

Can we reduce cerebral injury in patients undergoing combined aortic valve replacement and coronary artery bypass grafting?

ACTRN12618001142224

Status	RECRUITING
Sponsor	Department of cardiothoracic Surgery, Royal North Shore Hospital
Enrollment	50 participants

Plain Language Summary

This study is for patients undergoing a combined heart operation involving both aortic valve replacement (replacing a faulty heart valve) and coronary artery bypass surgery (restoring blood flow to the heart). Stroke is a known risk of these complex operations — occurring in up to 3-4% of cases — often caused by debris dislodged from the aorta (the large blood vessel leaving the heart) during surgery. This trial investigates whether connecting the heart-lung machine through the arm artery (right axillary cannulation) instead of the aorta can reduce that stroke risk.

Participants are randomly assigned to have the heart-lung machine connected either through the right arm (under the collarbone) or through the aorta as usual. Before and within a week after surgery, all participants undergo MRI brain scans and neurological assessments to check for any signs of brain injury. A follow-up appointment with a neurologist is also scheduled three months after surgery.

You may be eligible if you are scheduled for combined aortic valve replacement and bypass surgery at Royal North Shore Hospital. People who have had a previous stroke, cannot have an MRI, have significant narrowing in the right arm artery, or are unable to complete the 3-month follow-up are not eligible.

Key Eligibility Criteria

Inclusion (1)

- All patients undergoing AVR+CABG at Royal North Shore Hospital including emergency surgery

Exclusion (6)

- Patients with previous history of stroke
- Patients not agreeable/ineligible for MRI brain (e.g claustrophobia, non-compatible implantable devices)
- Patients with significant right subclavian stenosis
- Patients with pre-existing brachial plexus palsy
- Patients unable to complete 3 month follow-up
- ... and 1 more (see full listing online)

Locations (1 total)

Royal North Shore Hospital - St Leonards, NSW, Australia