Heart Attack
Acute Myocardial Infarction (AMI)

Education
For Our Community
What is a Heart Attack?

A heart attack happens when blood flow to the heart muscle is interrupted. Our blood carries Oxygen. When oxygen can’t get to the heart muscle, heart tissue damage or heart tissue death occurs. This is called a “heart attack” or “MI”.
I. What is the Heart?
The heart is simply a pump. The left side of the heart pumps oxygenated blood to the body and the right side of the heart collects the used “unoxygenated” blood and pumps it the lungs to get oxygenated.

II. What causes a Heart Attack?
- Thickening of the walls of blood vessels that supply blood to the heart muscle (coronary arteries)
- The build up of fatty deposits in the coronary arteries
- Narrowing of the coronary arteries
- Spasms of the coronary arteries
- A blood clot in the coronary arteries

III. What puts you at risk for having a Heart Attack? (Risk Factors)
- Men have heart attacks more often than women. However heart disease is becoming more frequent in women.
- Age
- Obesity
- Smoking
• Sedentary life style
• High blood pressure
• High blood cholesterol
• High blood triglycerides
• Diabetes
• Stress
• Family members with heart disease

IV. What are the Signs and Symptoms of a Heart Attack?

IF YOU THINK YOU ARE HAVING A HEART ATTACK, CALL 911 RIGHT AWAY

• Squeezing, heavy chest pain, especially with:
  o Exercise or exertion
  o Emotional stress
  o Cold weather
  o A large meal
• Pain in the left shoulder, left arm, or jaw
• Shortness of breath
• Sweating, clammy skin
• Nausea
• Weakness
• Loss of consciousness
• Anxiety, especially feeling a sense of doom or panic without any apparent reason
Unusual symptoms of a heart attack (may occur more frequently in women):
- Stomach pain
- Back and shoulder pain
- Fainting

V. How is a Heart Attack treated?
The treatment plan for a heart attack is individualized to each patient’s situation. Treatment plans can include some or all of the following:
- Oxygen is often given to help supplement the oxygen supply to the heart muscle. It is often applied in the Emergency Room and continues to the in-patient hospital room
- Medications are administered to help with your pain and restore blood flow to the heart. These may include: Nitroglycerine, Morphine Sulfate, Aspirin, Beta Blockers, antiplatelet therapy, and medicine to control cholesterol
- Angioplasty unclogs blockages to restore blood flow through the blood vessel to the heart muscle. A long, very thin catheter is inserted into the blocked artery. A balloon at the tip of the catheter opens the artery. Often a stent is inserted into the artery to keep it open. This is called a Coronary Stent.
o **Coronary Artery Bypass Graft** or “Open Heart Surgery” takes blood vessels from other parts of the body and puts them into your heart to bypass the blocked area and allow blood flow to the heart muscle.

VI. Medications often used to treat a Heart Attack

It is very important to follow the medications prescribed by the physician in order to decrease the chances of having another heart attack. Medication plans are individualized to each patient. Your physician will choose the medications that are best for you. Treatment for a heart attack often includes some or all of the following types of medications.

- **Beta Blockers** lower your blood pressure by decreasing the force and the rate of the heart beat. They also help blood vessels open up to improve blood flow. Commonly used Beta Blockers are include: Atenolol (Tenormin), Bisoprolol (Zebeta), Metoprolol (Toprol), Nadolol (Coregard), Nebivolol (Bystolic), Propanolol (Inderal), and Carvedilol (Coreg). Common **Side Effects** include: Fatigue,
Headache, Upset Stomach, Constipation, Diarrhea, and Dizziness.

- **ACE Inhibitors or ARBs** relax your blood vessels and therefore improve the amount of blood your heart pumps and lower your blood pressure. Commonly used ACE Inhibitors or ARBs include: Benazepril (Lotensin), Captopril (Capoten), Enalapril (Vasotec), Lisinopril (Prinivil or Zestril), Rampril (Altace), and Tradolapril (Mavik). Common **Side Effects** include: Dry cough, Increased blood-potassium level, Fatigue, Rash, Dizziness, Headaches, and Sleeping problems.

- **Statins** help to decrease your LDL or “bad cholesterol” and your triglycerides. The also help to increase your HDL or “good cholesterol”. Commonly used Statins include: Lovastatin (Altoprev or Mevacor), Rosuvastatin (Crestor), Atorvastatin (Lipitor), Pravastatin (Pravachol) and Simvastatin (Zocor). Common **Side Effects** include: Constipation, Nausea, Diarrhea, Stomach upset, Cramps, Muscle soreness, Pain, and Weakness. It is recommended **statin medications** are taken at bedtime. *Avoid taking these medications within 8 hours of drinking grapefruit juice.*
• **Antiplatelet Agents** help to decrease the chance that a harmful blood clot will form by preventing certain cells in the blood from clumping together. Commonly prescribe Antiplatelet Agents include: Salycilate (Aspirin) and Clopidogrel (Plavix). Antiplatelet Agents may increase the chance of serious bleeding in some patients. Monitor for signs of bleeding such as bruising easily, nose-bleeding, bleeding gums, or black tarry stools. Notify your physician if these symptoms develop.

Helpful hints for taking your medications as prescribed by your physician:
- Tell **ALL** of your physicians **All** medications that you are taking including herbal, over the counter or store bought medications. An example of these types of medications are: fish oil, glucosamine, aspirin or multivitamins.
- If you have any side effects from your medication, contact the physician who prescribed it.
- Keep enough medication on hand so you don’t run out.
- Establish daily routines to take your medication. Try to take them at the same time each day.
- Keep a record of **ALL** of the medications you take, the dose, and the time you take it each day.
Take the record with you when you go to the physician’s office or the hospital. If possible keep a copy with you at all times in case of an emergency.

- **Do Not stop any medications without first discussing with your physician.**

### VII. Lifestyle Changes

A very important part of the treatment of your Heart Attack includes making the necessary lifestyle changes to help decrease the chances of having another Heart Attack. This should include:

- **Quitting Smoking.** Smoking can increase the amount of fatty material that collects in your arteries. In addition, nicotine containing cigarette smoke makes your heart work harder. Smoking narrows blood vessels and therefore increases your heart rate and blood pressure. Being exposed to secondhand smoke can also be harmful to your heart. Avoid being exposed to cigarette smoke at all. Quitting smoking significantly decreases the risk of heart disease within the first year. Ask your physician if Nicotine Replacement Therapy (NRT) is a treatment option that may help you to quit smoking.

- **Eat a Heart Healthy Diet.** A diet low in saturated fat and cholesterol and rich in whole
grains, fruits and vegetables will help lower cholesterol blood levels, blood pressure, and body weight – three heart attack risk factors. The American Heart Association (AHA) also recommends that you add fish, which contains omega-3 fatty acids to your diet at least twice per week. Talk to your physician about whether you should take omega-3 supplements. If you are interested in learning more about eating healthier, your physician can give you a referral to see a Registered Dietician. He or She can create a meal plan that is right for you, ensuring that you get all of the nutrients your body needs.

- **Exercise Regularly.** Follow your doctor’s recommendations for physical activity. After a heart attack, you will most likely be referred to a cardiac rehabilitation program, which will help you to establish a life-long exercise plan. Choose exercises that you enjoy and that you will make a regular part of your day. Strive to maintain an exercise program that keeps you fit and at a healthy weight. For most people, this could include walking briskly or participating in other aerobic activity for at least 30 minutes per day.

- **If Overweight, Lose Weight.** Follow the diet and exercise plan recommended by your doctor. Being overweight is associated with a higher risk
of heart attack. Losing weight will lower that risk. To lose weight, you must eat fewer calories than your body burns. To maintain a healthy weight, you must eat the amount of calories that your body burns.

- **Take Medications as Directed.** Take the medications your physician has prescribed for your heart condition. Take them exactly the way they are prescribed and report side effects to your doctor. Do not skip pills or stop taking them without discussing with your physician.

- **Drink Alcohol Only in Moderation.** Heavy drinking is associated with increased risk of heart attack. Moderate drinking is one drink per day for women and two drinks per day for men. One drink equals 12 ounces of beer, 4 ounces of wine, or 1 ounce of 100-proof spirits. In addition, alcohol may interfere with your medications. Make sure to discuss your alcohol intake with your doctor.

- **Follow Up with your Physician**
  Prompt follow up with your physician(s) is crucial in maintaining your heart health. Recommendations from the American College of Cardiology encourage the patient to follow up with a physician within 7 days of discharge:
Days immediately following discharge are a vulnerable period.
Medications will be reviewed and further explained, if necessary.
Questions regarding your treatment and care can be answered.
Coordination of care is important in preventing readmission

Follow up with your physician immediately upon discharge is vital to your continued health!

Reference

Patient Education Reference Center (PERC), EBSCO Publishing; September 2011,
Heart Attack (Acute Myocardial Infarction (AMI); Myocardial Infarction (MI); ST-Segment Elevation MI (STEMI); Transmural Myocardial Infarction. Retrieved August 2, 2012 from http://search.ebscohost.com/login.aspx?direct=true&db=npr&AN=2009866574&site=nrc-perc
PATIENT AND FAMILY RESOURCES:

1. Free Heart Attack tutorials found on the following websites:


2. The “Heart Attack Education for Our Community” booklet that you received at Morris Hospital can be accessed at:

   http://www.morrishospital.org/patients-visitors/discharge-education/

3. The American Heart Association can be found at the following website address:

   http://www.heart.org/HEARTORG/

4. Try this site to organize your medications at home:

   http://www.mymedschedule.com/