



The Pro-AF Heart Study

An investigation into cardiac remodeling and risk of arrhythmias in endurance athletes

We are running a large, prospective study assessing the effect intense endurance exercise has on increasing the risk of Atrial Fibrillation (a heart rhythm problem) by comparing athletes and non-athletes across the age spectrum. This research project is aiming to assess how much your heart changes in size and function in response to high intensity exercise training, if those changes are reversible or long-lasting, and the association of these changes with Atrial Fibrillation risk.

We are seeking the participation of individuals who fall into one of the following groups:

Group 1: Young Athlete

- Aged 16-23
- Competing in elite endurance-based activities (state, national or international).
- Aiming to be involved in competition/high-level training for more than 5 years

Group 2: Retiring Athlete

- Aged 28-45
- Elite endurance program
- Anticipating to retire within 12-24 months from elite competition in endurance based activities

Group 3: Retired Athlete

- Aged 45-75
- More than 10 years of competition at state, national or international level in endurance based activities.

Group 4: Athlete with suspected cardiac pathology

- Aged 16-75, AND
- Have trained and/or competed in endurance sport activity, AND
- You have atrial fibrillation (AF) or atrial flutter OR
- You have a ventricular arrhythmia or frequent ventricular ectopic beats OR
- You have a resting heart rate < 35 bpm OR
- You have low-normal or abnormal cardiac function (ejection fraction < 55%)

GROUP 5: Non-Athletes

- If you have not been an athlete or you have completed in predominantly low-intensity sports, such as cricket or golf, please contact us to discuss your eligibility.

All participants will undergo two sets of full testing (one at study entry and a second 2 years later).

The following tests will be performed:

CMR (Cardiac Magnetic Resonance) imaging – to assess heart size and function

Exercise test to quantify cardiorespiratory fitness and VO_{2max} .

Holter Monitor to record your heart rhythm throughout the day and night.

A dual energy X-ray absorptiometry, DEXA scan – to assess body composition and bone health

Fasting blood sample for genetic testing.

All testing will be performed at the South Australian Health & Medical Research Institute and the University of Adelaide

For more Information, contact Dr Adrian Elliott (Email: adrian.elliott@adelaide.edu.au)