

# The Power of YOUR Muscles

Imagine, 300 perfectly coordinated muscle contractions every minute. Imagine cycling smoothly and naturally at 50 RPM, flexing and extending your legs, not with some passive motion machine, but through FES\*-induced contractions of your leg muscles.

## ERGYS<sup>2</sup>



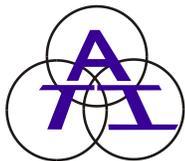
The ERGYS 2: the power to prevent muscle atrophy, relax muscle spasms, improve circulation, increase your range of motion, and more.†

**muscles pumping**

**blood flowing**

**legs moving**

A “whole body” approach to your health.



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### The Power of YOUR Muscles.

Since 1984, the REGYS and ERGYS FES leg-cycle ergometers have helped to improve the health and well-being of persons with spinal cord injuries. The ERGYS 2 builds on this legacy with new workload regimens, stimulus waveforms, and electrode interface options.

The ERGYS 2 for home and clinical use is a prescribed device for C- and T-level SCI and other neurological conditions. Upgrades available for the ERGYS I.

\*FES - Functional Electrical Stimulation. †Indications for use and the results of published clinical studies are available upon request.

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## The Power of *Your* Muscles

Medical complications resulting from paralysis pose a formidable challenge to rehabilitation medicine. Until recently, little was available for the long-term care and management of spinal cord injury. Now, Therapeutic Alliances Inc., a leading provider of state-of-the-art rehabilitation equipment, offers an innovative product to improve and maintain your health.

### A Powerful Idea

The ERGYS Home Rehabilitation System uses computerized functional electrical stimulation (CFES) to allow people with little or no voluntary leg movement to actively pedal a stationary leg-cycle ergometer.

*Here's how CFES works:* Computer generated, low-level electrical pulses transmitted through surface electrodes cause coordinated contractions of your leg muscles. Sensors located in the ERGYS provide continuous feedback to a computer which controls the sequence of muscle contractions as well as the resistance to pedaling. The result is smooth and natural pedaling, with *your leg muscles supplying the power.*

### Powerful Results

The ERGYS provides significant benefits for both paraplegics and quadriplegics, including:

- Prevention of muscle atrophy
- Relaxation of muscle spasms
- Improved circulation
- Increased range of motion

Published clinical studies have also documented increases in muscle mass, improvement in cardiopulmonary function, a reduction in the frequency of pressure sores, improvements in bowel and bladder function, and a decreased incidence of urinary tract infections.

Perhaps just as important as these therapeutic benefits is the sense of well-being that comes from taking a "whole body" approach to your health.

## Better Health Begins Today

Realizing the healthful benefits of CFES begins with entry into an ERGYS or REGYS program at a center near you. As you progress in the program, you have the option to continue your sessions at the center or to acquire an ERGYS for home use. Insurance coverage is often available for both sessions at the center and for the purchase of an ERGYS home system.

*Muscles Pumping, Blood Flowing, Legs Moving...*  
Contact Therapeutic Alliances today to start *your* ERGYS program!

## ERGYS<sup>2</sup> Specifications

Number of Stimulus Channels:	6 - Maximum stimulus intensity for each channel is independently programmable
Output Waveforms:	Selectable biphasic waveforms 1 ERGYS 1/REGYS compatible waveform
Amplitude:	0 - 140 milliamps, constant current Instantaneous stimulus levels set by closed-loop control algorithm
Pulse Duration:	Selectable: 400 - 1000 microseconds
Phase Duration:	Selectable: 200 - 500 microseconds
Repetition Rate:	30, 40, 50, 60 pulses per second
Power Requirements:	115 Volts AC, 60 Hz (220/240 VAC, 50/60 Hz optional)
Dimensions (seat upright):	84" x 36" x 48" (213 cm x 91 cm x 122 cm)
Dimensions (seat reclined):	106" x 36" x 48" (269 cm x 91 cm x 122 cm)
Weight:	235 lbs. (107 kg)

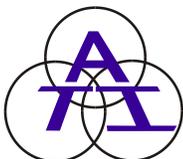
**INDICATIONS:** The ERGYS is a medical device categorized as a Powered Muscle Stimulator by the United States Food and Drug Administration (FDA). This type of device has been shown to prevent or retard muscle atrophy, maintain and improve range of motion, increase circulation to stimulated areas, and relax spastic muscle.

**CONTRAINDICATIONS:** Unless exempted by a physician, the ERGYS is not recommended in the following conditions: denervated muscle, severe osteoporosis, limited range of motion in hips and knees, abnormal bone formation in hip and knee joints, severe muscle spasticity, autonomic dysreflexia, history of hip disarticulation, cancerous lesion, infection in the area of treatment, heart disease, implanted pacemaker (demand type), and ailments where high fever, high blood pressure or high heart rate are present.

**WARNINGS:** A powered muscle stimulator should not be used in the following instances: over the eye region or transcranially, over the carotid sinus nerves, over the laryngeal or pharyngeal muscles, over the chest region or during pregnancy.

**SIDE EFFECTS:** Possible side effects: tachycardia, hypertension, hypotension, nausea, faintness, skin irritation, muscle or ligament damage, bone fracture, and uncomfortable sensation from stimulation. If any of these conditions should occur, discontinue therapy and advise the attending physician.

**PRECAUTIONS:** Certain medical considerations and common sense precautions should be followed when using the ERGYS. The ERGYS, like other powered muscle stimulators, is potentially dangerous and, as such, must be used with extreme care. The ERGYS should be used only under the supervision of a licensed health care professional. The ERGYS should be used only with accessories recommended by Therapeutic Alliances. The stimulus, a potential shock hazard, must be turned off before handling the electrodes or electrode leads. The system should not be turned on or off while the patient is connected.



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