below is a list of various ophthalmologists in southern Illinois. You may also want to check your local yellow pages.

Certified Diabetes Educators/Registered Dietitians
These health professionals are specially trained to work with people who have diabetics and to provide guidance on diabetes management.

Online Resources

American Diabetes Association
Website: www.diabetes.org

To find a Diabetes Educator or Registered Dietitian in your area:
American Association of Diabetes Educators
Website: www.diabeteseducator.org

National Certification Board for Diabetes Education
Website: www.ncbde.org

Statewide: Illinois Department of Public Health
JoAnna R. Rewerts, MS, RD, LDN
Email: joanna.rewerts@illinois.gov

Academy of Nutrition and Dietetics
Website: www.eatright.org

American Diabetes Association
Phone: 1-800-DIABETES
Website: www.diabetes.org/

American Heart Association
Phone: 217.698.3838
Website: www.heart.org

Children with Diabetes
Website: www.childrenwithdiabetes.com

Choose My Plate
Website: www.choosemyplate.gov

Illinois Department of Public Health: Diabetes Prevention and Control
Website: www.idph.state.il.us/diabetes/

MedlinePlus: Diabetes (National Library of Medicine)
Website: www.nlm.nih.gov/medlineplus/diabetes.html

National Diabetes Education Program
Website: www.ndep.nih.gov/index.htm

National Diabetes Information Clearinghouse (NDIC)
Phone: 800.860.8747
Website: www.diabetes.niddk.nih.gov

U.S. Centers for Disease Control and Prevention (CDC)
Phone: 800.232.4636

Website: www.cdc.gov/diabetes/home/index.html

Website: www.webmd.com/diabetes/guide

Website: diabetes.org/diabetes-basics/common-terms

Website: www.my.clevelandclinic.org/health/articles/9829-diabetes-glossary

Website: www.endocrineweb.com/conditions/diabetes/diabetes-glossary

Sources of Services and Education

Hospitals

Silver Cross Hospital – New Lenox
Website: www.silvercross.org

AMITA Health Saint Joseph Medical Center – Joliet
Website: www.presencehealth.org

AMITA Health Bolingbrook Medical Center - Bolingbrook
Website: www.amitahealth.org

Edward-Elmhurst Health Center – Plainfield
Website: www.eehealth.org

Health Clinics

Aunt Martha's Health Center
Website: www.auntmarthas.org

Will County Community Health Center
Website: www.willcountyhealth.org, www.willcountymapp.org
*Hosts bi-weekly diabetes workgroup sessions, open to public

VNA Health Care
Website: www.vnahealth.com

Other Providers of Services and Education

DuPage Medical Group
Website: www.dupagemedicalgroup.com

Greater Joliet Area YMCA

Website: www.jolietymca.org

Veteran's Assistance Commission
Website: www.willcountyillinois.com

Senior Services of Will County
Website: www.willcountyseniors.org

Will-Grundy Medical Clinic
Website: www.willgrundymedicalclinic.org

Hines Hospital – Joliet
Website: www.hines.va.gov/locations/joliet.asp

Veterans Affairs – Will County
Website: www.illinois.gov

Transportation

Below is a listing of transportation resources in our area. Many communities also have taxi services available. See the phone book for more information about taxi services in your area.

Pace Bus
Website: www.pacebus.com

Care.com
Website: www.care.com

Plainfield Township
Website:www.plainfield-township.com/services/senior-services
Website: www.plainfield-township.com/services/dial-ride

Timbers of Shorewood
Website: www.timbersofshorewood.com/transportation-services

Will County Public Transportation
Website: www.willcountyillinois.com/County-Offices/Special-Services/Public-Transportation
Website: www.willcountyillinois.com/County-Offices/Special-Services/Will-Ride-Dial-A-Ride

Village of Frankfort
Website: www.villageoffrankfort.com/live/resident-resources/dial-a-ride

Yellow Pages Transportation Services
Website: www.yellowpages.com/joliet-il/transportation-services

Troy Township
Website: www.troytownship.com/services.../central-will-pace-dial-a-ride-bus-program.aspx

Financial Assistance and Health Insurance Programs

Affordable Care Act
Website: www.getcoveredillinois.gov

Illinois Department of Insurance, Office of Consumer Health Insurance –
Website: insurance.illinois.gov/OCHI/office_consumer_health_ins.asp

Illinois Medicaid
Website: www.getcoveredillinois.gov

Website: www.abe.illinois.gov
Website: www.hfs.illinois.gov
Website: www.dhs.state.il.us

Medicare
Website: www.medicare.gov

Illinois Department on Aging – Benefits and Prescription Drug Assistance
Website: www.state.il.us/aging/1rx/rx-main.htm

Do You Have an APP for this?
Some of the Diabetic Self-Management Smartphone Apps listed have a charge and may only be available on specific phone types such as Android or iPhone.

APP Name: Glooko
Available for FREE on iPhone
You will need a Glooko subscription, which includes the MeterSync Blue, to download your glucose data to the Glooko app on your Android device. Glooko is available at select clinics and hospitals, and online at the Glooko web store. Ask your provider if you are eligible for a free or discounted Glooko subscription, or purchase it individually at shop.glooko.com for $59.95/year. Before purchasing a Glooko subscription, please go to glooko.com/compatibility to ensure that your meter and mobile device are compatible with the Glooko app.

APP Name: Glucose Buddy (Diabetes Log)
Available for FREE on iPhone & Android
Never forget to take your blood sugar again with this helpful app. Glucose Buddy will give you constant reminders via push notifications. Plus, it will track your blood sugar levels, carb intake, medicine, A1C levels, and more. All you have to do is enter your numbers and Glucose Buddy will link your logs straight to your computer. It also integrates with the CalorieTrack app for faster food and exercise logging. Find out how your food intake and activity levels affect your glucose number by tracking more than 100,000 foods and 200 different exercises.

APP Name: dbees.com (Diabetes Management)
Available for FREE on Android
Diabetes isn't a one-size-fits-all disease. You're not exactly like anyone else with diabetes, which is why you need solutions targeted specifically to you. That's where dbees.com Diabetes Management comes in. Simply enter your diagnosis and treatment information. The app will tailor activities and tests to you to help you keep your blood sugar under control. Dbees.com Diabetes Management supports Type I, Type II, LADA, and gestational diabetes. It covers treatments ranging from insulin to medications and diet. This handy app even lets you send information to your doctor via a secure connection.

APP Name: Fooducate (Healthy Weight)
Loss, Diet Tracker & Food Scanner
Available for FREE on iPhone and Android
You might be a foodie, but you're not a detective. So let this multiple award-winning app do the investigative work for you. It can tell you if hidden sugar, trans-fat, and corn syrup are lurking inside your groceries. But it does more than tell you what NOT to eat. It also provides suggestions for healthier alternatives. Just scan the product barcode or search by category, and Fooducate will automatically bring up a nutrition grade—A, B, C, or D. With more than 200,000 products in its database, Fooducate covers just about everything on your supermarket's shelves. It even includes private labels.

APP Name: OnTrack Diabetes
Available for FREE on Android
OnTrack is now part of Medivo! OnTrack allows you to quickly and easily keep track of everything you need to manage your diabetes. Features include: Quickly and easily track blood glucose, hemoglobin A1c, food, weight and many others. Ability to add/edit categories to suit your needs. Generate detailed graphs and reports to share with your physician. Supports both US and International units for glucose and hemoglobin A1C. Easily keep track of your daily, weekly and monthly average glucose levels. Set reminders to keep you on track.

APP Name: Diabetic Connect
Available for FREE on iPhone & Android
With Diabetes Connect you have your diabetes under control at all times, regardless of where you are. Sign in and your documentation is a snap! By diabetics - for diabetics. You can record all your diabetes-related data fast and easy and create all your documentation with just a few clicks. Blood sugar, meals, insulin injections, medication and many more can be tracked with Diabetes Connect. Everything you don't need can be turned off. Your values can be synced over multiple devices or on web portal for extraction.

APP Name: Diabetes Plus
Available for FREE on Android
Developed by diabetics for diabetics. DiabetesPlus lets you administer your readings on your device and saves time by enabling you to send the data directly to your doctor. Administer your blood glucose, your dosage of insulin, carbohydrates, sport activities,

blood pressure, pulse, weight and notes simple and effective. DiabetesPlus is aware of insulin pump users and lets you administer your basal rates and insulin pump events. Also other medication is easily tracked. Generate pdf-files with all relevant data within seconds and email them to your doctor or directly put them into your dropbox.

APP Name: WaveSense (Diabetic Self-Management)
Available for FREE on iPhone
Do you want to track your blood glucose levels, carb intake, and insulin doses? The WaveSense Diabetes Manager can help. Enter you information and in seconds you can review the data with convenient charts and graphs and gain a new perspective on diabetes management. Watch videos to learn about healthy eating, lifestyle choices, and hear from others who are living with diabetes. Features of the software include a logbook, trend chart, email reports, color-coded results, video content, and fully customizable target ranges for hypo– and hyperglycemia limits and mealtime schedules. If you need a second opinion you can email your results to members of your healthcare team.

APP Name: Diabetes Companion (dLife)
Available for FREE on iPhone
Diabetes Companion offers you access to the most essential tools you'll need to manage your diabetes on the go. Watch videos, get expert answers to your questions, look up foods and healthy diabetes-friendly recipes, and track and manage your blood glucose levels anytime, anywhere.

APP Name: Calorie Counter (FatSecret)
Available for FREE on iPhone & Android
Calorie Counter by FatSecret combines both a diet and calorie counting log with a recipe community. Unlike many tracking apps, FatSecret looks at how many calories you burn just being awake or asleep. In addition to tracking food and exercise you can also check out recipes that FatSecret recommends. Additional features include nutritional information for your favorite foods, brands, and restaurants, a barcode scanner, a diet calendar, and a journal to record your progress.

APP Name: Calorie Counter & Diet Tracker (MyFitnessPal)
Available for FREE on iPhone & Android
Research consistently shows that a weight loss of just 5-10% can improve blood sugar levels. MyFitnessPal members who diet with friends lose 3X more weight on average. With over 3,000,000 foods, MyFitnessPal features the largest food database of any iOS calorie counter. You can add friends and easily track and support each other's progress. Other features include tracking for over 350 exercises, a barcode scanner, a recipe calculator, daily nutrition summary with all major nutrients, and a notes section where you can record your blood sugar levels.

APP Name: Diabetes Insight
Available for FREE on Android
Audio-Digest Foundation has joined forces with the American Diabetes Association (ADA) to produce DiabetesInsight - a monthly audio program that is an effective and

convenient way for you to stay current on managing diabetes. Our unique format, which includes case studies, interviews, literature reviews, and expert commentaries, is designed to maximize your learning experience and help solve the problems you encounter every day in your clinical practice. With each issue of DiabetesInsight - you can earn 2 AMA PRA Category 1 Credits™ each month - that's up to 48 AMA PRA Category 1 Credits™ per year.

APP Name: mySugr Junior
Available for FREE on iPhone & Android
Diabetes therapy can be quite complicated and troublesome. The mySugr Junior App was developed to make managing diabetes easier for kids. It also enables parents to keep control over the therapy. The app resembles a game in which the children get points for every entry. A little diabetes monster accompanies the kids through the app and gives feedback on their entries. The child can enter data such as blood glucose levels, food and insulin or take a picture of his meals, but they can also request help whenever the parents are not around. All entries can be sent to the parents' phone. MySugr Junior enables children to be more engaged with their therapy.

Glossary of Terms

A1C (Also called hemoglobin A1C or glycosylated hemoglobin): A test that measures a person's average blood glucose level over the past 2 to 3 months. Hemoglobin is the part of a red blood cell that carries oxygen to the cells and sometimes joins with the glucose in the bloodstream. The test shows the amount of glucose that sticks to the red blood cell, which is proportional to the amount of glucose in the blood. Results are given as a percentage or as an average glucose value, called an estimated average glucose.

Blood Glucose: (bluhd) (GLOOkohss): the main sugar found in the blood and the body's main source of energy. Also called blood sugar.

Blood Glucose Meter: (bluhd) (GLOO-kohss) (MEE-tur): a small, portable machine used by people with diabetes to check their blood glucose levels. After pricking the skin with a lancet, one places a drop of blood on a test strip in the machine. The meter then displays the blood glucose reading.

Blood Pressure: the force of blood exerted on the inside walls of blood vessels. Blood pressure is expressed as two numbers. For example, a blood pressure result of 120/80 is said as "120 over 80." The first number is the systolic pressure or the pressure when the heart pushes blood into the arteries. The second number is the diastolic pressure or the pressure when the heart rests.

Body Mass Index: (BMI): a measure used to evaluate body weight relative to a person's height. BMI is used to find out if a person is underweight, normal weight, overweight, or obese.

Calorie: a unit representing the energy provided by food. Carbohydrate, fat, protein, and alcohol provide calories in the diet. Carbohydrate and protein have 4 calories per gram, fat has 9 calories per gram, and alcohol has 7 calories per gram.

Carbohydrate: (KAR-boh-HYdrayt): one of the three main nutrients in food. Foods that provide carbohydrate are starches, vegetables, fruits, dairy products, and sugars.

Carbohydrate Counting: (KAR-bohHY-drayt) (KOUN-ting): a method of meal planning for people with diabetes based on counting the number of grams of carbohydrate in food.

Certified Diabetes Educator: (CDE) (SER-tih-fyd) (DY-uh-BEEteez) (EH-juh-KAY-tur): a health care professional with expertise in diabetes education who has met eligibility requirements and successfully completed a certification exam.

Chronic Kidney Disease: (CKD) (KRON-ik) (KID-nee) (dih-ZEEZ): any condition that causes reduced kidney function over a period of time. CKD is present when a patient's kidney filtration rate remains below 60 milliliters per minute for more than 3 months. CKD may develop over many years and lead to end-stage renal disease.

Circulation: (SUR-kyoo-LAYshuhn): the flow of blood through the body's blood vessels and heart.

Complications: (KOM-plih-KAYshuhnz): harmful effects of diabetes such as damage to the eyes, heart, blood vessels, nervous system, teeth and gums, feet and skin, or kidneys. Studies show that keeping blood glucose, blood pressure, and LDL cholesterol levels close to normal can help prevent or delay these problems.

Diabetes: (DY-uh-BEE-teez): a condition characterized by hyperglycemia (high blood glucose) resulting from the body's inability to use blood glucose for energy. In type 1 diabetes, the pancreas no longer makes insulin; therefore, blood glucose cannot enter the cells to be used for energy. In type 2 diabetes, either the pancreas does not make enough insulin or the body is unable to use insulin correctly. Also called Diabetes Mellitus.

Diabetic Ketoacidosis: (DKA) (DY-uh-BET-ik) (KEE-toh-ASSih-DOH-siss): an emergency condition in which extremely high blood glucose levels, along with a severe lack of insulin, result in the breakdown of body fat for energy and an accumulation of ketones in the blood and urine. Signs of DKA are nausea and vomiting, stomach pain, fruity breath odor, and rapid breathing. Untreated DKA can lead to coma and death.

Diabetic Retinopathy: (DY-uhBET-ik) (RET-ih-NOP-uh-thee): damage to the small blood vessels in the retina. Loss of vision may result. Also called Diabetic Eye Disease.

Dietitian: (DY-uh-TISH-uhn): a health care professional who advises people about meal planning, weight control, and diabetes management. A registered dietitian (RD) has met certain educational and internship requirements.

Endocrinologist: (EN-doh-krihNOL-uh-jist): a doctor who treats people who have endocrine gland problems such as diabetes.

Fructose: (FROOK-tohss): a sugar that occurs naturally in fruits and honey. Fructose has 4 calories per gram.

Gastroparesis: (GASS-troh-puhREE-siss): a form of neuropathy that affects the stomach. Digestion of food may be incomplete or delayed, resulting in nausea, vomiting, or bloating, making blood glucose control difficult.

Glaucoma: (glaw-KOH-muh): an increase in fluid pressure inside the eye that may lead to vision loss.

Glucagon: (GLOO-kuh-gon): a hormone produced by the alpha cells in the pancreas. Glucagon raises blood glucose. An injectable form of glucagon, available by prescription, may be used to treat severe hypoglycemia.

Glycemic Index: (gly-SEE-mik) (IN-deks): a ranking of a carbohydrate-containing food, based on the food's effect on blood glucose compared with a standard reference food.

Glycemic Load: (gly-SEE-mik) (lohd): a ranking of a carbohydrate-containing food, based on the food's glycemic index and the amount of carbohydrate in a typical serving.

Gram: a unit of weight in the metric system. An ounce equals 28 grams. In some meal plans for people with diabetes, the suggested amounts of food are given in grams.

Hormone: a chemical produced in one part of the body and released into the blood to trigger or regulate particular functions of the body. For example, insulin is a hormone made in the pancreas that tells other cells when to use glucose for energy. Synthetic hormones, made for use as medicines, can be the same or different from those made in the body.

Hyperglycemia: (HY-pur-glySEE-mee-uh): higher than normal blood glucose. Fasting hyperglycemia is blood glucose above a desirable level after a person has fasted for at least 8 hours. Postprandial hyperglycemia is blood glucose above a desirable level 1 to 2 hours after a person has eaten.

Hyperinsulinemia: (HY-pur-IN-suhlin-EE-mee-uh): a condition in which the level of insulin in the blood is higher than normal. It is caused by overproduction of insulin by the body, and is related to insulin resistance.

Hypertension: (HY-pur-TENshuhn): a condition present when blood flows through the blood vessels with a force greater than normal. Also called High Blood Pressure. Hypertension can strain the heart, damage blood vessels, and increase the risk of heart attack, stroke, kidney problems, and death.

Hypoglycemia: (HY-poh-glySEE-mee-uh): also called low blood glucose, a condition that occurs when one's blood glucose is lower than normal, usually below 70 mg/dL. Signs include hunger, nervousness, shakiness, perspiration, dizziness or light-headedness, sleepiness, and confusion. If left untreated, hypoglycemia may lead to unconsciousness. Hypoglycemia is treated by consuming a carbohydrate-rich food such as glucose tablets or juice. Hypoglycemia may also be treated with an injection of

glucagon if the person is unconscious or unable to swallow. Also called an Insulin Reaction.

Impaired Fasting Glucose (IFG) (im-PAIRD) (FASS-ting) (GLOO-kohnss): a condition in which a fasting blood glucose test shows a level of glucose higher than normal but not high enough for a diagnosis of diabetes. IFG, also called pre-diabetes, is a level of 100 to 125 mg/dL. People with pre-diabetes are at increased risk for developing type 2 diabetes, heart disease and stroke.

Impaired Glucose Tolerance: (IGT) (im-PAIRD) (GLOO-kohss) (TOL-ur-uhnss): a condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. IGT, also called pre-diabetes, is a level of 140 to 199 mg/dL 2 hours after the start of an oral glucose tolerance test. People with pre-diabetes are at increased risk for developing type 2 diabetes, heart disease, and stroke. Other names for IGT that are no longer used are “borderline,” “subclinical,” “chemical,” or “latent” diabetes.

Insulin: (IN-suh-lin): a hormone that helps the body use glucose for energy. The beta cells of the pancreas make insulin. When the body cannot make enough insulin, insulin must be taken by injection or other means.

Insulin Resistance: (IN-suh-lin) (ree-ZISS-tuhnss): the body’s inability to respond to and use the insulin it produces. Insulin resistance may be linked to obesity, hypertension, and high levels of fat in the blood.

Lancet: (LAN-set): a spring-loaded device used to prick the skin with a small needle to obtain a drop of blood for blood glucose monitoring.

Lipid profile: (LIP-id) (PROH-fyl): a blood test that measures total cholesterol, triglycerides, and HDL cholesterol. LDL cholesterol is then calculated from the results. A lipid profile is one measure of a person’s risk of cardiovascular disease.

Metabolic Syndrome: (MET-uhBOL-ik) (SIN-drohm): a grouping of health conditions associated with an increased risk for heart disease and type 2 diabetes. Conditions include hypertension, a large waist, high triglyceride levels, low HDL cholesterol levels, and above-normal blood glucose levels. Metabolic syndrome was previously called Syndrome X.

Nephropathy: (neh-FROP-uhthee): disease of the kidneys. Hyperglycemia and hypertension can damage the kidneys’ glomeruli. When the kidneys are damaged, protein leaks out of the kidneys into the urine. Damaged kidneys can no longer remove wastes and extra fluid from the bloodstream.

Neuropathy: (noo-ROP-uhthee): disease of the nervous system. The three major forms in people with diabetes are peripheral neuropathy, autonomic neuropathy, and mononeuropathy. The most common form is peripheral neuropathy, which affects the legs and feet.

Obesity: (oh-BEE-sih-tee): a condition in which a greater than normal amount of fat is in the body; more severe than overweight; having a body mass index of 30 or more.

Oral Glucose Tolerance Test: (OGTT) (OR-uhl) (GLOO-kohss) (TOL-ur-uhnss) (test): a test to diagnose pre-diabetes and diabetes. The oral glucose tolerance test is given by a health care professional after an overnight fast. A blood sample is taken and then the patient drinks a high-glucose beverage. Blood samples are taken at hourly intervals for 2 to 3 hours. Test results are compared with a standard and show how the body uses glucose over time.

Overweight: an above-normal body weight; having a body mass index of 25 to 29.

Pancreas: (PAN-kree-uhss): an organ that makes insulin and enzymes for digestion. The pancreas is located behind the lower part of the stomach and is about the size of a hand.

Pancreatitis: (PAN-kree-uh-TYtiss): an irritation of the pancreas that can cause it to stop working. Pancreatitis can be acute or chronic. Diabetes may develop when pancreatic tissue is destroyed from chronic pancreatitis and the insulin-producing cells of the pancreas, called beta cells, have been damaged. Pancreatitis can also occur as a side effect of the diabetes medication exenatide (Byetta).

Peripheral Artery Disease: (PAD) (puh-RIF-ur-uhl) (ar-TEEree-uhl) (dih-ZEEZ): also called peripheral vascular disease; a condition in which the large blood vessels of the legs are narrowed or blocked by fatty deposits, decreasing blood flow to the legs and feet. PAD increases the chances of amputation, heart attack, and stroke.

Pre-diabetes: (PREE-dy-uh-BEEteez): a condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. People with pre-diabetes are at increased risk for developing type 2 diabetes, heart disease, and stroke. Other names for pre-diabetes are impaired glucose tolerance and impaired fasting glucose.

Protein: (PROH-teen): 1. One of the three main nutrients in food. Foods that provide protein include meat, poultry, fish, cheese, milk, dairy products, eggs, and dried beans. 2. Proteins are also used in the body for cell structure, hormones such as insulin, and other functions. 71

Saccharin: (SAK-uh-rin): a dietary sweetener with no calories and no nutritional value

Saturated Fat: a type of dietary fat that can increase the risk of heart disease. Saturated fat is found in meat, poultry skin, butter, lard, shortening, and all milk and dairy products except fat-free versions.

Self-Management: the ongoing process of managing diabetes including meal planning, planned physical activity, blood glucose monitoring, taking diabetes medicines, handling episodes of illness and of low blood glucose and high blood glucose, managing diabetes when traveling, and more. The person with diabetes designs his or her own self-management treatment plan in consultation with a variety of health care professionals such as doctors, nurses, dietitians, pharmacists, and others.

Sorbitol: (SOR-bih-tol): 1. a sugar alcohol—a sweetener—with 4 calories per gram. 2. A substance produced by the body in people with diabetes that can cause damage to the eyes and nerves.

Stroke: a condition in which the blood supply to the brain is suddenly cut off, caused by a blockage or the bursting of a blood vessel in the brain or neck. Then brain tissue can be damaged. A stroke can cause a person to lose the ability to speak or move parts of the body.

Sucralose: (SOO-kruh-LOHSS): a dietary sweetener made from sugar but with no calories and no nutritional value.

Sugar Alcohols: sweeteners that produce a smaller rise in blood glucose than other carbohydrates. Their calorie content is about 2 calories per gram. Includes erythritol, hydrogenated starch hydrolysates, isomalt, lactitol, maltitol, mannitol, sorbitol, and xylitol. Also known as polyols.

Trans Fat: a type of dietary fat that increases the risk of heart disease. Trans fat is produced when liquid oils are turned into solids through a process called hydrogenation. Foods with trans-fat include those listing hydrogenated or partially hydrogenated fat on the label, such as crackers, snack foods, commercially produced baked goods, and some stick margarines.

Triglyceride: (try-GLISS-ur-eyed): the storage form of fat in the body. High triglyceride levels may occur when diabetes is out of control.

Type 1 Diabetes: (typ) (whuhn) (DY-uh-BEE-teez): a condition characterized by high blood glucose levels caused by a total lack of insulin. Occurs when the body's immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The

pancreas then produces little or no insulin. Type 1 diabetes develops most often in young people but can appear in adults.

Type 2 Diabetes: (typ) (too) (DY-uhBEE-teez): a condition characterized by high blood glucose levels caused by either a lack of insulin or the body's inability to use insulin efficiently. Type 2 diabetes develops most often in middle-aged and older adults but can appear in children, teens, and young people.

Urinalysis: (YOOR-ih-NAL-ih-siss): a test of a urine sample that can reveal many problems of the urinary tract and other body systems. The sample may be observed for color, cloudiness, concentration; signs of drug use; chemical composition, including glucose; the presence of protein, blood cells, or germs; or other signs of disease.

Xylitol: (ZY-lih-tol): a carbohydrate-based sweetener found in plants and used as a substitute for sugar; provides calories. Found in some mints and chewing gum.

For more definitions and information visit:
www.niddk.nih.gov/health-information/diabetes

Prediabetes and diabetes

What is the difference between prediabetes and diabetes?

The difference between prediabetes and diabetes is in how high the blood sugar levels are. Prediabetes is when your blood sugar (or glucose) levels are higher than normal but not high enough to be diagnosed as type 2 diabetes. Look at the table on page 2 to see the levels. Did you know that about 79 million American adults age 20 and older have prediabetes?

What's going on in your body?

A condition called insulin resistance increases the risk of getting both prediabetes and type 2 diabetes. Insulin is a hormone that is made by the pancreas, a large gland behind the stomach. Insulin helps sugar from food move from your blood into your body's cells. Your cells need sugar for energy. Sugar from food can be from sweet foods and drinks, like candy, cakes, cookies, pies, and soda, or from carbohydrates like fruit, bread, rice, pasta, and milk that turn into sugar.

When you have insulin resistance, your body produces insulin but does not use it effectively. So sugar builds up in the blood, which can lead to prediabetes or type 2 diabetes. Most people with insulin resistance aren't aware that they have it for many years, until it turns into type 2 diabetes. But the good news is that if people find out early that they have insulin resistance, they may be able to delay progression to type 2 diabetes. See the box on page 2 to find out how.

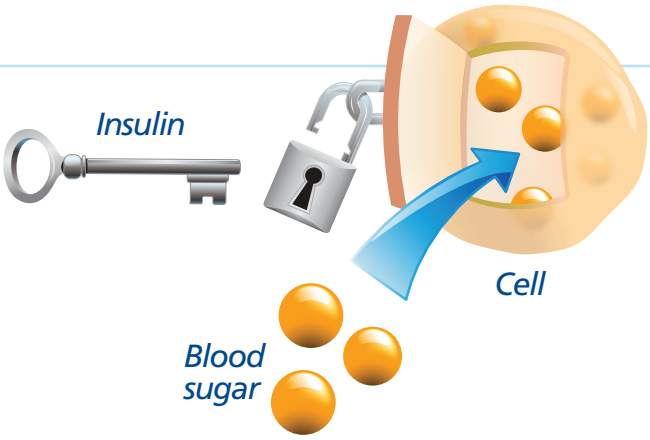
Who is at risk?

Here are some of the risk factors for prediabetes and diabetes:

- Being overweight
- Being age 45 years or older
- Having a family history of diabetes
- Having a history of gestational diabetes or of giving birth to a baby weighing more than 9 pounds
- Belonging to an ethnic group at high risk for diabetes, such as Native American, African American, Hispanic, or Asian

It is important to discuss your risk factors with your doctor. If you think you may be at risk for prediabetes, see your doctor to be tested.

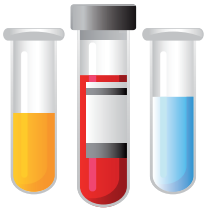
Insulin works like a key, unlocking the doors on the cells in your body to let blood sugar in. Once the cell doors open, sugar is able to move from the blood into the cells, where it belongs. Once inside the cells, sugar provides energy to the body.



Prediabetes and diabetes

How is prediabetes diagnosed?

You may have prediabetes without having any symptoms. Prediabetes is found with one of the following tests:



- **Fasting plasma glucose (FPG) test**—Measures blood sugar when you haven't eaten anything for at least 8 hours
- **Glucose tolerance test (GTT)**—Measures blood sugar after you haven't eaten anything for at least 8 hours and 2 hours after you drink a sugary drink provided by a doctor or laboratory
- **A1C**—Measures your average estimated blood sugar over the past 3 months

Your doctor will look for these values to diagnose prediabetes and diabetes:

	Prediabetes	Diabetes
FPG	100–125 mg/dL	126 mg/dL or higher
GTT	140–199 mg/dL	200 mg/dL or higher
A1C	5.7%–6.4%	6.5% or higher

Adapted from the American Diabetes Association. Standards of medical care in diabetes—2016. *Diabetes Care*. 2016;39(suppl 1):S1-S112.

How can you lower your risk of developing type 2 diabetes if you have prediabetes?

Losing weight is the best way to avoid developing type 2 diabetes if you are overweight. Talk with your diabetes care team about what your target weight should be.

There are no medicines approved by the FDA to treat prediabetes. If you have prediabetes, your blood sugar should be checked for type 2 diabetes yearly. According to the American Diabetes Association (ADA), if your blood sugar levels are normal, you should have them checked every 3 years, or more often if your doctor recommends it.

Prediabetes does not automatically turn into type 2 diabetes. You can take steps to lower your risk.

The American Diabetes Association says that you can lower your risk for type 2 diabetes by:

- Losing just 7% of your body weight (or 15 pounds if you weigh 200 pounds)
- Doing moderate physical activity (such as brisk walking) for 30 minutes a day, 5 days a week

For more information, visit Cornerstones4Care.com

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Prediabetes y diabetes

Cornerstones4Care®

¿Cuál es la diferencia entre prediabetes y diabetes?

La diferencia entre prediabetes y diabetes está en cuán altos están los niveles de azúcar en la sangre. La prediabetes es cuando sus niveles de azúcar (o glucosa) en la sangre están más altos de lo normal pero no lo suficientemente altos para que se le diagnostique diabetes tipo 2. Consulte la tabla en la página 2 para ver los niveles. ¿Sabía que alrededor de 79 millones de estadounidenses adultos de 20 años en adelante tienen prediabetes?

¿Qué ocurre dentro de su cuerpo?

Una afección llamada resistencia a la insulina aumenta el riesgo de desarrollar tanto prediabetes como diabetes tipo 2. La insulina es una hormona producida por el páncreas, una gran glándula detrás del estómago. La insulina ayuda al azúcar de los alimentos a desplazarse de la sangre a las células del cuerpo. Sus células necesitan azúcar para tener energía. El azúcar de los alimentos puede provenir de comidas y bebidas dulces, como caramelos, tartas, galletas, pasteles y gaseosas, o de carbohidratos como almidón, frutas y leche que se transforman en azúcar.

Cuando usted tiene resistencia a la insulina, su cuerpo produce insulina pero no la usa de manera efectiva. Entonces el azúcar se acumula en la sangre, lo que puede provocar prediabetes o diabetes tipo 2. La mayoría de las personas con resistencia a la insulina no saben que la tienen durante muchos años, hasta que se convierte en diabetes tipo 2. Pero la buena noticia es que si las personas descubren de manera temprana que tienen resistencia a la insulina, posiblemente puedan demorar la progresión hacia la diabetes tipo 2. Vea el recuadro en la página 2 para descubrir cómo hacerlo.

¿Quiénes tienen riesgo?

Estos son algunos de los factores de riesgo para la prediabetes y la diabetes:

Factores que se pueden controlar

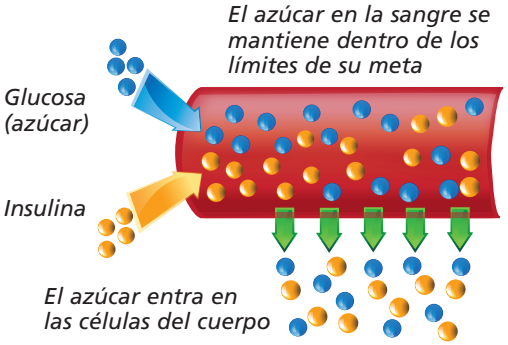
- Tener sobrepeso
- Tener alta presión sanguínea
- Tener bajo el colesterol HDL y altos los triglicéridos (grasas en sangre)

Factores que no se pueden modificar

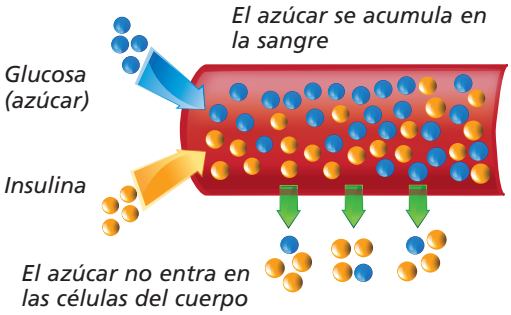
- Tener 45 años o más
- Tener antecedentes familiares de diabetes
- Tener antecedentes de diabetes gestacional o de dar a luz un bebé con un peso superior a las 9 libras (4 kg)
- Pertenecer a un grupo étnico con alto riesgo de diabetes, como los nativos americanos, los afroamericanos, los hispanos o los asiáticos

Es importante conversar sobre sus factores de riesgo con su médico. Si piensa que puede tener riesgo de prediabetes, visite a su médico para que le realice una prueba.

Proceso normal



Resistencia a la insulina



Prediabetes y diabetes

¿Cómo se diagnostica la prediabetes?

Usted puede tener prediabetes sin tener ningún síntoma. La prediabetes se detecta con una de las siguientes pruebas:

- **Prueba de glucosa plasmática en ayunas (FPG)**—Mide el azúcar en la sangre cuando no ha comido nada durante al menos 8 horas
- **Prueba de tolerancia a la glucosa (GTT)**—Mide el azúcar en la sangre después de no haber comido nada durante al menos 8 horas y 2 horas después de beber una solución azucarada provista por su médico o laboratorio
- **A1C**—Mide su promedio estimado de azúcar en la sangre durante los últimos 3 meses

Su médico analizará estos valores para diagnosticar prediabetes y diabetes:

	Prediabetes	Diabetes
FGT	100–125 mg/dL	126 mg/dL o más alto
GTT	140–199 mg/dL	200 mg/dL o más alto
A1C	5.7%–6.4%	6.5% o más alto

Adapted from the American Diabetes Association. Standards of medical care in diabetes—2015. *Diabetes Care*. 2015;38(suppl 1):S1-S93.

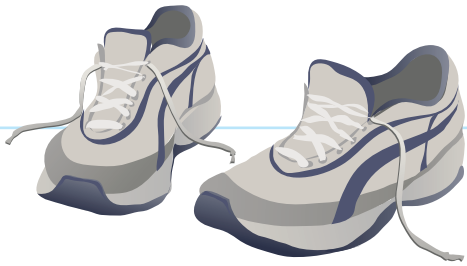
¿Cómo puede reducir su riesgo de prediabetes?

No hay medicamentos aprobados por la FDA para tratar la prediabetes. Si tiene prediabetes, su azúcar en la sangre debe ser controlada una vez al año para descartar diabetes tipo 2. Según la Asociación Americana de la Diabetes (ADA), si sus niveles de azúcar en la sangre son normales debe hacérselos controlar cada 3 años, o más seguido si su médico así lo recomienda.

La prediabetes no se convierte automáticamente en diabetes tipo 2. Puede tomar medidas para reducir su riesgo.

La Asociación Americana de la Diabetes dice que puede reducir el riesgo de diabetes tipo 2:

- Perdiendo sólo el 7% de su peso corporal (o 15 libras [7 kilos] si pesa 200 libras [90 kilos])
- Haciendo actividad física moderada (como caminatas enérgicas) durante 30 minutos al día, 5 días a la semana



Para más información, visite Cornerstones4Care.com

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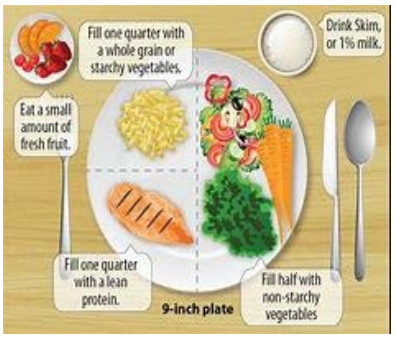
Strategies for Better Diabetes Management

Eat Smart!!



Eat plenty of non-starchy vegetables & only small portions of fruit- fresh is best

Eat healthy portions and use the "plate method" (9-inch plate)-

½ vegetables, ¼ protein, ¼ starch or whole grains

Avoid fried foods- choose foods that are baked, grilled, broiled, or poached

Substitute ½ cup fruit for a sweet snack or dessert- stay away from bananas

Avoid sugary beverages and high calorie drinks

Eat slowly and enjoy your food- you will be less likely to overeat

Get Moving!!

Move the television remote to the farthest corner of the room

Park farther away from the store

March or dance through commercials during your favorite television show

Take the stairs whenever possible

Take a walk with your family, friends, or pets

Do things you enjoy, like gardening, bike riding, or dancing

Enroll at your local YMCA

Be an Active Participant!!

Have your A1c checked at least 2-4x a year, depending on your level

Take your medications as prescribed and bring a list to each provider visit

Get a complete foot, eye, and dental exam at least once a year

Keep a list of questions to ask your provider during appointments

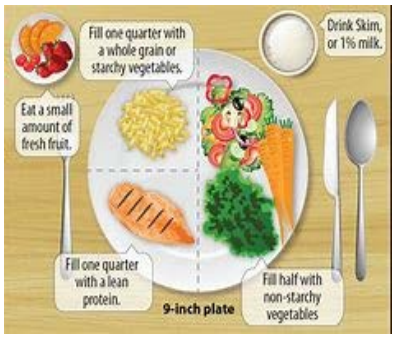
Cut down or stop smoking

Set a SMART Goal!!

Specific	"I will take the stairs at work at least once a day for the next week"
Measurable	
Attainable	"I will substitute a portion of fruit for a piece of cake when eating dessert for the next 2 weeks"
Realistic	
Timely	"I will march through commercials when watching tv every day"

Estrategias Para un Mejor Manejo de la Diabetes

¡Come Inteligente!



Coma muchas verduras sin almidón y solo las porciones pequeñas de fruta

Coma porciones saludables y use el "método de la placa" (placa de 9 pulgadas)

½ verduras, ¼ de proteína, ¼ de almidón o granos enteros

Evite los alimentos fritos: elija alimentos que estén horneados o a la parrilla

Sustituya ½ taza de fruta por un bocadillo dulce o un postre-

Evite las bebidas azucaradas y las bebidas altas en calorías.

Coma despacio y disfrute de su comida, será menos probable que coma en exceso

¡Muévanse!

Mueva el control remoto del televisor a la esquina más alejada de la habitación

Parque más lejos de la tienda.

Marcha o baila por los comerciales en tu programa de televisión favorito.

Suba las escaleras siempre que sea posible

Salga a caminar con su familia, amigos o mascotas

Haz cosas que disfrutes, como jardinería, andar en bicicleta o bailar

Inscríbase en su YMCA local

¡Sea un Participante Activo!

Haz que revisen tu A1c al menos 2-4 veces al año, dependiendo de tu nivel

Tome sus medicamentos según lo prescrito y lleve una lista a cada visita

Obtenga un examen completo de pies, ojos y dientes al menos una vez al año

Mantenga una lista de preguntas para hacerle a su proveedor durante las citas

Cortar o dejar de fumar

¡Establecer un Objetivo Inteligente!

Específico	"Tomaré las escaleras en el trabajo al menos una vez al día durante la próxima semana"
Mensurable	
Alcanzable	"Sustituiré una porción de fruta por un pedazo de pastel cuando coma el postre durante las próximas 2 semanas"
Realista	
Limitados en el tiempo	"Voy a marchar por los comerciales cuando veo televisión todos los días"

Name: DOB: Date:

Are You at Risk for Diabetes?

Take the Test and Know Your Score!

Write your score in the box

How old are you?
Less than 40 yrs (0 points)
40-49 years (1 point)
50-59 years (2 points)
60 years or older (3 points)

Are you a man or a woman?
Man (1 point) Woman (0 points)

If you are a woman, have you ever been diagnosed with gestational diabetes?
Yes (1 point) No (0 points)

Do you have a mother, father, sister, or brother with diabetes?
Yes (1 point) No (0 points)

Have you ever been told you have high blood pressure?
Yes (1 point) No (0 points)

Do you exercise?
Yes (0 points) No (1 point)

What is your weight status?
See chart at right

Height	Weight (lbs)		
4'10"	119-142	143-190	191+
4'11"	124-147	148-197	198+
5'0"	128-152	153-203	204+
5'1"	132-157	158-210	211+
5'2"	136-163	164-217	218+
5'3"	141-168	169-224	225+
5'4"	145-173	174-231	232+
5'5"	150-179	180-239	240+
5'6"	155-185	186-246	246+
5'7"	159-190	191-254	255+
5'8"	164-196	197-261	262+
5'9"	169-202	203-269	270+
5'10"	174-208	209-277	278+
5'11"	179-214	215-285	286+
6'0"	184-220	221-293	294+
6'1"	189-226	227-301	302+
6'2"	194-232	233-310	311+
6'3"	200-239	240-318	319+
6'4"	205-245	246-327	328+
	(1 point)	**(2 points)**	**(3 points)**
	You weigh less than the amount in the left column (0 points)		

If you scored 5 or higher:
You may have prediabetes or be at risk for type 2 diabetes.

Add up your score

Lower Your Risk

The good news is you can manage your risk for type 2 diabetes.
Small steps can make a big difference in helping you live a longer and healthier life!

Only your provider can tell you for sure if you have type 2 diabetes or prediabetes, a condition in which blood sugar levels are higher than normal but can be controlled with good nutrition and regular exercise.

If you are at high risk, the best thing to do is talk to your provider to see if additional testing is needed.

Please return this form to your health care provider once completed.

American Diabetes Association. (2019). Standards of Medical Care in Diabetes 2019. *Diabetes Care*, *42*(Suppl. 1), S13-S28. https://doi.org/10.2337/dc19-S002.

Nombre: Fecha de Nacimiento: Fecha:

¿Está Usted en Riesgo de Diabetes?

¡ Tome la Prueba y Conozca su Puntuación!

Anote el puntaje en el recuadro

¿Cuántos años tiene?
Menos de 40 años (0 puntos)
40-49 años (1 punto)
50-59 años (2 puntos)
60 años o más (3 puntos

¿Eres hombre o mujer?
Hombre (1 punto) Mujer (0 puntos)

Si usted es una mujer, ¿alguna vez le diagnosticaron diabetes gestacional?
Sí (1 punto) No (0 puntos)

¿Tiene madre, padre, hermana, o hermano con diabetes?
Sí (1 punto) No (0 puntos)

¿Alguna vez le han dicho que tienes alta presión sanguíneo o hipertensión?
Sí (1 punto) No (0 puntos)

¿Hacer ejercicio?
Sí (0 puntos) No (1 punto**)**

¿Cuál es su estado de peso?
Ver tabla a la derecho

Sume su puntaje

Si anotó 5 o más:
Puede tener prediabetes o estar en riesgo de padecer diabetes tipo 2.

Estatura	Peso (en libras)		
4’10”	119-142	143-190	191+
4’11”	124-147	148-197	198+
5’0”	128-152	153-203	204+
5’1”	132-157	158-210	211+
5’2”	136-163	164-217	218+
5’3”	141-168	169-224	225+
5’4”	145-173	174-231	232+
5’5”	150-179	180-239	240+
5’6”	155-185	186-246	246+
5’7”	159-190	191-254	255+
5’8”	164-196	197-261	262+
5’9”	169-202	203-269	270+
5’10”	174-208	209-277	278+
5’11”	179-214	215-285	286+
6’0”	184-220	221-293	294+
6’1”	189-226	227-301	302+
6’2”	194-232	233-310	311+
6’3”	200-239	240-318	319+
6’4”	205-245	246-327	328+
	(1 punto)	**(2 puntos)**	**(3 puntos)**
	Si pesa menos que lo indicado en la columna de la izquierda = 0 puntos		

Reduzca su Riesgo

La buena noticia es que usted puede controlar su riesgo de diabetes tipo 2. ¡Pequeños pasos pueden hacer una gran diferencia en ayudarle a vivir una vida más larga y más sana!

Solo su proveedor puede decirle con certeza si tiene diabetes tipo 2 o prediabetes, una condición en la que los niveles de glucosa en la sangre son más altos de lo normal, pero pueden controlarse con una buena nutrición y ejercicio regular.

Si usted está en alto riesgo, lo mejor que puede hacer es hablar con su proveedor para ver si sre necesitan pruebas adicionales.

Por favor, devuelva este formulario a su proveedor de atención médica una vez completado.

Asociación Americana de Diabetes. (2019). Estándares de Atención Médica en Diabetes 2019. *Cuidado de la Diabetes*, 42 (Suplemento 1), S13-S28. https://doi.org/10.2337/dc19-S002.