

Participant Information Sheet

**Title of project:** Measurement of heart rate responses during repeated sit-to-stand

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**Legal basis for research for studies**:

The University undertakes research as part of its function for the community under its legal status. Data protection allows us to use personal data for research with appropriate safeguards in place under the legal basis of **public tasks that are in the public interest.** A full statement of your rights can be found at: [www.shu.ac.uk/about-this-website/privacy-policy/privacy-notices/privacy-notice-for-research](http://www.shu.ac.uk/about-this-website/privacy-policy/privacy-notices/privacy-notice-for-research). However, all University research is reviewed to ensure that participants are treated appropriately and their rights respected. This study was approved by the University’s Research Ethics Committee. Further information at: [www.shu.ac.uk/research/excellence/ethics-and-integrity](http://www.shu.ac.uk/research/excellence/ethics-and-integrity)

You are invited to take part in this research study. Before you decide whether to take part or not it is important to understand what is involved and why the study is being done. You can ask us if you need any more information or if there is anything you are unclear about.

The aim of this study is to gain an understanding of whether a simple and accessible sit-to-stand test can be used to test someone's physical fitness.

**What is the purpose of this study?**

Physical fitness involves the ability of the heart and lungs to work efficiently. Tests to measure physical fitness are an important part of overall health assessment. However, the usual methods of measuring physical fitness either require specialist equipment or a large space to complete the test. Moving from sitting to standing is an activity which is completed many times throughout the day. The repeated sit-to-stand test is a very simple test that requires minimal equipment. This makes it accessible across all environments from local leisure centres to hospitals. The repeated sit-to-stand test has previously been used as a valid test for measuring muscular strength. However, there is limited research around whether the repeated sit-to-stand test can be used to measure physical fitness. Therefore, the purpose of this study is to examine whether the repeated sit-to-stand is an effective and appropriate measure of physical fitness.

**Why have I been invited to take part?**

We would like to recruit people who are:

* Aged between 55 and 80 years old
* Able to give informed consent
* Able to walk at least 100 metres without assistance
* Able to engage with exercise
* Able to communicate in spoken English

**Who should not take part in this study?**

We are unable to accept any participants who:

* Have been advised against moderate or high intensity exercise
* Have been diagnosed with postural hypotension

**Do I have to take part?**

Your decision to take part in this study is entirely up to you. You may refuse to participate in this study. If you decide to take part but later change your mind, you are able to withdraw from this study up to 7 days after your data has been collected. There is no penalty for withdrawing from the study. A copy of the information provided here is yours to keep, along with the consent form if you do decide to take part.

**What will happen to me if I take part?**

At the beginning of the study, you will receive a phone or video call with a member of the research team, to complete a health questionnaire. The information from this health questionnaire will have a unique participant code which will be stored securely on a password protected computer. During this phone or video call, you will be given the opportunity to ask any further questions about the study. After this phone or video call, you will be asked to give informed consent for your participation in the study.

You will be invited to attend a 1-2 hour session at the Advanced Wellbeing Research Centre (AWRC) in Attercliffe which is part of Sheffield Hallam University. We ask that you do not consume any alcohol within 12 hours before coming to the AWRC to participate in the study. We also ask that you do not consume any coffee within 2 hours before you arrive to participate in this study. This is because these can affect your results. We would also recommend that you eat something prior to coming to the AWRC, however, do not eat anything within 1 hour prior to taking part.

The data collection session will include a gentle warm-up, followed by six 60 second repeated sit-to-stand tests. The first test will be low effort, the second test will be moderate effort and the third test will be hard effort. The same process will be completed again but this time you will follow a metronome to count the repeated sit-to-stand movements. Between each test, there will be a 5 minute rest period. Throughout these tests you will be required to wear a heart rate monitor around your arm. Your participation in this study will then finish with a cool down.

**What do I need to bring with me?**

Wear loose comfortable clothing and sturdy non-slip shoes. Bring a bottle of water with you, which can be refilled at the research centre. Biscuits will also be available. Please bring any routine medication that you may need to use during your visit, such as an inhaler.

**How will I get there?**

There are many ways to get to the AWRC or Collegiate Crescent Campus including train, bus, tram, car and cycling. Please feel free to ask questions related to travel during the initial phone or video call. We can advise about parking facilities and also issue a permit if required.

**Expenses and payments**

Travel expenses to take part in this study will be reimbursed. On completion of your participation in the study you will be provided a £10 retail voucher.

**Any possible disadvantages or risks of taking part?**

We do not anticipate any significant risk to you if you chose to take part in this study. However, the fitness testing may require you to use more effort than your day-to-day activities. To reduce the risk of injury, a health questionnaire will be completed prior to your participation. A gentle warm-up and cool down will also be included into your visit to the AWRC to further reduce the risk of injury. If you feel uncomfortable when participating in any exercise tests, you are able to stop the test at any time. You may feel tired after participating in this study, this is expected due to the increase in effort compared to your day-to-day tasks.

**Any possible benefits of taking part?**

You will be contributing to research and education. The data collected from your participation in this study will help us understand more about the sit-to-stand test as a measure of someone’s physical fitness.

**How will my information be used?**

All information that is collected from you during the research study will be kept strictly confidential. It will only be accessible by members of the research team prior to the results being published.

**What will happen with the results of the study?**

The results of this study will be used to design a new technology to measure physical fitness and strength in leisure and health centres. You may receive a summary of the results if you wish.

**What will happen with my information once the study is over?**

Data is stored in a secure drive within Sheffield Hallam University for approximately 10 years.

**Sponsorship of the study**

This study is funded by Innovate UK.

**Who has reviewed this study?**

All University research is reviewed to ensure that participants are treated appropriately and their rights respected. This study has gained ethical approval from Sheffield Hallam University Research and Ethics Committee.

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| **You should contact the Data Protection Officer if:*** you have a query about how your data is used by the University
* you would like to report a data security breach (e.g. if you think your personal data has been lost or disclosed inappropriately)
* you would like to complain about how the University has used your personal data

DPO@shu.ac.uk | **You should contact the Head of Research Ethics (Dr Mayur Ranchordas) if:*** you have concerns with how the research was undertaken or how you were treated

ethicssupport@shu.ac.uk  |
| Postal address: Sheffield Hallam University, Howard Street, Sheffield S1 1WBT Telephone: 0114 225 5555 |