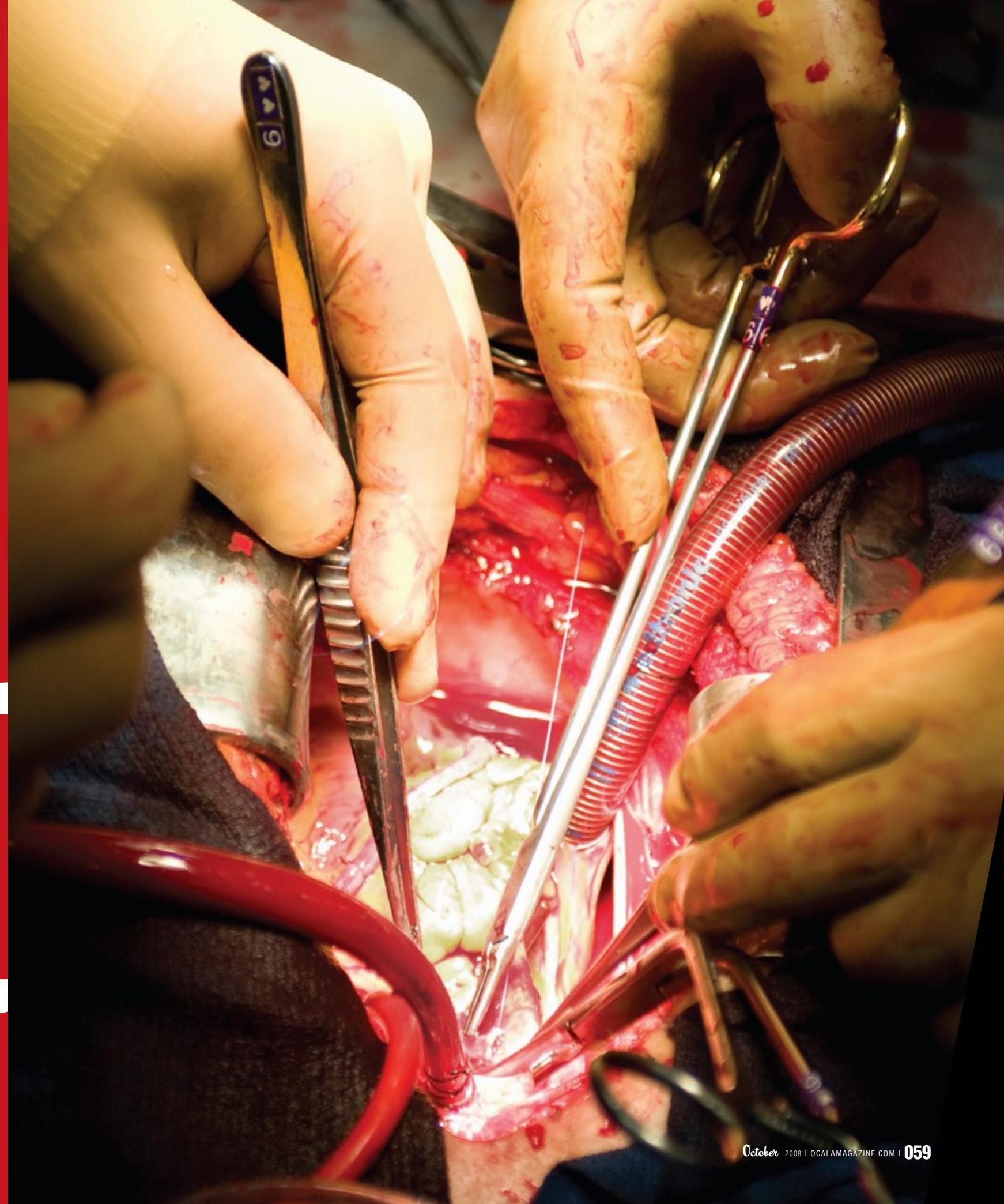
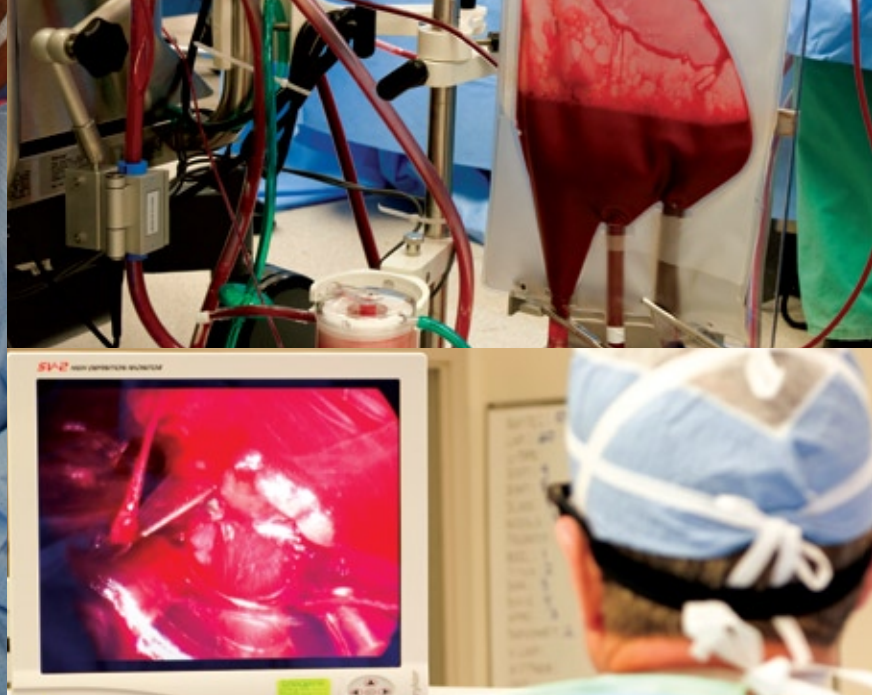


Barely 50 years ago, the first coronary artery bypass surgery was conducted at the Albert Einstein College of Medicine. Today, close to 400 bypass surgeries are performed annually by the surgeons of Munroe Heart, making it one of the most common life-saving procedures in Marion County. In this exclusive photographic essay Kent Weakley goes under the knife for a graphic, in-depth look at a modern-day miracle.

Heart open





Tandem Act

Dr. Peter Chung makes an incision down the center of the chest, along the breastbone (above), while a physician's assistant takes a segment of a healthy vein from the leg (below). This will be used to make a detour around the blocked part of the coronary artery. After the vein is harvested, the rib cage is spread open (opposite page) and the heart is temporarily stopped. A heart-lung machine takes over blood circulation to the body.



Perfect Perfusion

All blood flow during the surgery is diverted to a heart-lung machine (perfusion pump, shown top left). This machine temporarily takes over the lung's function of oxygenating the blood and the heart's function of pumping blood to the body.

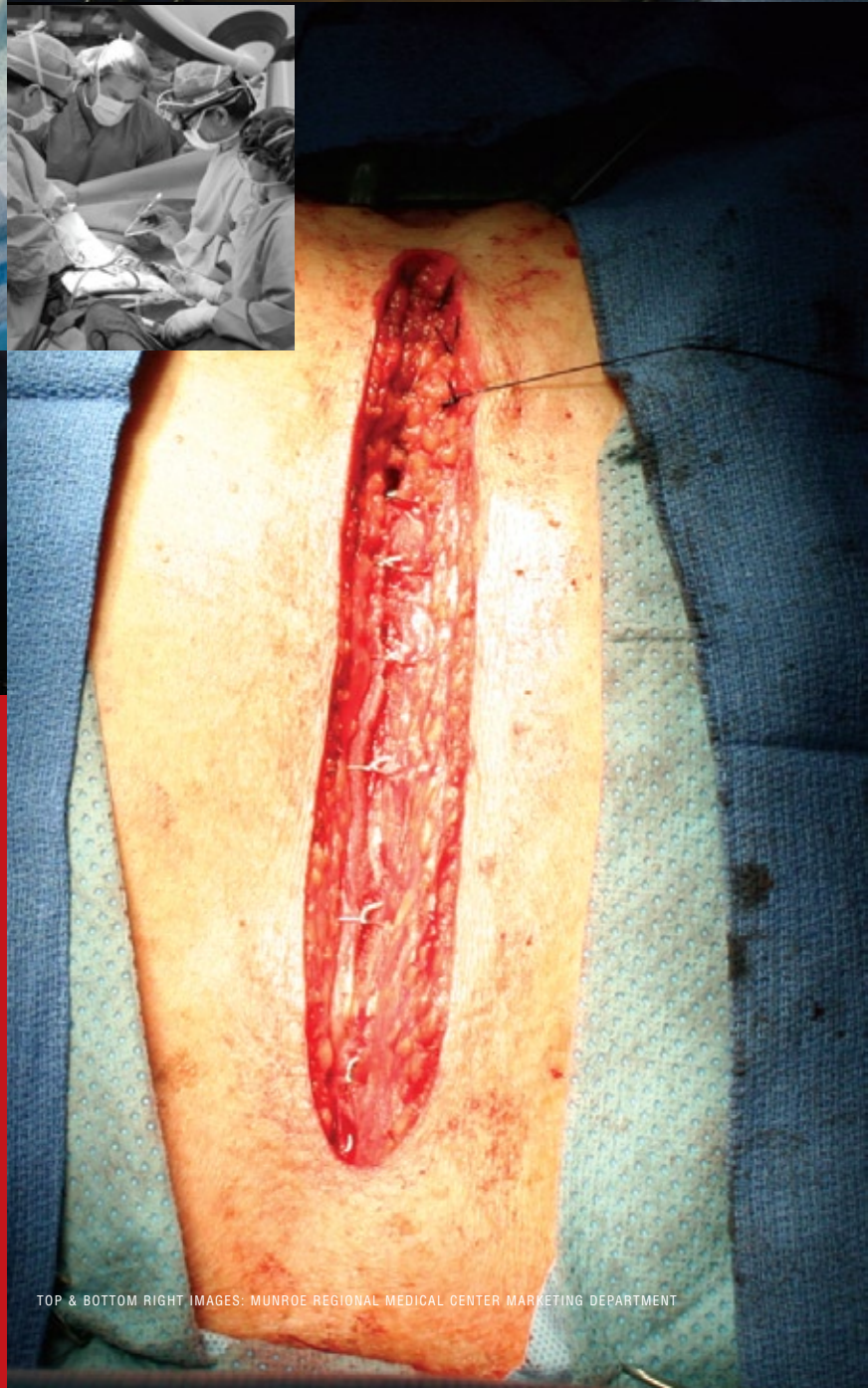
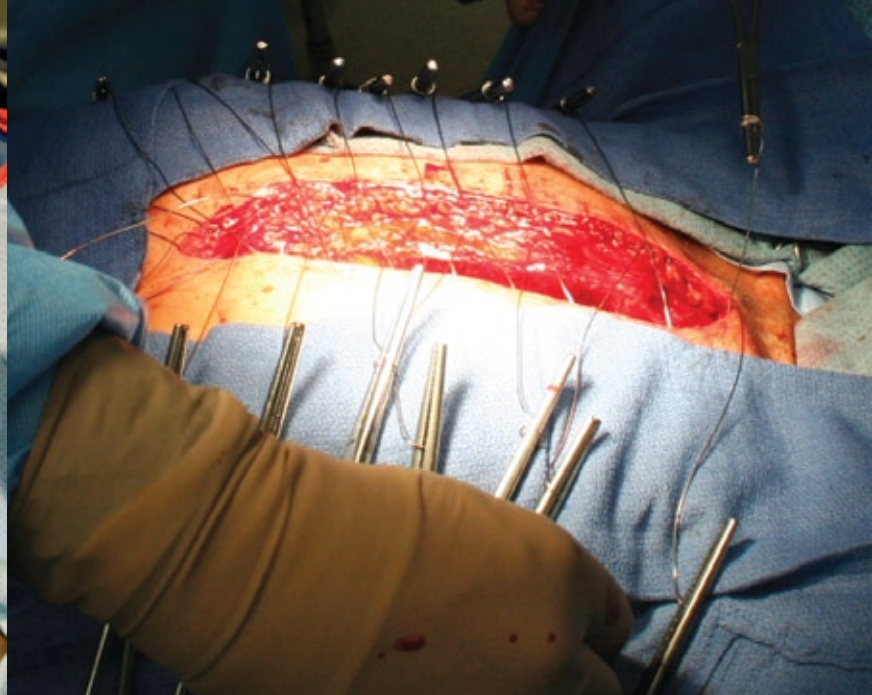


FIG. 114.

Change of Heart

The healthy vein that was taken from the leg is prepared and attached to the artery below the blockage (top left). Then, the graft is attached to the aorta. After all bypasses are complete, the clamp on the aorta is removed and the heart will begin beating on its own again (above). The patient is then taken off the heart-lung machine and the physician's assistant will begin the laborious process of wiring the sternum to close the chest cavity (shown right) and then the incisions are sutured closed.