



Heart Attack

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Condition Basics

What is a heart attack?

A heart attack is an event that occurs when part of the heart muscle does not get enough blood and oxygen. This part of the heart starts to die.

A heart attack doesn't have to be deadly. Quick treatment can restore blood flow to the heart and save your life.

Your doctor might call a heart attack a myocardial infarction, or MI. Your doctor might also use the term acute coronary syndrome for your heart attack.

What causes it?

A heart attack is caused when not enough blood and oxygen reach part of the heart muscle. This most often happens because blood flow through one or more of the coronary arteries (See figure 1 in appendix) is blocked. This blockage is usually caused by a blood clot that forms when plaque in the artery breaks open.

What are the symptoms?

A heart attack may feel like chest pain or pressure or a strange feeling in the chest. Symptoms may also include sweating, nausea, or vomiting. There may be other symptoms, too, like shortness of breath, sudden weakness, or pain or pressure in the back, neck, jaw, upper belly, or in one or both shoulders.

What should you do if you think you are having a heart attack?

If you think you're having a heart attack, act fast. Quick treatment could save your life.

1. Call **911** right away.
 - Do not wait to call **911**. Getting help fast can save your life.

- Describe your symptoms, and say that you could be having a heart attack.
- 2. Stay on the phone. The emergency operator will give you further instructions. The operator may tell you to chew 1 adult-strength or 2 to 4 low-dose aspirin. Aspirin helps keep blood from clotting, so it may help you survive a heart attack.
- 3. Wait for an ambulance. Do not try to drive yourself. By taking an ambulance, you may be able to get treatment before you arrive at the hospital.

The best choice is to go to the hospital in an ambulance. The paramedics can begin lifesaving treatments even before you arrive at the hospital. If you cannot reach emergency services, have someone drive you to the hospital right away. Do not drive yourself unless you have absolutely no other choice.

If you witness a person become unconscious, call **911** or other emergency services and start CPR (cardiopulmonary resuscitation). The emergency operator can coach you on how to do CPR.

How is a heart attack diagnosed?

To check for a heart attack, your doctor will take a history and do a physical exam. You may have an EKG and a blood test that can show signs of heart damage. Imaging tests or a coronary angiogram may be done to check how well blood is flowing to the heart muscle.

How is a heart attack treated?

Treatment will start in the ambulance with medicines. At the hospital, your doctor will work right away to return blood flow to your heart muscle. You may get medicines to break up clots and help blood flow. You might have angioplasty or bypass surgery to improve blood flow to your heart.

Credits

Current as of: September 7, 2022

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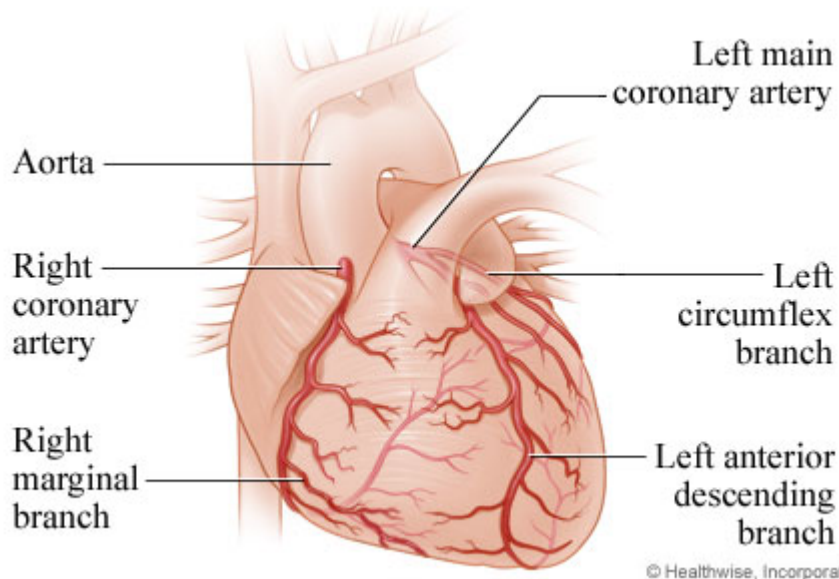
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Appendix

Topic Images

Figure 1

The heart and the coronary arteries



Coronary arteries are blood vessels that provide oxygen-rich blood and other nutrients to the heart muscle. The coronary arteries attach to and wrap around the heart's surface.

The left coronary artery branches off into smaller arteries. The most prominent ones are the:

- Left anterior descending artery, which supplies blood to the front of the heart.
- Left circumflex artery, which encircles the heart muscle, supplying blood to the back of the heart.

The right coronary artery supplies the back of the heart. The right marginal branch usually extends from the right coronary artery and supplies blood to the lower right side of the heart.

Note: The "printer friendly" document will not contain all the information available in the online document. Some information (e.g. cross-references to other topics, definitions or medical illustrations) is only available in the online version.



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