

BRIDGING MOBILITY WITH BIONIC TECHNOLOGY

Bridging Bionics Foundation Position Statement on Powered Exoskeletons

Bridging Bionics Foundation was founded with the mission of providing access to bionic rehabilitation technology for all individuals challenged with neurological mobility impairments. We serve individuals with neurological mobility impairments resulting from injury or disease, including: spinal cord injury (SCI), multiple sclerosis, Parkinson's disease, Cerebral Palsy, and stroke. We work every day to be a bridge between advanced technology and those in need. We believe all individuals with neurological mobility impairments can live better through the use of advanced technology.

According to the National Spinal Cord Injury Statistical Center, approximately 12,500 new SCI cases occur each year in individuals who will lose the ability to exercise volitional movement of their lower extremities. Historically, individuals with SCI were relegated to prolonged sitting due to their inability to walk and the absence of capable products and treatments to restore their walking abilities. As a result, the mortality rates of this group are significantly higher than their able-bodied peers and has remained unchanged since the 1980's. Persons living with SCI are also more likely to incur a variety of disease states including cardiovascular disease, diabetes, and stroke, to name a few.

Powered exoskeletons have been developed to restore functional ambulation, enabling full weight-bearing when standing or walking. They have proven to be a superior alternative to mechanical bracing, allowing efficient and sustainable functional ambulation. In turn, walking and weight-bearing provide individuals with SCI with many secondary health benefits such as improved bowel and bladder function, reduced utilization of pharmaceuticals and improved cardiovascular function. The benefits of increased physical activity are well documented and translate into significant improvements in health outcomes and decreased utilization of high cost healthcare. Exoskeletons enable a highly sedentary population to regain walking function and live healthier and higher quality lives.

Bridging Bionics Foundation maintains a position supporting the safety and efficacy of powered exoskeletons for patients with SCI for home and personal use. After reviewing the available literature on exoskeletons in the rehabilitation and home settings, including 28 publications totaling 414 patients, Bridging Bionics Foundation believes that restoring walking function with a powered exoskeleton improves health outcomes and that the benefits outweigh the associated risks.

Powered exoskeletons have demonstrated safety and effectiveness in both clinical trials and outside of the institutional setting. Therefore, Bridging Bionics Foundation does not consider them to be an experimental or investigative device and we recommend that they not be treated as such when evaluating coverage. We encourage private health insurance carriers to consider the use of powered exoskeleton devices medically necessary for well selected patients with SCI.

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