

Building Your Support Team: Creating a Personalized Diabetes Management Plan



What is diabetes?

Diabetes is a disorder that affects the way the body handles sugar. Type 2 diabetes is the most common form of diabetes; it occurs when the body does not properly make or use insulin (a hormone that helps sugar get out of the blood and into cells). In people with diabetes, sugar builds up in the blood. This can cause serious health problems over time. If not treated, diabetes can increase the risk of heart attacks, strokes, eye and skin problems, and nerve damage.

What are the symptoms of diabetes?

Symptoms include:

- Frequent urination
- Feeling very thirsty or tired
- Blurry vision
- Cuts or bruises that are slow to heal

However, some people with diabetes do not have symptoms, and some have very mild ones that go unnoticed.

Who is at risk of getting diabetes?

Type 2 diabetes can affect anyone, but you may have a higher risk if you:

- Are overweight
- Have high blood pressure or high cholesterol
- Have had a diagnosis of heart disease
- Had diabetes diagnosed during pregnancy
- Have a family member who had or has diabetes

Also, people of certain races or ethnicities have a higher risk, including African Americans, Hispanics/Latinos, Native Americans, Asian Americans, and Pacific Islanders.

How do I know whether I have diabetes?

Early diagnosis is very important. The best way to detect diabetes is to have regular check-ups with blood tests that measure the amount of sugar in your blood. One of the tests used to diagnose and check type 2 diabetes over time is the A1C test (also known as hemoglobin A1C or HbA1C). This test shows your average blood sugar over the past 2 to 3 months; results fall into the following categories:

- Normal—Less than 5.7%
- Prediabetes—5.7% to 6.4%
- Diabetes—6.5% or higher



How can I manage my type 2 diabetes?

Many people with diabetes are able to prevent or delay problems by taking an active role in managing their diabetes. Everyday choices about the foods you eat and the way you live can have a big effect on your diabetes and your overall health, including:

- **Making healthy food choices**—Fill your plate with lots of fruits, vegetables, whole grains, and low-fat dairy products. Eat fewer starchy foods (like rice and pasta) and fried or fatty foods. Ask your diabetes care team about talking to a dietitian, who can help you put together a healthy eating plan.
- **Losing weight**—Even a small weight loss can result in better blood sugar levels.
- **Exercising**—Find ways to be more active each day. Exercise helps to lower blood sugar and make your heart and blood vessels stronger. Try to be active for 30 minutes or more on most days of the week.

- **Avoiding alcohol**—Alcohol can increase blood sugar and blood pressure; it can also cause certain diabetes medications to not work properly.
- **Stopping smoking**—Smoking increases your risk of having a heart attack or stroke.
- **Keeping track of your blood sugar**—Your A1C

level should generally be less than 7.0%. Your diabetes care team will help you learn how and when to check your blood sugar levels so that you can better manage them. Tools and smartphone apps can help with tracking, remembering to take medications, keeping appointments, and staying motivated.



What medications are used to treat type 2 diabetes?

When lifestyle changes are not enough, several medications are available that work well to lower blood sugar. Each type works in a different way, as shown in the table below. Treatment choice depends on many factors, like heart disease risk factors, use of other medications, other illnesses, and personal preferences. Some patients may need more than one type of diabetes medication to control their blood sugar.

Commonly Prescribed Medications for Diabetes

| TYPE OF MEDICATION | EXAMPLES | PURPOSE |
|-------------------------------------|---|--|
| Oral | | |
| Biguanides | Metformin | Decreases glucose made by the liver and makes muscles more sensitive to insulin |
| Sulfonylureas | Glimepiride Glipizide Glyburide | Helps the pancreas release more insulin |
| Thiazolidinediones | Pioglitazone Rosiglitazone | Helps insulin work in the muscle and fat and reduces glucose made by the liver |
| DPP-4 inhibitors | Alogliptin Linagliptin Saxagliptin Sitagliptin | Helps the pancreas release insulin after a meal; lowers blood glucose only when it is high |
| SGLT2 inhibitors | Canagliflozin Dapagliflozin Empagliflozin | Helps the kidney let excess glucose to be removed in the urine |
| Meglitinides | Nateglinide Repaglinide | Helps the pancreas release more insulin |
| Alpha-glucosidase inhibitors | Acarbose Miglitol | Slows the increase in blood glucose after a meal by blocking the breakdown of starches (bread, pasta) and some sugars in the intestine |
| Injection | | |
| Amylin mimetics | Pramlintide | Decreases glucose made by the liver; slows the breakdown of food in the stomach and intestines |
| GLP-1 agonists | Albiglutide Dulaglutide Exenatide Liraglutide | Helps the pancreas make more insulin; decreases how much glucose is released by the liver; slows the breakdown of food in the stomach and intestines |
| Insulin | | Replaces the insulin that is not being made naturally by the pancreas; helps the body use or store glucose that it gets from food |

Some diabetes medicines can lower blood sugar too much and cause “hypoglycemia,” or low blood glucose. This is more common when a patient is taking two or more different kinds of diabetes drugs.

Low blood sugar can cause symptoms like sweating, shaking, dizziness, weakness, and confusion. If you think your blood sugar has dropped too low, eat or drink something containing sugar right away. If you do not

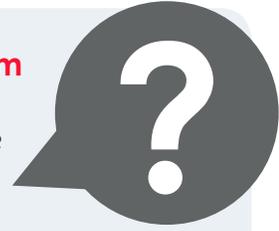
get sugar into your system quickly enough, you could pass out, so do not drive or use machinery if you have symptoms.

Because different diabetes medicines work in different ways, each can cause different types of side effects. The most common ones are weight gain and stomach problems. Some diabetes medications have also been linked to rare but serious effects like congestive heart failure. Others can interact with alcohol and other drugs and lead to other serious side effects. Tell your diabetes care team immediately if you have any unusual effects, like swelling of the feet and ankles. Ask whether it is safe to drink alcohol. Also, always tell your

team about any other medications you are using, both prescribed and over-the-counter.

Questions to ask your care team

- What is my medication for?
- When is the best time to take it?
- What side effects should I report?
- Is it safe to drink alcohol or take other medications with this drug?
- How long will I need to take it?



What is a support team, and why is it important to have one if I have diabetes?

Taking charge of your diabetes means more self-management, but you don't have to do this alone! Many people can join your support team to coach and advise you, including your doctor, dietitian, nurse, pharmacist, and diabetes educator. From time to time, you might need to add others, like a hormone specialist, a foot doctor, an exercise physiologist, or an eye doctor. And do not forget your family and friends! They are great for providing support and listening.



Resources

Learning as much as possible about healthy lifestyle choices and the latest therapies is key for patients with diabetes and their families. More information is available from the following organizations:

American Association of Diabetes Educators

www.diabeteseducator.org

American Diabetes Association

www.diabetes.org

National Diabetes Educational Initiative

www.ndei.org

National Diabetes Education Program

<http://ndep.nih.gov>

