INFORMATION SHEET FOR PARTICIPANTS

Thank you for showing interest in this project. Please read the information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you of any kind and we thank you for considering our request.

What is the aim of the project?

The hypothesis posits that newly developed spring technology attachments, when integrated into clinical exercise prescriptions, will provide a superior or comparable method for increasing joint range of motion and facilitating recovery when compared to traditional hot and cold therapy (ice bath and sauna).

We expect that connecting spring resistance to the “core” of the body in addition to the limbs will alter the perturbation stimulus in a way that can be manipulated to further enhance joint control and in turn, joint range motion, when compared to spring resistance connected only to the limbs.

A new attachment (or set of attachments) will be developed to connect to the “core” of the body to support this research. Potential points of connection to the core of the body include the pelvis, rib cage and across the shoulders.

It is expected that the controlled resistance and perturbation stimuli afforded by these new attachments will induce greater biomechanical adaptations, sustained optimal joint range of motion and improved recovery metrics when compared to alternative spring technology configurations and existing recovery methods.

What types of participants are needed?

We seek male or female participants who will be willing to perform a running session at the stairs in Sandringham and either complete Contrast Water Therapy, Springys exercises and tests or neither depending on the group you are assigned to. Participants should be between the ages of 18-66 years of age and should be free from disease or any other limitation that restricts their ability to perform exercise or Contrast Water Therapy.

What will Participants be asked to do?

Should you agree to take part in the project, you will be asked to attend on X separate occasions. Each visit will last approximately 1 hour.

Each recovery intervention will be tested directly after a standardised high-intensity exercise routine. One randomised group will complete passive recovery (control group), one randomised group will complete contrast water therapy, two randomised groups will complete Springys series of movements. All participants will complete the exercise routine, and then the relevant recovery intervention and then testing/measurements at the defined intervals.

Spring Technology (Groups 1 and 2)

Spring technology interventions will be conducted via perturbation stimulus in two Groups;

1) The first cohort will perform a series of movements with the scheduled spring and attachment connected to the wall mounted frame and limb respectively.
   Movements will be prescribed to standardised protocol through visual, audio instruction and at a scheduled dose of sets and reps.
   Post-session measurements of joint range of motion and recovery metrics will be taken one hour and 24 hours after the intervention.

2) The second cohort will perform a series of movements with the scheduled spring and attachment connected to the wall mounted frame and core respectively.
   Movements will be prescribed to standardised protocol through visual, audio instruction and at a scheduled dose of sets and reps.
   As with the first group, post-session measurements of joint range of motion and subjective recovery metrics will be taken one hour and 24 hours after the intervention.
   In addition, this group will be surveyed on metrics of comfort, safety and usability in relation to the new spring attachment mechanisms that connect to the body's core.

New attachments will be developed and tested, focusing on connecting the springs to the trunk of the body at points including the pelvis, ribcage, and across the shoulders. The development of the new attachment (harness) will focus the perturbation stimulus towards increasing core stability.

Contrast Therapy (Group 3)

A third group will undertake contrast therapy interventions, and will alternate between ice baths and sauna sessions (1 minute intervals for 14 minutes total), adhering to a standardised protocol. Post-session measurements of joint range of motions and recovery metrics will be taken one hour and 24 hours after the intervention.

Passive Recovery (Group 4)

A fourth group will not undertake any recovery interventions.
The same measurements of joint range of motions and recovery metrics will be taken 1 hour and 24 hours after the high intensity exercise routine.

Can Participants Change their Mind and Withdraw from the Project?

Even though you will be asked to sign a consent form agreeing to participate in the study before you start, this doesn't mean you have to do the study. You can withdraw from the study and leave at any time, without giving a reason and with no disadvantage to yourself.

What Data or Information will be collected and what use will be made of it?

Data collected will include:

- Your intake/application form responses
- Joint range of motion measurements
- Perceived muscle soreness
- Survey responses around the comfort and usability of the new spring attachment (Group 2 only)

Anonymised data will be analysed to ascertain the benefits of spring technology compared to contrast water therapy and passive recovery.

Your participation in the study will be private. Any visual media collected will not be published without your permission. Any published results will be anonymised.

What if participants have any questions?

If you have any questions about our project, either now or in the future, please feel free to contact either of us personally:

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