HEART ATTACK

Treatment

Your doctor or emergency medical personnel may start treatment even before they confirm that you are having a heart attack. Early treatment to remove the blood clot or plaque can prevent or limit damage to your heart, help your heart work better, and save your life.

Emergency treatment

Medicines

- **Aspirin** or other medicines can prevent more blood clots from forming. In some people, aspirin may cause bleeding in the stomach.
- **Nitroglycerin,** or nitrates, can make it easier for your heart to pump blood and to improve blood flow through your coronary arteries. Nitroglycerin also treats chest pain. You may also be given other medicines for chest pain. Side effects of this medicine include nausea, vomiting, weakness, a slow heartbeat, and low blood pressure.
- **Thrombolytic medicines,** also called clot busters, can help dissolve blood clots that are blocking your coronary arteries. These medicines may cause bleeding problems. You may be given these if you were unable to reach a hospital that can do a percutaneous coronary intervention (see below) quickly enough.

Oxygen therapy

Oxygen therapy is a treatment that delivers oxygen gas for you to breathe. You can receive oxygen therapy from tubes resting in your nose, a face mask, or a tube placed in your trachea (windpipe). You may need oxygen therapy if you have a condition that causes your blood oxygen levels to be too low.

Oxygen therapy can be given for a short or long period of time in the hospital, another medical setting, or at home. Oxygen poses a fire risk, so you should never smoke or use flammable materials when using oxygen. You may experience side effects from this

treatment, such as a dry or bloody nose, tiredness, and morning headaches. Oxygen therapy is generally safe.

Procedures

You may need one of the following procedures at the hospital or later to help restore blood flow to your heart. These procedures are often done as soon as your healthcare team confirms that you are having a heart attack.

Percutaneous coronary intervention

Percutaneous coronary intervention (PCI), also called coronary angioplasty, is a nonsurgical procedure that improves blood flow to your heart. Doctors use PCI to open blood vessels to the heart that are narrowed or blocked by buildup of plaque . PCI requires cardiac catheterization.

A cardiologist, the doctor who specializes in the heart, performs PCI in a hospital cardiac catheterization laboratory. Live X-rays help your doctor guide a catheter through your blood vessels into your heart, where special contrast dye is injected to highlight any blockage. To open a blocked artery, your doctor will insert another catheter over a guidewire and inflate a balloon at the tip of that catheter. Your doctor may also put a small mesh tube called a stent in your artery to help keep the artery open.

You may develop a bruise and soreness where the catheters were inserted. It also is common to have discomfort or bleeding where the catheters were inserted. You will recover in a special unit of the hospital for a few hours or overnight. You will get instructions on how much activity you can do and what medicines to take. You will need a ride home because of the medicines and anesthesia you received. Your doctor will check your progress during a follow-up visit. If a stent is implanted, you will have to take certain anticlotting medicines exactly as prescribed, usually for at least 6 to 12 months.

Serious complications during a PCI procedure or as you are recovering after one are rare, but they can happen. This might include:

- Bleeding
- Blood vessel damage
- Treatable allergic reaction to the contrast dye
- Need for emergency coronary artery bypass grafting during the procedure
- Arrhythmias, or irregular heartbeats
- Damaged arteries
- Kidney damage

- Heart attack
- Stroke
- Blood clots

Sometimes chest pain can occur during PCI because the balloon briefly blocks blood supply to the heart. Restenosis, when tissue regrows where the artery was treated, may occur in the months after PCI. This may cause the artery to become narrow or blocked again. The risk of complications from this procedure is higher if you are older, have chronic kidney disease, are experiencing heart failure at the time of the procedure, or have extensive heart disease and more than one blockage in your coronary arteries.

Stenting

A stent is a small mesh tube that holds open passages in the body, such as weak or narrow arteries. Stenting is a minimally invasive procedure. The most common complication after a stenting procedure is a blockage or blood clot in the stent. You may need to take certain medicines, such as aspirin and other anti-platelet medicines, for a year or longer after receiving a stent in your artery to prevent serious complications such as blood clots.

More about stenting

Coronary artery bypass grafting (CABG)

CABG is a procedure to improve poor blood flow to the heart. It may be needed when the arteries supplying blood to heart tissue, called coronary arteries, are narrowed or blocked. This surgery may lower the risk of serious complications for people who have a type of heart disease called obstructive coronary artery disease. CABG may also be used in an emergency, such as a severe heart attack.

More about coronary artery bypass grafting (CABG)

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