

# Patients at risk for complications after coronary artery fistula closure

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Long-term complications after procedures to close coronary artery fistulas are particularly prevalent among those whose abnormal connections to the heart result in drainage into the coronary sinus, according to a study published in *Circulation: Cardiovascular Interventions*, a journal of the American Heart Association.

A coronary artery fistula is an abnormal connection between a coronary artery and a chamber of the heart or vessel. The coronary sinus is the end portion of a large vein at the back of the heart that receives blood from the heart's veins and empties into the right atrium.

The study found that procedures to close a CAF were associated with increased long-term risks of angina, coronary thrombosis (a clot in one of the heart's [blood vessels](#)), [heart failure](#) and [heart attack](#).

To determine which patients are most at risk for these complications after closure, researchers reviewed the medical records of 76 patients diagnosed with congenital coronary artery fistula. Sixty-four patients underwent transcatheter closure or surgical repair of the fistula.

The researchers found that 15 percent of patients had major complications following closure, including heart attack, angina with coronary [thrombosis](#), or symptomatic cardiomyopathy (heart failure). The only angiographic finding associated with major complications was drainage of the coronary artery fistula into the coronary sinus.

Other predictors associated with adverse outcomes included older age at diagnosis, tobacco use, diabetes, hypertension and hyperlipidemia (or high cholesterol).

Physicians should consider reducing atherosclerotic [risk factors](#) and long-term use of blood thinning medications after coronary artery fistula closure, especially for patients with fistula that drain into the coronary sinus, the researchers said.

Provided by American Heart Association

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