



**Licking Memorial
Health Systems**

1320 West Main Street
Newark, OH 43055

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Report on **Heart Care**.

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Heart Care ... A Community Report on Heart Care Quality

Health Facts

Typical Heart Attack Warning Signs

Some heart attacks are sudden and intense – the “movie heart attack” – where no one doubts what's happening. But most heart attacks start slowly, with mild pain or discomfort. Often people affected aren't sure what's wrong and wait too long before getting help. Here are signs that can mean a heart attack is happening:

- Chest discomfort. Most heart attacks involve discomfort in the center of the chest 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. Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.
- Shortness of breath. May occur with or without chest discomfort.
- Other signs. These may include breaking out in a cold sweat, nausea or lightheadedness.

Women, diabetics and the elderly may present different signs or symptoms of a heart attack – be sure to speak with your primary care physician about your risk.

Heart Care – How Do We Compare?

At Licking Memorial Hospital (LMH), we take pride in the care we provide. To monitor the quality of that care, we track specific quality measures and compare them to benchmark measures. Then, we publish them so you can draw your own conclusions regarding your health care choices.

- 1** The first step in heart attack treatment is to confirm that the patient is truly experiencing the symptoms of an attack. An electrocardiogram, or EKG, measures the electrical activity of the heart and can determine if a heart attack is occurring.

	LMH 2004	LMH 2005	LMH 1/06-9/06	Goal ⁽¹⁾
Median time to EKG	9 Minutes	7 Minutes	9 Minutes	less than 10 Minutes

- 2** Thrombolytic, or “clot-busting,” medications can stop a heart attack in progress, which helps prevent heart damage and save lives. Therefore, the sooner a patient arrives at the hospital and receives the drug, the more effective the treatment will be.

	LMH 2004	LMH 2005	LMH 1/06-11/06	Goal ⁽¹⁾
Median time to drug	26 Minutes	30 Minutes	44 Minutes	less than 30 Minutes

- 3** Licking Memorial Hospital’s cardiac catheterization lab performs low-risk diagnostic testing on patients suspected of having blockage in their arteries. A measure of quality during the procedure is the rate of unexpected events.

Unexpected Event	LMH 2004	LMH 2005	LMH 1/06-9/06	State ⁽²⁾
Mortality	0%	0.97% ⁽³⁾	0%	0.10%
Heart attack	0%	0%	0%	0.03%
Cardiac arrest	0%	0%	0%	0.10%
Stroke	0%	0%	0%	0.01%
Vascular complications	0%	0%	0%	0.23%

- 4** Cardiac rehabilitation programs aid people who have experienced heart attacks. LMH’s program provides medical oversight and heart monitoring for individuals as they exercise and strengthen their hearts. LMH also measures participants’ progress in improving certain indicators of heart health.

Health Indicator	LMH 2004	LMH 2005	LMH 1/06-10/06	Goal
% Stopped smoking	77%	71%	81%	greater than 75%
% Improved weight	74%	60%	80%	greater than 75%
% Increased exercise time	100%	98%	100%	100%

- 5** During a heart attack, the heart tries to compensate for its weakened pumping action by beating faster, which puts more strain on it. Beta blockers reduce the heart’s tendency to beat faster. Additionally, aspirin has been shown to prevent further blood clotting in heart attack patients.

	LMH 2004	LMH 2005	LMH 1/06-9/06	National ⁽⁴⁾
Aspirin within 24 hours of patient arrival	95%	91%	86%	97%
Aspirin at hospital discharge	95%	97%	89%	97%
Beta Blocker within 24 hours of patient arrival	93%	92%	85%	94%
Beta blocker at hospital discharge	98%	100%	100%	96%

- 6** Angiotensin-converting enzyme (ACE) inhibitors and angiotensin-receptor blockers (ARB) reduce the risk for mortality in patients with LVSD after heart attack. LVSD refers to the reduced squeezing ability of the left ventricle that can occur after heart attack. Additionally, the likelihood of the patients having another heart attack can be reduced if an ACE/ARB inhibitor is administered.

	LMH 2004	LMH 2005	LMH 1/06-9/06	National ⁽⁴⁾
ACE or ARB at discharge for LVSD	93%	100%	100%	87%

7 Licking Memorial Health Professionals (LMHP) physicians monitor the cholesterol levels, specifically the LDL (bad cholesterol) levels of their patients with diagnosis of Coronary Artery Disease (CAD). Elevated LDL cholesterol level is a risk factor for Myocardial Infarction (MI) but is reversible through medication, diet and exercise. LMHP physicians also monitor the usage of antiplatelet drugs such as aspirin or Plavix in patients with CAD. The usage of these medications lowers the risk of MI or death in patients with CAD.

	LMHP 1/06-11/06	Goal
LMHP Coronary Artery Disease patients with LDL less than or equal to 130 mg/dl	79%	greater than 63%
LMHP Coronary Artery Disease patients with Aspirin and/or Plavix prescribed	93%	greater than 80%

Data Footnotes:

- (1) ACC/AHA Guidelines for the Management of Patients with Acute Myocardial Infarction, 1999.
- (2) Ohio Department of Health, Adult Cardiac Catheterization Reports using 2002 Ohio data for low risk laboratories.
- (3) Percent reflects one patient of 103 tests.
- (4) Comparative data from second quarter 2006 from the Midas Comparative Database.

Patient Spotlight: Dave Swineharte

Every morning for the past 30 years, Dave Swineharte went to work at Diebold, Inc., located in Hebron, Ohio. On the morning of November 29, 2006, when he was walking into the building, Dave began experiencing some chest pain. Upon entering his office, Dave knew that something more was going on. “I walked into my manager’s office and told him that I thought he would have to conduct my morning production meeting today,” said Dave. “At that point, the pain got bad enough where I had to lie on the floor.” His manager responded by immediately calling 911, which dispatched the Hebron Fire and EMS Department, and he also summoned the “in house” Emergency Medical Response (EMRT) team.



Randy Weekly, Hebron Fire and EMT Chief; Dave Swineharte; and Ryan Wyse, Hebron Firefighter and EMT, are pictured at the Hebron Fire Station, which responded to the 911 call when Dave was having a heart attack.

The EMRTs began taking the basic vitals. When the medic unit arrived on the scene, the unit began taking the more advanced vitals. “When we arrived on the scene, Dave was complaining of chest pain and his coloring was pale-gray, ashy color,” said Ryan Wyse, fire fighter and EMT, Hebron Fire and EMS Department and lead paramedic who worked on Dave. While interviewing Dave and treating him according to the chest pain protocol, Ryan hooked him up to the 12-lead EKG. The 12-lead defibrillator/EKG monitors allow EMS units to monitor, track and print vital diagnostic information from the scene and provide it to the Licking Memorial Hospital (LMH) Emergency Department. LMH recently purchased or upgraded Medtronic LIFEPAK® 12-lead defibrillator/EKG monitors for all 39 Licking County squads so they will be able to use the same technology.

“With the use of the 12-Lead EKG Monitoring system, a patient’s observations can begin well before arrival at the Hospital,” said LMH Director of Cardiology Patty

Merrick, C.N.P. “Since we will have the EKG from the paramedics in hand, we can begin assessment while the patient is en route.” Once the physician receives the EKG, he or she will start the decision-making process to determine if a heart attack is in progress and what the best treatment is for that patient.

Once Dave arrived at the LMH Emergency Department, the EMS unit immediately provided the Emergency Department physician with Dave’s EKG information. His EKG information showed that Dave was in fact having a heart attack. “At the Hospital, they were able to assess me quickly and figure out what step to take next,” said Dave. He was then transported

to another hospital by MedFlight where he received a cardiac stent. “The speed of care has really been improved with the implementation of the 12-Lead EKG monitors. We have always been told that time is muscle, and any time saved with a heart attack may reduce the amount of damage done to the heart,” said Ryan.

“It was very helpful that the medic unit was able to provide the physicians with the information that allowed them to quickly figure out how to help me,” said Dave. “I am grateful that Licking Memorial donated the equipment to the EMS departments to help with patient care.”

Dave was very appreciative for the care that he received while at Licking Memorial. Shortly after receiving his cardiac stent, Dave was sent home to recover from his heart attack. He will continue to seek follow-up care with a cardiologist and will begin cardiac rehabilitation with Licking Memorial.

Dial 911 Fast

Heart attacks are life-and-death emergencies – every second counts. Today heart attack victims can benefit from new medications and treatments unavailable to patients in years past. For example, clot-busting drugs can stop some heart attacks and strokes in progress, reducing disability and saving lives. To be effective, these drugs must be given quickly after heart attack or stroke symptoms first appear.

Call 911 or other emergency services immediately if you have any of the following symptoms of a heart attack:

- Chest pain that has not improved or that gets worse within five minutes after taking one nitroglycerin tablet and/or resting.
- Chest pain or discomfort that is crushing or squeezing, feels like pressure on the chest, and gets worse or lasts more than five minutes, especially if it occurs with symptoms such as sweating, shortness of breath, nausea or vomiting, pain that spreads from the chest to the neck, the jaw, or one or both shoulders or arms, dizziness or lightheadedness, fast or irregular pulse, or signs of shock.

Not all these signs occur in every heart attack or stroke. Sometimes they go away and return. If some occur, get help fast. As with men, women's most common heart attack symptom is chest pain or discomfort. Women are somewhat more likely than men to experience some of the other common symptoms, particularly shortness of breath, nausea/vomiting, and back or jaw pain.

If chest discomfort is experienced, especially with one or more of the other signs, don't wait longer than a few minutes (no more than five) before calling for help. Calling 911 is almost always the fastest way to get lifesaving treatment. Emergency medical services staff can begin treatment when they arrive – up to an hour sooner than if someone gets to the hospital by car. If the emergency medical services (EMS) can't be accessed, get immediate transportation to the hospital. Individuals should not drive to the hospital if experiencing the symptoms unless there is absolutely no other option.

Fast Treatment

The goals of treatment are to stop the progression of the heart attack, to reduce the demands on the heart so that it can heal and to prevent complications. Medications and fluids will be inserted directly into a vein using an intravenous (IV) line. Various monitoring devices may be necessary. A urinary catheter may be inserted to closely monitor fluid status. Oxygen is usually given, even if blood oxygen levels are normal. This makes oxygen readily available to the tissues of the body and reduces the workload of the heart.



Call 911 immediately at the first sign of a heart attack.

Intravenous nitroglycerin or other medicines are given for pain and to reduce the oxygen requirements of the heart. Morphine and similar medicines are potent pain killers that may also be given for a heart attack.

During the treatment, an electrocardiogram (EKG) will be taken, if the EKG recorded during chest pain shows a change; thrombolytic therapy (blood-thinning drugs) may be started within 12 hours of when chest pain began. This initial clot-dissolving therapy will be administered as an IV infusion of streptokinase or tissue plasminogen activator, and will be followed by an IV infusion of heparin. Heparin therapy designed to prevent the formation of new clots, will last for 48 to 72 hours. Additionally, warfarin (Coumadin),

taken orally, may be prescribed to prevent further development of clots.

A cornerstone of therapy for a heart attack is antiplatelet medication. Such medication can prevent the collection of platelets at a site of injury in a blood vessel wall. Platelets collecting and accumulating is the initial event that leads to clot formation. One antiplatelet agent widely used is aspirin. Two other important antiplatelet medications are ticlopidine (Ticlid) and clopidogrel (Plavix). Other medications such as beta-blockers are used to reduce the workload of the heart and lower blood pressure while ACE inhibitors are used to prevent heart failure and lower blood pressure.

Emergency coronary angioplasty may be required to open blocked coronary arteries. This procedure may be used instead of thrombolytic therapy or in cases where thrombolytics should not be used. A device called a stent is often inserted into the artery during angioplasty, to help ensure that the newly opened coronary artery remains open after surgery. Emergency coronary artery bypass surgery may be required in some cases.