



Office of
Women's
Health

Diabetes Medicines

Diabetes can make it hard to control how much sugar (called glucose) is in your blood.

There is hope!

Some people with diabetes can take medicines to help keep their blood sugar at a healthy level.

This booklet gives some basic facts about the medicines used to treat people with **type 2 diabetes**. Facts about insulin are covered in a separate booklet.

Use this guide to help you talk to your doctor, nurse or pharmacist about the kind of medicine that is right for you.

Do not wait. Diabetes is a serious illness.

Diabetes can cause a heart attack, stroke, blindness, kidney disease, nerve damage, and other serious health problems. This is why it is so important for you to get treatment for your diabetes. Treatment can help prevent or slow some of these serious health problems.

You can control your diabetes.

Diabetes Tips

- Talk to your doctor before you change or stop taking your diabetes medicines.
- Do not take the pills listed in this booklet if you have type 1 diabetes. People with type 1 diabetes need insulin.
- Ask your doctor about your target blood sugar level.
- Talk to your doctor or nurse about what you should do if your blood sugar gets too low or too high.
- Ask your doctor if your diabetes medicines will affect your other medicines including your birth control.

Check the FDA website to learn more about Women and Diabetes:
www.fda.gov/womensdiabetes

My Diabetes Medicines

Ask your health care provider these questions before you start using your diabetes medicines.

- When should I take my diabetes medicines? How much should I take?
- How will they affect my other medicines? What about my birth control?
- What are the side effects of taking my diabetes medicines? What do I do if I start having side effects?
- Can you show me the right way to check my blood sugar?
- How often should I check my blood sugar?
- What is my target blood sugar level?

Before Meals _____

1-2 Hours After Meals _____

Bedtime _____

- What should I do if I am pregnant, planning to get pregnant, or breastfeeding?

Write down the facts about your diabetes medicines the next time you talk to your doctor, nurse, or diabetes educator.

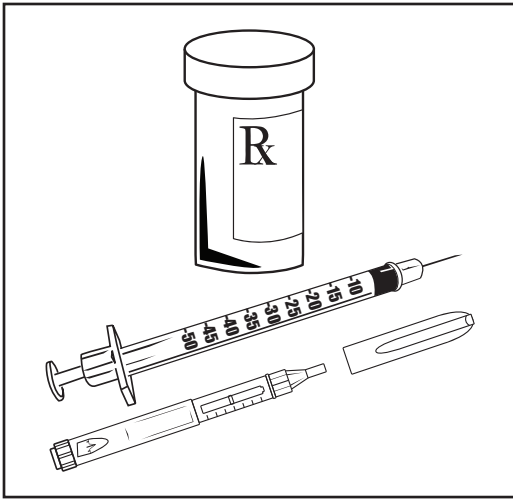
Name:

Doctor:

Pharmacy:

My Glucose Meter:

| Medicine Name | How Much Do I Take | When Do I Take it | What I Should Know |
|---------------|--------------------|-------------------|--------------------|
| | | | |
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Diabetes medicines help to keep your blood sugar at a healthy level. There are a few kinds of medicines used to treat diabetes. Each kind affects your body in a different way. Some diabetes medicines are taken as pills that you swallow. There are other medicines that you inject.

Do I need to take diabetes medicines?

Some people with diabetes need to use medicines everyday. What you need depends on your health and the type of diabetes you have. Your doctor can tell you if you need to use medicine to treat your diabetes.

Type 1 Diabetes

People with type 1 diabetes make very little or no insulin in their bodies. They must take insulin everyday to stay alive. People with type 1 should not take the medicines listed in this booklet.

Type 2 Diabetes

People with type 2 diabetes do not make enough insulin or do not use it well enough. Some people with type 2 diabetes can use pills or other medicines that are injected into the body. Other people with type 2 diabetes need insulin to help control their diabetes.

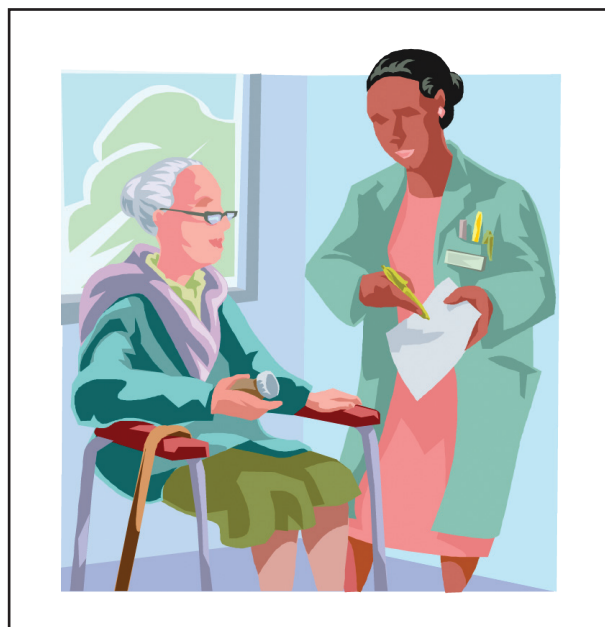
Gestational Diabetes

Some women develop diabetes for the first time when they become pregnant. This is called **gestational** (jes-Tay-shun-ul) diabetes. Some women with gestational diabetes need to use insulin to control their blood sugar.

What You Can Do About Side Effects

Diabetes medicines affect each person differently. These medicines can sometimes cause side effects. The side effects will depend on your body and the type of medicine you are taking. Follow these tips to help you learn how to handle the side effects.

- **Get the facts.** Ask your health care provider for the side effects, warnings, and other facts for the medicines you are taking. This booklet does not give all the facts for each kind of diabetes medicine.
- **Speak up.** Tell someone about any problems you may be having with your medicines. Your doctor may change your medicine or give you tips to help you deal with the side effects.
- **Check the FDA website.** You can find up-to-date safety information about your medicine at: **www.fda.gov**
- **Report serious problems with your medicines.**
You or your doctor can tell the FDA about serious problems with your medicines.



Call FDA at **1-800-332-1088** to report serious side effects.

Learn more about reporting problems to the FDA at:
www.fda.gov/Safety/MedWatch/HowToReport/ucm053074.htm

Diabetes Tip:

Talk to your doctor before you change or stop taking your medicines.

Know the Warning Signs

Low Blood Sugar

Diabetes medicines can sometimes cause your blood sugar to go too low. This condition is called hypoglycemia (HY-poh-gly-SEE-mee-uh).

It happens when there is too much insulin and not enough sugar (glucose) in your blood.

Ask your health care provider to tell you all of the signs and symptoms of low blood sugar.

Some of the signs and symptoms are:

- Headache
- Fast Heartbeat
- Feel Irritable
- Feel Dizzy
- Feel Drowsy
- Sweating
- Feel Hungry
- Feeling Confused
- Feel Weak
- Feeling Jittery

Many factors can cause your blood sugar to go too low:

- The Medicines You Take
- Not Eating Enough
- Too Much Exercise
- Drinking Alcohol

What You Can Do

- Talk to your doctor or nurse.
- Eat or drink foods high in carbohydrates like fruit juice, sugar candy or regular soda (not diet) when your blood sugar is too low.

High Blood Sugar

People with diabetes can sometimes have too much sugar (glucose) in their blood. This condition is called hyperglycemia (HY-pur-gly-SEE-mee-uh).

It happens when your body is not making enough insulin or is not using insulin well.

Ask your health care provider to tell you all of the signs and symptoms of high blood sugar.

Some of the signs and symptoms are:

- Feel Tired
- Feel Thirsty
- Go to the Bathroom a Lot
- Vision is Blurry
- Lose Weight Without Trying

Many factors can cause your blood sugar to get too high:

- Stress
- Eating Too Much
- Being Sick
- Having an Infection
- Not Taking Your Diabetes Medicines

What You Can Do

- Talk to your doctor or nurse.
- Ask if you should change your medicines or what you eat.

The different kinds of diabetes medicines are listed on the next few pages. The brand names of diabetes medicine. Ask your doctor, nurse, or pharmacist to tell you the side effects and warnings for each drug.

Meglitinide Drugs

How do they work? These pills help your body make more insulin around mealtime.

| Brand Name | Other Name |
|------------|-------------|
| Prandin | Repaglinide |
| Starlix | Nateglinide |

Some Things To Think About

Before you start taking these medicines, tell your health provider if:

- you have liver or kidney problems
- you are pregnant or breastfeeding

Common Side Effects

- Hypoglycemia (blood sugar that is too low)

Alpha-glucosidase Inhibitors

How do they work? These pills help your body digest sugar more slowly.

| Brand Name | Other Name |
|------------|------------|
| Glyset | Miglitol |
| Precose | Acarbose |

Some Things To Think About

- These medicines are not likely to cause weight gain or blood sugar that is too low.
- Before you start taking this drug, tell your doctor if:
 - you have heart, liver, or kidney problems
 - you are pregnant or breastfeeding

Common Side Effects

- Stomach Pain
- Diarrhea
- Gas
- Abnormal Liver Tests

Medicines

and other names are given for each drug. There are also some general tips about each kind of medicine and the possible side effects or warnings for the medicines you are taking. This guide does not give all of the side effects or

Thiazolidinedione Drugs

How do they work? These pills help the cells in your body use glucose.

| Brand Name | Other Name |
|------------|---------------|
| Actos | Pioglitazone |
| Avandia | Rosiglitazone |

Some Things To Think About

- These medicines are not likely to cause blood sugar that is too low.
- These medicines may raise your chance of having a broken bone (fracture).
- Before you start taking these medicines, tell your doctor if you have heart failure or liver problems.
- Rosiglitazone (Avandia) may raise the risk of heart problems related to reduced blood flow to the heart.
- Rosiglitazone (Avandia) is not recommended for people who take nitrates or insulin.

Common Side Effects

- Fluid Retention
- Weight Gain
- Heart Failure (heart cannot pump blood well)
- Anemia (low red blood cell counts)

DPP-4 Inhibitors

How do they work? These pills help your body release more insulin.

| Brand Name | Other Name |
|------------|-------------|
| Januvia | Sitagliptin |
| Onglyza | Saxagliptin |
| Trajenta | Linagliptin |

Some Things To Think About

Call your doctor right away if you have severe stomach pain with or without nausea or vomiting. This may be a sign of a serious side effect.

Common Side Effects

- Upper Respiratory Infection
- Headache

Diabetes Medicines

Sulfonylureas Drugs

How do they work? These pills help your body make more insulin.

| Brand Name | Other Name |
|---|----------------|
| Amaryl | Glimepiride |
| Diabeta Glynase | Glyburide |
| Diabinese | Chlorpropamide |
| Glucotrol Glucotrol XL (extended release) | Glipizide |
| | Tolbutamide |
| | Tolazamide |

Some Things To Think About

- Before you start taking this drug, tell your health care provider if you have heart, liver, or kidney problems.
- Older adults and people with kidney or liver problems may be more likely to have low blood sugar when taking these medicines.

Common Side Effects

- Hypoglycemia (blood sugar that is too low)
- Weight Gain
- Headache
- Dizziness

Biguanide Drugs

How do they work? These pills stop your liver from making too much sugar (glucose). They also help the sugar get into your cells.

| Brand Name | Other Name |
|-------------------------------------|------------|
| Fortamet | Metformin |
| Glucophage | Metformin |
| Glucophage XR (extended release) | Metformin |
| Glumetza | Metformin |
| Riomet | Metformin |

Some Things To Think About

- These medicines are not likely to cause weight gain or blood sugar that is too low.
- People who drink a lot of alcohol and people with kidney problems may have a rare side effect called lactic acidosis. This causes acid to build up in the blood.
- Talk to your doctor about your kidney health before you start and while you are taking this type of medicine.

Common Side Effects

- Diarrhea
- Indigestion
- Headache
- Gas
- Feeling Weak
- Nausea and Vomiting

Diabetes Medicines

Dopamine Receptor Agonists

How do they work? This pill affects a chemical called dopamine in your cells. It is not clear how this pill works for diabetes.

| Brand Name | Other Name |
|------------|---------------|
| Cycloset | Bromocriptine |

Some Things To Think About

- Do not take this medicine if you are breastfeeding.

Common Side Effects

- Nausea
- Headache
- Feel Tired
- Feel Dizzy
- Vomiting

Bile Acid Sequestrants

How do they work? It is not clear how this pill works for diabetes.

| Brand Name | Other Name |
|------------|-------------|
| Welchol | Colesevelam |

Some Things To Think About

- This medicine is also used to treat high cholesterol.
- Tell your doctor if you are taking other cholesterol medicines.

Common Side Effects

- Constipation
- Upset stomach
- Indigestion
- Nausea

Diabetes Medicines

Combination Drugs

| Brand Name | Other Name |
|------------------------------------|-------------------------------|
| ActoPlus Met | Pioglitazone and Metformin |
| ActoPlus Met XR (extended release) | Pioglitazone and Metformin |
| Avandamet | Rosiglitazone and Metformin |
| Avandaryl | Rosiglitazone and Glimepiride |
| Duetact | Pioglitazone and Glimepiride |
| Glucovance | Glyburide and Metformin |
| Janumet | Sitagliptin and Metformin |
| Kombiglyze | Saxagliptin and Metformin |
| Metaglip | Glipizide and Metformin |
| PrandiMet | Repaglinide and Metformin |

Some Things To Think About

- These combinations are made up of two kinds of diabetes medicines. The side effects depend on which two medicines are in the pill.
- Ask your doctor the side effects about the pill you are taking.
- Ask your doctor the facts about the pill you are taking.

Other Diabetes Medicines

| Brand Name | Other Name |
|------------|---------------------|
| Byetta | Exenatide |
| Symlin | Pramlintide Acetate |
| Victoza | Liraglutide |

Some Things To Think About

Some people with diabetes can take these medicines that you inject under your skin.

These medicines are not the same as insulin.

- These medicines are usually taken with meals.
- Some people feel nauseous when they first start taking these medicines.
- People with type 1 diabetes should not take Byetta or Victoza.
- People who use insulin can also use Symlin.
- Do not mix Symlin and insulin in the same injection (shot).

Learn More About Diabetes

Resources from the FDA (U.S. Food and Drug Administration)

- **Information on Women and Diabetes**
www.fda.gov/womensdiabetes
- **Report a Serious Problem with Your Medicines**
www.fda.gov/Safety/MedWatch/HowToReport/ucm053074.htm
1-800-332-1088
- **FDA Diabetes Information on WebMD**
www.webmd.com/fda/diabetes/default.htm

Other Resources

- **National Diabetes Education Program**
www.ndep.nih.gov
1-888-693-6337
- **National Diabetes Information Clearinghouse**
www.diabetes.niddk.nih.gov
1-800-860-8747
- **American Diabetes Association**
www.diabetes.org
1-800-DIABETES

This booklet should not be used in place of talking to your doctor or reading the label on your medicine. The drug and risk information in this booklet may change. Check the FDA website for the latest facts on each product.

www.accessdata.fda.gov/scripts/cder/drugsatfda/

You Can Control Your Diabetes

- **Make a plan.** Work with your doctor, nurse, or diabetes educator to plan how you will manage your diabetes.
- **Check your blood sugar.** Use your glucose meter to test your blood glucose (sugar) level.
- **Watch what you eat.** Work with your health care team to come up with a meal plan just for you.
- **Use medicines wisely.** Ask your health care provider when and how to safely use your diabetes medicines.
- **Be active and get exercise.** Dance, take a walk, or join an exercise class. Check with your doctor about safe ways to be more active.
- **Know your ABC's:**
 - A - A-1-C blood test** measures your blood sugar level over the last 3 months. The A-1-C number should be less than 7 for most people.
 - B - Blood Pressure**
 - C - Cholesterol**
- **Monitor your overall mental and physical health.** Work with your health care team to keep your feet, eyes, heart, and teeth healthy.



This booklet was developed by the U.S. Food and Drug Administration (FDA) Office of Women's Health. To download free copies of this booklet and other diabetes materials visit:

www.fda.gov/womens