

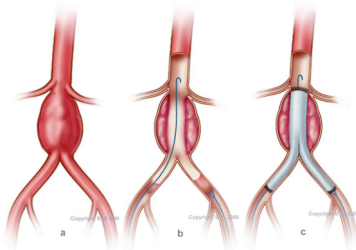
EndoSure AAA Wireless Pressure Measurement System

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In the age of new technology and medical devices, it is found that smaller is better. An example of recent micro technology is the EndoSure Wireless Pressure Measurement System which was developed by CardioMEMS Inc. CardioMEMS Inc. is a firm located in Atlanta, Georgia that focuses on developing microelectromechanical systems technology for medical devices. One of the firm's innovative devices is the EndoSure AAA Wireless Pressure Measurement system, which measures blood pressure in people who have Abdominal Aortic Aneurysm (AAA).

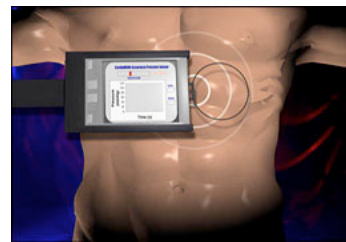
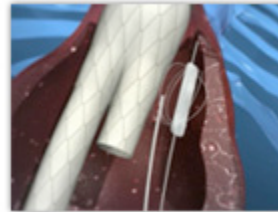
Abdominal Aortic Aneurysms are the third leading cause of sudden death in elderly U.S men and is the 13th leading cause of death in the United States. AAA is a dilation of the abdominal aorta that exceeds the normal diameter by more than 50%. The normal diameter is 2 cm. Physicians and researchers are not sure what causes AAA. The leading thought is that the aneurysm may be caused by inflammation in the aorta, which may cause its wall to break down. Some researchers believe that this inflammation can be associated with atherosclerosis (also called hardening of the arteries) or risk factors that contribute to atherosclerosis, such as high blood pressure. In atherosclerosis fatty deposits, called plaque, build up in an artery. Over time, this buildup causes the artery to narrow, stiffen and possibly weaken. Some factors that can increase your risk of AAA include smoking, high blood pressure, hereditary, and being a male over the age of 60. AAA is more common in men than in women.

To treat an AAA, an endovascular stent graft is threaded via a catheter through a small incision in the groin and the femoral artery into the aneurysm. By inserting the coiled stent, which expands into a cloth and metal pipe, pressure on the weakened aortic wall is relieved. Blood flows through the stent graft instead of into the aneurysm sac thereby keeping it from rupturing.



Follow-up examinations after abdominal aortic aneurysm procedures traditionally have relied on expensive CT scans every six months or so, which not only may fail to detect small leaks in the stent graft, but also subject patients to potentially harmful contrast dyes and radiation.

The device developed by CardioMEMS Inc. is about the size of a Dentyne Ice gum. It is a permanent implanted wireless sensor that is designed to monitor and measure the pressure within the aneurysm sac. The device provides an unprecedented level of patient monitoring for those patients undergoing endovascular aortic repair surgery. The sensor is inserted during the procedure to repair an aortic aneurysm with a stent graft. The sensor then measures the pressure in the aneurysm sac, which enables physicians to verify the success of the implant by simply holding the company's antenna over the patient's chest and low-power radio-frequency waves activate the EndoSure system, relaying pressure measurements to an external receiver and monitor.



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