

Rehabilitation Device Research

Stroke survivors and healthy adults needed!

Muscle Stimulation Exosuit for Improving Walking After Stroke

WALKING ASSISTANCE

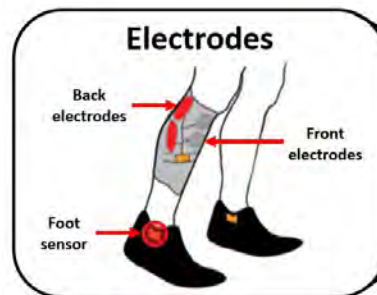
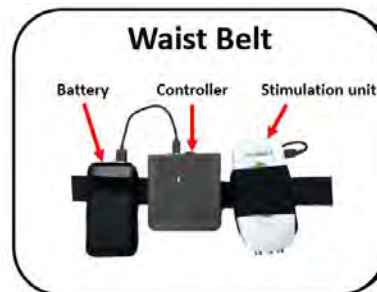
This muscle stimulation exosuit can help improve walking speed, stability, and efficiency by providing assistance to push off and lift the foot. Stimulation can access the residual strength of muscles affected by stroke.

ADAPTIVE CONTROL

Sensors on the shoes measure walking patterns and control stimulation. This enables stimulation control to adapt to changes in walking over time.

INDIVIDUAL THERAPY

Stimulation parameters are adjusted for each individual to maximize comfort while providing as much assistance as possible.



Are you eligible?

- Between 18-80 years old.
- Have no major medical conditions OR have been diagnosed with a stroke by a physician more than 6 months ago.
- Can walk independently with or without an assistive device.
- Can communicate effectively with researchers.

Additional study-specific criteria will be used to help determine study eligibility.

Help us develop a soft, wearable assistive device that can help people walk better after stroke.

Boston University is developing a soft wearable device that uses neuromuscular electrical stimulation to improve walking speed, stability, and energy cost. The device provides push off and foot lift assistance of the affected limb to improve walking after stroke. Research visits may involve multiple sessions during which you may be asked to walk overground or on a treadmill for several minutes, or as long as you are able, while either wearing the stimulation device or not wearing it. Participants will be involved in development, validation, or clinical training using this stimulation exosuit.

Participants may be eligible to receive between \$75 to \$550 depending on the research phase of the study. Participants may complete more than one phase.

If interested, please contact our clinical research team:

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For more information about our research, please visit: <http://sites.bu.edu/NRL>

