

Erigo[®]



**Early Rehabilitation with Robotic Verticalization and
Functional Electrical Stimulation**

We move you

NEW*



Early Rehabilitation with the Erigo®

In early rehabilitation of neurological patients, safety and active stimulation are key for the therapeutic success. The Erigo combines gradual verticalization with cyclic leg movement and loading to ensure the necessary safety for the stabilization of the patient in the upright position. The patient stimulation is additionally enhanced by the synchronized functional electrical stimulation (FES) in the ErigoPro. By providing a safe solution for early mobilization, the Erigo counteracts the negative effects of immobility and accelerates the recovery process with intensive sensorimotor stimulation. It is the first choice therapy device for the early and safe mobilization of severely impaired, bed-ridden patients even in acute care.

Cyclic Leg Loading

Patients verticalized with the Erigo do not suffer a drop of blood pressure. They tolerate the upright position better than patients treated on conventional tilt tables without a stepping function and cyclic leg loading.¹ Conventional tilt table training has the limitation to promote orthostatic hypotension in acute care patients due to venous blood pooling. This acts as a risk for secondary brain damage by decreasing the cerebral blood flow. The Erigo offers simultaneous robotic leg movement and physiological cyclic leg loading adjustable according to the patient's needs.

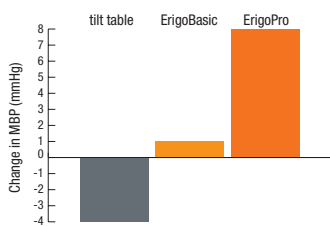


Fig. 1: Changes in mean arterial blood pressure (MBP) under orthostatic stress. Figure adapted from Yoshida et al. 2012.²

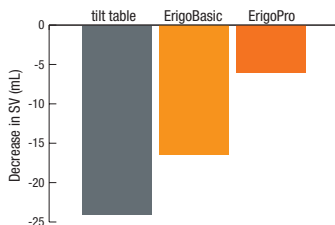


Fig. 2: Decrease in stroke volume (SV) under orthostatic stress. Figure adapted from Yoshida et al. 2012.²

Erigo® Functional Electrical Stimulation (FES)

The Erigo FES efficiently supports the increase of blood flow in the patient's lower extremities, which helps to maintain the stroke volume and blood pressure and therefore further improves the orthostatic tolerance during early verticalization (fig. 1 and fig. 2).² The Erigo FES is fully synchronized with the cyclic leg movements. Up to eight FES channels can be operated easily by the therapist on the touchscreen of the Erigo and adjusted according to the patient's needs and abilities.

"The Erigo training makes it possible to mobilize patients with acute ischemic stroke into an upright position much earlier than with conventional tilt table training. This results in an earlier start of therapy and a shorter rehabilitation period."

Dr. Lyudmila Chernikova, RAMS Moscow, Russia

The advantages of early rehabilitation with the Erigo®:

- Enhanced cardiovascular output by cyclic leg loading
- Improved orthostatic tolerance using the Erigo FES
- Early and safe mobilization of severely impaired patients even in acute care
- Increased patient awareness
- Reduced time in acute care
- Exceeded medical usability standards

¹ Luther MS, Krewer C, Muller F, Koenig E (2008) Comparison of orthostatic reactions of patients still unconscious within the first three months of brain injury on a tilt table with and without integrated stepping. A prospective, randomized crossover pilot trial. Clin Rehabil 22:1034-1041.

² Yoshida T, Masani K, Sayenko D, Miyatani M, Fisher J, Popovic M (2012) Cardiovascular Response of Individuals With Spinal Cord Injury to Dynamic Functional Electrical Stimulation Under Orthostatic Stress. IEEE Trans Neural Syst Rehabil Eng. 2012 Aug 9. [Epub ahead of print].

³ Chernikova L, Umarova R, Trushin I, Domashenko M (2008) The Early Activation of Patients With Acute Ischemic Stroke Using Tilt-Table "Erigo": The Prospective Randomized Blinded Case-Control Study. Neurorehabilitation and neural repair 22:514 - 640.

⁴ Morris PE et al (2008) Early intensive care unit mobility therapy in the treatment of acute respiratory failure. Crit Care Med 36(8):2238-2243.



Patient D. Fabry with his wife during the therapy with the Erigo. Picture courtesy of the CHUV, Lausanne, Switzerland.

Early and Safe Mobilization

The mobilization and verticalization of severely impaired neurological patients can be very challenging, especially in acute care, and can compromise the well-being of patients and physical therapists. Due to the unique afferent stimulation provided by the Erigo and the flexible patient harness, patients can be trained intensively and safely in the vertical position already in a very early stage of rehabilitation.³

Increased Awareness

The unique afferent input provided by the Erigo activates the central nervous system. Clinical experience has shown that the Erigo therapy can have a positive effect on the patient's consciousness, intestinal activity and body awareness and that it generally reduces spasticity in neurological patients.

Reduced Time in Acute Care

The adverse effects of prolonged immobility can lead to longer hospitalization and higher nursing expenses. It has been proven that early physical therapy reduces time spent in intensive care, length of hospitalization and thereby the overall therapy costs.⁴ These effects can be further increased with the Erigo, as it helps to reduce medical complications associated with immobility and relieves the strain on the therapist.

High User Friendliness

Easily transportable due to its compact and flexible design, the Erigo can be used for training in usual patient or therapy rooms and does not require any additional installations. Hospital equipment such as patient monitoring systems can be safely attached to the included standard rails.

"The first time he trained on the Erigo, I knew he really appreciated it. He was finally able to move and get out of bed and he could feel somewhat normal in an upright position. It was the first time after his stroke when I could really take him in my arms and give him a real hug. We both cried."

E. Fabry, wife of a stroke patient, Switzerland

Erigo® Product Line

The Erigo product line* includes two different products, the ErigoPro and the ErigoBasic, both covering individual needs of patients, therapists and hospitals.

		Erigo®Pro	Erigo®Basic	New
Therapy enhancement	Progressive verticalization up to 90°	●	●	✓
	Cyclic leg movements	●	●	
	Mechanical leg loading	●	●	
	Erigo FES (by Hasomed®)	●	-	✓
	Hip extension function	●	-	
	Selection of different movement patterns	●	-	
Safety and comfort	Height adjustment for patient transfer	●	●	
	Flexible patient harness	●	●	✓
	Head elevation function	●	-	✓
	Arm- and headrest set	●	accessory	✓
Usability	Full therapy control via intuitive user interface	●	●	✓
	Intelligent leg loading indicator	●	-	✓



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* The availability of the Erigo depends on national registration procedures.

** The ErigoPro is not yet available in the USA.