



THE MEASURES OF PREVENTING CORONARY HEART DISEASE

Dalibaev Koniratbay Ongarbaevich

The Russian National Scientific Research Medical University Named
After N. I. Pirogov (Rnrmu)

Resident Of Cardiovascular Surgery

<https://doi.org/10.5281/zenodo.10401038>

Abstract. This article provides the main measures of understanding and preventing coronary heart disease. It covers the essential knowledge and strategies for maintaining heart health and reducing the risk of developing heart disease. The article also discusses to educate and empower readers to take control of their cardiovascular health through a range of preventive measures. According to the result of the reasearch, the preventive measures are considered as a valuable resource for individuals looking to improve their heart health and overall well-being.

Keywords: Coronary heart disease, prevention, risk factors, high blood pressure, high cholesterol, lifestyle modifications, health screenings, medication options, healthcare professionals, proactive steps.

Coronary heart disease (CHD) is the leading cause of death worldwide, claiming millions of lives each year. It is a serious condition that occurs when the blood vessels supplying the heart become narrowed or blocked by a buildup of plaque, leading to a decreased blood flow to the heart. As a result, the heart may not receive enough oxygen and nutrients, leading to chest pain (angina), heart attack, or even sudden death [5].

According to the World Health Organization, CHD is responsible for approximately 18 million deaths globally each year. Given these alarming statistics, it is crucial to emphasize the importance of preventing coronary heart disease. By adopting a healthy lifestyle, managing risk factors, and seeking medical care when needed, individuals can greatly reduce their risk of developing CHD and its associated complications [2]. There are several risk factors associated with the development of CHD, including:

1. High Cholesterol: High levels of LDL (low-density lipoprotein) cholesterol, often referred to as "bad" cholesterol, can lead to the buildup of plaque in the arteries, increasing the risk of coronary heart disease.
2. High Blood Pressure: Elevated blood pressure can cause damage to the arteries over time, making them more susceptible to plaque buildup and narrowing.
3. Smoking: Tobacco smoke contains chemicals that can damage the lining of the arteries, leading to the formation of plaque and increasing the risk of blood clots, which can trigger heart attacks [7].

Other risk factors for CHD include diabetes, obesity, physical inactivity, unhealthy diet, excessive alcohol consumption, and stress.

By understanding these risk factors, the article will explore some key strategies for preventing coronary heart disease and promoting heart health.

Firstly, a well-balanced diet plays a crucial role in preventing coronary heart disease. By making informed choices about the foods we consume, individuals can help reduce their

risk of developing CHD and support overall heart health. A heart-healthy diet focuses on consuming nutrient-dense foods that promote cardiovascular well-being while limiting intake of harmful substances.

Specific nutrients and foods that can help lower the risk of coronary heart disease include:

1. Fruits and Vegetables: These are rich in vitamins, minerals, and antioxidants that support heart health. Consuming a variety of colorful fruits and vegetables provides a range of beneficial nutrients.

2. Whole Grains: Whole grains, such as oats, brown rice, quinoa, and whole-wheat products, are high in fiber and can help lower cholesterol levels, reducing the risk of heart disease.

3. Healthy Fats: Foods rich in unsaturated fats, such as avocados, nuts, seeds, and olive oil, can help lower LDL cholesterol levels and reduce the risk of coronary heart disease [3].

4. Omega-3 Fatty Acids: Found in fatty fish (such as salmon, mackerel, and sardines), flaxseeds, and walnuts, omega-3 fatty acids have been shown to support heart health and reduce the risk of heart disease.

5. Lean Proteins: Choosing lean sources of protein, such as poultry, fish, tofu, and legumes, can help maintain a healthy heart.

Following these dietary guidelines and making healthy food choices can significantly reduce the risk of developing coronary heart disease and support overall cardiovascular health.

Secondly, regular exercise plays a crucial role in maintaining heart health. It can help improve cardiovascular function, lower blood pressure, reduce cholesterol levels, and manage weight. Additionally, exercise can improve insulin sensitivity and reduce the risk of developing type 2 diabetes, which is a risk factor for heart disease. There are various types of exercises that can benefit heart health, including aerobic exercises such as walking, running, cycling, swimming, and dancing. It is recommended to engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity aerobic exercise per week, along with muscle-strengthening activities on two or more days per week. In order to incorporate physical activity into daily routines, individuals can try to take the stairs instead of the elevator, walk or cycle to work, or engage in active hobbies such as gardening, dancing, or playing sports. It is important to find activities that are enjoyable and sustainable in order to maintain a regular exercise routine. Additionally, scheduling exercise into daily or weekly routines can help make it a priority and ensure consistency [1].

Next, the relationship between stress and heart disease is complex. Stress can also lead to the release of stress hormones such as cortisol and adrenaline, which can negatively impact the cardiovascular system by raising blood pressure and increasing the risk of blood clots.

Managing stress is important for heart health. Some strategies for managing stress include practicing meditation can help reduce stress and promote a sense of calm and relaxation. Mindfulness meditation, in particular, can help individuals become more aware of their thoughts and feelings while staying present in the moment, ultimately reducing stress. In addition, engaging in activities that promote mindfulness, such as yoga or Tai Chi, can help individuals focus on the present moment and reduce stress and anxiety and techniques such as deep breathing, progressive muscle relaxation, and visualization can help reduce stress and promote relaxation. Incorporating these stress management strategies into daily routines can

help individuals better cope with stress and ultimately reduce the impact of stress on heart health.

Quitting smoking is one of the most important steps individuals can take to improve their heart health. It is important to recognize that quitting smoking may require multiple attempts, and seeking professional help or support can significantly increase the chances of successfully quitting. Prioritizing heart health by quitting smoking can lead to significant improvements in cardiovascular health and overall well-being [4].

Following to the previous measure, lifestyle changes play a significant role in controlling high blood pressure and cholesterol levels. This includes regular exercise, maintaining a healthy weight, eating a balanced diet low in saturated fats and cholesterol, and limiting alcohol consumption. Additionally, quitting smoking and managing stress are important for overall cardiovascular health. In some cases, medications may be necessary to help manage high blood pressure and cholesterol levels. These medications can help lower blood pressure and reduce cholesterol levels, ultimately decreasing the risk of heart disease and stroke. Regular monitoring of blood pressure and cholesterol levels is important to track progress and make any necessary adjustments to treatment plans. Working closely with a healthcare provider to develop a personalized plan for managing these risk factors is essential for maintaining good cardiovascular health.

Lastly, regular check-ups and health screenings are essential for maintaining good health and identifying any potential risk factors or health issues. Many chronic conditions, including high blood pressure and high cholesterol, can be asymptomatic, making regular monitoring crucial for early detection and intervention. Healthcare professionals can provide personalized prevention plans based on an individual's medical history, lifestyle, and specific risk factors. Consulting with a healthcare provider allows for the development of a tailored approach to managing high blood pressure and cholesterol, including lifestyle modifications and, if necessary, medication options. For individuals at high risk or those with existing conditions, healthcare professionals can discuss potential medication or treatment options. These may include blood pressure-lowering medications, cholesterol-lowering drugs, or other interventions to reduce the risk of cardiovascular disease and its complications [8]. Regular communication and collaboration with healthcare providers are vital for addressing and managing high blood pressure and cholesterol effectively. This can lead to improved health outcomes and a reduced risk of cardiovascular events.

Conclusion. Preventing coronary heart disease involves addressing key risk factors such as high blood pressure and high cholesterol levels. Making lifestyle modifications, such as engaging in regular physical activity, maintaining a healthy diet, and managing stress, plays a crucial role in mitigating these risk factors. Regular health check-ups and screenings are essential for early detection and intervention. It is important for individuals to take proactive steps in managing their heart health by consulting with healthcare professionals, developing personalized prevention plans, and adhering to recommended treatments. By implementing these strategies, individuals can significantly reduce their risk of developing coronary heart disease and improve their overall cardiovascular health.

References:



1. Danesh, J. Low grade inflammation and coronary heart disease: prospective study and updated meta-analyses [Text] / J. Danesh, P. Whincup, M. Walker, L. Lennon, A. Thomson, P. Appleby, J.R. Vol. 321, № 7255.- Gallimore, M.B. Pepys // BMJ. - 2000. P.199-204.
2. Gotto, A.M. Managing the risk of Coronary Disease [Text] / A.M. Gotto // Cardiology.-1995. - Vol. 1.-P.23-26
3. Nora, J.J. Preventive Cardiology [Text] / Eds. D.Julian et al. - London, 1984.-P.123-144.
4. Аронов, Д.М. Первичная и вторичная профилактика сердечно- сосудистых заболеваний интерполяция на Россию [Текст] / Д.М. Аронов // Сердце. - 2002. - №1 (3). - С.109-112.
- 5.Карпов, Ю.А. Атеросклероз и факторы воспаления: нелипидные механизмы действия статинов [Текст] / Ю.А. Карпов, Е.В. Сорокин // РМЖ. - 2001. - № 10. - С.418.
6. Климов, А.Н. Атеросклероз [Текст] / В кн.: Г.И. Косицкий (ред.) Превентивная кардиология.- М.: Медицина, 1987. - С.239-316.
7. Латфуллин, И.А. Ишемическая болезнь сердца: основные факторы риска, лечение [Текст] / И.А. Латфуллин. Казань: Медицина, 1997. 104 с.
8. Шевченко, О.П. Атлас ишемической болезни сердца [Текст] / О.П. Шевченко, О.Д. Мишне». М.: Реафарм, 2003. – 96 с.

