

CORONARY ARTERY DISEASE**Mr. Anil C. M* | Dr. Parampal Kaur Cheema******Research Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India****Professor, Himalayan University, Itanagar, Arunachal Pradesh, India.*DOI: <http://doi.org/10.47211/idcij.2021.v08i01.016>**ABSTRACT**

Healthy coronary arteries have smooth walls through which blood can easily flow. When there's damage to an artery wall, plaque gets trapped in those crevices inside the artery lumen. Plaque deposits are made of fats, cholesterol, inflammatory cells, and calcium. A healthy lifestyle can help keep the arteries strong and clear of plaque. To improve heart health, Quit smoking, Control high blood pressure, high cholesterol and diabetes, Exercise often, Maintain a healthy weight, Eat a low-fat, low-salt diet that's rich in fruits, vegetables and whole grains, Reduce and manage stress.

KEYWORDS: Coronary artery, artery, coronary diseases.**ABOUT AUTHORS:**

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INTRODUCTION

Coronary artery disease (CAD) remains a significant global public health burden. Identifying patients with high-risk CAD before diagnostic testing can help ensure these patients receive closer follow-up or early cardiac catheterization [D.M . Lloyd Jones et al 2010]. However, early recognition and diagnosis remain challenging. Many physicians experience clinical pressure to accurately rule out CAD as a cause of chest pain.

Throughout the growth of western medicine from Hippocrates, the body constitution has been a leitmotiv of human diseases. Research of body constitution offers an approach to the study of the “host factor” of disease development. Many associations are found between somatotypes and human illness, particularly in CHD where the highest risks are among endomorphic mesomorphs. However, these findings are limited to western groups [O Elliot 1971]. In traditional Chinese medicine (TCM), the body constitution is also the core of medical theories [J. Wang et al 2011]. It reflects the uniqueness of individuals’ physiological features, susceptibility to pathogenic factors, and tendency to certain pathological changes [Y C Su et al 2008].

In TCM, the human body is considered healthy when the Yin and Yang dynamic is balanced. The definition of *Yin* is the materials that perform a physiological function, e.g., tissues, blood, and body fluid, while *Yang* is the energy that maintains physiological function, e.g., energy for heart contraction, breathing, and digestion. In balanced status, *Yang* pushes *Yin* smoothly throughout the whole body without any stagnation. Under the influence of behavior and etiology factors, one’s energy and/or materials will decrease. Then, the individual will develop *Yang-Xu* (Yang-deficiency) and/or *Yin-Xu* (Yin-deficiency) constitution. Besides, the behavior and etiology factors may let the energy flow become stagnant, resulting in the production of watery phlegm or static blood [J.D Lin et al 2012]; then, the individual will develop a *Stasis* constitution. Unbalanced constitutions can represent an individual’s susceptibility to and recurrences of specific diseases, especially chronic diseases and their complications. For example, type 2 patients with a stasis constitution had a higher prevalence rate of complications of peripheral arterial disease [K C Huang 2014], and diabetic retinopathy was more prevalent in patients with the *Yang-Xu* constitution [C.H Lee et al 2015].

SYMPTOMS OF CORONARY ARTERY DISEASE

Symptoms

Symptoms may go unrecognized at first, or they may only occur when the heart is beating hard like during exercise. As the coronary arteries continue to narrow, less and less blood gets to the heart and symptoms can become more severe or frequent. Coronary artery disease signs and symptoms can include:

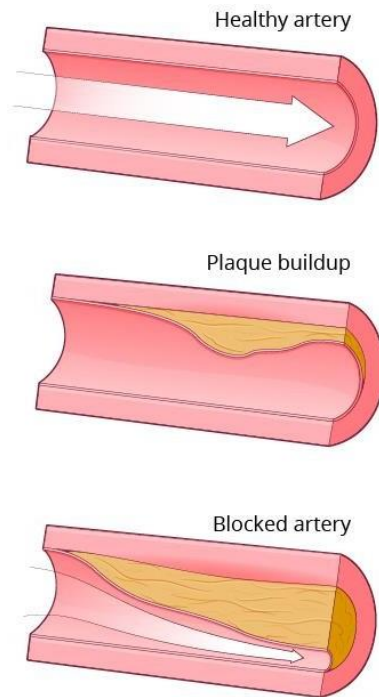
- **Chest pain (angina).** You may feel pressure or tightness in your chest. Some people say it feels like someone is standing on their chest. The chest pain usually occurs on the middle or left side of the chest. Activity or strong emotions can trigger angina. The pain usually goes away within minutes after the triggering event ends. In some people, especially women, the pain may be brief or sharp and felt in the neck, arm or back.
- **Shortness of breath.** You may feel like you can't catch your breath.
- **Fatigue.** If the heart can't pump enough blood to meet your body's needs, you may feel unusually tired.
- **Heart attack.** A completely blocked coronary artery will cause a heart attack. The classic signs and symptoms of a heart attack include crushing chest pain or pressure, shoulder or arm pain, shortness of breath, and sweating. Women may have less typical symptoms, such as neck or jaw pain, nausea and fatigue. Some heart attacks don't cause any noticeable signs or symptoms.

CAUSES OF CORONARY ARTERY DISEASE

Atherosclerosis, which involves the clogging and hardening of arteries, is the number one cause of CAD.

Atherosclerosis

Healthy coronary arteries have smooth walls through which blood can easily flow. When there’s damage to an artery wall, plaque gets trapped in those crevices inside the artery lumen. Plaque deposits are made of fats, cholesterol, inflammatory cells, and calcium. Over time, the plaque on those walls hardens and restricts blood flow. This process is called atherosclerosis.



Other substances traveling through your arteries, such as proteins and cellular waste products, can also stick to the plaque. It usually takes years for the buildup to become noticeable. Often, you won't know you have plaque buildup until it becomes bad enough to cause serious symptoms. Plaque buildup can lead to reduced blood flow to the heart. This can cause:

- chest pain or discomfort (angina)
- severe blockage, which prevents your heart from receiving enough blood
- weak heart muscle
- heart failure

While some buildup is the result of aging, other factors can increase the rate at which atherosclerosis occurs. This includes:

- smoking (because tobacco chemicals irritate the artery walls and adversely affect the functioning of the cardiovascular system)
- high levels of fat (such as triglycerides) in the blood
- high levels of cholesterol in the blood
- diabetes mellitus
- hypertension

PREVENTION

The same lifestyle habits used to help treat coronary artery disease can also help prevent it. A healthy lifestyle can help keep the arteries strong and clear of plaque. To improve heart health, follow these tips:

- Quit smoking.
- Control high blood pressure, high cholesterol and diabetes.
- Exercise often.
- Maintain a healthy weight.
- Eat a low-fat, low-salt diet that's rich in fruits, vegetables and whole grains.
- Reduce and manage stress.

REFERENCES

1. D. M. Lloyd-Jones, Y. Hong, D. Labarthe et al., "Defining and setting national goals for cardiovascular health promotion and disease reduction," *Circulation*, vol. 121, no. 4, pp. 586–613, 2010.
2. O. Elliot, "Constitution and coronary heart disease," *Singapore Medical Journal*, vol. 12, no. 6, pp. 333–340, 1971.
3. J. Wang, Y. Li, C. Ni, H. Zhang, L. Li, and Q. Wang, "Cognition research and constitutional classification in Chinese medicine," *The American Journal of Chinese Medicine*, vol. 39, no. 4, pp. 651–660, 2011.
4. Y.-C. Su, L.-L. Chen, J.-D. Lin, J.-S. Lin, Y.-c. Huang, and J.-S. Lai, "BCQ+: a body constitution questionnaire to assess Yang-Xu," *Complementary Medicine Research*, vol. 15, no. 6, pp. 327–334, 2008.
5. J.-D. Lin, L.-L. Chen, J.-S. Lin, C.-H. Chang, Y.-C. Huang, and Y.-C. Su, "BCQ–: a body constitution questionnaire to assess Yin-Xu," *Forschende Komplementärmedizin/Research in Complementary Medicine*, vol. 19, no. 5, pp. 234–241, 2012.
6. J.-D. Lin, J.-S. Lin, L.-L. Chen, C.-H. Chang, Y.-C. Huang, and Y.-C. Su, "BCQs: a body constitution questionnaire to assess Stasis in traditional Chinese medicine," *European Journal of Integrative Medicine*, vol. 4, no. 4, pp. e379–e391, 2012.
7. K. C. Huang, C. C. Chen, Y. C. Su et al., "The relationship between Stasis-stagnation constitution and peripheral arterial disease in patients with type 2 diabetes," *Evidence-Based Complementary and Alternative Medicine*, vol. 2014, Article ID 903798, 6 pages, 2014.
8. C. H. Lee, T. C. Li, C. I. Tsai, S. Y. Lin et al., "Yang deficiency body constitution acts as a predictor of diabetic retinopathy in patients with type 2 diabetes: taichung diabetic body constitution study," *Evidence-Based Complementary and Alternative Medicine*, vol. 2015, Article ID 940898, 8 pages, 2015.
9. <https://www.healthline.com/health/coronary-artery-disease/causes>
10. <https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/symptoms-causes/syc-20350613>