Aortopulmonary Window





What Is It?

Aortopulmonary Window is a rare congenital heart defect in which there is a connection (window) between the aorta and the main pulmonary artery. This opening allows oxygenated blood to pass, or shunt, from the aorta into the pulmonary artery.

Aortopulmonary Window, which affects males and females equally, can occur as an isolated defect, or with other defects or more complex heart diseases.



Aortopulmonary Window

Normal Heart

What Are Its Effects?

The movement of blood from the aorta into the pulmonary artery results in excessive blood flow to the lungs, causing high pulmonary blood pressure. The larger the hole, the greater the volume of blood shunted and the more severe the symptoms.

Babies with Aortopulmonary Window generally do not feed well and tire easily and they may develop congestive heart failure or other complications. Therefore, this defect should be corrected as soon as possible once the diagnosis has been made.

If not diagnosed soon enough, some children can develop sustained high pulmonary blood pressure (pulmonary hypertension) secondary to changes in growth of the pulmonary arteries. This severe result of an Aortopulmonary Window can render some children inoperable.





How Is It Treated?

Surgical treatment of this defect is performed as quickly as possible after the diagnosis has been made in order to avoid high pulmonary pressure.

Quite simply, the connection (window) between the aorta and pulmonary artery is closed with a patch made of pericardium (part of the membrane surrounding the heart) or of a synthetic material. This patch (pink oval in the illustrations) is sutured into place and the incision in either of the two vessels through which the patch was introduced is closed with sutures.

The likelihood of postoperative difficulties depends on how quickly the defect was repaired after diagnosis. The average hospital stay after surgery is 1 week to 10 days. The recovery from a Ross Procedure is variable, requiring an average hospital stay of from 1 week to 10 days. With time, another valve replacement may become necessary because of degeneration of the homograft or because the patient's growth requires a larger valve.





Surgical Repair of Aortopulmonary Window