



Information for Patients & Caregivers

What You Need to Know About Atherosclerosis

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Do you know that there are two main types of blood vessels in your body?

Arteries are the blood vessels that carry blood away from the heart to other parts of the body. Veins are the vessels that carry blood from other parts of your body to your heart.

+ WHAT IS ATHEROSCLEROSIS?

Atherosclerosis is a medical condition that occurs when fatty substances called "plaques" build up within the arteries in the body. The affected arteries become hardened and narrowed over time, with reduced blood flow to organs supplied by the arteries.

Atherosclerosis does not usually cause any symptoms at first and most people are unaware they have it until it gets very bad. As the condition progresses, it leads to some severe conditions known as cardiovascular disease. There are different forms of cardiovascular disease. Examples include:

- **Coronary artery disease** occurs when atherosclerosis affects the arteries, which supply blood to the heart muscle. This can cause damage to the heart muscle (a heart attack).
- **Stroke.** This condition occurs when atherosclerosis affects the arteries, which supply blood to the brain. This results in brain damage and can cause the face to droop to one side, weakness on one side of the body, and slurred speech.
- When atherosclerosis affects the arteries that bring blood to the arms and legs, this may lead to pain, tingling in the arms, or numbness in the legs when you walk. This condition is called **peripheral arterial disease**.
- Atherosclerosis that affects the arteries supplying the kidneys can cause **high blood pressure** and lead to **kidney failure**.

+ WHAT CAUSES ATHEROSCLEROSIS?

Factors that may increase your risk of developing atherosclerosis include:

- Older age.
- Diabetes.
- High blood pressure.
- High blood cholesterol level.
- Being overweight or obese.
- Smoking.
- Eating a high-fat diet.
- Lack of exercise.
- Having a family history of early heart disease.
- Belonging to certain race such as South Asian, African, or Afro-Caribbean descent.



+ WHEN SHOULD I SEE A DOCTOR?

You should see a doctor as soon as possible if:

- You have two or more of the above risk factors.
- You have one or more of the following symptoms:
 - Recurrent dull or heavy chest pain.
 - Shortness of breath.
 - Dizziness.
 - Leg pain or aches when walking.
 - Numb feeling or sudden weakness on one side of your body.

Speak to your doctor if you suspect that you may be at high risk of atherosclerosis.



+ WHAT YOUR DOCTOR WILL DO

To find out if you have atherosclerosis, your doctor will ask questions about your symptoms, how often they occur, and your lifestyle habits.

Your doctor will examine you and then work out the risk of you developing cardiovascular disease over the next ten years. This risk calculation is based on the following factors:

- Your age and gender.
- Ethnic group.
- Your weight and height.
- Whether you smoke or have previously smoked.
- If you have certain long-term conditions or a family history of heart disease.
- Your blood pressure.

Your doctor may need to request a blood test, to check your cholesterol levels (the amount of fat in your blood).

Based on the findings of the risk calculation, your doctor will may recommend treatments for high blood pressure or cholesterol.

+ TREATING ATHEROSCLEROSIS

The main aim of treatment is to prevent the condition from worsening and reduce the risk of developing cardiovascular disease.

Lifestyle Advice: If your risk of cardiovascular disease is not too high, your doctor will usually recommend improvements to your lifestyle, rather than starting you on medication.

However, for people with a high risk of cardiovascular disease, lifestyle improvement alone will not be enough to prevent serious disease from happening. Therefore, your doctor will talk to you about starting medication to lower your risk of developing cardiovascular disease.

The main medications include:

- Medicines for controlling your blood cholesterol level. The most common of these medicines are called *statins*.
- Medicines to control high blood pressure, called *antihypertensives*.
- Medicines to control your blood sugar if you have diabetes.

Always discuss with your doctor before taking any alternative medicine, herbal preparation, or over-the-counter medicines, as they may react with your prescribed medications.

Surgery: If you have already developed severe cardiovascular disease that cannot be improved by medicine alone, your doctor may refer you to a Specialist to discuss your treatment options.

This might include having surgery to widen a narrow artery that is causing problems.

+ REDUCING YOUR RISK

You can reduce your risk of developing atherosclerosis by controlling any health conditions you have and making healthy choices such as:

- **Stop smoking if you are a smoker** as this will worsen your condition.
- **Maintain a healthy weight.**
- **Exercise regularly** for at least two and a half hours each week at a moderate-intensity. Check with your doctor before starting exercise.
- **Control your medical conditions** by taking your prescribed medicines regularly.
- **Eat a healthy diet** such as fruits, vegetables and foods low in cholesterol and saturated fats.

If you have an existing chronic condition, such as high blood pressure (BP) or diabetes, try to keep a diary of your blood pressure and glucose readings so that you can monitor your progress.

+ FOLLOW UP

If you have already developed cardiovascular disease or if you have been started on medication to control your risk, you should see your doctor regularly for check-ups and follow-up treatments.

Regular check-ups will allow your doctor to monitor your health and adjust your medication to prevent side effects.



+ ADDITIONAL INFORMATION

Additional information on Atherosclerotic Cardiovascular Disease can be found in the National Clinical Guideline published by The Ministry of Public Health (MOPH).

The guideline is available to the public on the MOPH website: www.moph.gov.qa

