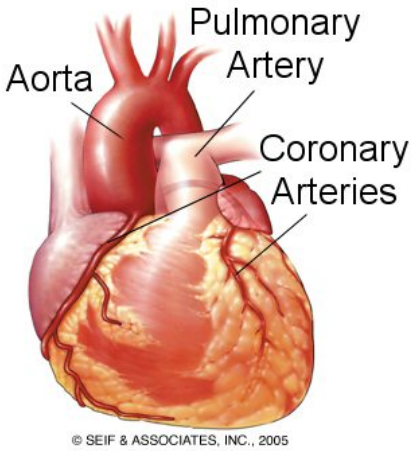
Myocardial Infarction (Heart Attack)

A heart attack occurs when blood supply to part of the heart muscle is interrupted. This causes that part of the heart to be damaged or die because no oxygen is being delivered. The amount of damage increases rapidly, the longer the area does not get enough blood. It is very important to get medical help right away if you are having chest discomfort or suspect a heart attack. A heart attack may also be called myocardial infarction (MI).



CAUSES

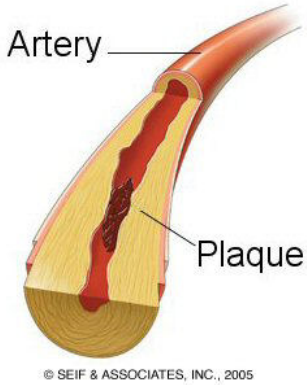
- A buildup of fatty material in the lining of an artery (*plaque*) may break off and be followed by a clot which blocks the artery.
- An artery that is still open but not delivering enough oxygen. This may be the result of:
  - Blood pressure that is too low.
  - Not enough red blood cells (*anemia*).
  - Oxygen level in the blood that is too low.
  - Heart muscle that has been overworked by exercise, illness or stress.
  - Sudden narrowing (*spasm*) of a coronary artery.

CONTRIBUTING FACTORS:

- High blood pressure.
- Smoking.
- Diabetes.
- High cholesterol.
- Gender.
- Family history.
- A narrowing (*spasm*) of a coronary artery.
- Use of stimulants such as cocaine and amphetamines.
- Increasing age.

SYMPTOMS

- Chest discomfort described as crushing, squeezing, heavy or tight.
- Discomfort may be felt in the left arm, neck, jaw or teeth.
- Discomfort may also be felt below the breastbone or between the shoulders.
- In women: intense fatigue, back pain or anxiety.
- The discomfort may feel like indigestion or nausea.
- Cold, damp (clammy) skin.
- Irregular or very fast heart beats.
- Feeling faint or light-headed.
- Loss of normal color.



DIAGNOSIS

- A rapid assessment of your heart rhythm, blood pressure and oxygen level.
- An EKG (ECG) to check the electrical activity of your heart.
- Blood tests to measure proteins or enzymes released by damaged heart muscle.
- Response to medicine you may be given.
- A chest x-ray to provide information about the heart and see if you have fluid in your lungs.
- An echocardiogram to evaluate blood flow and status of the heart valves.

TREATMENT:

- "Clot buster" medicine given through an IV to dissolve a clot and open the artery.
- Heart catheterization to determine if arteries are blocked and open them by procedures done through a thin tube inserted near the groin.
- Open heart surgery if there is a lot of damage or the blocked arteries are in a critical place.

AFTER A HEART ATTACK:

- The location and amount of heart muscle damage will affect how long you will stay in the hospital.
- Your risk for another heart attack or abnormal beats is higher.
- You may develop problems from damaged heart muscle because your heart may not pump as well.
- You may need to take some medicines for the rest of your life, including those that:
  - Keep your blood from clotting easily (blood thinners).
  - Control your blood pressure.
  - Help lower your cholesterol.
- You may be advised to make major lifestyle changes, such as, not smoking.
- You may be enrolled in a cardiac rehab program so your heart will be stronger and you will feel better sooner.
- A pacemaker or other device may be needed if abnormal heartbeats continue.

HOME CARE INSTRUCTIONS

- Follow the treatment plan your caregiver prescribes.
- Carry medications, such as nitroglycerine, with you at all times, if prescribed.
- Make a list of every medicine you are taking. Keep it up-to-date and with you all the time.
- Get help from your caregiver or pharmacist to learn the following about each medicine:
  - Why you are taking it.
  - What time of day to take it.
  - Possible side effects.
  - Foods to take with it or avoid.
  - When to stop taking it.
- Try to maintain normal blood lipid levels.
- Eat a heart healthy diet with salt and fat restrictions as advised.
- **Activity Level**–Everyone heals at a different rate. Decisions about when you may go back to work, start to exercise or have sex should be made with the guidance of your caregivers. Pace your activities to avoid shortness of breath or chest pain.
- **Weight Monitoring**–Weigh yourself every day. You should weigh yourself in the morning after you urinate and before you eat breakfast. Wear the same amount of clothing when you weigh yourself. Record your weight daily. Bring your recorded weights to your clinic visits. Tell your caregiver right away if you have gained 3 or more pounds in 1 day, 5 pounds in a week or whatever amount you were told to report.
- **Blood pressure monitoring**–This should be done as often as you are told to check it. You can get a home blood pressure cuff at your drugstore. Record these values and bring them with you for your health checks.
- **Smoking**–If you are currently a smoker; it is time to quit. Nicotine makes your heart work harder. Do not use nicotine gum or patches before checking with your caregiver. Find a support group or therapist to help you quit.
- **Follow-up**–Be sure to make and keep an appointment with your caregiver. Appointments with your cardiologist and other caregivers may also be needed.

SEEK IMMEDIATE MEDICAL CARE IF:

- You have severe chest pain, especially if the pain is crushing or pressure-like and spreads to the arms, back, neck, or jaw. **THIS IS AN EMERGENCY. Do not wait to see if the pain will go away. Get medical help at once. Call your local emergency services (911 in the U.S.). DO NOT drive yourself to the hospital.**
- You start sweating, feel sick to your stomach or are short of breath.
- Your weight increases by 3 or more pounds in 1 day or 5 pounds in a week.
- You notice increasing shortness of breath during rest, sleeping or with activity.
- You develop an increase in angina or develop chest pain that is unusual for you.
- You are unable to sleep because you cannot breathe.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.

- Will get help right away if you are not doing well or get worse.

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