Northeastern

NOTIFICATION OF IRB ACTION
MODIFICATION APPROVAL

Date: June 10, 2021	IRB #: 15-10-22
Principal Investigator(s):	Eugene Tunik
Department:	Physical Therapy, Movement and Rehabilitation Sciences Bouvé College of Health Sciences
Address:	120E BK Northeastern University
Title of Project:	Neural Substrates of Sensorimotor Integration

MODIFICATION: a) subjects may be asked to cycle on an under-table stationary pedal bike until their heart rate rises up to 80% of heart rate reserve (HRR)* (about 2-3 min of cycling). Their motor coordination and physiology will be measured before, during, or after this brief bout of exercise; b) subjects will wear a VisualBeat™ Strap-free Heart Rate Monitor on their chest, and nine electrocardiogram (ECG) electrodes on their trunk (MindWare, Inc.) to allow measurements of ECG, Cardiac Impedance, and Galvanic Skin Response. Electrodermal Activity. Blood pressure will also be measured with a QardioARM™ wireless monitor before and after the experiment. Subjects will also complete a self-report Physical Activity Readiness Questionnaire (PAR-Q), which assesses their fitness level.

Participating Sites:	NJIT (#F123-12)
Original Protocol Approved:	October 14, 2015
Informed Consents:	One (1) signed consent form for healthy subjects One (1) signed consent form for subjects with neurological condition
DHHS Review Category:	Full Board
Monitoring Interval:	12 months

Human Subject Research Protection

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APPROVAL EXPIRATION DATE: SEPTEMBER 8, 2021

Investigator's Responsibilities:

1. The informed consent form bearing the IRB approval stamp must be used when recruiting participants into the study.
2. The investigator must notify IRB **immediately** of unexpected adverse reactions, or new information that may alter our perception of the benefit-risk ratio.
3. Study procedures and files are subject to audit any time.
4. Any modifications of the protocol or the informed consent as the study progresses must be reviewed and approved by this committee **prior to being instituted.**
5. Continuing Review Approval for the proposal should be requested at least one month prior to the expiration date above.
6. This approval applies to the protection of human subjects only. It does not apply to any other university approvals that may be necessary.

APPROVED
By NU IRB at 2:45 pm, Jun 10, 2021

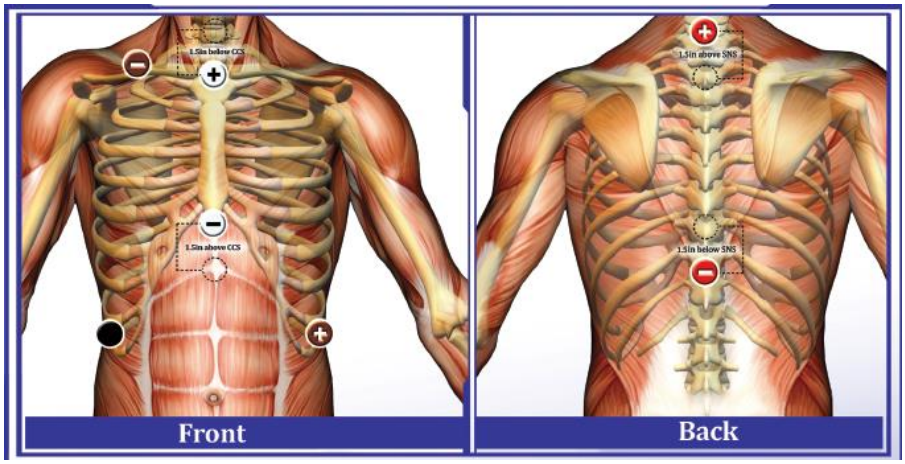
C. Randall Colvin, Ph.D., Chair
Northeastern University Institutional Review Board

Nan C. Regina, Director
Human Subject Research Protection

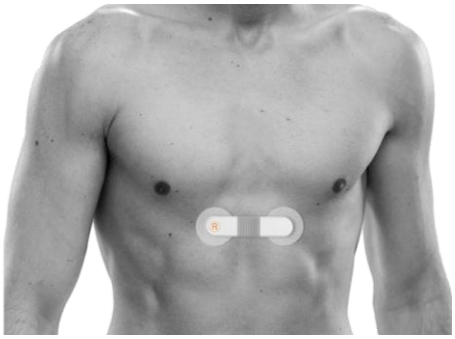
Movement Neuroscience Laboratory

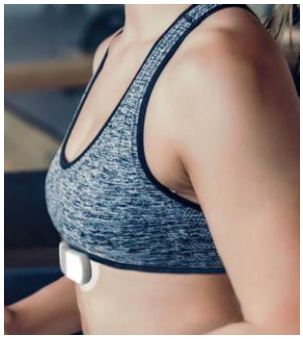
Cardiovascular Monitoring Electrode Placement Procedure

1. Electrocardiogram positions



2. Heart rate monitor position





This experiment will require us to attach nine electrodes to your trunk in order to measure your heart rate and electrocardiogram. The electrodes are similar to what a physician uses to measure electrical activity of the heart as part of an electrocardiogram (ECG). The electrodes will be placed in the locations shown in the above diagrams/pictures. Please note that four of the electrodes will be on the chest wall. To obtain a reliable signal in the electrodes, we will need to gently clean the skin where each electrode will be attached with alcohol prep pads. Note that this procedure may require lifting the edge of the bra/t-shirt to attach the electrode in the indicated spot to ensure that the electrode is properly positioned. If you do not feel comfortable with this, please let us know and we will not schedule the experiment.