

HEARTBEAT

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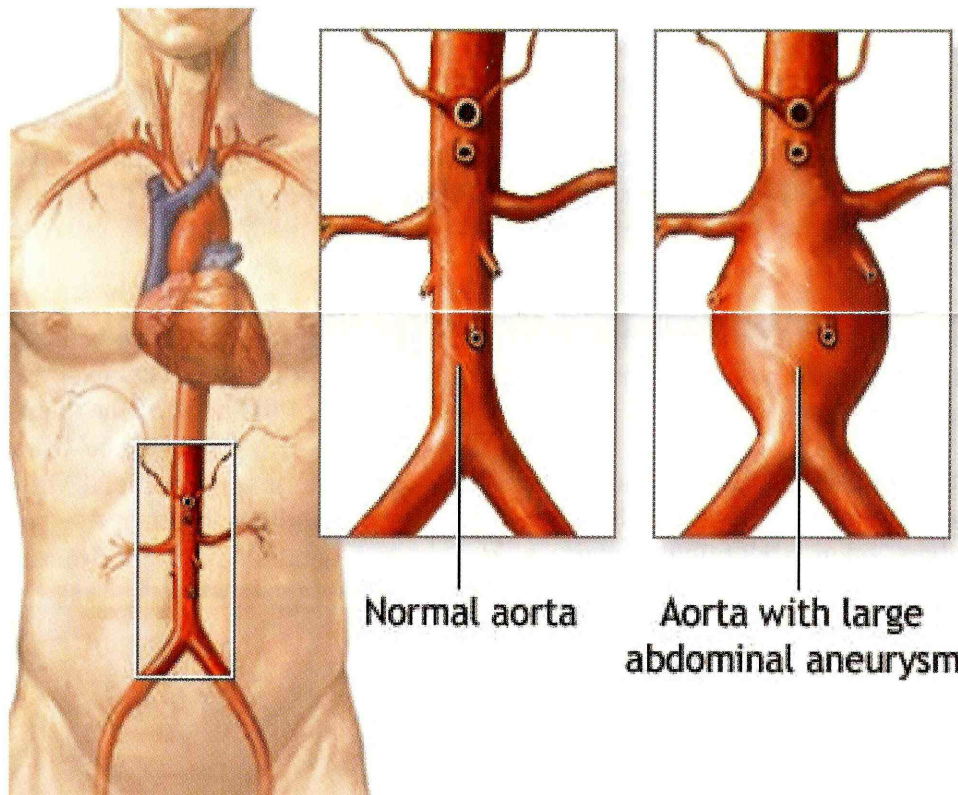


William Higgs, M.D.
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New Treatment Available for AAA

An abdominal aortic aneurysm (AAA) is an abnormal dilation of the artery in the abdomen allowing the aorta to balloon out, like a bubble in a tire. The aorta is the main artery arising from the left ventricle of the heart, supplying oxygenated blood to the rest of the body. This is a large vessel about 2-3 centimeters in diameter (roughly the diameter of a garden hose) with a thick, elastic wall to withstand the pressure generated by the beating heart. This focal enlargement usually allows the portion below the kidneys to grow more than 50% larger in diameter.

Aneurysms gradually increase in size over time. Usually when the aneurysm measures 4-5 centimeters



Risk factors of AAA

- ◆ Smoking
- ◆ Hypertension
- ◆ Diabetes
- ◆ High cholesterol
- ◆ Family history of vascular disease, heart disease, or stroke

A painless ultrasound exam can be used to exclude the presence of an AAA

in diameter, surgery is deemed necessary, but with slow growth this may be 10 to 15 years after the original diagnosis. The best single factor that correlates with risk of rupture is the size of the aneurysm. The 5-year risk of rupture for a 4 centimeter aneurysm is 15%, compared to greater than 75% for an aneurysm measuring 8 centimeters.

Ruptured abdominal aortic aneurysms are a leading cause of mor-

tality in the United States, causing 15,000 annual deaths. Because patients are usually asymptomatic, only about 200,000 of the estimated 1.5 million patients with aneurysms are diagnosed each year. Risk factors for AAA include high blood pressure, diabetes, high cholesterol, current or former smoker, and family history of vascular disease. If at risk for disease, your doctor may order a screening ultra-

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sound in a vascular laboratory.

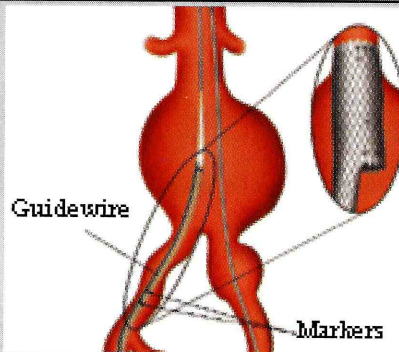
Most AAA's are asymptomatic until the aneurysm becomes severely dilated and grows to a dangerous size. A pulsatile abdominal mass may be found on a routine physical exam. Diagnostic tests, such as ultrasound or CT scan done for other purposes may reveal an aneurysm. Patients with expanding aneurysms can have symptoms including chronic abdominal or low back pain. Signs and symptoms of rupture of an aneurysm include severe abdominal, back or flank pain and hypotension. The internal bleeding caused by rupture is often fatal. The mortality rate for elective repair is less than 1% compared to a ruptured AAA with a mortality of greater than 50%. Factors affecting the risk for elective repair include cardiac disease, peripheral vascular disease, hypertension, decreased renal function, morbid obesity, and chronic obstructive pulmonary disease.

Dr. Michael DeBakey pioneered the treatment for AAA, which involves open abdominal repair, a major invasive surgery. This procedure consists of a large abdominal incision, cross clamping of the aorta above and below the aneurysm, and then sewing in a prosthetic graft at the damaged site of the aorta. This excludes the aneurysm from the arterial pressure using a synthetic graft, while maintaining the blood supply to the legs. The hospital stay ranges from 5-7 days, including time spent in the intensive care unit.

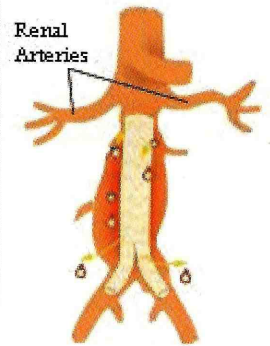
In the last decade, endovascular prosthetics have been employed with increasing frequency for the treatment of infrarenal aneurysms. Recently, clinical trials have demonstrated the safety and efficacy of

Placement of an endovascular aortic stent

The guidewire is inserted into a femoral artery and advanced into place in the aorta



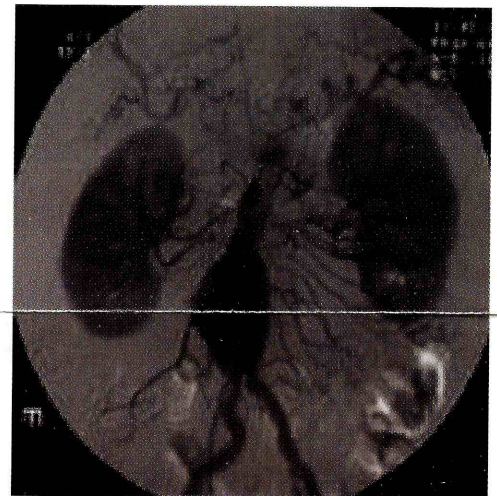
The stent graft is placed in position using the guidewire and then deployed above and below the aneurysm



endovascular repair. A small incision is made in the groin to gain access to the femoral artery, where a delivering device is threaded through the artery to the aorta. The stent graft is then deployed above and below the dilated aorta. This minimally invasive approach is more cosmetic, reduces operative time, and has fewer complications. Most patients require a 1-2 day hospital stay.

To evaluate patients for endovascular repair a special CT scan is used. This diagnostic test gives accurate dimensions of the neck of the aneurysm along with the distance from the renal arteries, two crucial variables in deciding whether the patient is a candidate for endovascu-

lar repair. After surgery, the patient is followed in our office and routine testing is performed to ensure a continued good outcome.



Arteriogram of abdominal aortic aneurysm

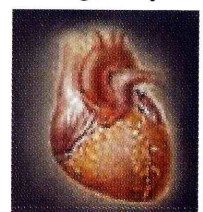
Corner

Patient

Recognizing a Heart Attack

Hear disease is the number one killer of both men and women. Below is a list of warning signs and symptoms that may suggest a heart attack. If you feel you may be having a heart attack, seek medical attention immediately.

- ♦ severe chest pain, often described as crushing or squeezing, may spread to jaw, arms, or back
- ♦ nausea or vomiting
- ♦ sweating and paleness
- ♦ rapid or irregular heartbeat
- ♦ shortness of breath
- ♦ restlessness or sense of impending doom



Hypertension: "the silent killer"

Hypertension, or high blood pressure, is a very serious condition. It is estimated that more than 50 million Americans have high blood pressure. Blood pressure measures the tension that blood exerts on the walls of blood vessels. It is important that blood travels to all the cells of the body, but that it does not strain the vessel walls.

Blood travels through vessels like water through a hose. With each heartbeat, more blood is pumped into the vessels. This increased pressure is known as the systolic blood pressure. Systolic blood pressure is the first number in blood pressure read-

ings, and is normally around 120. When the heart is resting, the pressure in the arteries is lower. The lower pressure, diastolic pressure, is normally around 80.

Unfortunately, most people with high blood pressure do not experience any symptoms and may not even realize they have it. This can be devastating because high blood pressure is an important risk factor for coronary artery disease, stroke, and peripheral vascular disease. Over time, uncontrolled high blood pressure can damage organs including the heart, kidneys, brain, and eyes. This damage may lead to death. It truly is "the silent killer."

Vascular Lab Update

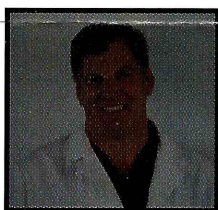
- ◆ AAA screening
- ◆ Carotid artery testing
- ◆ Arterial & venous testing
- ◆ Echocardiography

Our lab, Mobile Cardiovascular Imaging, recently received re-accreditation by the Intersocietal Commission for the Accreditation of Vascular Laboratories. This means our testing procedures and interpretation have undergone rigorous review for accuracy and consistency. Each of our lab technicians is a registered vascular specialist.

IN GOOD HANDS

Although many think of them simply as *heart surgeons*, the physicians at Cardiovascular Associates are trained in all areas of cardiac, thoracic, and vascular surgery. Their backgrounds include training with the distinguished surgeon Dr. Michael DeBakey of Houston, attendance at various medical schools across the country, and yearly postgraduate courses. All are Fellows of the American College of Surgeons, and hold membership in multiple professional societies.

Michael Damrich, M.D.



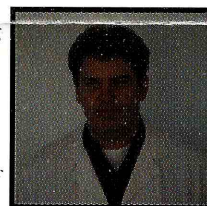
- ◆ General, vascular, cardiovascular and thoracic training with Dr. DeBakey
- ◆ Diplomate, American Board of Surgery, American Board of Thoracic Surgery
- ◆ Fellow, American College of Surgeons

Carl Maltese, M.D.



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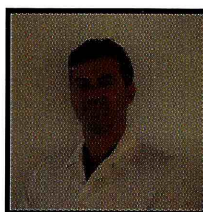
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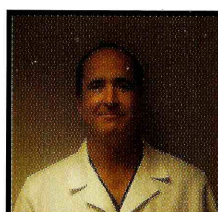
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- ◆ Fellow, American College of Surgeons, American College of Chest Physicians

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- ◆ Fellow, American College of Surgeons

Connie Pennington



Critical Care Registered Nurse and Master of Science in Nursing

Terri Rice



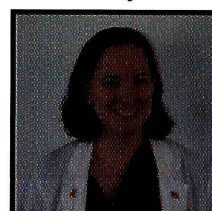
Critical Care Registered Nurse and Master of Science in Nursing

Nicole Miller



Nationally Certified Physician Assistant

Christy Paragone



Nationally Certified Physician Assistant

HEARTBEAT

Comprehensive List of Surgeries

Vascular

- ◆ Carotid endarterectomy
- ◆ Repair of abdominal aortic aneurysms/ Endovascular option
- ◆ Peripheral vascular surgery & peripheral balloon angioplasty
- ◆ Dialysis access grafts
- ◆ Vascular studies

Other

- ◆ Spinal exposure for neurosurgery and orthopedic surgery
- ◆ Consultant to hyperbaric and wound care center

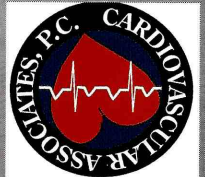
Cardiac

- ◆ Coronary artery bypass
- ◆ Repair or replacement of valves of the heart
- ◆ Repair of congenital defects and patent ductus arteriosus
- ◆ Implantation of pacemaker and defibrillator devices

Thoracic

- ◆ Repair of chest wall defects
- ◆ Lung biopsy/Removal of lung lesions/Lung cancer surgery
- ◆ Esophageal repair/Resection of esophageal cancer

In This Issue.



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- Hypertension: The Silent Killer
- Recognizing a Heart Attack



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& VASCULAR SURGERY**

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“We provide comprehensive cardiac, thoracic, and vascular care”