

Diabetes Complications: A Patient's Guide

When diabetes isn't controlled, it can lead to other conditions that can be serious. These are called complications, and they take many forms. They can include:

- Microvascular complications: damage to the nerves (called neuropathy), damage to the kidneys (nephropathy), damage to the eyes (retinopathy)
- Macrovascular complications: cardiovascular disease (including high blood pressure, heart attack, stroke, and peripheral arterial disease)

It's important to understand that complications don't always happen. If you keep your blood sugar in the range your doctor recommends, you can reduce your chances of getting complications. The main ways to control blood sugar are:

- healthy eating
- getting lots of physical activity
- maintaining a healthy weight

Many people with diabetes take one or more drugs to help control blood sugar levels, too.

DIABETES COMPLICATIONS: FACTS

Diabetes is a major health condition in the United States:

- Diabetes is the seventh-leading cause of death in the U.S.
 Also leading cause in the world.
- Cardiovascular disease, one of the complications of diabetes, is the leading cause of death in the U.S.
- People with diabetes are twice as likely to have a heart attack or stroke as are people who don't have diabetes.
- One out of three people over the age of 50 who have diabetes also have PAD (Peripheral Arterial Disease).
- About 50% of people with diabetes develop some form of neuropathy.
- Among U.S. adults age 20 or older with diagnosed diabetes, 36.5% have chronic kidney disease.
- People with diabetes are 40% more likely to develop glaucoma than are people who don't have diabetes.
- Diabetes is the leading cause of blindness among working adults in the U.S.



DIAGNOSING COMPLICATIONS

Your doctor will diagnose any complications from diabetes with a physical exam, a family medical history, and through medical tests. Your course of treatment will be based on your diagnosis and other factors.

Talk with your doctor in depth about your risk of getting complications.

YOUR MEDICAL TEAM

Along with your primary care doctor, you will likely see other specialists in treating diabetes and its possible complications. These may include:

- An endocrinologist, a doctor who specializes in diabetes
- A registered dietitian, who will teach you how to plan meals so you can keep your blood sugar levels in healthy ranges
- A certified diabetes educator, who will teach you about diabetes and how to manage
- A cardiologist if you have cardiovascular disease
- A nephrologist if you have kidney disease (nephropathy)
- A neurologist if you have problems with your nerves (neuropathy)
- An ophthalmologist or optometrist for your annual eye exam or if you have damage to the eyes (retinopathy)



PREVENTING COMPLICATIONS

Keeping your blood sugar in the recommended range is the main way to avoid complications.

Other steps you can take to prevent cardiovascular and other complications from happening:

- If you smoke, quit. Talk with your doctor about ways to help you stop smoking
- Control your blood sugar, blood pressure, and blood fats (cholesterol and triglycerides)
- Be physically active for at least 30 minutes a day on most days of the week
- If you are overweight or obese, lose weight and maintain a healthy weight
- Limit carbohydrates and sugar, eat foods high in fiber, healthy fats and protein

QUESTIONS TO ASK YOUR DOCTOR

- 1. Am I at risk for diabetes complications? If so, which ones am I at risk for?
- 2. What are my treatment options?
- 3. How long will my treatment last?
- 4. Are there any risks involved with my treatment?
- 5. What is my target blood sugar level?
- **6.** How do I control my levels to get them into my target range?
- 7. How often will I need checkups? How often will I need lab tests?
- 8. Can I prevent or delay complications? If so, how?
- 9. Do I need to see an endocrinologist?
- **10.** Do you recommend that I see any other specialists?
- 11. What steps should I take before my next visit?

GLOSSARY

Autonomic neuropathy: Nerve damage that affects the urinary tract, sweat glands, digestive system, sex organs, eyes, and heart.

Cataracts: A condition in which the eye's lens becomes cloudy and blocks light.

Complication: A disease or health condition brought on by another disease or health condition.

Diabetes: A condition in which the body doesn't make enough insulin, or the body can't use the insulin it makes, or both.

Distal polyneuropathy: Nerve damage that affects the limbs

Glaucoma: An excess of pressure in the eye, which causes damage to the retina and optic nerve.

Macrovascular: The larger blood vessels that serve the heart and brain.

Microvascular: The smaller blood vessels that serve the body.

Nephropathy: Damage to the kidneys.

Neuropathy: Damage to the nerves.

Retina: The back part of the eye, which is responsible for changing images the eye sees into electrical signals that are sent to the brain.

Retinopathy: Damage to the retina.

EDITORS

Additional Editing by Puneet Singh Arora, MBBS, MS, FACE March 2018 The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (endocrine.org). The Network's goal is to move patients from educated to engaged.

