

THE REVOLUTIONARY

STROKE THERAPY

recoveriX
NEUROTECHNOLOGY



A NEW STROKE **REHABILITATION**

A stroke often impairs the ability to actually move, but not the ability to think about a movement. recoveriX is an innovative Brain-Computer Interface (BCI) for the rehabilitation of stroke patients. It measures brain activity during the imagination of a movement and triggers visual feedback and real movement which helps the patient to regain motor functions.

MAKE A NEW **START**

When other therapies seem exhausted and barely offer noticeable success anymore, recoveriX can improve the patient's situation even years after the stroke. recoveriX trains the brain and can be used in acute, sub-acute, or chronic states.

A FUSION OF 3 THERAPIES



MOTOR IMAGERY

Patients imagine a left or right hand movement. Meanwhile, recoveriX measures brain activity through EEG signals to drive visual feedback simultaneously.

The Benefits

The responsible areas of the brain are activated, which facilitates brain plasticity and encourages Hebbian learning. recoveriX guarantees that visual feedback and electrical stimulation only occur when patients imagine the movement correctly.



VISUAL FEEDBACK

Based on the EEG signals from the patient, the imagined limb movements are simulated on a screen.

The Benefits

Real-time feedback is very easy to understand. If a patient imagines a movement, then the avatar performs the movement. This experience activates the mirror neuron system.



FUNCTIONAL ELECTRICAL STIMULATION

If recoveriX recognizes motor imagination in the patient's EEG signals, the muscles get electrically stimulated, causing a real movement.

The Benefits

The patient can see his or her limbs move accordingly. The patient is motivated because the experience repeatedly reminds him or her of the desired goal state: being able to move again.

BECOME A RECOVERIX THERAPIST

FRANCHISE FOR THERAPISTS

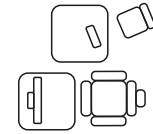
Are you a therapist who wants to make most of motor rehabilitation? Add recoveriX to your therapy portfolio and create a competitive advantage by offering a holistic physical therapy in your own recoveriX Gym that focuses on both body and brain!

REHABILITATION CENTERS HOSPITALS

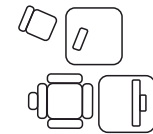
Your daily business is acute care or sub-acute rehabilitation of stroke patients? The sooner rehabilitation starts, the more a patient recovers from stroke. Include recoveriX to your early recovery program and start to achieve more therapy success than ever before. recoveriX is easy to use and mobile and can be used with hospitalized patients at bedside.

With one recoveriX system, 90 patients can be treated per year with 25 therapy sessions each. If you're using more recoveriX systems, several patients can be treated at the same time. This way, you can optimize your capacity and get the maximum output.

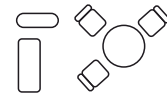
WHAT YOU NEED



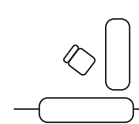
THERAPY ROOM 1



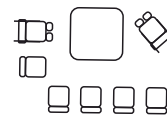
THERAPY ROOM 2



STORAGE, STAFF ROOM



RECEPTION OFFICE



MAIN ENTRY AREA

THE RECOVERIX EFFECT

THERAPY SUCCESS

All positive effects can be explained by the activation of both sensory and motor systems involved in movement that stimulates brain plasticity, a process in which the brain learns to use new neural pathways to move the affected limbs again.

MOVEMENT ▲ TREMOR ▲ PASSIVE JOINT MOVEMENTS ▲ SPASTICITY
GAIT ▲ MEMORY ▲ CONCENTRATION ▲ SENSITIVITY

„recoveriX made my days worth living again. Since therapy, my motor functions in my right hand improved a lot. I learned to move and control my hand again and I even got my job back as a hairdresser. I never imagined this could be possible.“

ASTRID BRANDSTAETTER, FORMER RECOVERIX PATIENT, AUSTRIA



“recoveriX couples cognitive processes with movements, and this is what makes the rehabilitation so effective. We see improvements in patients many years after the stroke takes place here at our recoveriX Gym Linz.”

RIXA VON OERTZEN, THERAPIST AT THE RECOVERIX GYM LINZ, AUSTRIA

“Pain and feeling of pressure in patient's hand has decreased and the range of motion has improved. The motor functions and coordination have been recuperated, which can be seen in daily activities like eating, drinking or driving a car.”

CARITA NIKKARI, PHYSIOTHERAPIST AT FYSIOS JYVÄSKYLÄ, FINLAND



„Here in Finland, we already have a reimbursement code for recoveriX therapy, this means that the social security system already pays for recoveriX treatments.“

VILLE TUOMINEN, REHABILITATION SPECIALIST AT FYSIOLINE OY, FINLAND

SCIENTIFIC STUDIES

Studies with recoveriX have shown that patients improved highly significant even 10, 20 or 30 years after the stroke. The improvement is independent of how long ago the stroke occurred and independent of age.

Guger, C., Millán, J.D.R., Mattia, D., Ushiba, J., Soekadar, S.R., Prabhakaran, V., Mrachacz-Kersting, N., Kamada, K. and Allison, B.Z., 2018. Brain-computer interfaces for stroke rehabilitation: summary of the 2016 BCI Meeting in Asilomar. *Brain-Computer Interfaces*, 5(2-3), pp.41-57.

Irimia, D.C., Ortner, R., Poboroniuc, M.S., Ignat, B.E. and Guger, C., 2018. High classification accuracy of a motor imagery based brain-computer interface for stroke rehabilitation training. *Frontiers in Robotics and AI*, 5, p.130.

Cho, W., Heilingner, A., Xu, R., Zehetner, M., Schobesberger, S., Murovec, N., Ortner, R. and Guger, C., 2017. Hemiparetic Stroke Rehabilitation Using Avatar and Electrical Stimulation Based on Non-invasive Brain Computer Interface. *Int J Phys Med Rehabil*, 5(411), p.2.

GET A QUOTE

Contact us and learn about how to become a recoveriX therapist in your own recoveriX Gym or how to include recoveriX in your rehabilitation center!



recoveriX is a product from
g.tec medical engineering GmbH Austria
Austria | Spain | USA | Hong Kong
www.recoveriX.at | office@gtec.at