

material or a portion of the left subclavian artery. Because this defect is outside the heart and pericardium, cardiopulmonary bypass is not required, and a thoracotomy incision is used. Postoperative hypertension is treated with IV sodium nitroprusside, esmolol, or milrinone followed by oral medications, such as ACE inhibitors or beta-blockers. Residual permanent hypertension after repair of COA seems to be related to age and time of repair. To prevent both hypertension at rest and exercise-provoked systemic hypertension after repair, elective surgery for COA is advised within the first 2 years of life. There is a 15% to 30% risk of recurrence in patients who underwent surgical repair as infants ([Beekman, 2001](#)). Percutaneous balloon angioplasty techniques have proved to be effective in relieving residual postoperative coarctation gradients.

Nonsurgical treatment: Balloon angioplasty is being performed as a primary intervention for COA in older infants and children. Balloon angioplasty has a higher associated rate of recoarctation than surgical repair and the rate of complication, particularly femoral artery injury is high during infancy.

Prognosis: Mortality is less than 5% in patients with isolated coarctation; the risk is increased in infants with other complex cardiac defects ([Park, 2014](#)).

Aortic Stenosis

