

Triad of chronic diseases: Diabetes, heart disease and stroke

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Introduction

Diabetes, heart disease and stroke are three of the most common chronic diseases affecting millions of people worldwide. These three diseases often occur together and form a triad that can lead to serious health complications and even death. So, here explore each of these diseases, their risk factors, and how they are interconnected.

Description

■ Diabetes

Diabetes is a metabolic disorder characterized by high levels of sugar in the blood. There are two main types of diabetes: type 1 and type 2. Type 1 diabetes is an autoimmune disease that occurs when the body's immune system attacks and destroys the cells in the pancreas that produce insulin. Insulin is a hormone that regulates blood sugar levels. People with type 1 diabetes require insulin injections to survive.

Type 2 diabetes is the most common form of diabetes, accounting for about 90% of all cases. It occurs when the body becomes resistant to insulin or does not produce enough insulin to regulate blood sugar levels. Type 2 diabetes is strongly associated with obesity, physical inactivity, and poor diet. The symptoms of diabetes include increased thirst, frequent urination, fatigue, and blurred vision. If left untreated, diabetes can lead to serious health complications such as heart disease, stroke, kidney failure, and blindness.

■ Heart disease

Heart disease refers to a group of conditions that affect the heart and blood vessels. The most common form of heart disease is Coronary

Artery Disease (CAD), which occurs when the arteries that supply blood to the heart become narrowed or blocked. This can lead to chest pain (angina) and a heart attack. Other forms of heart disease include heart failure, arrhythmias, and heart valve problems.

The risk factors for heart disease include high blood pressure, high cholesterol, smoking, physical inactivity, and diabetes. These risk factors can damage the blood vessels and increase the risk of a heart attack or stroke. The symptoms of heart disease include chest pain, shortness of breath, and fatigue. If left untreated, heart disease can lead to serious health complications such as heart failure, stroke, and sudden cardiac arrest.

■ Stroke

A stroke occurs when the blood supply to the brain is interrupted or reduced, depriving the brain of oxygen and nutrients. This can cause brain cells to die, leading to permanent brain damage and disability. There are two main types of strokes: ischemic stroke and hemorrhagic stroke. Ischemic stroke occurs when a blood clot blocks a blood vessel in the brain. Hemorrhagic stroke occurs when a blood vessel in the brain ruptures, causing bleeding in the brain.

The risk factors for stroke include high blood pressure, high cholesterol, smoking, physical inactivity, and diabetes. These risk factors can damage the blood vessels and increase the risk of a stroke. The symptoms of stroke include sudden numbness or weakness in the face, arm, or leg, confusion, trouble speaking or understanding speech, and trouble seeing in one or both eyes.

Conclusion

■ The connection between diabetes,

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heart disease, and stroke

Diabetes, heart disease and stroke are interconnected through a complex web of biological and lifestyle factors. Diabetes is a major risk factor for heart disease and stroke. People with diabetes are two to four times more likely to develop heart disease or have a stroke than people without diabetes. This is because high blood sugar levels can damage the blood

vessels and increase the risk of plaque buildup, which can lead to blockages in the arteries.

Heart disease and stroke share many of the same risk factors as diabetes. For example, high blood pressure and high cholesterol can damage the blood vessels and increase the risk of heart disease, stroke, and diabetes. Physical inactivity and poor diet can also increase the risk of all three diseases.