Research study on hip strength
A novel exercise treatment to enhance bone strength in the proximal femur

What are we studying?
Different activities use different muscles; this may have an effect on how our bone grows and changes. We would like to test the capability of the posterior leg muscles to promote bone growth in the femoral neck in premenopausal women aged between 18 and 45.

Why is this study important?
Hip fractures due to bone weakness are a serious health burden. Bone quality may be improved with certain exercises, and we would like to determine which activity can strengthen the hip bones most.

What will I have to do?
If you are eligible, you will undergo two DEXA scans, one upon commencement and one after the end of the study (6 months). Half of the participants will continue their normal life whilst the other half will undergo 6 months unilateral training of the posterior thigh and hip muscles in a gym. The research project will support exercising at a gym of your choice in the Melbourne area and partner in the study, or in another gym of your choice pending verification of the necessary equipment.

How long will the study take?
The two DEXA scan sessions will be executed at the Sunshine Hospital (St. Alban). The exam is quick as it will take only approximately 10-15 minutes. Half of the participants will exercise for no less than four times per week for 6 months. Training will consist of fifty repetitions of knee flexions lifting 80-90% of the maximum weight you can lift. The duration per training session will be approximately one hour.

Will I be paid?
No payments will be made to participants, the project will support the gym and the DEXA costs only.

Who I need to contact?
If you are interested in participating in the study or you would like to know more about the study, please contact the research staff using the contact details in the foot of this page.