

UNIVERSITY OF PITTSBURGH – RESEARCH STUDY

Mapping of brain activity relating to hand and arm movement intention and feeling using fMRI

Rehabilitation and Neural
Engineering Laboratories

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For Individuals with Cervical Spinal Cord Injury

PURPOSE OF RESEARCH:

After a spinal cord injury, the brain still creates movement signals even though the pathway (spinal cord) for these signals has been disrupted. Also, the brain receptors for feeling are still active. A better understanding of this brain activity can lead to developments for rehabilitation strategies and brain-computer (BCI) assistive technology design.

The purpose of this research study is to use **functional MRI** to locate or “map” arm and hand-related brain activity in the part of the brain that generates movement signals and feels touch. To do this, we will display **videos** with accompanying **sound** and **sensation** during an MRI.

ELIGIBILITY:

This study is for individuals **18 years old or older** and with a **cervical spinal cord injury** that occurred more than one year ago that results in decreased or absent feeling in fingers or hand. Individuals must not have any implanted electronic devices and no irremovable metal that is unsafe for MRI. Individuals must be **not pregnant** and must **weigh less than 300 pounds**.

DETAILS:

The MRI will take place at **UPMC Presbyterian Hospital** in Pittsburgh, PA. Parking validation will be provided.

You will be compensated \$50 for completion of this research study. Participation is voluntary. You can withdraw at any time.

TO SCHEDULE OR TO FIND OUT MORE CALL:

Debbie Harrington at [412-383-1355](tel:412-383-1355) for more information.

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