

Chronic Complications of Diabetes Mellitus



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Diabetes increases the risk for many serious health problems. Many people with diabetes are able to prevent or delay the onset of complications by controlling the level of blood sugar, blood pressure, lipid level and by stopping smoking.

What parts of the body may develop complications?

Cardiovascular

People with diabetes have a higher-than-average risk of having a heart attack or stroke. These strike people with diabetes more than twice as often as people without diabetes. Also, diabetic patients are at higher risk of peripheral arterial disease.

Coronary artery disease is caused by a narrowing or blocking of the blood vessels that go to your heart. It's the most common form of heart disease.

A stroke occurs when blood vessels leading to a part of the brain are cut off by fatty deposits or a blood clot.

Peripheral arterial disease occurs when blood vessels in the legs are narrowed or blocked by fatty deposits and blood flow to the feet and legs decreases.

How are cardiovascular complications of a diabetic diagnosed?

Normally no symptoms appear in the initial phase of the disease, however, the disease may be discovered through periodic consult with a physician.

Eye Complications

People with diabetes have a greater risk of developing eye problems, including:

Diabetic Retinopathy: involves changes in the retina, the light-sensitive layer at the back of the eye. The blood vessels feeding the retina may be affected due to high blood sugar resulting in decrease of vision. If retinopathy becomes more advanced, laser treatment may be needed to help prevent vision loss.

Cataracts: the eye's clear lens clouds, blocking light. People with diabetes are 60% more likely to develop cataracts. They also tend to get cataracts at a younger age and progress faster. If cataracts get in the way of seeing properly, a person can have surgery to remove them.

Glaucoma: occurs when pressure builds up in the eye and causes decreased blood flow to the retina and optic nerve and damages them. As a consequence the patient may suffer loss of vision.

Diabetics are 40% more likely to suffer glaucoma than people without diabetes. The longer someone has had diabetes, the more likely they will get glaucoma. Risk also increases with age.

There are several treatments for glaucoma. Some use drugs to reduce pressure in the eye, while others involve surgery.

How are eye complications of a diabetic diagnosed?

Normally no symptoms appear in the initial phase of the disease, however, the disease may be discovered through periodical eye tests. Should a diabetic patient feel vision disorder, double vision or black spots appearing within the visual field then they should immediately consult an ophthalmologist.

Neuropathy

Nerve damage from diabetes is called diabetic neuropathy. Diabetic neuropathy can affect nerves in many different parts of the body. The most common early symptoms of the condition are numbness, tingling, or sharp pains in the feet or lower legs.

Untreated nerve damage can cause a number of problems. For example, because of the loss of sensation, people with nerve damage might not realize that they have a cut, and it could become seriously infected before they discover it.

Nerve damage can happen anywhere in the body, including the digestive tract, urinary system, eyes, and heart. It may also cause sexual dysfunction.

How is diabetic neuropathy diagnosed?

Neuropathy may not show up as symptoms, hence, patients should periodically consult their physicians, especially if there is numbness and pain in the feet.

Nephropathy

Inside the kidneys are millions of tiny blood vessels that act as filters. Their job is to remove waste products from the blood and excrete them into the urine and to maintain proper fluid balance in the body. Diabetes can damage this system.

After many years, kidneys start to leak and useful protein is lost in the urine. In time, the stress of overwork causes the kidneys to lose their filtering ability. Waste products then start to build up in the blood. Finally, the kidneys fail. Kidney problems are one cause of water retention, or edema, a condition in which fluid collects in the body, causing swelling, often in the legs and hands.

How to diagnose the disease?

Symptoms of the disease may not appear at all in its early phases, hence, kidney function should periodically be checked through urine or blood tests. Albumin level in the urine should periodically be tested.

Foot Problems

People with diabetes can develop many different foot problems. Even ordinary problems can get worse and lead to serious complications. Foot problems most often happen when there is nerve damage (neuropathy), which results in loss of feeling in the feet. Poor blood flow or changes in the shape of the feet or toes may also cause problems.

Common foot problems in diabetes:

Neuropathy: The foot hurts but nerve damage can also lessen their ability to feel pain, heat, and cold. Loss of feeling often means not feeling a foot injury until the skin breaks down and becomes infected. Nerve damage can also lead to changes in the shape of your feet and toes.

Skin Changes: Diabetes can cause changes in the skin of the foot. The foot may become very dry. The skin may peel and crack. The problem is that the nerves that control the oil and moisture in the foot no longer work.

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4

Calluses: Calluses occur more often and build up faster on the feet of people with diabetes. This is because there are high-pressure areas under the foot. Calluses, if not trimmed, get very thick, break down, and turn into ulcers. Diabetic patients should not try to cut calluses or corns themselves – this can lead to ulcers and infections. Always seek medical advice.

Foot Ulcers: Ulcers occur most often on the ball of the foot or on the bottom of the big toe. Ulcers on the sides of the foot are usually due to poorly fitting shoes. Neglecting ulcers can result in infections, which in turn can lead to loss of a limb.

Poor Circulation: Poor circulation (blood flow) can make the foot less able to fight infection and to heal. Diabetes causes blood vessels of the foot and leg to narrow and harden.

Amputation: People with diabetes are far more likely to have a foot or leg amputated than other people. This is due to poor circulation and neuropathy. Together, these problems make it easy to get ulcers and infections that may lead to amputation.

How are foot problems diagnosed?

Periodical medical checkup of the feet should be carried out to examine blood circulation and the nerves.