



# national science week 2013

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Diabetes is the fastest growing chronic disease in Australia. Every day 275 Australians are diagnosed with Type 2 Diabetes Mellitus (T2DM) including 6 Tasmanians! Unfortunately, people with T2DM are at increased risk of developing undesirable changes in their heart and arterial system, brain and kidneys.

While we know that high blood pressure (hypertension) contributes to these adverse changes, there is still a large proportion left unknown. Recently, new methodologies for measuring blood pressure have emerged, including ambulatory central blood pressure (blood pressure measured at the heart under ambulatory conditions, typical of the chronic blood pressure loading occurring during normal daily activity). However, no studies have investigated the relationship between ambulatory central blood pressure and brain and kidney changes in patients with T2DM- this is what my PhD research aims to do.

I have always been interested in how the body works and how we can achieve and maintain optimal health, but it was only during my undergraduate degree in Exercise Science that I really became interested in physiology. My interest in exercise physiology and how exercise can be used to prevent/treat disease processes such as cardiovascular disease and diabetes particularly grew. I soon realized that I wanted to keep learning about these topics. Following the completion of my undergraduate degree I began an honours degree at the Menzies Research Institute Tasmania validating a new device for measuring central blood pressure. I decided to continue with research and enrolled in a PhD, further investigating central BP and its relationship with organ damage in patients with T2DM.

The thing I love most about scientific research is that I get to spend all day, every day, learning about a topic I am truly interested in. Moreover, while doing this I will hopefully contribute to finding ways that people suffering from chronic diseases can achieve a greater quality of life.

For further information: [www.menzies.utas.edu.au](http://www.menzies.utas.edu.au)