



**CONSORTIUM FOR CITIZENS
WITH DISABILITIES**

**BIOLOGICAL REHABILITATION RESEARCH LINKED WITH DEVICES MAY PREVENT
DISABILITY AND SECONDARY DISABLING CONDITIONS**

A congressional briefing was held by the American Physical Therapy Association on “Advances in Rehabilitation Research”. Presenters at the forum were the Director of the National Institute of Child Health and Human Development (NICHD), and rehabilitation experts.

Summary

The goals of the National Institute of Child Health and Human Development are to optimize human function and contribute to functional mobility, assess functional outcomes, and incorporate new technologies into the rehabilitation process such as robot assistive technology. It also addresses issues associated with prosthesis and orthotics and pediatric critical care. Two of three presenters focused on rehabilitation related to the spinal cord which often results in loss of capacity to move. There are 200,000 people in the U.S. with spinal cord injuries. Some recent rehabilitation research outcomes were associated with the “Brain Gate System” (i.e. pain, sleep, and plasticity (ability of body to repair itself)). Other initiatives involved research with animal models, drug and physical therapy combinations, cognitive rehabilitation, diagnostic procedures, human development factors, advanced technical robotics, independent telehealth, and other research topics. The main focus of the research was on biological systems associated with devices to improve human function.

Disability Prevention Issues

Advances in rehabilitation research in the behavioral sciences that has been replicated and widely disseminated in the field that can ameliorate disability and prevent secondary disabling conditions are scarce. Functional skills can be developed and enhanced through new technologies, prosthesis and orthotics, but also through the behavioral sciences as part of the rehabilitation process that can prevent diminished function and ameliorate disability.

Activity

Extensive discussions were held with a presenter on the application of recent advances in the behavioral sciences for functional living skills in specific home and community environments that will ameliorate disability.

Principle

There should be effective evidence based models developed by the NICHD have been replicated and widely disseminated to prevent and ameliorate disability.