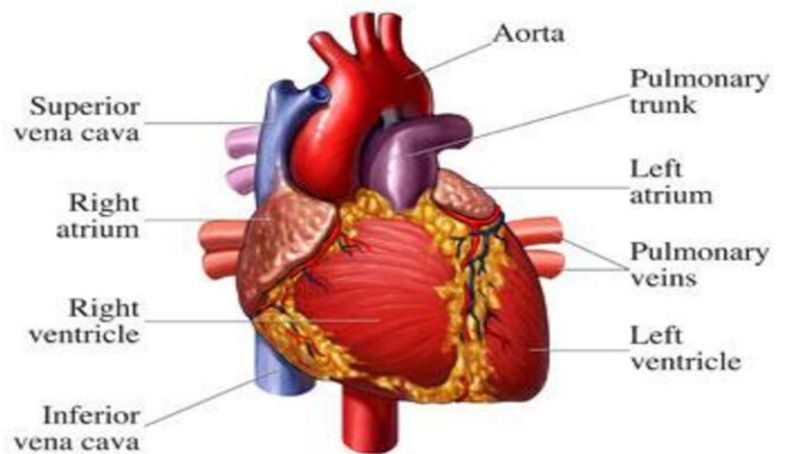




Title When the Heart Attacks	Date July 16, 2019
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The heart is a muscle responsible for pumping oxygenated blood through the body, as well as removing metabolic wastes. The heart is made up of four different areas, each area is called a chamber. The two chambers on top are called the atria (atrium is singular).

These are the chambers that fill with the blood returning from the body and lungs through two large veins, the inferior and superior vena cava. The two bottom chambers are the left and right ventricles, which send the blood from the heart to the body and lungs through the aorta. The aorta is the main artery that carries blood away from your heart to the rest of your body. This process is what produces a person's heartbeat.



What is a heart attack?

A heart attack happens when blood flow bringing oxygen to the heart muscle is severely reduced or cut off completely. This is caused by one or more coronary arteries being blocked. Blockages can be caused by a buildup of various substances such as fat or cholesterol. This forms a plaque in the arteries that feed the heart (coronary arteries). The plaque eventually breaks away from the lining of the artery and forms a clot which can interrupt blood flow into the heart. The interrupted blood flow can damage or destroy part of the heart muscle. The



longer a patient goes without treatment, the greater the damage to the heart. Another medical term for a heart attack is myocardial infarctions, or MIs for short.

Warning Signs and Symptoms:

Most heart attacks start slowly and symptoms can start hours, days, or weeks in advance. Some people don't recognize the importance of their signs and symptoms. Heart disease is the #1 killer of both men and women in the United States. It is important to identify some of the signs and symptoms to ensure proper medical care is sent.

Common heart attack symptoms include (but are not limited to)

- Pressure, tightness, pain or squeezing sensation in the chest or arms that may spread to the neck, jaw, or back.
- Nausea, indigestions, heartburn, or abdominal pain
- Fatigue
- Cold Sweats
- Lightheadedness or sudden dizziness

Some symptoms that more likely present in women are:

- Indigestion or gas-like pain
- Dizziness or nausea
- Unexplained weakness or fatigue
- Discomfort or pain between the shoulder blades
- Recurring chest discomfort

"Women can experience a heart attack without chest pressure. They may experience shortness of breath, pressure or pain in the lower chest or upper abdomen, dizziness, lightheadedness or fainting, upper back pressure or extreme fatigue."-Nieca Goldberg, M.D.

--Heart attacks are considered critical problems in the dispatch world and the symptoms are listed on protocol 10: Chest Pain/Chest Discomfort (Non-Traumatic)--

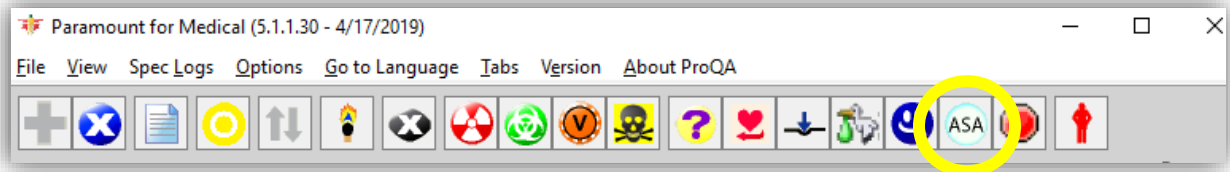


Administering Aspirin:

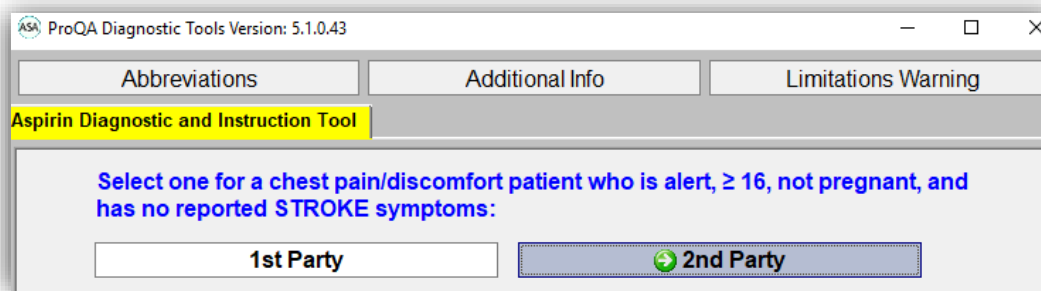
Aspirin interferes with the body's blood clotting ability which is why some patients who have had a heart attack or stroke before take a low dose (81mg) daily. The International Academy of Emergency Dispatch (IAED) also has instructions for giving aspirin to a patient experiencing chest pain or chest discomfort. When aspirin is taken during a heart attack, it can slow clotting and decrease the size of the blood clot that is forming.

The Aspirin Diagnostic is available on multiple protocols at the PDI panel, as well as at the top of ProQA in the toolbar.

A screenshot of the Paramount for Medical software interface. The window title is "Paramount for Medical (5.1.1.30 - 4/17/2019)". The interface includes a menu bar (File, View, Spec_Logs, Options, Go to Language, Tabs, Version, About ProQA) and a toolbar with various icons. The main display area shows a protocol for "10: Chest Pain / Chest Discomfort (Non-Traumatic)" at 9:45. The "PDI/CEI" tab is active, displaying "Post-Dispatch Instructions" and "Additional Information". The instructions include: "a. I'm sending the paramedics (ambulance) to help you now. Stay on the line and I'll tell you exactly what to do next.", "b. (≥ 1 + D-1, 2, 3) If there is a defibrillator (AED) available, send someone to get it now in case we need it later.", and "c. (Patient medication requested and Alert) Remind him to do what his doctor has instructed for these situations." Below these are "Critical EMD Information" instructions: "* Stay on the line with the caller if his condition seems unstable or is worsening." and "* Utilize the Aspirin Diagnostic & Instruction Tool – if authorized by local Medical Control and the chest pain/discomfort (Heart Attack Symptoms) patient is alert, ≥ 16 years old, and has no reported STROKE symptoms." On the right side, there is a "DLS Links" panel with buttons for "X-Card" and "Unconscious". At the bottom right, a pink box labeled "ASA Aspirin Diagnostic Tool" is highlighted with a yellow arrow pointing to it.



Before administering aspirin, remember to read the blue text at the top of the Aspirin Diagnostic:



If the patient is not alert, pregnant, or having stroke symptoms (listed in Protocol 28: Stroke (CVA)/Transient Ischemic Attack (TIA)) we do not want to have the caller give aspirin. Also, if the caller is saying that the patient has just taken aspirin, we can administer another dose.

Things to consider:

When taking a call of a person who is having chest discomfort or any other heart attack symptom, we need to be prepared for early intervention of CPR if they go into cardiac arrest. A medication common in patients with certain heart conditions is Nitroglycerin, commonly referred to as "Nitro". Nitro is used to dilate blood vessels and relieve chest pain commonly caused by coronary artery disease. If a caller is asking if they should give nitro, there is an instruction to address this: "Remind them to do what his doctor has instructed for these situations". This gives the patient the ability to make that decision based on what they were told by their doctor.



Definitions:

Angina /an-JIE-nuh/: Chest pain or discomfort caused when the heart muscle doesn't get enough oxygen-rich blood. There are many types of angina, but it is not a disease, it is a symptoms of an underlying heart problem.

Coronary Arteries: Arteries that feed the heart

Coronary Artery Disease: (most common type of heart disease) Happens when arteries that supply blood to the heart muscle become hardened and narrowed due to the buildup of cholesterol or plaque on their inner walls.

Resources:

American Heart Association:

<https://www.heart.org/en/health-topics/heart-attack/about-heart-attacks>

(There are videos available about what happens during a heart attack as well as more information on signs/symptoms and after care on this site)



Heart Attacks

H B Y Y P I Z S T O L O Y Q Q
F E X Y D U I O X V A R E J V
E A A I Q X T R E S H T N M X
P S H R N T N J Z Q I I R M T
Q M P W T T U S I E R N U I L
K V H N E D N F A I I S N F A
G W O P W V I D P K C H A C T
T O W J H Y A S G L W O X I X
M T B J N P A S E T F U F I A
G Q O Z W Q I N X A W L U C L
N F R H K M O D W M S D R P H
D F T T I H V U H Z F E V G O
M D B C C V N E X A T R O A R
N W D D R B U V F Y T D Y W U
E T C J U Z K X D I I E E A E

Words:

Short name for medication used to dilate blood vessels _____

The heart is a _____

The two top chambers of the heart _____

Main artery that carries blood away from the heart _____

Women may experience pain between the _____ blades as a sign of a heart attack

IAED has instructions to administer _____ for Chest Pain/Chest Discomfort patients

_____ Is the #1 killer of both men and women in the United States



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I verify that I read and am familiar with the contents of this document.

Please return this to your agency's training coordinator for CDE credit. If you have any questions please contact us at 911training@elpasoteller911.org

X _____
Signature DATE

X _____
Printed Name

X _____
Agency