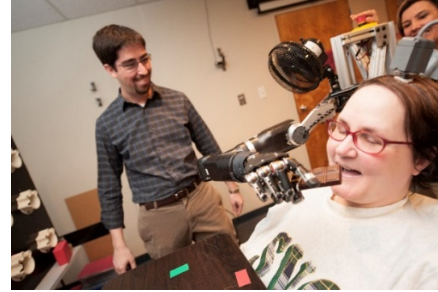


# Brain-Computer Interfaces, Inclusive Innovation, and the Promise of Restoration: A Mixed-Methods Study with Rehabilitation Professionals

## Supplementary Material: Survey Instrument Details

### Figure S1: Briefing about BCIs.

Please carefully read the following information about a recent research finding and study the pictures. Please, then answer the related questions.



1 Using a wearable BCI – image credit: Patrick Bennet    2 Using an implantable BCI – image credit: UPMC

Scientists, engineers, and healthcare professionals are currently developing a variety of new devices under the category of brain-computer interface, called BCI for short. This type of technology creates new connections between the brain and its environment by collecting information from the user's brain and translating that information into action, movement, or communication. Some BCI devices can feed information back to the user's brain as feelings or sensations. Some devices are implantable and require surgery, similar to a pacemaker. Other devices could be wearable, like a baseball cap. It's still unknown what forms brain-computer interfaces will take in the future or how useful they will be for a variety of applications.

BCI technology could be used for medical or assistive purposes. Some researchers are developing devices with the aim to treat paralysis, reconnecting the brain to non-functioning limbs or to prosthetics. Other researchers are using BCI to allow persons with complete paralysis ("locked-in syndrome") to communicate again.

BCI technology could also be used for non-medical purposes. Even video games or smartphone apps might be made more interactive with BCIs, by giving the user the ability to control things using only their thoughts. Since BCIs are still in development, there could be many other ways to use BCI technology.

**I read the text above carefully and now want to proceed to the questions**

- Yes
- No