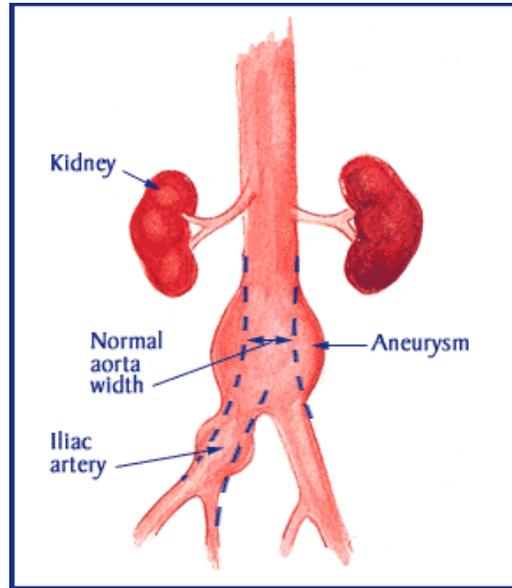


What is an Abdominal Aortic Aneurysm?

An aortic aneurysm is a ballooning, due to a loss of wall integrity, of the aorta. The aorta is the largest artery in the human body and is responsible for bringing blood from the heart to the rest of the body. The aorta begins at the heart (thoracic aorta), goes down through the abdomen (abdominal aorta), and then splits into the iliac arteries. An aneurysm is characterized by an increase in diameter by more than 50% and typically occurs in the abdominal section of the aorta due to a decrease of collagen in this area. Other than brain aneurysms this is the most prevalent location for aneurysms in the human body.



Atheroscl-what?

Atherosclerosis is the leading cause of aneurysms causing about 80% of abdominal aneurysms. Atherosclerosis, or "hardening of the arteries," is a vascular disease caused by a build-up of plaque accumulates in the inner lining of an artery or hypertension (high blood pressure). Other possible causes of aneurysms are: genetic congenital weakness, smoking, damage to the artery wall due to trauma or tearing.

Because there is already a decrease of collagen and other repairing agents within the abdominal section of the aorta these factors are generally more affective in creating permanent damage in this region.

Rupture

Rupture occurs when stress in the artery wall is greater than the allowable stress with in the wall. Rupture of an aneurysm causes intense internal bleeding leading the body into shock. About 90% of ruptures lead to death, and over %50 of untreated ruptures lead to death within 5 years.

Schizophrenic

How and when are aneurysms treated?

In the case of a small aneurysm, medication such as beta-blockers can be taken to decrease blood pressure. This slows the rate at which an aneurysm expands and gives the body time to repair itself. Once an aneurysm reaches about 5 cm surgical procedures are often used.

Stent-grafting is the most recent and less invasive procedure to date. In this procedure a graft, usually made of a polyester tube within a metal cylinder, is inserted into the artery with a catheter. Using an X-ray monitor the catheter is guided to the aneurysm and the metal graft is then expanded, and the catheter is then removed. This graft provides extra support for the weakened wall and directs blood flow through the graft instead of the aneurysm reducing risk of rupture until the aneurysm eventually shrinks.

This procedure is not used for everyone and depends on size and location of the aneurysm. Open surgery is still an on going procedure used where a removal of the aneurysm and tissue takes place.