

Heart-Smart Medications

Taking heart medicines doesn't mean you are sicker; the right meds now can be just what you need to prevent heart disease later

What is in your medicine chest? Chances are it has at least one medicine for diabetes. It may also have meds for blood pressure and cholesterol.

This may seem like a lot of medicines. But there are good reasons to take them. People with diabetes are at risk for heart attack and stroke. High blood pressure and high cholesterol are risk factors for both.

Protection May Take More Than One Drug

Most people with type 2 diabetes take a few medicines. So says Simeon Margolis, M.D., of the Johns Hopkins School of Medicine. Most take “at least two drugs daily to control diabetes,” he notes. And most diabetics need two or three drugs to control blood pressure as well.

Here's the good news. You can choose from many medicines for high blood pressure and high cholesterol. They are safe and effective. They reduce the risk of heart disease. And they lower the odds of heart attack or stroke. Some medicines also protect you from kidney problems. This is another problem that diabetes can cause. *(See table for a list of heart medicines.)*

When Diet and Exercise Aren't Enough

Sometimes lifestyle changes are all you need to reduce your risk of heart disease. Eat a low-fat, high-fiber diet to cut cholesterol. Keep the bad cholesterol (LDL) below 100 mg/dL. The good cholesterol (HDL) should be more than 40 mg/dL in men. And it should be above 50 mg/dL in women.

Keep blood pressure below 130/80 mmHg. Moderate exercise can reduce blood pressure. So can a low-salt diet. An example is the DASH (Dietary Approaches to Stop Hypertension) eating plan. Visit the DASH website at: <http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/>. Diet and exercise may lower blood pressure as much as medicine.

But what if you can't reach your goals? That's when medicines may be needed.

You Get Benefits Even If You Don't Feel Them

It's not easy taking drugs to ward off diseases you can't feel. But not taking your heart-smart medicines can put you at great risk.

People with diabetes may not have the usual symptoms of a heart attack:

- Chest pain or pressure
- A pounding heartbeat
- Shortness of breath
- Jaw or arm pain

Instead, they may have what's called a "silent heart attack." This causes heart damage but no symptoms. So, they may not get proper treatment. Such treatment can reduce the odds of a later, more damaging heart attack or a stroke.

Want to skip or scale back your medicines? Margolis says to talk with your doctor first. She might:

- Help you decide which ones may be safe to stop
- Put you on a combination drug that does the job of two
- Help you find one that costs less

"There are many things a doctor can do to make it easier," he says.

Can't remember to take your medicine? A pill organizer might help. Learn other tips to help you remember your medicine. Ask your pharmacist for more ideas.

Top Tips to Protect Your Heart

1. **Move more.** Get moderate exercise for 30 to 45 minutes. Do this most days of the week.
2. **Eat right.** Stick to a diet that's low in saturated and total fat. Limit cholesterol and sodium in your diet. And, get plenty of fiber.
3. **Try plant sterols.** Avoid high-fat spreads and foods. Instead, use a sterol margarine or yogurt. Plant sterols or stanols (2 to 3 grams per day) may also help to cut cholesterol that's very high.

Drugs Used to Prevent Heart Problems

Medicine type	How they work	Who needs them
Diuretics lower blood pressure. They are used to treat heart failure. And they treat kidney disease.	They help the kidneys to get rid of excess water and salt through urine. This lowers the volume of blood in the blood vessels. That, in turn, lowers blood pressure.	They are often used before other blood pressure drugs. They're less costly. And they work as well as ACE inhibitors and calcium channel blockers to prevent heart attacks. Diuretics also seem to be more protective against congestive heart failure.
Statins cut blood levels of cholesterol.	They block the enzyme the body needs to make cholesterol.	They are widely used to protect the hearts of those with diabetes and high cholesterol. Almost all diabetics with heart disease or its risk factors should take statins.
ACE Inhibitors lower blood pressure and treat heart failure. They can	They reduce the body's creation of angiotensin. This substance causes	They are used to control high blood pressure. They treat heart failure. And they

also limit kidney damage in people with diabetes.	arteries to narrow. So, these drugs let blood vessels widen. This reduces blood pressure.	prevent kidney damage in people with diabetes.
Angiotensin II Receptor Blockers (ARBs) are used to control high blood pressure. They treat heart failure. And they prevent further kidney damage in people with diabetes.	They block the action of a substance that makes blood vessels contract. ARBs thus widen narrowed blood vessels.	People who can't take ACE inhibitors may use ARBs.
Calcium Channel Blockers (CCBs) control high blood pressure. They relieve chest pain. And they treat some types of irregular heart rhythm.	They prevent calcium from entering the cells of the heart and blood vessels. This relaxes blood vessels. And it brings more blood and oxygen to the heart.	May be used for high blood pressure and chest pain. They also treat some irregular heart rhythms. Low doses of CCBs and ACE inhibitors work as well as a full dose of an ACE. Yet, they have fewer side effects.
Beta Blockers lower blood pressure. And they reduce heart rate.	They block the effects of adrenaline on beta receptors. This lowers blood pressure. And it slows the heart rate.	They are used to lower blood pressure. They treat chest pain. And they are used for moderately severe heart failure.

****Authored by Johns Hopkins University and Johns Hopkins Health System****