

**Technology**

Orthotic device for treatment of kinetic tumors

Inventor

Charles Adrian Handforth, M.D.
VA Greater Los Angeles
Healthcare System

Key Features

- Sleeve, band, of sleeve with band applied to upper extremities to reduce kinetic tremors
- Non-invasive, cost-effective, reversible
- Does not interfere with motor performance of muscle contraction
- Effective first option for suppressing tremors

Stage of Development

Reduced to practice with prototypes developed and tested in clinical studies

Keywords

- Medical Device
- Orthotic device
 - Kinetic tremors
 - Tremor suppression
 - Tremor reduction
 - Parkinson's disease

Patent Status

US Pub. Patent No. 2004/0015116

Contact

Lee Sylvers, Ph.D.
Technology Transfer Program
Department of Veterans Affairs
Office of Research & Development
(12TT)
810 Vermont Avenue, NW
Washington, DC 20420
Phone: 202-461-1714
Fax: 202-254-0460
E-mail: lee.sylvers@va.gov

Firm-Contact Apparel Prosthesis for Tremor Suppression

(VA Reference No. 01-056)

Cost-effective orthotic device for treatment of alleviating or suppressing the effects of kinetic tremors in patients

Technology

The Department of Veterans Affairs has developed an orthotic device for treatment of alleviating or suppressing the effects of kinetic tremors. Specifically, the device is a sleeve, band, or sleeve with a band incorporated within it that applies pressure to any area of the arm, wrist, hand, or fingers to reduce tremors in patients who have either Parkinson's disease or essential tremors.

Description

The technology developed by the VA is based on observations that pressure on certain hand or arm joints reduces tremors in patients who have either Parkinson's disease or essential tremors. The orthotic device developed anticipates, in response to clinical observations, that each patient requires a different version, placement or tension to reduce tremors. Therefore, the device can be made of different materials, such as mesh, elastic bands, mesh with embedded elastic bands, and sleeves with bands tightened by a fabric fastener to provide adjustable tension. In addition pressure on a joint is most effective for suppressing tremors for motions of that particular joint, a benefit is also observed for other joints as well.

Competitive Advantage

The current methods of therapy have a number of limitations including the invasiveness of the therapy, cost of therapy, and side effects caused by the therapy.

This invention:

- Is noninvasive, cost-effective, risk-free, and reversible.
- Represents an effective first option for suppressing tremors associated with either Parkinson's disease or essential tremors.
- Does not interfere with patients' motor performance or muscle contractions.

Status

The Department of Veterans Affairs is looking for a partner for further development and commercialization of this technology through a license, and the VA inventors are available to collaborate with interested companies through a Cooperative Research and Development Agreement (CRADA).