

Sustainable therapy for ADHD with SCP neurofeedback

An evidence-based and medication-free intervention using THERA **PRAX**[®] MOBILE

Slow Cortical Potentials neurofeedback

Neurofeedback of the Slow Cortical Potentials (SCP) is an evidence-based therapy for ADHD. It is effective without medication and, in comparison to such interventions, usually leads to long-term improvements in attention and behavior. In neurofeedback brain activity is continuously measured via electrodes placed on the head. This brain activity is then displayed on a monitor. Over several therapy sessions the patient learns to differentiate between a state of activation and relaxation in the brain and learns to consciously control this activity through operant conditioning.

The SCP neurofeedback method has been the subject of extensive scientific research. Its lasting efficacy, along with the specific and unspecific effects on the core symptoms of ADHD, has been proven in numerous randomized controlled trials*.

The cutting-edge DC-EEG amplification technology of the neuroConn THERA PRAX[®] MOBILE has been specifically designed for the application of SCP neurofeedback. Disturbances in the EEG caused by eye-movements can be filtered out in real time by online artefact correction technology, unique to neuroConn devices. Correction of EEG artefacts is crucial for accurate measurement of SCPs, thereby allowing the practitioner to deliver therapy effectively.

The evidence for SCP neurofeedback in ADHD treatment has been rated effective.



Standardized electrode setup for SCP training in ADHD

SCP neurofeedback for ADHD with the THERA PRAX® MOBILE

- effective alternative or complementary to medication
- an evidence-based and scientifically proven intervention
- long-term benefit after intervention
- little to no side effects
- easy to apply, standardized protocol
- established protocol which has been effectively applied in ADHD therapy since 2004

Who can benefit from SCP neurofeedback?

- adolescents and children over 6 years with attentional and impulsivity problems
- clients with all known subtypes of ADHD
- clients wishing to reduce or eliminate their intake of psychostimulant medication

* Please refer to the studies listed on the back.





THERA PRAX® MOBILE system: a certified medical device

The complete THERA PRAX® MOBILE comes with:

- DC-EEG amplifier, therapist screen, feedback
 screen
- software packages for feedback, analysis, online correction of eye and muscle artefacts
- keyboard, mouse, accessories, electrodes
- optional: neuroConn-Explorer software for frequency neurofeedback
- optional: biofeedback extension incl. sensors for GSR, pulse curve, temperature, respiration, heart rate

SCP: An evidence-based protocol to treat ADHD

SCP is a clinically evaluated neurofeedback protocol which uses standardized electrode configurations and feedback parameters. It is therefore a simple-to-apply intervention for practitioners in daily clinical application, easily integrated with a standard clinical routine.

Lasting treatment results are usually achieved after 25 to 40 sessions of approx. 45 minutes. Effective SCP training combines feedback as well as transfer trials, allowing the client to apply their acquired self-regulation in every-day situations. Standardized protocols are also available for SMR, theta/beta feedback and other applications.



Am Freitay, den 47.2006 ereignetes Bahnhofstraße in Oberhaching ein B

Gegen 1130 CAR hatte ein Schlenh che kreisspurkasse in Oberhachin Der Bewahl nete Mann Ratte eine mütze , einen dunklen Schal undei Anzug an Pertäterbesals einen Sch Die ungefähr 10.000€ transporti Einhaufstite aus Reustik. Der 1

Writing pattern of a pupil before (left) and after 10 months of therapy with SCP neurofeedback (right) - without additional motor training

At www.neurocaregroup.com, in the Therapists/ Technology section, you will find detailed information about the method and other possible therapeutic applications.

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Excerpt from the German S3 guideline "AD(H)D in children, adolescents and adults" (06-2018)

When neurofeedback is used, it should:

- be trained using well-studied protocols; these include theta-beta ratio feedback over the frontocentral region, sensorimotor rhythm (SMR) over the motor cortex, or slow cortical potentials (...) over the parietal region (...)
- be trained for a sufficiently long time
- Recommendation: without COI 91.67% all 92.0%.
- Quality of evidence: Moderate
- strong recommendation, ++, A

Overview of key publications on neurofeedback in ADHD

- clinical improvements in behaviour and in attention related brain activity Arns M. et al., Biol Psychol., 2014
- equal treatment outcome of SCP and theta/beta training Leins U. et al., Appl Psychophysiol Biofeedback, 2007
- long-term effects after 6 months and 2 years: Strehl et al., Pediatrics, 2006; Gani C. et al., Int J Bioelectromagn, 2008
- confirmation of equal effects in adults with ADHD: Mayer K. et al., Clin Neurophysiol., 2016l., 2016
- large multi-center study demonstrating efficacy and specificity: Strehl U. et al, Front Hum Neurosci, 2017
- Meta-analysis and follow-up on NFB vs. active therapies,
- van Doren et al, Eur Child Adolesc Psychiatry, 2018
- SCP-NFB is a general tool to improve self-regulation in children, Heinrich et al, Psychol Med, 2020
- quantitative review of multicenter RCTs: confirms moderate to large effect sizes and sustainability of standard protocols, Arns et al, Appl Psychophysiol Biofeedback, 2020



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Empowering best practice

The courses of the neurocare academy provide extensive knowledge of the neurophysiological basics, the technical and the practical application of neurofeedback. The courses take place in presence and online.

Learn more about our courses at: www.neurocaregroup.com

You can also find a modular online course on our LMS: Ims.neurocaregroup.com