CHRISTOPHER & DANA REEVE FOUNDATION
TODAY'S CARE. TOMORROW'S CURE.

Powered Exoskeletons
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The Christopher & Dana Reeve Foundation is dedicated to curing spinal cord injury by funding innovative research and improving the quality of life for people living with paralysis through grants, information and advocacy.

The World Health Organization defines paralysis as a central nervous system disorder that results in difficulty or inability to move the upper or lower extremities. According to a study of over 70,000 households initiated by the Christopher & Dana Reeve Foundation, there are nearly 1 in 50 people living with paralysis— over 5.3 million people.

The Christopher & Dana Reeve Foundation supports access to evidenced-based treatments, devices, and rehabilitation that improve the independence, mobility, and health outcomes that are so negatively impacted by paralysis and its secondary dysfunctions. Individuals with spinal cord injuries and other paralyzing conditions and diseases experience an increase in co-morbid health complications, ranging from pressure sores to spasticity, cardiovascular and respiratory complications. Bowel, bladder and sexual function can also be profoundly and negatively impacted.

Physical activity and movement have been shown to improve health for those who live with paralysis. According to peer- reviewed data, powered exoskeletons may confer the health benefits of physical activity, assist in ambulation, aid in regaining locomotor function, and positively affect overall quality of life. The evidence also illustrates that patients who utilize a powered exoskeleton may experience improvements in some of the secondary dysfunctions of paralysis, for example, bowel, bladder and sexual function and reductions in spasticity and pain. It is also possible to anticipate decreases in long-term healthcare-related costs and hospitalization as a result of the use of exoskeletons.

The Christopher & Dana Reeve Foundation supports access to these powered exoskeletons in institutional and at-home settings for those individuals who meet device inclusion and exclusion criteria. The Foundation also advocates for continued research into the impact of exercise (including the use of the exoskeleton) on improved health and recovery of function after paralysis.