

New research links obesity with heart rhythm disorder

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University of Adelaide research has shown for the first time that obesity directly causes electrical abnormalities of the heart.

Cardiologist and PhD candidate Dr Hany Abed says there is growing evidence that obesity changes the structure and size of the [heart muscle](#) and the way it works and contracts, as well as its electrical function.

The latter leads to atrial fibrillation, the most common heart rhythm disorder in the world, affecting 10% of people over 75 years of age.

Dr Abed is working with the University of Adelaide's Centre for Heart Rhythm Disorders and the Discipline of Medicine to ascertain how obesity affects the heart and whether losing weight can actually reduce the risk of developing atrial fibrillation.

"We already know that obesity causes an increase in blood pressure and puts strain on the heart. Current basic laboratory research using a sheep model also shows that obesity causes electrical abnormalities in the heart chamber," Dr Abed says.

The PhD student was last weekend awarded the prestigious Ralph Reader Young Investigator Award from the Cardiac Society of Australia and New Zealand for his research.

[Hospital admissions](#) due to atrial fibrillation have more than tripled in Australia over the past 15 years with older, overweight men at most risk.

The condition is also linked directly to strokes and heart attacks.

"It is now more common to be admitted to hospital with atrial fibrillation than it is for [heart failure](#)," Dr Abed says.

"The problem with atrial fibrillation is that it is usually picked up incidentally, in health check-ups, or when someone suffers dizzy spells, [heart palpitations](#) and chest pains. Unfortunately, often the first sign of this [heart rhythm disorder](#) is when someone has a stroke."

Dr Abed says the health sector estimates that two thirds of the incidence of atrial fibrillation expected by 2020 will be solely due to obesity.

"Unless we tackle the obesity problem it will be like trying to rescue the deck chairs from the Titanic."

He says while obesity is not restricted to an age group, those most at risk of atrial fibrillation – the elderly – are becoming fatter and therefore escalating their chances of developing the heart disorder.

"The costs to the health system and the community are enormous. However, early results in our research show that [atrial fibrillation](#) can be reversed if people lose weight."

Provided by University of Adelaide

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