

Risk Factors of Heart Attack and its Recovery

Magaye Gaye*

Department of Thoracic and Cardiovascular Surgery, Fann University, Dakar, Senegal

About the Study

A heart attack occurs when the flow of blood to the heart is blocked. The blockage is most often a build-up of fat, cholesterol and other substances, which form a plaque in the arteries that feed the heart (coronary arteries). Sometimes, a plaque can rupture and form a clot that blocks blood flow. The interrupted blood flow can damage or destroy part of the heart muscle. A heart attack, also called a myocardial infarction, can be fatal, but treatment has improved dramatically over the years. It's crucial to call 911 or emergency medical help if you think you might be having a heart attack.

Common heart attack signs and symptoms include-Pressure, Tightness, Pain, or a squeezing or aching sensation in your chest or arms that may spread to your neck, jaw or back, nausea, indigestion, heartburn or abdominal pain, Shortness of breath, sweat, fatigue, light-headedness or sudden dizziness.

A heart attack occurs when one or more of your coronary arteries become blocked. Over time, a build-up of fatty deposits, including cholesterol, form substances called plaques, which can narrow the arteries (atherosclerosis). This condition, called coronary artery disease, causes most heart attacks. During a heart attack, a plaque can rupture and spill cholesterol and other substances into the bloodstream. A blood clot forms at the site of the rupture. If the clot is large, it can block blood flow through the coronary artery, starving the heart of oxygen and nutrients (ischemia). You might have a complete or partial blockage of the coronary artery. Another cause of a heart attack is a spasm of a coronary artery that shuts down blood flow to part of the heart muscle. Using tobacco and illicit drugs, such as cocaine, can cause a life-threatening spasm. Infection with COVID-19 also may damage your heart in ways that result in a heart attack. Certain factors contribute to the unwanted build-up of fatty deposits (atherosclerosis) that narrows arteries throughout your body. You can improve or eliminate many of these risk factors to reduce your chances of having a first or another heart attack.

Heart attack risk factors include, men at the age of 45 or older and women at the age of 55 or older are more likely to have a heart attack than are younger men and women. Tobacco includes smoking and long-term exposure to second hand smoke. Over time, high blood pressure can damage arteries that lead to your heart. High blood pressure that occurs with other conditions, such as obesity, high cholesterol or diabetes, increases your risk even more. A high level of low-density lipoprotein (LDL) cholesterol ("bad" cholesterol) is most likely to narrow arteries. A high level of triglycerides, a type of blood fat related to your diet, also increases your risk of a heart attack. However, a high level of high-density lipoprotein (HDL) cholesterol ("good" cholesterol) may lower your risk. Obesity is linked with high blood cholesterol levels, high triglyceride levels, high blood pressure

and diabetes. Losing just 10% of your body weight can lower this risk. Not producing enough of a hormone secreted by your pancreas (insulin) or not responding to insulin properly causes your body's blood sugar levels to rise, increasing your risk of a heart attack. Metabolic syndrome occurs when you have obesity, high blood pressure and high blood sugar. Having metabolic syndrome makes you twice as likely to develop heart disease as if you don't have it. Being inactive contributes to high blood cholesterol levels and obesity. People who exercise regularly have better heart health, including lower blood pressure. You might respond to stress in ways that can increase your risk of a heart attack [1-4].

Recovery from heart attack

If you've had a heart attack, your heart may be damaged. This could affect your heart's rhythm and its ability to pump blood to the rest of the body. You may also be at risk for another heart attack or conditions such as stroke, kidney disorders, and peripheral arterial disease (PAD).

You can lower your chances of having future health problems following a heart attack by doing Physical activity-Talk with your health care team about the things you do each day in your life and work. Your doctor may want you to limit work, travel, or sexual activity for some time after a heart attack. Lifestyle changes-Eating a healthier diet, increasing physical activity, quitting smoking, and managing stress-in addition to taking prescribed medicines-can help improve your heart health and quality of life. Ask your health care team about attending a program called cardiac rehabilitation to help you make these lifestyle changes. Cardiac rehabilitation-Cardiac rehabilitation is an important program for anyone recovering from a heart attack, heart failure, or other heart problem that required surgery or medical care. Cardiac rehab is a supervised program that includes Physical activity; Education about healthy living, including healthy eating, taking medicine as prescribed, and ways to help you quit smoking; Counseling to find ways to relieve stress and improve mental health. Quit smoking because smoking has more than twice the risk for heart attack as non-smokers and are much more likely to die if they suffer a heart attack. Smoking is also the most preventable risk factor. If you smoke, quit. Better yet, never start smoking at all. Non-smokers who are exposed to constant smoke also have an increased risk. Improve cholesterol levels is the risk for heart disease that increases as your total amount of cholesterol increases. Our total cholesterol goal should be less than 200 mg/dl; HDL, the good cholesterol, higher than 40 mg/dl in men and 50 mg/dl in women (and the higher the better); and LDL should be less than 130 mg/dl in healthy adults. For those with diabetes or multiple risk factors for heart disease, the LDL goal should be less than 100 mg/dl (some experts recommend less than 70 mg/dl if you are very high risk). Interpretation and treatment of cholesterol values must be individualized, taking into account all of your risk factors for heart disease. A diet low in cholesterol and saturated and trans fats and high in complex carbohydrates and good fats (omega 3 s) will help lower cholesterol levels and reduce your risk for heart disease. Regular exercise will also help lower "bad" cholesterol and raise "good" cholesterol. Often, medications are needed to reach cholesterol goals. Control high blood pressure as about 67 million people in the U.S. have hypertension, or high blood pressure, making it the most common heart disease risk factor. Nearly one in three adults has systolic blood pressure (the upper number) over 130, and/or diastolic blood pressure (the lower number) over 80, which is the definition of hypertension. Like cholesterol, blood pressure interpretation and treatment should be individualized, taking into account your entire risk profile. Many of us lead sedentary lives, exercising infrequently or not at all. People who

*Address for Correspondence: Magaye Gaye, Department of Thoracic and Cardiovascular Surgery, Fann University, Dakar, Senegal; Email: mgaye9@yahoo.com

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don't exercise have higher rates of death and heart disease compared to people who perform even mild to moderate amounts of physical activity. Even leisure-time activities like gardening or walking can lower your risk of heart disease. Most of the people should exercise 30 minutes a day, at moderate intensity, on most days. More vigorous activities are associated with more benefits. Exercise should be aerobic, involving the large muscle groups. Aerobic activities include brisk walking, cycling, swimming, jumping rope, and jogging [1-4].

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