**Transcript**

***Dr George Murley – Foot posture and lower limb function***

My research is focussed on the relationship between human foot posture and function and structure of the lower extremity. And to investigate this what we’ve done is use surface electrodes to measure muscle activity by placing electrodes over the skin or within muscles and also using electrodes around joints to track movement of the leg during walking. The research has particularly been focussed on people with flat arch feet, particularly because we think they’re more susceptible to injury and so the research is really trying to tease out what mechanisms might link foot posture with lower limb injury. So far our research has found that people with flat arch feet have altered muscle activity, altered movement of the legs during walking and we’ve recently found that people with flat arch feet have alterations in the thickness of their tendons. And, all of this is compared with people with a normal arched foot.

What we’d hope to achieve with this research is a clearer understanding of the relationship between human foot posture and movement of the lower extremity. And if we can achieve this we’ll also gain understanding of potential mechanisms that link foot posture with lower extremity injury.

So, if we can address some of these outcomes with our research what we’ll be able to do is design therapies and treatments that block these mechanisms that link flat arch foot posture with lower extremity injury. And if we can do that people will be healthier and more mobile.