recoveriX ®
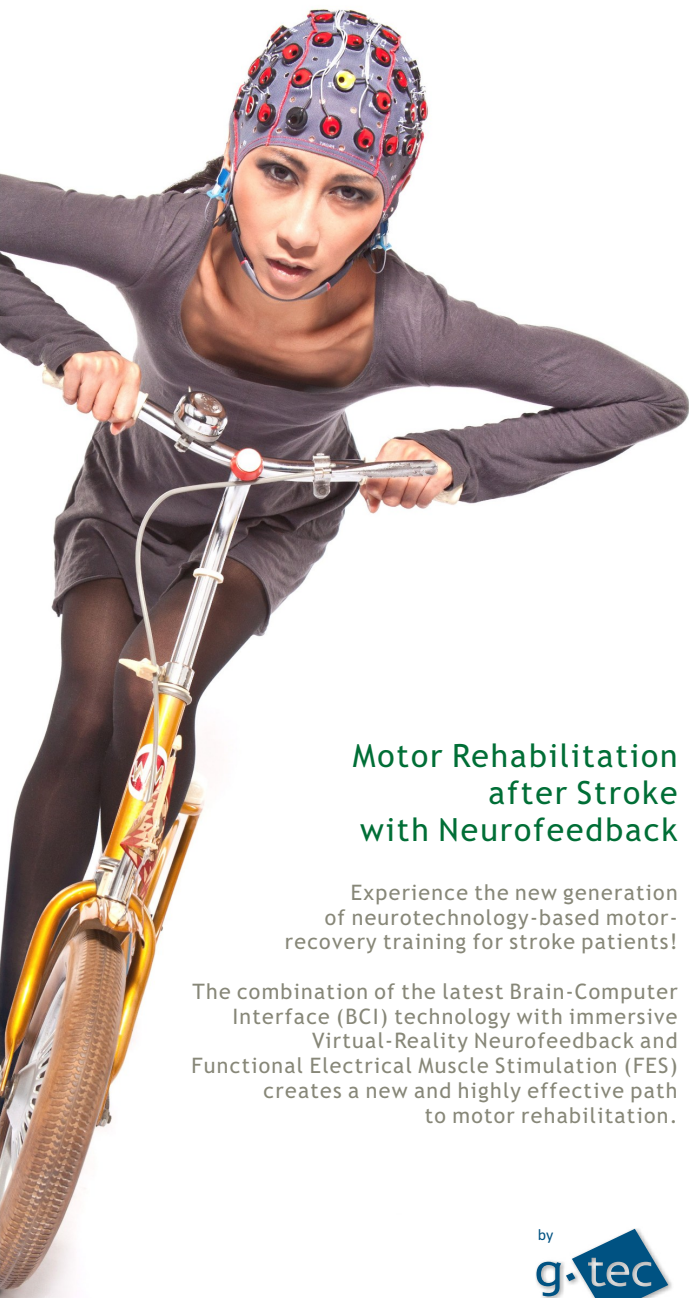
MOTOR-RECOVERY NEUROTECHNOLOGY

Motor Rehabilitation after Stroke with Neurofeedback

Experience the new generation of neurotechnology-based motor-recovery training for stroke patients!

The combination of the latest Brain-Computer Interface (BCI) technology with immersive Virtual-Reality Neurofeedback and Functional Electrical Muscle Stimulation (FES) creates a new and highly effective path to motor rehabilitation.

by

g·tec

**GUGER TECHNOLOGIES**

www.recoveriX.eu

recoveriX® MOTOR-RECOVERY NEUROTECHNOLOGY

The recoveriX system includes all components needed to perform training, classifier generation, virtual-reality neurofeedback and functional muscle stimulation.
The active EEG system can be set up quickly, making daily use very easy.

Left Hand

Right Hand

Movement imaginations activate specific brain regions. This activation can be detected in EEG signals and can be used to drive neurofeedback applications. Repeated neurofeedback training increases the plasticity of the brain and leads to a faster recovery from stroke-caused impairment.
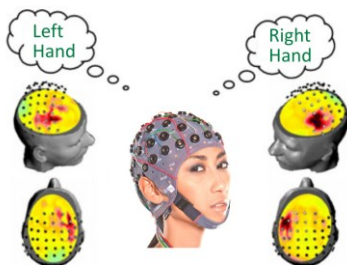
The virtual-reality feedback in form of limb movements of an avatar is presented on a separate patient screen.

Movements of the left and right hand are presented, just like looking at your own hands.
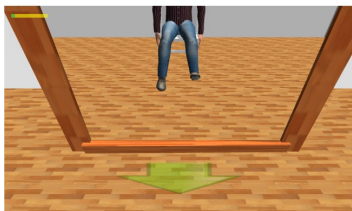
Foot movements are presented in a virtual mirror placed in front of the user.

This closed-loop of motor-imagery based brain activation and direct real-time feedback (e.g. in form of moving hands) makes the training highly effective.

Functional electrical muscle stimulation directly controlled via brain activation appears to be the most effective training method as it also activates afferent nerve connections to the sensorimotor cortex.

Find more details and first results from patient studies at www.recoveriX.eu

recoveriX® is a product of
g.tec medical engineering GmbH, Austria and
g.tec neurotechnology USA Inc., Albany, NY.

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