Study Title: “Towards a better understanding of the gastrocnemius microvasculature in patients with peripheral arterial disease using three dimensional imaging.”

We would like you to consider participation in this study if you are a healthy male adult with no known diseases that cause a physical limitation.

Why is the study being conducted? This study is aimed at obtaining a better understanding of peripheral arterial disease (PAD), a condition associated with reduced blood flow to the muscles of the legs. People with PAD develop leg muscle pain during exercise and have lower levels of physical fitness. It is likely that the smallest blood vessels (the capillaries) play an important role in this reduced ability to exercise. Traditionally, the capillaries are measured using two dimensional images, which provides limited information about how capillaries are situated within the muscle. Using three dimensional images will help us to better understand how PAD affects the capillary layout, and how that might be linked to walking capacity and leg blood flow. We will compare a group of people with PAD to a group of people without PAD – and for this reason we are recruiting healthy male adults aged 60-85 years.

Who is eligible to participate?
You are eligible to participate if you are:

1. A healthy male adult with no known diseases that limit your ability to exercise
2. Aged 60-85 years
3. You live within 100km of the study venue
4. You currently do less than 60 minutes of physical activity per week.

The study will involve five visits (maximum of 2 hours per visit) to the Queensland University of Technology. During the first four visits you will do a series of exercise tests including a treadmill walking test and calf muscle blood flow measurements. The study also involves the collection of muscle tissue (from the calf) using a muscle biopsy, which will be overseen by a medical practitioner.

If you are interested in participating and would like to receive more information about the research, please contact Roslyn Clapperton (PhD Candidate) by email roslyn.clapperton@hdr.qut.edu.au, or phone 0410 285 005.

This study adheres to the guidelines of the ethical review process of the Royal Brisbane and Women’s Hospital (Approval number: HREC/12/QRBW/285) and QUT (Approval number: 1400000040).

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