

# What is Ischemic Heart Disease and Stroke

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Ischemia means a "reduced blood supply". Ischemic Heart Disease (IHD) is where a waxy substance called plaque (plak) builds up inside blood vessels, and restricts the normal flow of blood. When plaque builds up in the arteries, the condition is called **atherosclerosis** (ATH-er-o-skler-O-sis). Atherosclerosis can affect any artery in the body, including arteries in the heart, brain, arms, legs, pelvis, and kidneys. As a result, different diseases may develop based on which arteries are affected. Ischemic Vascular Disease (IVD) is a term that includes a group of diseases caused by the build-up of plaque.

## **Ischemic Heart Disease**

Ischemic heart disease is where atherosclerosis affects the coronary arteries in the heart. If the flow of oxygen-rich blood to your heart muscle is reduced or blocked, angina (an-JI-nuh or AN-juh-nuh) or a heart attack may occur.

**Angina** is chest pain or discomfort. It may feel like pressure or squeezing in your chest. The pain also may occur in your shoulders, arms, neck, jaw, or back. Angina pain may even feel like indigestion.

**A heart attack, also know at myocardial infarction** occurs if the flow of oxygen-rich blood to a section of heart muscle suddenly becomes blocked. If blood flow isn't restored quickly, the section of heart muscle begins to die. Without quick treatment, a heart attack can lead to serious problems and even death.

## **Stroke Caused by Blocked Arteries**

A frequent cause of stroke is plaque building up in the arteries on each side of your neck (the carotid arteries). These arteries supply oxygen-rich blood to your brain. If blood flow to your brain is reduced or blocked, even for a few minutes, the lack of oxygen may cause damage, or even death of brain cells. If brain cells die or are damaged because of a stroke, symptoms occur in the parts of the body that these brain cells control. Examples of stroke symptoms include

sudden weakness; paralysis or numbness of the face, arms, or legs (paralysis is an inability to move); trouble speaking or understanding speech; and trouble seeing.

### **Peripheral Arterial Disease (PAD)**

Peripheral arterial disease (PAD) is a disease in which plaque builds up in the arteries that carry blood to your head, organs, and limbs. PAD usually affects the arteries in the legs, but it also can affect the arteries that carry blood from your heart to your arms, kidneys, and stomach. Blocked blood flow to your legs can cause pain and numbness. It also can raise your risk of getting an infection in the affected limbs. If severe enough, blocked blood flow can cause gangrene (tissue death). If the plaque builds up around the arteries that carry blood to the kidneys, it can impair kidney function.

### **What Causes Ischemic Heart Disease?**

All types of ischemic heart disease are caused by atherosclerosis.

Atherosclerosis may start when certain factors damage the inner layers of the arteries. These factors include:

- Smoking
- High amounts of certain fats and cholesterol in the blood
- High blood pressure
- High amounts of sugar in the blood due to insulin resistance or diabetes

### **What Are the Signs and Symptoms of Ischemic Heart Disease?**

Ischemic heart disease usually doesn't cause signs and symptoms until it severely narrows or totally blocks an artery. Many people don't know they have the disease until they have a medical emergency, such as a heart attack or stroke. Some people may have signs and symptoms of the disease. Signs and symptoms will depend on which arteries are affected.

## **How Is Ischemic Heart Disease Treated?**

The most effective treatments for all ischemic heart diseases are quitting smoking, and medications to control high blood pressure and high cholesterol. Some people also need medications to prevent blood clots.

The goals of treatment include:

- Relieving symptoms
- Reducing risk factors in an effort to slow or stop the buildup of plaque
- Lowering the risk of blood clots forming
- Widening or bypassing plaque-clogged arteries
- Preventing atherosclerosis-related diseases

Following a healthy diet, being physically active, maintaining a healthy weight and managing stress are also important to stopping or reducing the build-up of plaque and avoiding medical emergencies, complication and disability.

If you have severe atherosclerosis, your doctor may also recommend a medical procedure or surgery.

## **Living with Ischemic Heart Disease**

Improved treatments have reduced the number of deaths from atherosclerosis-related diseases. These treatments also have improved the quality of life for people who have these diseases.

If you have Ischemic Heart Disease take these smart steps to keep it under control and avoid serious problems, such as heart attack and stroke.

- Follow your treatment plan and take all of your medicines as your doctor prescribes
- Show up for your office visits or blood tests
- Let your doctor know if you have new or worsening symptoms
- Eat a heart healthy diet and keep your weight under control
- Keep a record of your blood pressure and cholesterol numbers

→ Learn the warning signs of a heart attack and stroke and call 911 in case of an emergency.

To learn more about Ischemic Heart Disease visit:

<http://www.careguides.med.umich.edu>

- In the keywords search box type: Ischemic Heart Disease
- Hit the Search button
- Select “What I need to know about Ischemic Heart Disease”

This 22 page booklet has more information about the disease, treatment and living with IVD.

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