

# eamc health update

## "Time is Muscle" - Improving Heart Attack Care

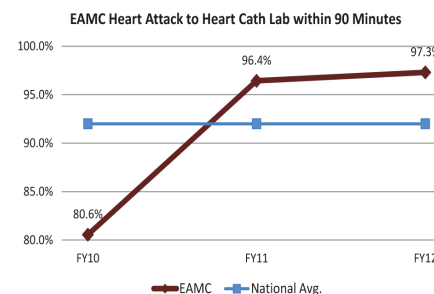
The numbers are not in our favor. According to a study by the American Heart Association, about 40.5 percent of Americans will have some form of cardiovascular disease by 2030. That means 116 million people will be at risk of heart attack and stroke. Cardiovascular disease currently accounts for one in three deaths in the U.S.

At East Alabama Medical Center (EAMC), those numbers come as no surprise. In 2012, more than 133,000 cardiology procedures were performed at EAMC. "We are continually tracking our performance and figuring out how to be better," says Riley Belcher, director of cardiology. "For example, the current infection rate among our department's patients is 0.5 percent - that's very low compared with other hospitals. We also look at our readmission rate, because we believe if we improve your care while you're here, you're less likely to have to come back."

One area in which EAMC's cardiology department has excelled is its STEMI care. STEMI stands for ST (which is represented as a segment on an electrocardiogram) - elevated myocardial infarction, and it is essentially a severe heart attack. A STEMI occurs when a piece of plaque ruptures and a blood clot develops in an artery leading to the heart, completely blocking the flow of blood.

"The preferred treatment is percutaneous coronary intervention (PCI), which is a balloon angioplasty to open the artery and the placement of a stent to keep it open. "The American College of Cardiology, the American Heart Association and The Joint Commission all agree that ideally, no more than 90 minutes between the time the patient arrives at the hospital and the time that the patient receives a PCI to open the artery is optimal. This is referred to as 'door-to-balloon' time. Currently, we are exceeding the national goal, with our average door-to-balloon time being 69.8 minutes," adds Belcher. "Anything under 90 minutes is good, but the quicker, the better."

Several departments contribute to this success. "This effort involves Emergency Medical Services (EMS), the Emergency Department (ED), and the catheterization (cath) lab," says Belcher. "These departments coordinate their efforts to achieve the goal of getting the patient into the cath lab as soon as possible. The 90-minute time relates to the time after the patient arrives at the hospital; however, paramedics can start the process in the ambulance by stabilizing the patient, doing an ECG to determine if it is a STEMI, and making sure a cardiologist is available. That also helps reduce the time once they arrive at the ED," Belcher explains.



What more can be done to improve the odds for STEMI patients? "Of course, we will continue to work on keeping the door-to-balloon times low," says Belcher. "But patients need to be proactive, too. They need to call 9-1-1 IMMEDIATELY if they think they are having a heart attack. Time is critical. Also, after a heart attack, patients need to take advantage of all our resources to help in their recovery, like cardiac rehab, smoking cessation programs, nutrition management and cholesterol management. We want to help heart attack survivors live their lives to the fullest."

### Is It A Heart Attack?

Some heart attacks are sudden and intense; however, most heart attacks start slowly, with mild pain or discomfort. Often, people are not sure what is wrong and wait too long before getting help. Here are signs that you could be having a heart attack:

- **Chest discomfort** - that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain.
- **Discomfort in other areas of the upper body** including one or both arms, the back, neck, jaw or stomach.
- **Shortness of breath** with or without chest discomfort.
- Other signs may include breaking out in a **cold sweat, nausea or lightheadedness.**

Do not wait more than five minutes to call 9-1-1 if you experience these symptoms! Paramedics can begin treatment when they arrive, up to an hour sooner than if someone gets to the hospital by car. Paramedics are also trained to revive someone whose heart has stopped. **If you cannot access an ambulance, have someone drive you to the hospital right away.** If you are the one having symptoms, do not drive yourself unless you have no other option.

*"A person with STEMI is actively having a heart attack. Their heart muscle is starving for oxygen and dying. The faster you get that artery open, the less damage you will have."*

**RILEY BELCHER, DIRECTOR, EAMC CARDIOLOGY DEPARTMENT**

### Are You at Risk?



You may be at risk of having a heart attack if any of the following factors apply to you:

- **Heredity** - If your siblings, parents or grandparents have had heart attacks, you may be at increased risk.
- **Tobacco use** - Smoking and long-term exposure to secondhand smoke damage the interior walls of arteries allowing deposits of cholesterol and other substances to collect and slow blood flow. Smoking also increases the risk of deadly blood clots.
- **Diabetes**
- **High blood pressure** - Over time, high blood pressure can damage arteries that feed your heart by accelerating atherosclerosis. The risk of high blood pressure increases as you age, but the main culprits for most people are eating a diet too high in salt and being overweight.
- **High cholesterol or triglyceride levels**
- **Lack of physical activity** - People who get regular aerobic exercise have better cardiovascular fitness, which decreases their overall risk of heart attack.
- **Obesity** - Obese people have a high proportion of body fat (a body mass index of 30 or higher). Obesity raises the risk of heart disease because it is associated with high blood cholesterol levels, high blood pressure and diabetes.
- **Stress** - You may respond to stress in ways that can increase your risk of a heart attack. If you are under stress, you may overeat or smoke from nervous tension. Too much stress, as well as anger, can also raise your blood pressure.

To learn more about heart attack, visit the Health Library at [www.eamc.org](http://www.eamc.org).



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