

Relationship between unintentional finger force drifts and surface texture

IMPORTANT THINGS TO KNOW ABOUT THIS STUDY

We are asking you to join a research study. The purpose of the research is to investigate how well people can produce a stable amount of force with their fingertip.

Being in the study involves a single visit which may take up to 1:30. This is what will happen during the study: first, attach sensors to your forearm to measure muscle activity. After this, you will perform the main experimental procedure, when you will perform a number of experimental trials in a series. During each trial, press against a glass surface to produce an amount of force specified by feedback on a computer monitor; after reaching that amount of force, the feedback will freeze and we will ask you to keep pressing. Finally, we will ask you to slide your finger across the surface, and then the trial will end. During each trial, we will also record video of your fingertip to investigate how the skin of the finger changes.

You do not have to join this study. You might want to join this study because our results could lead to advances in understanding the how we control finger action, including how surface textures change the way we use our fingers, which could lead to advances in developing ergonomic tools. You might not want to join this study if you think you would find the procedure too boring to complete or do not have time to complete it.

We will give you information about the purposes, procedures, risks and possible benefits related to this study. We will explain other choices you have. We will also give you more information that you need to make an informed decision about joining this study.

The following information is a more detailed description of the study. Please read this description carefully. We want you to ask us any questions that will help you decide whether you want to join this study. If you join the study, we will give you a signed copy of this form to keep to remind you of what being in the study involves.

San Diego State University
INFORMED CONSENT FORM
Consent form version date: Jan 31, 2022

Verified
Exempt
06-Jun-2023

WHO SHOULD I CONTACT IF I HAVE QUESTIONS OR CONCERNS?

Principal Investigator: Dr. Sasha Reschechtko, Ph.D.
SDSU Department: Exercise and Nutritional Sciences
Address: ENS Building room 304
Phone: (619) 594-2724
Email: sreschechtko@sdsu.edu

WE ARE INVITING YOU TO JOIN A RESEARCH STUDY.

We are asking you because we need your help in studying finger control and surface texture healthy young adults.

Up to 150 participants will be included at San Diego State University.

This research is not the same as treatment, or other medical or psychological care or therapy. The purpose of research is to answer scientific questions.

WHY ARE WE DOING THIS STUDY?

We are doing this study to find out how changes in the fingertip (which happen over short time periods) affects the ability to control the fingers. We want to know changes in fingertip contact, which results from finger hydration, affects the way people produce finger force.

WHAT IS THE TIME COMMITMENT IF I JOIN THIS RESEARCH STUDY?

Your participation will last up to one hour and a half hours. You will come to SDSU for this single study visit.

The research scientist could stop your participation in the research study at any time even if you want to still be in the study. This would happen if:

- They think it is in your best interest to stop being in the study.
- You are not willing or able to do all the things needed in the study.
- The whole study stops.

If you stop being in the study, your information collected before you stopped being in the study will be included in the study. However, if these data are not yet published, you may request that your data be removed from the data set by contacting the study team, who will confirm this has been done.

WHAT WILL I BE ASKED TO DO IN THIS RESEARCH STUDY?

To determine if you can join the study, we will ask you some questions. If your answers indicate you can participate, we will ask you to participate in study. If you are not eligible to participate, your information will be destroyed to keep your information private.

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The following is a list of procedures you will be asked to complete for research purposes:

1. Applying sensors to the skin (10 minutes): we will make impressions of the 4 fingers of your dominant hand and measure some aspects of the skin on your fingertips.
2. Experimental procedure (1 hour): during a series of trials, you will press one fingertip against a glass surface. On different trials, this surface will have different textures. You will press down on the surface to reach a force level indicated on a computer monitor, and keep pressing with that amount of force until you are instructed to slide your finger across the surface. After you slide your finger across the surface, the trial will be over. Each trial may take up to 20 seconds. You will perform 60 trials per surface across 3 surfaces, for a total of 180 trials.

WHAT ARE THE RISKS OR DISCOMFORTS INVOLVED IN THE RESEARCH?

It is possible that your finger will become fatigued by moving it across the glass plates. If you feel fatigue, you may take a break at any time.

ARE THERE ANY BENEFITS TO PARTICIPATION?

You are unlikely to benefit personally from participating in this study. However, by joining this research study, you are helping to provide information which may help science and society.

ARE THERE ANY ALTERNATIVES TO JOINING THIS RESEARCH STUDY?

If you do not wish to participate in this study, your alternative is not to participate in this research.

WILL MY INFORMATION BE PRIVATE?

Data collected regarding your performance on experimental tasks ("experimental data:" the forces you apply with your fingertip and the muscle activity associated with this force production) will be kept indefinitely and uploaded to a public repository, the Open Science Framework (osf.io). However, these data will not be linked to you in any way.

Your private information (email address, name, partial date of birth, and fingertip imaging) collected as part of this research study will not be used or distributed for future research studies. These data will be stored in a secured filing cabinet only accessible by study team members (consent forms, fingerprints), or on SDSU-administered computers with encrypted hard disks. These data will be destroyed 7 years after the end of the study, but all identifiers linking them to the experimental data will be destroyed when the experimental data is uploaded to the public repository.

Your private information (email address, name, partial date of birth, and fingerprints) collected as part of this research study will not be used or distributed for future research studies. We will use the information will be used in published articles and presentations to other scientists. We will keep your information private. Others will not be able to identify you in those papers or presentations.

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DO I HAVE TO JOIN THIS STUDY?

No, you do not have to join this research study. Even if you agree to join, you can decide later that you do not want to be in the research. If you choose not to join or later decide that you do not want to be in the study, there is no penalty or loss of benefits to which you are otherwise entitled. After the data are stripped of personal identifiers, we cannot destroy your data; however, identifiable information such as fingerprint images will not be shared, and we will destroy it at your request.

WILL I BE TOLD ABOUT THE RESEARCH RESULTS?

We will not contact you with results of this study after this study is completed.

WILL IT COST ME ANYTHING TO BE IN THE RESEARCH?

You may incur costs associated with participation in the research related to visiting SDSU (e.g. gas or other transportation costs). We can provide you with a parking pass for your campus visit; please advise us of your need before your visit.

WILL I BE PAID IF I JOIN THE RESEARCH?

You will be paid an incentive for participation. You will receive \$25 for successfully completing this study. If participation takes longer than scheduled, or if you elect to withdraw from the study, your incentive will be pro-rated according to the actual amount of time you participated in increments of \$2.50 per 9 minutes.

WHOM DO I CONTACT IF I HAVE QUESTIONS OR CONCERNS?

If you have questions now, please ask. If you have questions later about the research, you may contact Dr. Sasha Reschechtko at +1 619 594 2724. If you have any questions about your rights as a research participant, or in the event of a research related injury, you may contact the Human Research Protection Program at San Diego State University (telephone: 619-594-6622; email: irb@sdsu.edu). At any time during the research, you can contact the IRB for questions about research rights, to discuss problems, concerns, give suggestions, or to offer input.

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CONSENT TO PARTICIPATE:

The San Diego State University Institutional Review Board has approved this consent form, as signified by the Board's stamp.

Your signature below indicates that the study team has explained the study to you and you have read the information in this form. You have had a chance to ask any questions you have about the research. By signing this form, you are agreeing to join the study. You have been told that you can change your mind and stop being in the research at any time. The researcher or a member of his/her research team has provided you with a copy of this consent form. This form includes contact information about who to contact if you have questions.

Name of Participant (please print)

Date

Signature of Participant

Date

Signature of Investigator

Date