



Programme: BSc (Hons) Health and Social Care Level 5

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Cardiovascular diseases

Cardiovascular diseases (CVDs) are a group of disorders of the heart and blood vessels. (WHO, 2021)

Cardiovascular disease usually occurs when the cardiovascular system, especially the heart does not function normally. When the cardiovascular system fails, blood flow slows or stops. The blood is responsible for transporting oxygen and glucose to the cells and removes carbon dioxide. Cells are the body's engine, and their main role is to turn food into energy. When cells do not receive blood, conversion, food-energy fails, the cells die, and eventually, the bodies die. Schwartz,(2020)

Referring to our case study, we can see that Ms. A has developed serious risk factors that can lead to cardiovascular disease. In a conclusion after the verbal examination of Ms. A and here we mention the questionnaire on health and lifestyle, it is confirmed Ms. A is obese with a (BMI) over 30 years and does not do any physical activity, which may be a risk factor for cardiovascular disease. Smoking and excessive drinking, followed by an unhealthy diet, are also major risk factors for Mrs. A. The family history may also increase the risk factor in terms of the fact that both father and sister suffer from CVD. NHS, (2018)

As a recommendation In order to reduce the risk of cardiovascular disease, Ms. A needs to change her life behavior. A healthy diet along with exercise will greatly reduce cardiovascular disease risk. Stopping smoking and reduce the quantity of alcohol can also, improve her health and reduce cardiovascular risk factors. NHS (2020)



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This presentation aims to understand what cardiovascular diseases are. What are the risk factors that can influence the development of cardiovascular disease and how can cardiovascular disease be prevented to have a good healthy life. Likewise, the objective of this presentation is to describe the main information related to the physiology of cardiovascular diseases. Also focusing on Mrs. A case study (using the health and lifestyle questionnaire) to briefly describe the behaviour of the subject of life and risk factors she developed related to the cardiovascular disease, and, finally, the options available to Ms. A to prevent and avoid cardiovascular disease in terms of lifestyle and behavioural changes.

In order to understand what cardiovascular diseases are, we must have a look at the cardiovascular system, how the cardiovascular system work, how our behaviour can affect the good function of the cardiovascular system in a short and long terms. It is also essential to understand the risk factors and prevent their occurrence for a healthy life.

The circulatory system also is known as the cardiovascular system and is made up of the heart, blood vessels and capillaries. Blood vessels are divided into two, arteries and veins. Arteries carry the oxygenated blood from heart to body organs and tissues and veins carry deoxygenated blood back to the heart. The heart is the place where deoxygenated blood is converted into oxygenating blood also the heart is the main component of the cardiovascular system. The role of the cardiovascular system is to transport oxygen and other nutrients to all the organs and tissues in the body. The body cells take these essential nutrients from the blood and convert them into energy (Schulman, 2020)

Cardiovascular Diseases

Now we understand what is cardiovascular system is and how it works, let see what cardiovascular disease are. According to WHO 'cardiovascular diseases are a group of disorders of the heart blood vessels and blood WHO (2021). Cardiovascular disease usually occurs when the cardiovascular system, especially the heart, does not function normally. When the cardiovascular system fails, blood flow slows or stops, tissues, and body organs can fail. The blood is responsible for transporting oxygen and glucose to the cells and removes carbon dioxide. Cells are the body's engine, and their main role is to turn food into energy. When cells do not receive blood, conversion, food energy fails, the cells die, and eventually, the bodies die Cardiovascular diseases include: coronary heart disease, cerebrovascular disease, rheumatic heart disease, congenital heart disease, pericardial disease, etc.

Coronary heart disease is when the blood vessels that supply heart are interrupted or blocked and the heart don't get enough blood (Beckerman, 2021).

Cerebrovascular disease is identified by a group of conditions that affect the blood vessels and blood supply to the brain. In the event of a blockage, or haemorrhage, the blood cannot oxygenate the brain and brain damage can occur (Wells, 2019).

Rheumatic heart disease can damage the heart muscles or heart valves. The causes can be untreated or undertreated streptococcal infection such as strep throat or scarlet fever.

Congenital heart disease is associated with any damage, malformation, affection of the heart present from birth that affects the heart normal functionality (NHS, 2021).

Pericardial disease is an inflammation of the pericardium. The two most severe actions of cardiovascular disease are heart attack and stroke, the main cause of these two actions is the lack of blood supply to the heart or brain due to blockages or damage to blood vessels. In order to avoid and prevent cardiovascular diseases need to identification and eliminate the risk factors.

Risk factors

- High blood pressure named also hypertension is one of the most significant risk factors for cardiovascular disease. When the blood pressure is too high, the blood vessels can suffer damage.
- Smoking tobacco or any other substance can be a risk factor for cardiovascular disease also. The chemicals found in tobacco can damage and narrow the blood vessels.
- Diabetes and obesity associated with physical inactivity can lead to cardiovascular disease so they should be considered major risk factors.

- For people who have a family history of cardiovascular disease, the risk of developing cardiovascular diseases is also increased so is important to tell the doctor or nurse about the past related to cardiovascular disease.
- Age, sex, ethnicity along with an unhealthy diet and excessive alcohol consumption can also be categorized as risk factors (NHS 2021).

Referring to our case study as a conclusion after the verbal examination of Mrs. A here as well we mention the questionnaire on health and lifestyle, we find out that Mrs. A is female with the age of 43, height 165 cm, weight 84 kg addicted to smoking plus a messy life style culminates with the unhealthy diet associated with excessive alcohol consumption. So we can see that Mrs. A has developed several risk factors, factors that can lead to cardiovascular disease. Mrs. A is an obese person with a (BMI) over 30 years and does not do any physical activity, which can be a risk factor for cardiovascular disease. Smoking and excessive drinking, followed by an unhealthy diet are also major risk factors for Ms. A. Family history may increase the risk factor that also refers to the fact that both the father and the sister suffer from CVD. If Ms. A continues with her lifestyle the chances of developing cardiovascular disease or even worse she may be the victim of a heart attack or stroke is daily increase Following the advice of the NHS for preventing the risk of cardiovascular disease, Mrs. A needs to change her lifestyle.

A healthy diet along with exercise will greatly reduce the risk of cardiovascular disease. Quitting smoking and reducing the amount of alcohol it also improves her health and reduces cardiovascular risk factors.

In conclusion cardiovascular disease is a significant and ever-growing problem responsible for more than 30% from all deaths and leading to significant morbidity. Lifestyle changes such as stopping smoking, increasing physical activity, eating a healthy diet, managing weight and reducing alcohol consumption can reduce the risk of CVD, so we can say our life is in our hands.

Reference

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