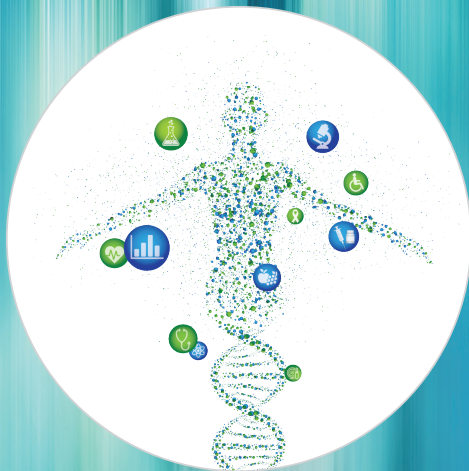




U.S. FOOD & DRUG  
ADMINISTRATION

# High Blood Pressure Medicines

Use this guide to help you talk to your healthcare provider about your blood pressure medicine. The guide lists FDA-approved products that are currently available to treat high blood pressure. You will also find some general information to help you use your medicine wisely.



FDA Office of Women's Health  
[www.fda.gov/womens](http://www.fda.gov/womens)

## High blood pressure is a serious illness.

High blood pressure is often called a “silent killer” because you can have it and not know it. You may not feel sick at first. **Over time, if you do not get treated for high blood pressure, you can get very sick or even die.**

High blood pressure can cause:

- Kidney failure
- Stroke
- Blindness
- Heart attacks
- Heart disease

## There is good news.

There are life-saving medicines you can take every day to help control your high blood pressure. If you eat healthy foods, exercise, and take your medicine every day, you can help control your blood pressure.

## Take your blood pressure medicine.

It is important to take your blood pressure medicine every day. **Take your medicine even when your blood pressure comes down... even when you do not feel bad.** Do not stop taking your medicine until your healthcare provider says that it is OK.

Many people who take high blood pressure medicine do not get any side effects. Like all medicines, high blood pressure medicines can sometimes cause side effects. You may have common problems like headaches, dizziness, or an upset stomach. These can be bothersome to how you feel every day but often lessen after the first few weeks of taking the medicine. If you find they continue to be bothersome to you, talk to your healthcare provider.

# Understanding Your Blood Pressure: What Do the Numbers Mean?

Blood pressure is the force of your blood pushing against the walls of your arteries as your heart pumps blood. High blood pressure, or hypertension, is when this force against your artery walls is too high. The higher your blood pressure levels, the more risk you have for other health problems such as heart disease, heart attack, and stroke.

When you have your blood pressure taken, you are told two numbers; for example, 120/80. Both numbers are important. The first (or top) number is your pressure when your heart beats (**systolic pressure**). The second number is your pressure when your heart relaxes (**diastolic pressure**). If the measurement reads 120 systolic and 80 diastolic, you would say, “120 over 80.” A normal blood pressure level is usually considered to be less than 120/80.

Talk with your healthcare provider about your numbers and how you can manage your blood pressure.

## High Blood Pressure and Pregnancy

Some women have high blood pressure during pregnancy. This can put the mother and her baby at risk for problems during the pregnancy and after delivery. High blood pressure sometimes can be severe, which may lead to low birth weight or preterm birth. High blood pressure during pregnancy can raise your risk of high blood pressure in the future.

**There are different types of high blood pressure during pregnancy.**

**Gestational hypertension** is high blood pressure that you develop while you are pregnant. It starts after you are 20 weeks pregnant. In many cases, gestational hypertension does not harm you or your baby, and it goes away within 12 weeks after childbirth. Some women with gestational hypertension develop preeclampsia.

**Chronic hypertension** is high blood pressure that started before the 20th week of pregnancy or before you became pregnant. Some women may have had high blood pressure long before becoming pregnant but were unaware until they got their blood pressure checked at their prenatal visit. Sometimes chronic hypertension can also lead to preeclampsia.

**Preeclampsia** is a sudden increase in blood pressure after the 20th week of pregnancy and may include protein in the urine and very high blood pressure. It usually happens in the last trimester. In rare cases, symptoms may not start until after delivery. This is called **postpartum preeclampsia**. Preeclampsia may cause damage to some of your organs, such as your liver or kidneys. Preeclampsia can be serious or even life-threatening for both you and your baby.

The most important thing to do is talk with your healthcare provider about any blood pressure problems so you can get the right treatment and control your blood pressure—**before you get pregnant**. Getting treatment for high blood pressure is important before, during, and after pregnancy to decrease risks to you and your baby.

**For more information about high blood pressure and pregnancy, go to <https://www.cdc.gov/bloodpressure/pregnancy.htm>.**

# High Blood Pressure Medicines

**Use this guide to help you talk to your healthcare provider about your blood pressure medicine. Ask your healthcare provider about the benefits and risks of taking your medicine. This guide only talks about some of the risks.**

Tell your healthcare provider about any problems you are having. Your healthcare provider will help you find the medicine that is best for you.

Also, tell your healthcare provider if you are pregnant, nursing, or planning to get pregnant. Ask your healthcare provider to tell you about the benefits and risks of taking blood pressure medicine when you are pregnant.

The different kinds of blood pressure medicines are listed on the next few pages. The medicines are listed in groups. The brand names and generic names are given for the medicines in each group.

Find your medicine. Then read some basic information about your kind of medicine.

## Types of High Blood Pressure Medicines

- Angiotensin Converting Enzyme (ACE) Inhibitors
- Beta-Blockers
- Calcium Channel Blockers
- Peripherally Acting Alpha-Adrenergic Blockers
- Vasodilators
- Angiotensin II Receptor Blockers
- Centrally-Acting Alpha Adrenergics
- Renin Inhibitors
- Combination Medicines
- Diuretics (sometimes called "water pills")

# Angiotensin Converting Enzyme (ACE) Inhibitors

Generic Name	Brand Name
benazepril	Lotensin
captopril	<i>Generic Medicine Only</i>
enalapril	Epaned and Vasotec
fosinopril	<i>Generic Medicine Only</i>
lisinopril	Prinivil, Qbrelis, and Zestril
moexipril	<i>Generic Medicine Only</i>
perindopril	<i>Generic Medicine Only</i>
quinapril	Accupril
ramipril	Altace
trandolapril	<i>Generic Medicine Only</i>

# ACE Inhibitors: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have kidney or liver problems, diabetes, heart problems, or a history of angioedema, talk to your healthcare provider about the risks of using this medicine.
- If you are taking aliskiren, diabetes medicines, diuretics (water pills), gold injections, lithium, neprilysin inhibitors (such as sacubitril), mTOR inhibitors, nonsteroidal anti-inflammatory drugs, or other medicines, talk to your healthcare provider about the risks of using this medicine.

## Common Side Effects

- Cough
- Dizziness
- Feeling tired
- Headache
- Problems sleeping

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Abdominal pain
- Chest pain
- Fast heartbeat
- Jaundice
- Problems breathing or swallowing
- Signs of infection (e.g., sore throat, fever)
- Swelling in the face, eyes, lips, tongue, or legs

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

# Beta-Blockers

Generic Name	Brand Name
acebutolol	<i>Generic Medicine Only</i>
atenolol	Tenormin
betaxolol	<i>Generic Medicine Only</i>
bisoprolol	<i>Generic Medicine Only</i>
carvedilol	Coreg
carvedilol phosphate	Coreg CR
labetalol	Trandate
metoprolol succinate	Kaspargo Sprinkle and Toprol-XL
metoprolol tartrate	Lopressor
nadolol	Corgard
nebivolol	Bystolic
pindolol	<i>Generic Medicine Only</i>
propranolol	Inderal, Inderal LA, and InnoPran XL
timolol	<i>Generic Medicine Only</i>

# Beta-Blockers: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have a heart condition, kidney or liver problems, asthma, diabetes, or overactive thyroid, talk to your healthcare provider about the specific risks of using this medicine.
- If you are taking other medicines, talk to your healthcare provider about the risks of using beta-blockers.
- If you are planning to have cataract surgery, notify your eye doctor that you are using this medicine.
- Do not suddenly stop taking this medicine without the advice of your healthcare provider.

## Common Side Effects

- Feeling tired
- Upset stomach
- Headache
- Dizziness
- Constipation or diarrhea
- Feeling light-headed

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Chest pain
- Problems breathing
- Slow or irregular heartbeat
- Swelling in the hands, feet, ankles, or legs

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

# Calcium Channel Blockers

Generic Name	Brand Name
amlodipine benzoate	Katerzia
amlodipine besylate	Norvasc
diltiazem	Cardizem CD, Cardizem LA, Cartia XT, Diltzac, Tiazac, and Taztia XT
felodipine	<i>Generic Medicine Only</i>
isradipine	<i>Generic Medicine Only</i>
levamlodipine	Conjupri
nifedipine	Adalat CC and Procardia XL
nisoldipine	Sular
verapamil	Calan SR, Verelan, and Verelan PM



# Calcium Channel Blockers: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have a heart condition, liver problems, or kidney problems, talk to your healthcare provider about the specific risks of using calcium channel blockers.
- If you are taking cimetidine, cyclosporine, fentanyl, sildenafil, simvastatin, tacrolimus, or other medicines, talk to your healthcare provider about the risks of using this medicine.

## Common Side Effects

- Feeling drowsy
- Headache
- Upset stomach
- Ankle swelling
- Feeling flushed (warm)

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Chest pain
- Serious rashes
- Swelling of the face, eyes, lips, tongue, arms, or legs
- Fainting
- Irregular heartbeat

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

## Peripherally Acting Alpha-Adrenergic Blockers

Generic Name	Brand Name
doxazosin	Cardura and Cardura XL
phenoxybenzamine	<i>Generic Medicine Only</i>
prazosin	Minipress
terazosin	<i>Generic Medicine Only</i>

# Peripherally Acting Alpha-Adrenergic Blockers: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have liver problems, talk to your healthcare provider about the risks of using this medicine.
- If you are taking other medicines, talk to your healthcare provider about the risks of using this medicine.
- If you are planning to have cataract surgery, notify your eye doctor that you are using this medicine.

## Common Side Effects

- Dizziness
- Feeling tired
- Feeling light-headed
- Vision problems
- Decreased sexual ability

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Chest pain
- Fainting
- Swelling of the hands, feet, ankles, or legs
- Irregular heartbeat
- Prolonged or painful erection in men

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

# Vasodilators

Generic Name	Brand Name
hydralazine	<i>Generic Medicine Only</i>
minoxidil	<i>Generic Medicine Only</i>

# Vasodilators: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have heart disease or kidney problems, talk to your healthcare provider about the risks of using this medicine.
- If you are taking diuretics (water pills) or other medicines, talk to your healthcare provider about the risks of using this medicine.

## Common Side Effects

- Upset stomach
- Dizziness
- Growth in body hair

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Fast heartbeat
- Fainting
- Chest pain
- Problems breathing
- Sudden weight gain
- Swelling of the hands, feet, ankles, or legs
- Skin tingling or numbness, skin crawling, or itching

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

# Angiotensin II Receptor Blockers

Generic Name	Brand Name
azilsartan	Edarbi
candesartan	Atacand
irbesartan	Avapro
losartan	Cozaar
olmesartan	Benicar
telmisartan	Micardis
valsartan	Diovan

# Angiotensin II Receptor Blockers: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before you start using this medicine.
- If you have kidney problems, liver problems, diabetes, low blood volume, or low salt in your blood, talk to your healthcare provider about the risks of taking this medicine.
- If you are taking diuretics (water pills), aliskiren, antibiotics, cyclosporine, lithium, nonsteroidal anti-inflammatory drugs, potassium supplements, ritonavir, or other medicines, talk to your healthcare provider about the risks of taking this medicine.

## Common Side Effects

- Cough
- Headache
- Sore throat
- Sinus problems
- Heartburn
- Dizziness
- Diarrhea
- Back pain

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Problems breathing
- Fainting
- Severe, chronic diarrhea with significant weight loss
- Swelling of the face, throat, lips, eyes, hands, feet, ankles, or legs

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

## Centrally Acting Alpha Adrenergics

Generic Name	Brand Name
clonidine	Catapres
clonidine	Catapres-TTS-1, TTS-2, TTS-3 (Skin Patches)
guanfacine	<i>Generic Medicine Only</i>



# Centrally Acting Alpha Adrenergics: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before you start using this medicine.
- If you have heart disease, kidney problems, or liver problems, talk to your healthcare provider before using this medicine.
- If you are taking antidepressants, antipsychotics, or other medicines, talk to your healthcare provider about the risks of using this medicine.
- Drinking alcohol may make side effects such as drowsiness, dizziness, or vision problems worse.
- Be careful when driving or operating machinery.
- Keep both used and unused skin patches out of the reach of children. Used patches still contain enough medicine to be harmful to a child.
- Tell your healthcare provider before you have an MRI scan if you are using the skin patch.
- Do not suddenly stop taking this medicine without the advice of your healthcare provider.

## Common Side Effects

- Changes in vision
- Dizziness
- Dry eyes
- Dry mouth
- Headache
- Mild skin rash, itching, or redness (close to the patch)
- Decreased sexual ability
- Feeling drowsy or tired

## Warning Signs

### Seek medical attention if you have any of these signs:

- Allergic reaction (including hives, rash, or swelling in other parts of your body)
- Fainting
- Moderate-to-severe skin rash, itching, or redness
- Slow or irregular heartbeat
- Fever
- Swollen ankles or feet

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

# Renin Inhibitors

Generic Name	Brand Name
aliskiren	Tekturna

# Renin Inhibitors: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have diabetes, heart disease, or kidney problems, talk to your healthcare provider before using this medicine.
- If you are taking water pills (diuretics), cyclosporine, high blood pressure medicines, heart medicines, nonsteroidal anti-inflammatory drugs, potassium supplements, medicines to treat a fungus, or other medicines, talk to your healthcare provider about the risks of using this medicine.

## Common Side Effects

- Cough
- Diarrhea
- Feeling light-headed
- Acid reflux
- Rash
- Upset stomach
- Abdominal pain

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Allergic reaction (difficulty breathing, hives, rash, or swelling in your whole body)
- Fainting
- Decreased urination
- Gout
- Kidney stones
- Seizures
- Swelling of the face, throat, lips, eyes, or tongue

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

## Combination Medicines

Generic Name	Brand Name
aliskiren and hydrochlorothiazide	Tekturna HCT
amlodipine besylate and valsartan	Exforge
amlodipine besylate and benazepril	Lotrel
amlodipine besylate and olmesartan	Azor
amlodipine besylate and perindopril	Prestalia
amlodipine besylate and telmisartan	Twynsta
amlodipine besylate, hydrochlorothiazide, and valsartan	Exforge HCT
atenolol and chlorthalidone	Tenoretic 50, Tenoretic 100
benazepril and hydrochlorothiazide	Lotensin HCT
candesartan and hydrochlorothiazide	Atacand HCT
captopril and hydrochlorothiazide	<i>Generic Medicine Only</i>
enalapril and hydrochlorothiazide	Vaseretic
fosinopril and hydrochlorothiazide	<i>Generic Medicine Only</i>
hydrochlorothiazide and irbesartan	Avalide
hydrochlorothiazide and lisinopril	Zestoretic
hydrochlorothiazide and metoprolol succinate	Dutoprol
hydrochlorothiazide and metoprolol tartrate	Lopressor HCT
hydrochlorothiazide and olmesartan	Benicar HCT
hydrochlorothiazide and quinapril	Accuretic and Quinaretic
hydrochlorothiazide and telmisartan	Micardis HCT
bisoprolol and hydrochlorothiazide	Ziac

# Combination Medicines

Generic Name	Brand Name
hydrochlorothiazide and losartan	Hyzaar
hydrochlorothiazide and metoprolol tartrate	<i>Generic Medicine Only</i>
hydrochlorothiazide and moexipril	<i>Generic Medicine Only</i>
amlodipine besylate, hydrochlorothiazide, and olmesartan	Tribenzor
trandolapril and verapamil	Tarka
hydrochlorothiazide and valsartan	Diovan HCT
chlorthalidone and zilsartan	Edarbyclor

## Combination Medicines: What You Should Know

These medicines are made up of two or more different kinds of blood pressure medicines. Look for the **generic or brand names** of these medicines on one of the other lists in this guide.

### Warnings and Side Effects

The warnings and side effects for these medicines will be the same as those listed for each of the generic medicines.

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

## Other Combination Medicines

Generic Name	Brand Name
amlodipine besylate and atorvastatin	Caduet
amlodipine besylate and celecoxib	Consensi

## Other Combination Medicines: What You Should Know

- **Caduet** is made up of two different kinds of medicines. **Amlodipine** is a blood pressure medicine. **Atorvastatin** is a cholesterol-lowering medicine.
- **Consensi** is made up of two different kinds of medicines. **Amlodipine** is a blood pressure medicine. **Celecoxib** is a medicine used to treat osteoarthritis.
- Look for the **generic or brand names** of amlodipine on the list of calcium channel blockers in this guide. The **warnings** and **side effects** for amlodipine will be the same as those listed earlier for calcium channel blockers.
- For the most complete and up-to-date information about the **warnings** and **side effects** for each medicine of atorvastatin and celecoxib, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.

### Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have asthma, diabetes, stomach ulcers, heart disease, kidney problems, liver problems, or thyroid problems, talk to your healthcare provider before using this medicine.
- If you are taking aspirin, blood thinners, corticosteroids, cyclosporine, tacrolimus, antiviral medicines, antibiotics, antifungal medicines, cimetidine, sildenafil, oral contraceptives, or other medicines, talk to your healthcare provider about the risks of using this medicine.

### Common Side Effects

- Swelling of the legs or ankles
- Muscle or joint pain (mild)
- Headache
- Diarrhea or constipation
- Feeling dizzy
- Feeling tired or sleepy
- Gas
- Rash
- Nausea
- Face feels hot or warm

# Other Combination Medicines: What You Should Know

## Warnings and Side Effects

**Seek medical attention if you have any of these signs:**

- Chest pain
- Allergic reaction (difficulty breathing, hives, rash, or swelling in your whole body)
- Weakness in part of your body
- Slurred speech
- Muscle problems such as weakness, tenderness, or pain that happens without a good reason (e.g., exercise or injury)
- Bloody vomit or bowel movement
- Brown or dark-colored urine
- Skin or eyes look yellow
- Fast or irregular heartbeat
- Feel more tired than usual
- Serious skin rash, itching, or redness
- Stomach or intestinal pain

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

## Diuretics (sometimes called “water pills”)

Generic Name	Brand Name
amiloride and hydrochlorothiazide	Midamor
chlorothiazide	Diuril
chlorthalidone	<i>Generic Medicine Only</i>
eplerenone	Inspra
furosemide	Lasix
hydrochlorothiazide	Microzide
hydrochlorothiazide and spironolactone	Aldactazide
hydrochlorothiazide and triamterene	Dyazide, Maxzide, and Maxzide-25
indapamide	<i>Generic Medicine Only</i>
spironolactone	Aldactone and CaroSpir
toremide	Demadex
metolazone	Zaroxolyn



# Diuretics: What You Should Know

## Warnings

- If you are pregnant or nursing, talk to your healthcare provider before using this medicine.
- If you have kidney or liver problems, talk to your healthcare provider about the risks of using this medicine.
- If you are taking potassium supplements, lithium, cyclosporine, tacrolimus, nonsteroidal anti-inflammatory drugs, antifungal drugs, antiviral drugs, or other medicines, talk to your healthcare provider about the risks of using this medicine.

## Common Side Effects

- Dizziness
- Fainting
- Frequent urination
- Headache
- Upset stomach

## Warning Signs

**Seek medical attention if you have any of these signs:**

- Sudden vision changes or eye pain
- Severe rash
- Problems breathing
- Irregular heartbeat
- Feeling thirsty
- Muscle cramps or weakness
- Tingling or numbness in hands, arms, legs, or feet
- Gout

**For the most complete and up-to-date information about the risks and side effects for each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.**

# Questions to Ask Your Healthcare Provider

- What is the name of the medicine I am taking?

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- What are the potential side effects?

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- What other prescription medicines should I avoid while taking my high blood pressure medicine?

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- What foods (such as grapefruit juice), herbs (like St. John's wort), or over-the-counter medicine should I avoid?

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- When should I take each medicine? How many times per day do I take each medicine?

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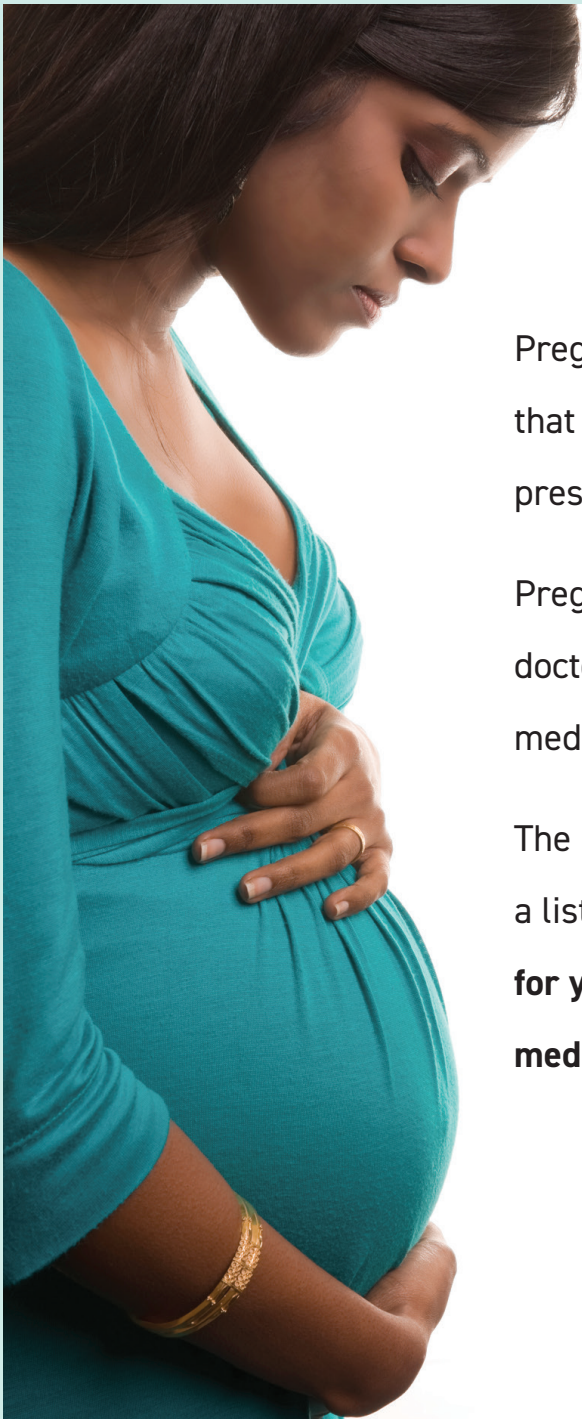
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- Can I take my medicine if I am pregnant or nursing?

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# Sign Up for a Pregnancy Registry



Pregnancy Exposure Registries are research studies that collect information from women who take prescription medicines or vaccines during pregnancy.

Pregnancy registries can help women and their doctors learn more about how high blood pressure medicines affect women during pregnancy.

The FDA does not run pregnancy studies, but it keeps a list of registries. **Check to see if there is a registry for your high blood pressure medicine or other medicines at [www.fda.gov/pregnancyregistries](http://www.fda.gov/pregnancyregistries).**



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This document was developed by

## **FDA Office of Women's Health**

To get other women's health materials, go to: [www.fda.gov/womens](http://www.fda.gov/womens)

### **To Learn More:**

#### **FDA Heart Health for Women**

<http://fda.gov/womenshearthealth>

#### **National Heart, Lung, and Blood Institute Health Information Center**

<https://www.nhlbi.nih.gov/health-topics/high-blood-pressure>

Phone: 301-592-8573

TTY/TDD: 240-629-3255

#### **NIH National Library of Medicine MedlinePlus**

##### **High Blood Pressure and Pregnancy**

<https://medlineplus.gov/highbloodpressureinpregnancy.html>

#### **Centers for Disease Control and Prevention**

##### **High Blood Pressure during Pregnancy**

<https://www.cdc.gov/bloodpressure/pregnancy.htm>

This guide should not be used in place of talking to your healthcare provider or reading the label on your medicine bottle. The medicine and risk information in this guide may change and is not all inclusive.

High blood pressure medicines and information in this guide are current as of February 2021.

For the most complete and up-to-date information about the risks and side effects of each medicine, check <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/>.



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