



motion
INFORMATICS

Spatial StimelMD (SSMD): Vehicle Accident



FDA
CLEARED

Vehicle Accident Rehabilitation

The SSMD is an innovative medical device designed to enhance the rehabilitation of patients after a vehicle accident. Integrating Functional Electrical Stimulation (FES), Neuromuscular Electrical Stimulation (NMES) and biofeedback, it provides a tailored approach to recovery that significantly improves outcomes for both patients and healthcare providers.

Solving the Challenges After a Car Accident

The consequences of a vehicle accident go beyond immediate physical trauma, often leading to long-term muscle weakness, impaired motor function, and reduced quality of life. SSMD provides targeted interventions that directly address these challenges, proving to be an essential asset in the rehabilitation journey.

Fights Muscle Weakness and Motor Impairment

One of the most common problems after a vehicle accident is muscle weakness, which can severely limit an individual's daily activities and independence. The SSMD leverages FES technology to deliver targeted electrical impulses to weakened muscles, promoting muscle contraction and reactivating inactive muscle fibers. This process helps to rebuild nerve pathways and enhance motor functions, helping patients gradually regain strength and perform daily tasks more efficiently.

Improves Range of Motion and Neuromuscular Coordination

Patients often experience reduced range of motion and impaired neuromuscular coordination after an accident, affecting their ability to perform basic activities such as walking and reaching. SSMD uses NMES technology to stimulate peripheral motor nerves, helping to reactivate and strengthen the affected muscles. This controlled electrical stimulation not only improves muscle contractions but also enhances overall range of motion and coordination, resulting in increased mobility and flexibility.

Enhances Recovery and Holistic Healing

Recognizing the multifaceted nature of recovery, the SSMD incorporates biofeedback technology to provide real-time insights into muscle activity and function. This information allows doctors to tailor specific rehabilitation programs to each patient's needs. Visual and auditory feedback from the biofeedback system promotes patient engagement and improves self-perception, which is important for effective motor learning. This personalized approach not only accelerates physical recovery, but also enhances psychological well-being, enhancing patient motivation and confidence throughout the rehabilitation process.

Dual Use for Optimal Results

To maximize rehabilitation outcomes, the SSMD is designed for use both in medical and home settings. This flexibility allows the device to be seamlessly integrated into the patient's daily life, giving them the advantage of continuous and consistent therapy. Dual usability

ensures rehabilitation is not only efficient, but also adaptable to each patient's lifestyle, resulting in a faster and more sustainable recovery.

Conclusion

SSMD redefines rehabilitation after a vehicle accident by incorporating state-of-the-art technologies with a focus on patient-centered care. This innovative device not only addresses the physical impairments caused by accidents, but also aids in the overall recovery process, empowering patients to regain independence and improve their quality of life. As a result, the SSMD is an indispensable tool for healthcare professionals who want to provide superior care and achieve optimal rehabilitation outcomes.