

Diabetes medicines

What are
your options?



This booklet belongs to:

Name _____
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If this booklet is found, please contact the owner listed above. Thank you!

Favorably reviewed by:



This booklet was developed to be consistent with American Diabetes Association educational materials, including the Standards of Medical Care in Diabetes. This booklet does not replace the advice of your diabetes care team. Be sure to consult your diabetes care team regarding your individual diabetes care plan.

What's inside

| | |
|---|----|
| Our priorities: your health and well-being | 4 |
| How diabetes can affect the body | 6 |
| Type 2 diabetes and medicines | 10 |
| Commonly used diabetes pills | 12 |
| Injectable diabetes medicines | 16 |
| How do I inject diabetes medicines? | 30 |
| Where can I inject my diabetes medicine? | 34 |
| How do I store my injectable diabetes medicine? | 36 |
| How do I get rid of used diabetes supplies? | 38 |
| Talk with your diabetes care team about your treatment | 39 |
| What about low blood sugar? | 40 |
| What are target blood sugar levels for many adults with diabetes? | 42 |
| Wrapping up | 43 |
| Commitment to my health | 44 |
| Terms to know | 46 |

Our priorities: your health and well-being

At Novo Nordisk, we are committed to improving the lives of people with diabetes. Our top priorities are your health and well-being. We respect your varied lifestyles and needs. And we develop our treatments with those differences in mind.

This booklet will help you understand:

- ▶ The effects of diabetes on your body
- ▶ The different types of medicines used to treat diabetes
- ▶ The importance of knowing your blood sugar levels

Be sure to discuss your personal diabetes care needs with your diabetes care team.



Did you know...

The discovery of insulin in 1921 was one of the most important medical breakthroughs in modern times. Many new diabetes medicines have been developed since then. Both insulin and these more recent medicines help people manage their diabetes.



Quick tip

Having a source of support – family, friends, coworkers, doctor, diabetes care team – can help keep you on track with your diabetes care plan.



How diabetes can affect the body

Diabetes affects the whole body. Let's start by discussing how it affects the pancreas. The pancreas is a large gland behind the stomach. Within the pancreas are beta cells.

- ▶ Beta cells make and release hormones called insulin and amylin
- ▶ Beta cells help deliver insulin in the right amount at the right time to keep blood sugar levels normal

The cells in your body need sugar for energy. Sugar from food makes your blood sugar level go up. Sugar from food can be sugar itself, or it can come from carbohydrates that the body turns into sugar. Insulin lowers your blood sugar level by helping sugar move from your blood into your cells.



When you eat, another hormone made in the gut helps the pancreas release the right amount of insulin to move sugar from the blood into the cells. This hormone is called glucagon-like peptide-1 (GLP-1). It helps beta cells in the pancreas release more insulin when there is food in the stomach and intestines. The increased insulin lowers blood sugar levels.

There are other hormones that play important roles in how the body processes sugar:

- ▶ Amylin and GLP-1
 - Help reduce the amount of sugar made by the liver
 - Slow down the emptying of food from the stomach
- ▶ Glucagon
 - Tells the liver to release stored sugar if your blood sugar gets too low, such as overnight

In people with type 2 diabetes:

- ▶ The beta cells in the pancreas may stop working. Many people with type 2 diabetes have already lost about 50% to 80% of their beta cell function by the time their diabetes is diagnosed
- ▶ As the number or function of beta cells goes down, the pancreas may make less and less insulin:
 - For people with type 1 diabetes it happens suddenly
 - For people with type 2 diabetes it happens over time

In people with type 2 diabetes, several other things also may be wrong:

- ▶ The cells of the body do not respond to insulin like they used to. This is often referred to as insulin resistance. With insulin resistance, the beta cells may need to make much more insulin than they normally make
- ▶ The body may not make enough GLP-1
- ▶ The liver may release too much sugar

Having diabetes may increase your risk for other health problems. Over time, high blood sugar levels (also called hyperglycemia) can harm many parts of the body including:

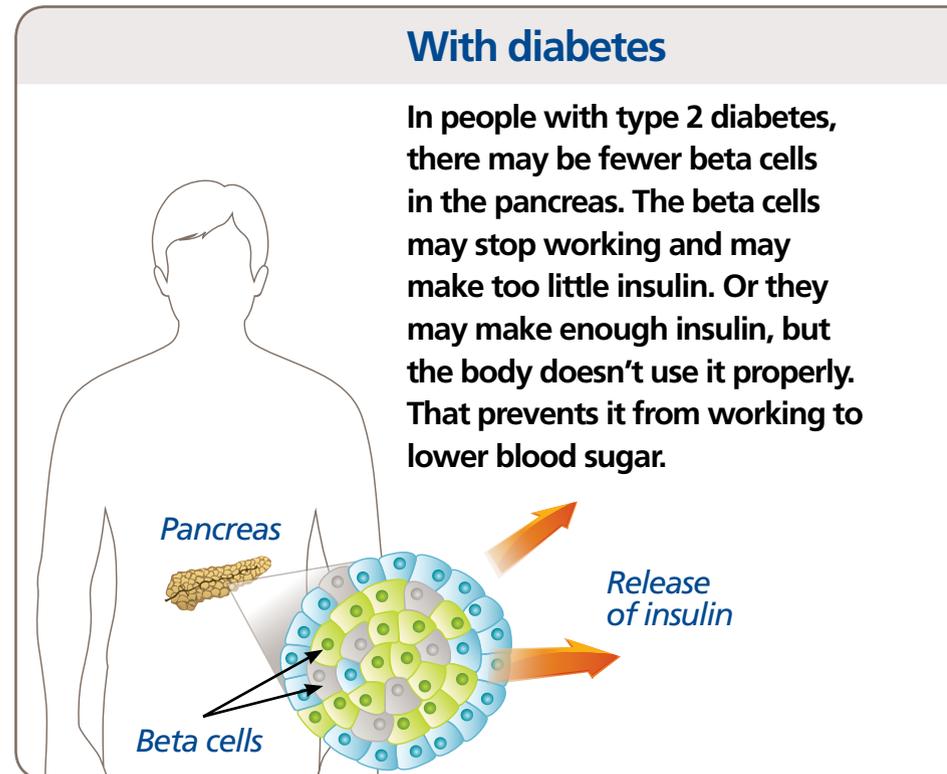
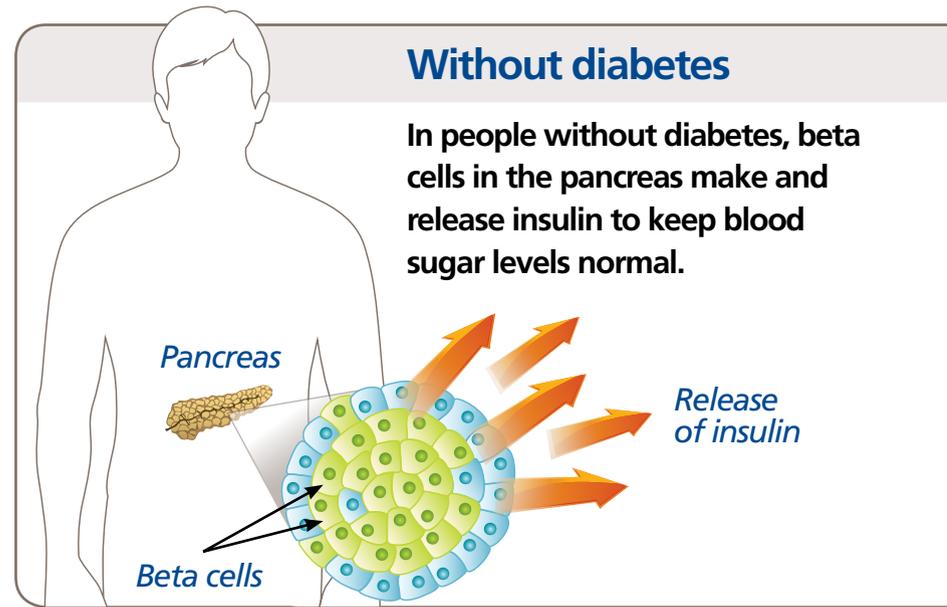
- ▶ Eyes
- ▶ Skin
- ▶ Kidneys
- ▶ Nerves
- ▶ Feet

But you can do a lot to prevent these problems or to slow them down.



Diabetes is not your fault!

Some people think that they have diabetes because of something they did or did not do. There are multiple reasons why people get diabetes. Your eating and activity choices can play a role in your blood sugar control. But it's not the whole story.



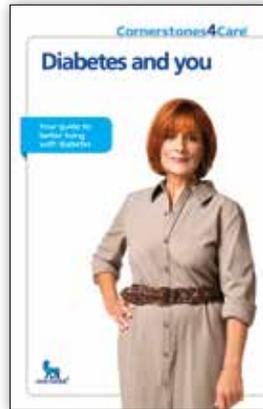


Type 2 diabetes and medicines

Many people with type 2 diabetes follow meal and physical activity plans to help manage their blood sugar. Type 2 diabetes is affected by:

- ▶ What you eat
- ▶ How much you eat
- ▶ How active you are

The Novo Nordisk booklet *Diabetes and You* provides useful tips to help you stick to a healthy meal plan and keep active.



But following your meal plan and staying active often are not enough to keep your blood sugar in check. Medicine is almost always necessary. If your blood sugar levels and A1C are above your recommended goal with meal planning and physical activity alone, then you might need medicine for your diabetes.

There are many types of effective medicines to treat diabetes. Diabetes medicines help the body work better to keep blood sugar levels in the right range.

The main types of diabetes medicines are:

- ▶ Pills taken by mouth
- ▶ Medicines taken by injection

Talk with your diabetes care team to find out which diabetes medicine is right for you. You can learn more about diabetes medicines at [Cornerstones4Care.com](https://www.cornerstones4care.com).



Keep in mind

Taking diabetes medicines is just one of the things you need to do to meet your blood sugar goals. Healthy eating and physical activity are also important parts of your diabetes care plan.





Commonly used diabetes pills

There are many types of diabetes pills. These pills are also called oral antidiabetic drugs, or OADs for short. Diabetes pills work best when you also follow a meal plan and take part in regular physical activity. They work in different ways to lower blood sugar levels. Each medicine works in one or more of the following ways.



Metformin

- ▶ These pills reduce the amount of sugar that the liver releases
- ▶ These pills can also help improve the body's ability to respond to insulin by helping to make the cells more sensitive to insulin
- ▶ **Common side effects:** These pills can cause upset stomach and diarrhea

Sulfonylureas (glimepiride, glyburide, glipizide)

- ▶ These pills help the beta cells in the pancreas release insulin, resulting in a lowering of blood sugar
- ▶ **Common side effects:** There are increased risks for low blood sugar and weight gain with these medicines

Thiazolidinediones, or TZDs (pioglitazone, rosiglitazone)

- ▶ These pills help insulin work better in muscle, fat, and liver
- ▶ These pills improve the body's response to the insulin that it already makes
- ▶ This means that more sugar leaves the blood and enters the muscles and fat cells, where it belongs
- ▶ **Common side effects:** These pills can cause weight gain and swelling

DPP-4 inhibitors (sitagliptin, saxagliptin, linagliptin, alogliptin)

- ▶ These pills prevent the breakdown of GLP-1
- ▶ The body's natural GLP-1 helps to lower blood sugar levels, but it is broken down very quickly
- ▶ By blocking the breakdown of GLP-1, these pills allow GLP-1 to remain active in the body longer, lowering blood sugar levels only when they are too high
- ▶ **Common side effects:** These pills are generally well tolerated

SGLT-2 inhibitors (dapagliflozin, empagliflozin, canagliflozin)

- ▶ Sugar in the blood is filtered by the kidneys back into the blood
- ▶ An enzyme in the kidneys called sodium-glucose transporter 2 (SGLT-2) works to reabsorb the sugar into the body
- ▶ SGLT-2 inhibitors block the reabsorption of sugar into the blood and leave it in the urine
- ▶ **Common side effects:** These pills may cause dehydration, genitourinary infections, and urinary tract infections



Depending on your treatment needs, you may need to take more than one of these medicines to control your diabetes as it progresses. The different types of medicines can work together to help lower blood sugar levels.

Diabetes pills do not work for everyone. Sometimes they do not bring blood sugar levels down low enough. Or they sometimes are not enough after a few years.

If your diabetes pills stop working, it does not mean you have failed to control your diabetes. It simply means that your body has changed and needs a different type of treatment.



To learn more about diabetes pills, visit [Cornerstones4Care.com](https://www.cornerstones4care.com).



Injectable diabetes medicines

In addition to diabetes pills, there are diabetes medicines that are taken by injection. Some of these are non-insulin injectable medicines, and some are insulin.

Non-insulin injectable medicines

Non-insulin injectable medicines for people with type 2 diabetes:

- ▶ Are taken by using a prescription pen
- ▶ May be taken once weekly, once a day, twice a day, or before each meal (depending on the medicine)

Common non-insulin injectable medicines called GLP-1 receptor agonists work in the following ways:

- ▶ By helping beta cells release more insulin when there is food in the stomach and intestines. The increased insulin lowers blood sugar levels
- ▶ By stopping the liver from releasing sugar into the blood when it is not needed
- ▶ By slowing the movement of food through the stomach so sugar enters the blood more slowly
- ▶ By making you feel full, which helps decrease how much food you want to eat



Medicines work in different ways in the body to help control blood sugar

Help decrease how much food you want to eat by making you feel full

Block the breakdown of GLP-1

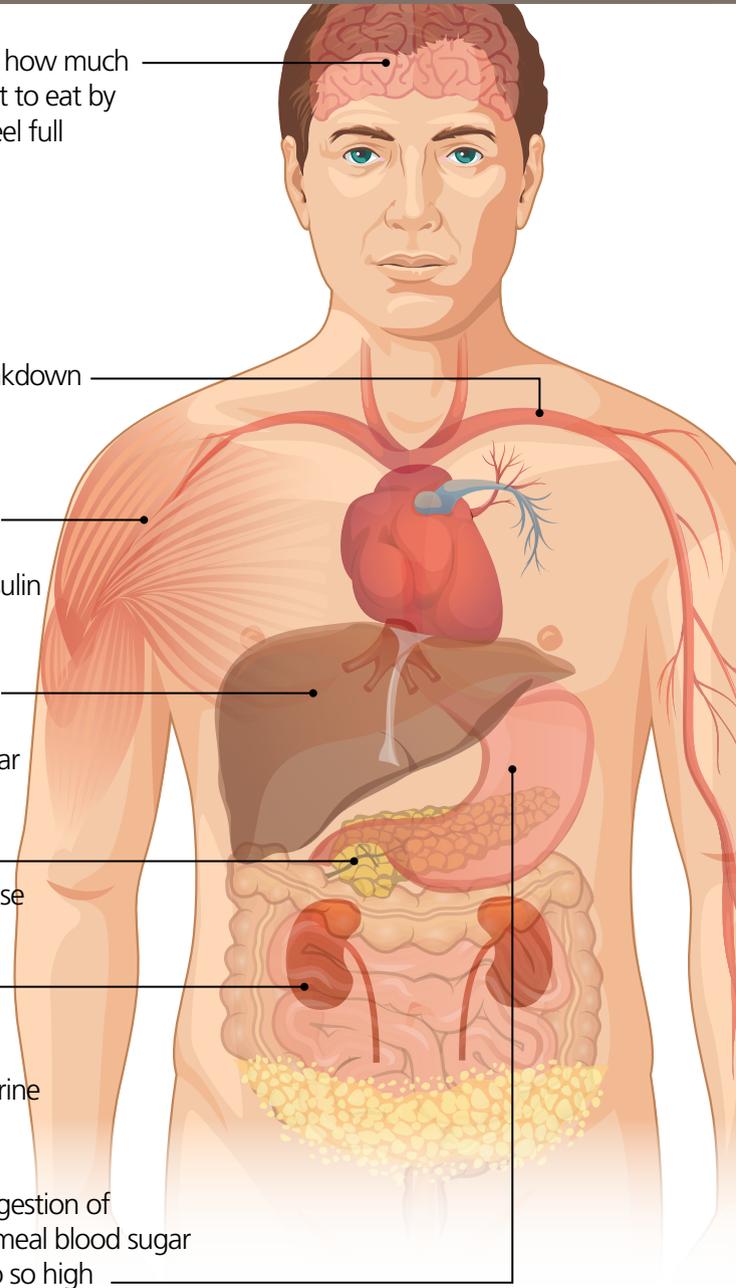
Make muscle cells more sensitive to insulin

Keep the liver from making too much sugar

Help the pancreas release more insulin

Help the body get rid of extra sugar through the urine

Slow down digestion of food so after-meal blood sugar levels don't get so high



Common side effects of non-insulin injectable medicines

As often happens with many medicines, some people may have side effects when starting non-insulin injectable medicines. The most common side effects are:

- ▶ Nausea
- ▶ Diarrhea

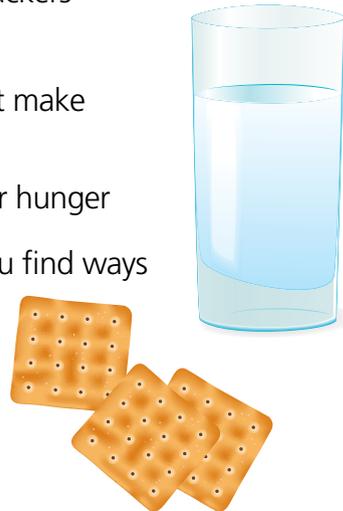
These side effects usually go away over time as your body gets used to the medicine.

Here are some things you can do that might help your nausea go away:

- ▶ Eat small amounts often instead of a few large meals
- ▶ Eat bland, nongreasy foods, such as baked potato, pasta, dry toast, or plain crackers
- ▶ Drink plenty of fluids
- ▶ Avoid foods and smells that make you feel sick
- ▶ Eat slowly and listen to your hunger

Your diabetes care team can help you find ways to manage side effects.

For a full list of side effects, talk with your diabetes care team.



Concerns about needles

Some people worry that injections might be painful. But the needles used today are smaller than they used to be. Prescription pens can be used to inject diabetes medicines.

Talk with your diabetes care team about your treatment needs to ensure that you are taking the medicine that's right for you.

And to learn more about injectable diabetes medicines, visit [Cornerstones4Care.com](https://www.cornerstones4care.com).

Try this:

When you are feeling anxious about injections, remember that needles are available in different sizes.



Insulin

In people with type 1 diabetes, the beta cells in the pancreas stop making insulin. People with type 1 diabetes need to take insulin to control blood sugar. The amount of insulin taken must be balanced with how much food they eat and how active they are. The main parts of a diabetes care plan include:

- ▶ Eating healthy
- ▶ Managing stress
- ▶ Being physically active
- ▶ Taking insulin

In type 2 diabetes, many people find that as their beta cells stop working over time, they need to take insulin. If you have been told that you could benefit from insulin but have delayed starting it, you are not alone. Many people worry about starting insulin. Some common feelings you may want to discuss with your diabetes care team are:

- ▶ What is it like to inject yourself?
- ▶ Does insulin have side effects?
- ▶ Will taking insulin interfere with your life?

Today, there are many insulin products and insulin devices available to help control blood sugar in people with type 2 diabetes. You and your diabetes care team can work together to find the diabetes products that are right for you.

You can learn more about insulin at [Cornerstones4Care.com](https://www.cornerstones4care.com).

Why isn't insulin in pill form?

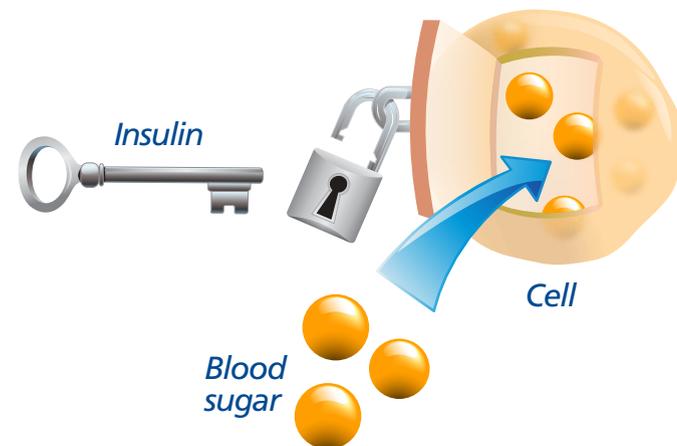
Insulin is a hormone made of protein. If you took it as a pill, the acid in your stomach would break it down during digestion, just like it breaks down the protein in food. So insulin has to be injected or inhaled.

How does insulin work?

When you inject insulin into your body, your blood sugar level goes down. It goes down because of the way insulin works:

- ▶ 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

That's how taking insulin helps manage blood sugar.



What is an insulin plan?

Everyone who takes insulin needs a personal insulin plan. Your diabetes care team will help you make a plan that works for you.

Your plan will tell you:

- ▶ What type of insulin to take
- ▶ How much insulin to take
- ▶ When to take it
- ▶ How often to check your blood sugar

Your plan will be based on:

- ▶ When and how much you eat
- ▶ Your current blood sugar level
- ▶ Your level of physical activity
- ▶ Your lifestyle
- ▶ Your other medicines

A helpful hint



If you are starting a new injectable medicine, stay in close contact with your doctor's office so that your dose can be adjusted.



Your body's need for insulin goes up and down all day. Your need for insulin depends on what you are doing and how much sugar is in your blood. For instance:

- ▶ You need more insulin after you eat (especially about 1 to 2 hours after a meal, when blood sugar is highest)
- ▶ You need less insulin when you sleep or exercise

Your diabetes care team will help you develop an insulin plan that's right for you and your lifestyle. Between visits, it's a good idea to keep notes about how you're doing so you can share this information with your team. Be sure to check with your diabetes care team before you make any changes in your insulin doses.

What are the different types of insulin?

There are many types of insulin. They each work at a different pace to mimic the way the body normally releases insulin. They each have a different:

- ▶ Onset of action (when they start to work)
- ▶ Time of peak action (when their effect on blood sugar is strongest)
- ▶ Duration of action (how long they work)

Human insulin is available in three types:

- ▶ **Short-acting.** This insulin, also called regular insulin, is usually taken 30 minutes before a meal and lasts 6 to 8 hours
- ▶ **Intermediate-acting.** This type of human insulin, also called NPH insulin, is usually taken 30 minutes before breakfast, before the evening meal, or at bedtime. It is effective for anywhere from 16 to 24 hours
- ▶ **Premixed.** This type of human insulin includes both a regular insulin and an intermediate-acting insulin. It is usually taken 30 minutes before breakfast and/or the evening meal. It works for anywhere from 16 to 24 hours

Analog insulin is a more recently developed medicine. The three main types of analog insulin are:

- ▶ **Fast-acting.** This type is taken shortly before or at mealtime. It works quickly to control the rapid rise in blood sugar after meals
- ▶ **Long-acting.** This type works more slowly. It works longer to control blood sugar between meals and when you sleep
- ▶ **Premixed.** This type is a mixture of fast-acting and intermediate-acting insulins. It works to control blood sugar at mealtime, between meals, and when you sleep

Each type of insulin helps keep diabetes under control. But no one type is right for everyone. Each person's insulin need is different. And each person's insulin need may change over time. Your diabetes care team will prescribe the insulin that is best for you.

To learn more about the different types of insulin, visit [Cornerstones4Care.com](https://www.cornerstones4care.com).





Combination insulin therapy

Some people with type 2 diabetes may use two types of insulin therapy. This type of therapy often includes taking a fast-acting insulin three or more times a day along with a long-acting insulin. They do this to keep their blood sugar as close to target as possible.

- ▶ Fast-acting insulin mimics the body's natural release of insulin after eating. This type of insulin acts quickly to handle the spike in blood sugar after a meal
- ▶ Long-acting insulin is taken once or twice a day to help give 24 or more hours of insulin coverage

Common side effects of insulin

Although insulin is a hormone that the body makes naturally, injecting it may cause some side effects. Here are a few to be aware of:

- ▶ **Low blood sugar.** You may get low blood sugar if you take too much insulin, don't eat enough, or are more active than usual. When your blood sugar gets too low, you may feel:
 - Weak or tired
 - Hungry
 - Dizzy or shaky
 - Nervous or upset
 - Sweaty
 - Confused
 - Sleepy
 - Like your mood is changing
 - Headache
- ▶ **Weight gain**
- ▶ **Redness, swelling, or itching at the place where you inject.** If this reaction happens, let your diabetes care team know. Changing to a different kind of insulin may solve the problem

Some people may not have any signs of low blood sugar before they have a problem. This is another reason why regular blood sugar checks are important. See pages 40 and 41 for more information about what to do about low blood sugar.

| Types of insulin | When it's usually taken | How soon it starts working ^a | When its effect is strongest | How long it lasts |
|--|---|---|------------------------------|-----------------------------|
| Analog insulin | | | | |
| Fast-acting insulin | Right before a meal | 5 to 15 minutes | 45 to 75 minutes | 3 to 4 hours |
| Long-acting insulin | Once or twice a day | 2 hours | Steady over time | 14 to over 42 hours |
| Premixed (mixture of fast-acting and intermediate-acting insulins) | Before breakfast and/or before the evening meal | 5 to 15 minutes | Varies | 16 to 24 hours ^b |
| Human insulin | | | | |
| Short-acting insulin (also called regular insulin) | 30 minutes before a meal | 30 to 45 minutes | 2 to 4 hours | 6 to 8 hours |
| Intermediate-acting insulin (NPH) | 30 minutes before breakfast, before the evening meal, or at bedtime | 2 hours | 4 to 12 hours | 16 to 24 hours |
| Premixed (mixture of short-acting [regular] and intermediate [NPH] insulins) | 30 minutes before breakfast and/or before the evening meal | 30 to 60 minutes | Varies | 16 to 24 hours ^b |

^aAll times shown are approximate. ^bCheck label.

You and your diabetes care team will decide which type of insulin is best for you. Because each person is different, it may take a while to find the correct type and dose of insulin.





How do I inject diabetes medicines?

Many people are nervous about giving themselves injections. That's a natural way to feel. That's why it's important to learn about the many ways to give yourself injections.

Prescription pens

A prescription pen looks like a writing pen. Pen needles are often shorter and thinner than those used on many syringes. The dosing dial helps you take the right amount of medicine. Many people who inject themselves with a syringe find the prescription pens a good option.



A syringe filled from a vial of insulin

This is an older way to inject insulin. A syringe is a hollow tube with a plunger on one end and a needle on the other. You stick the needle into a vial of insulin and draw up your dose. Syringes may not be convenient for people who need to inject insulin many times a day.



Insulin pumps

Some people with diabetes choose to switch from injecting insulin to using an insulin pump. Here are some facts about insulin pumps:



- ▶ Insulin pumps are small computerized pumps. They are about the size of a cell phone. Some are worn on your belt or pocket
- ▶ They deliver a steady, measured amount of fast-acting insulin through a small plastic tube. The tube has a small needle that is placed just under the skin, in an area such as the abdomen, and is taped in place
- ▶ On your command, the pump releases a bolus (a surge) of insulin. This is usually done just before eating to counter the rise in after-meal blood sugar
- ▶ New pumps have many features. Some insulin pumps may measure blood sugar levels by continuous monitoring. Some can be linked to a wireless meter
- ▶ The amount of insulin delivered by the pump needs to be determined by the user. Some pumps may help you decide how much insulin you need
- ▶ Pumps deliver a very precise amount of insulin for different times of day. Many people prefer this continuous system of insulin delivery to injections

The pump can release a very small amount of insulin continuously. You still need to check your blood sugar level to adjust the amount of insulin you get. To use a pump, you must be willing to check your blood sugar more often, as directed by your diabetes care team. You then use buttons on the pump to program it to deliver the amount of insulin you need. You also need to learn how to adjust your insulin, food, and physical activity in response to those results.

An insulin pump will not cure diabetes. At first, it may even require more work than your previous diabetes care plan. People need to be trained on how to use their pumps. Make sure to check the instructions that come with your pump. Insulin pumps can cause health problems if the tube comes out and the flow of insulin stops for a while.

Talk with your diabetes care team about which injection device is right for you. Voice any concerns you have. Remember – your diabetes care team is there to help and support you.



Did you know...

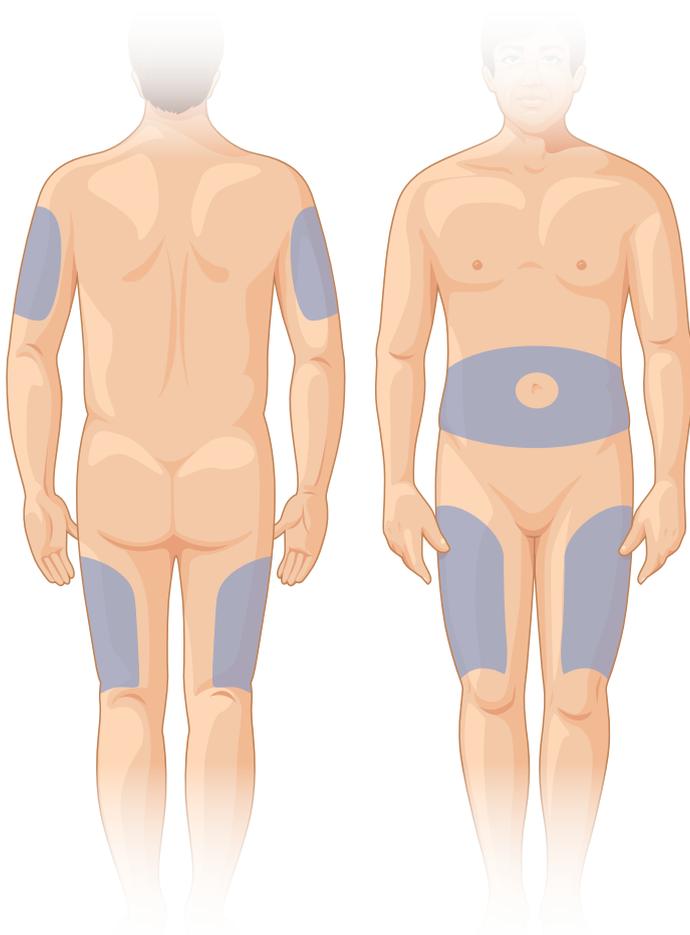
For most people with type 2 diabetes, blood sugar levels will go up over time. Think of food, physical activity, and medicine as tools to help you stay healthy with diabetes.



Where can I inject my diabetes medicine?

Injections of diabetes medicines are given in the layer of fat just under the skin in these areas of the body:

- ▶ Abdomen (except a 2-inch circle around your belly button)
- ▶ Thighs (top and outer parts)
- ▶ Back of upper arms



Some diabetes medicines may work better if you inject them in the same general areas each day. For instance, you can inject them in the abdomen each morning and in the thigh at bedtime. To avoid lumps or buildup of scar tissue, they should not be injected in the same exact spot each day.

Where you inject can affect how quickly the medicine works. Be sure you know how to prepare and inject your medicine and how fast it works.

Talk with your diabetes care team about how to inject your diabetes medicine. Use the injection technique recommended by your diabetes care team. To learn more, visit [Cornerstones4Care.com](https://www.cornerstones4care.com).



How do I store my injectable diabetes medicine?

Here's what you need to know about storing injectable diabetes medicine:

- ▶ Follow the instructions on the label
- ▶ Keep new, unopened containers in the refrigerator but not too close to the cooling element
- ▶ Do not freeze injectable diabetes medicine, and do not use it if it has been frozen
- ▶ It's usually okay to store injectable medicine at room temperature after you have opened it for a certain amount of time, but check the label to make sure
- ▶ Do not let injectable medicine become too hot or too cold
- ▶ Keep injectable medicine out of bright light and sunlight
- ▶ Do not store injectable medicine in the glove compartment of a car
- ▶ Do not use injectable medicine after the expiration date on the label



Insulin tips

- ▶ If you are using insulin from a vial, always check it before you inject it
- ▶ Read the instructions that come with your insulin to learn if your insulin should be clear or cloudy
- ▶ Do not use your insulin if it looks different from the way it should
- ▶ Also, do not use your insulin if you see any:
 - Flakes
 - Clumps
 - Floating pieces
- ▶ Once insulin is opened, it's good for a shorter period of time than the date on the container. Check the package insert to see how long the opened insulin is safe to use
 - Do not use leftover insulin past the expiration date

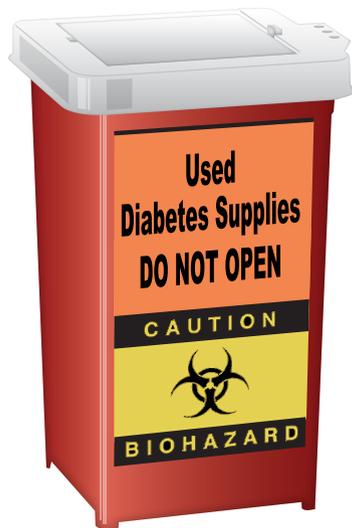


How do I get rid of used diabetes supplies?

Put needles and any empty disposable pens in a sharps container or some type of hard plastic or metal container with a screw top, such as a detergent bottle or empty coffee can. These containers should be sealed and thrown away the right way.

Check with your diabetes care team about the right way to throw away used syringes and needles. There may be local or state laws about how to throw them away. Do not throw away used needles and syringes in household trash or recycling bins.

For more information, visit [Cornerstones4Care.com](https://www.cornerstones4care.com).



Talk with your diabetes care team about your treatment



Diabetes medicines work best if you stick to a meal plan and keep active. Be sure to take your medicine as your diabetes care team prescribes. A pill organizer and/or sticky notes may help remind you when to take your medicine. Also, keep taking your medicine even after you start to feel better. Remember – diabetes medicines do not cure diabetes, but they can help manage it.

If you have questions about your diabetes medicines, please talk with your diabetes care team. Tell them if you have any side effects from the medicines.

Your diabetes care team will work closely with you to make sure that you are getting the right medicines. Be sure to talk with your team about which medicine is right for you.

Visit [Cornerstones4Care.com](https://www.cornerstones4care.com) for more information about managing your diabetes.





What about low blood sugar?

Ask your diabetes care team what low blood sugar is for you. For most people, it is less than 70 mg/dL. Check your blood sugar right away if you have any symptoms of low blood sugar (also called hypoglycemia). If your blood sugar is low, or if you think your blood sugar is low but you cannot check it at that time, follow the **rule of 15. Eat or drink something with 15 grams of fast-acting carbohydrates right away**, such as:

- ▶ 4 ounces (½ cup) of regular fruit juice (such as orange or apple juice)
- ▶ 4 ounces (½ cup) of regular soda pop (not diet)
- ▶ 4 glucose tablets or 1 tube of glucose gel
- ▶ 1 tablespoon sugar, honey, or corn syrup
- ▶ 2 tablespoons of raisins



Wait 15 minutes and then check your blood sugar again. If it is still low, **eat or drink something with 15 grams of carbohydrates again**. If your next meal is more than an hour away, eat a snack to keep your blood sugar glucose in target range.

Always check with your diabetes care team about how to treat your low blood sugar. Tell your diabetes care team if you often have low blood sugar. You and your team may need to change your diabetes care plan.

- ▶ It's important to keep your blood sugar levels as close to target as possible
- ▶ Untreated low blood sugar can become severe and cause you to pass out

If you sometimes have severe low blood sugar that requires help from another person, ask your diabetes care team if a glucagon medicine would be helpful.

- ▶ Glucagon is an emergency medicine that can be injected to raise your blood sugar when you cannot take sugar by mouth. It is important to seek emergency medical help immediately after using it
- ▶ Make sure that family members and friends know how to use it and that if you become unconscious they should use this medicine right away
- ▶ Keep the emergency glucagon in a handy place, and be sure that family, friends, and colleagues know where it is

It's a good idea to wear a medical ID bracelet or carry a card that explains that you have diabetes and what help you might need in an emergency. Several organizations sell identification items (bracelets, necklaces, or key rings) inscribed with your medical condition and other important information. You can ask your diabetes care team for help in getting these items.

For more information about low blood sugar, visit Cornerstones4Care.com.



What are target blood sugar levels for many adults with diabetes?

The table below lists blood sugar goals for many adults with diabetes. You and your diabetes care team will set individual goals for you. Write your goals in the last column.

For tips to help you make checking your blood sugar a part of your life, visit [Cornerstones4Care.com](https://www.cornerstones4care.com).



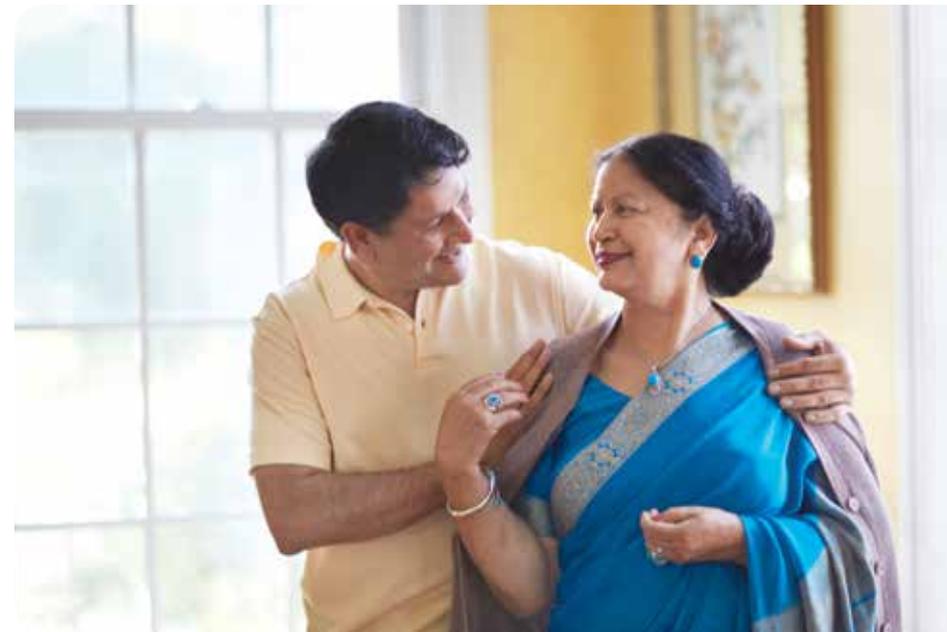
| Time | Goals for many adults with diabetes | Your goals |
|--|-------------------------------------|------------|
| A1C | Less than 7% | _____ |
| Before meals | 80 to 130 mg/dL | _____ |
| 1 to 2 hours after the start of a meal | Less than 180 mg/dL | _____ |

Adapted from the American Diabetes Association. Standards of medical care in diabetes – 2017. *Diabetes Care*. 2017;40(suppl 1):S1-S135.

Wrapping up

After you read this booklet and talk with your diabetes care team, see how much you know about your diabetes care plan. Check the boxes below when you understand:

- The types and amounts of diabetes medicine you take
- The time or times you take your diabetes medicine
- How to store injectable diabetes medicine (if you take it)
- How and when to check your blood sugar
- The signs of low blood sugar and what to do about it
- What strategies you can use to deal with stress
- When to contact your diabetes care team



Commitment to my health

My agreement

Use this chart to help you decide on your wellness goals and plan how to get to the goals you choose. I, _____, agree to achieve the goals below to help improve my overall health and wellness.

Your signature _____ Date _____

Friend's signature _____ Date _____

| | What I will do: | When I will start: | My barriers: | How I will overcome barriers: |
|---------|---|-------------------------------|--|--|
| Example | <i>I will take my diabetes medicines exactly as prescribed so they work as well as possible for me.</i> | <i>I will start tomorrow.</i> | <i>I sometimes forget to take my medicine.</i> | <i>I will set an alarm to remind me when it is time to take each dose.</i> |
| Goal 1 | | | | |
| | | | | |
| | | | | |
| | | | | |
| Goal 2 | | | | |
| | | | | |
| | | | | |
| | | | | |



Terms to know

A1C. A test that gives you a picture of your estimated average blood sugar level over the past 3 months. The results show how well your diabetes care plan is working

Beta cells. Cells in the pancreas that make insulin. In people with diabetes, the beta cells may stop making or make less insulin

GLP-1. A hormone that helps the pancreas release the right amount of insulin to move sugar from the blood into the cells

Glucagon. A hormone released by the pancreas that helps move sugar into the blood from the liver. Glucagon is available in an injectable form. It works quickly to raise blood sugar if you pass out from low blood sugar

Glucose. Sugar. Blood glucose is another way to say blood sugar

Hormone. A natural substance that is made by glands in the body and that controls the activity of certain cells or organs

Hyperglycemia. High blood sugar

Hypoglycemia. Low blood sugar

Insulin. A hormone made by the pancreas that helps sugar move from the blood into the cells. Insulin is also a medicine that is used to treat diabetes by controlling the level of sugar in the blood

Pancreas. A large gland behind the stomach. The pancreas makes pancreatic juices, or enzymes, to help the body digest food. It also makes the hormones insulin and glucagon

Type 1 diabetes. Occurs when the pancreas does not produce any insulin. People with type 1 diabetes need to inject insulin

Type 2 diabetes. Occurs when the pancreas does not make enough insulin or the body cannot use insulin effectively (called insulin resistance)



Support online

Enjoy the benefits and support of the free **Cornerstones4Care®** program. Simply enroll online at **Cornerstones4Care.com**. You'll be able to take advantage of all sorts of tools for managing your diabetes. Don't miss this chance. **Join today!**



Novo Nordisk is dedicated to diabetes

Diabetes is our passion and our business

As a leader in diabetes, Novo Nordisk is dedicated to improving diabetes care worldwide. Novo Nordisk first marketed insulin for commercial use in 1923. Today we offer a broad line of medicines for diabetes. Novo Nordisk created the world's first prefilled pen device for injections.

If you are having trouble affording your Novo Nordisk brand medicine, you may qualify for help. Call the Customer Care Center at 1-800-727-6500 to see if you qualify for assistance.

For more information about Novo Nordisk products for diabetes care, call 1-800-727-6500.

Return this card today to join

Cornerstones4Care®

1 Tell us about yourself

Go to **Cornerstones4Care.com** to register today. Or fill in the information below. Then tear off this card, fold and seal it, and mail it back to us.

All fields with asterisks (*) are required.

* I have diabetes or I care for someone who has diabetes

* First name _____ MI _____

* Last name _____

* Address 1 _____

Address 2 _____

* City _____

* State _____ * ZIP _____

* Email address _____

* Birth date (mm/dd/yyyy) _____

Phone number (____) - ____ - _____

Cell phone number (____) - ____ - _____

Yes, I would like Novo Nordisk to contact me via telephone and text message at the telephone number(s) I provided regarding Novo Nordisk's products, goods, or services. I understand these calls or texts may be generated using an automated technology and I do not have to consent to receive communications via telephone or text messaging before purchasing goods or receiving other services from Novo Nordisk.

If you are the parent of a child aged 17 years or younger for whom you provide diabetes care, please give the following information for the minor:

First name _____

Last name _____

Birth date (mm/dd/yyyy) _____

2 Tell us a little more

* What type of diabetes do you have? (Check one)

Type 2 Type 1 Don't know

* What year were you (or the person you care for) diagnosed with diabetes? _____

* What type of diabetes medicine has been prescribed? (Check all that apply)

Insulin
 Diabetes pills (also called *oral antidiabetic drugs*, or *OADs*)
 GLP-1 medicine
 None
 Other

* If you checked "diabetes pills," how many types are taken each day?

1 type of diabetes pill 2 types of diabetes pills
 More than 2 types of diabetes pills

* If you checked "Insulin," "GLP-1 medicine," or "Other," please fill in the following for each:

Product 1: _____

How is this product taken? (Check all that apply)
 Syringe Pen Other delivery system

How long has this product been taken?
 Prescribed but not taken 7-12 months
 0-3 months 1-3 years
 4-6 months 3 or more years

How many injections are taken each day?†
 1 2 3 More than 3 N/A

Product 2: _____

How is this product taken? (Check all that apply)
 Syringe Pen Other delivery system

How long has this product been taken?
 Prescribed but not taken 7-12 months
 0-3 months 1-3 years
 4-6 months 3 or more years

How many injections are taken each day?†
 1 2 3 More than 3 N/A

Product 3: _____

How is this product taken? (Check all that apply)
 Syringe Pen Other delivery system

How long has this product been taken?
 Prescribed but not taken 7-12 months
 0-3 months 1-3 years
 4-6 months 3 or more years

How many injections are taken each day?†
 1 2 3 More than 3 N/A

†Please talk to your doctor to make sure that the medicine is being taken exactly as prescribed.

3 Tell us about your interests

Please check up to **2 topics from the list below** so we can offer you the information and support that's most helpful to you.



Healthy eating



Being active



Managing diabetes



Diabetes medicines

4 Review and complete below

To complete your registration, we ask you take a moment to read the below information to better understand how Novo Nordisk uses the information you provided us. When you finish reading, please check the "I Agree" box and confirm your age. Sign and date below to complete your registration.

Novo Nordisk respects the importance of your privacy and understands your health is a very personal and sensitive subject. Novo Nordisk wants you to understand how it will use the information provided by you on this registration page. By checking "I Agree" below, you are indicating you want to learn more about this service and receive promotional or non-promotional updates via email or mail from Novo Nordisk or its partners about products, support services, or other special opportunities that Novo Nordisk or its partners believe might be interesting to you. You also understand that you may opt out from receiving any future communications from Novo Nordisk or its partners by clicking the "unsubscribe" link within any email you receive, by calling 1-877-744-2579, or by sending us a letter containing your full contact information (eg, name, email address, phone) to Novo Nordisk, 800 Scudders Mill Road, Plainsboro, New Jersey 08536.

To better understand how Novo Nordisk values your privacy and what other information may be collected from you while you use this service, please visit www.C4CPrivacy.com.

I agree and confirm I am 18 years of age or older.

Signature (required) _____

Date (required) _____
mm/dd/yyyy

FREE tools and resources from Cornerstones4Care®

Cornerstones4Care® gives you information and support tailored to your needs, wherever you are in your diabetes journey. It offers a wide array of diabetes management tools, available whenever you need them, all in one place. Features include:



Meal planning tools

Easy-to-make recipes for tasty, diabetes-friendly dishes—plus shopping and tracking tools

Interactive trackers

With A1C, medicine, and blood sugar tracking tools, you can share progress with your diabetes care team



Supportive newsletters

With timely tips and inspiration every step of the way

Diabetes books

Free, downloadable books designed to help you learn more about important diabetes topics



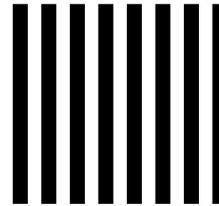
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The **Cornerstones4Care®** educational series is designed to help people with diabetes and their care partners work with the diabetes care team to learn about and manage diabetes.

- ▶ Diabetes and you
- ▶ Your guide to better office visits
- ▶ Diabetes medicines
- ▶ Carb counting and meal planning
- ▶ Staying on track
- ▶ Supporting someone with diabetes

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