

Dr. Uwe Gerlach
Neurofeedback Mentalsysteme



> Research Andullation Therapy
Influence on EEG and the Ability to Relax
脑电图

Dr. Uwe Gerlach - Taunusstein - Wiesbaden



The Influence of the Andullation Therapy System – Andullation Therapy – on EEG and the Ability to Relax

> The Author

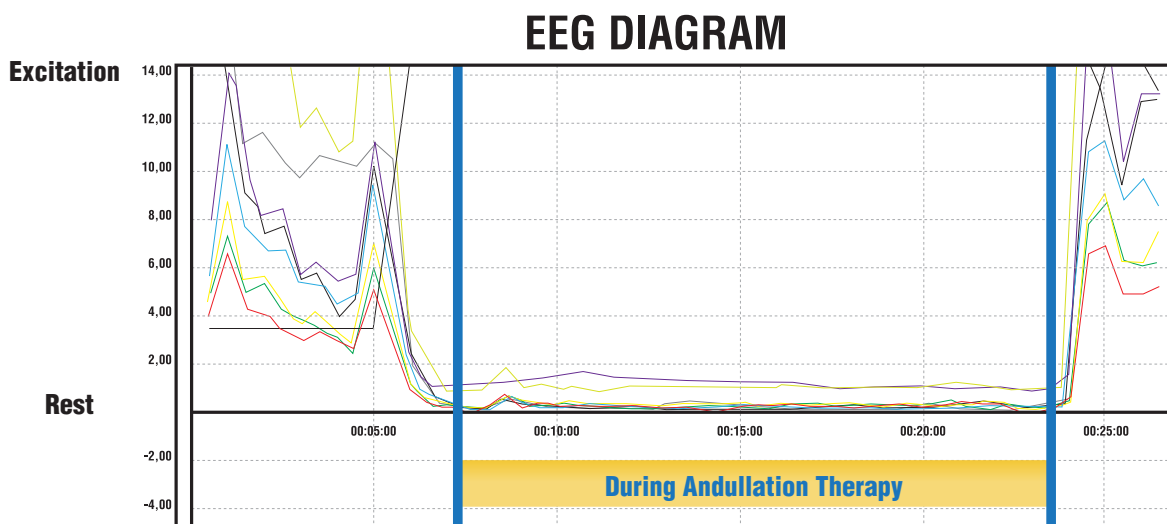
At the time of this study, Dr. Uwe Gerlach was 60 years old. As a physicist specializing in materials science, he carried out research at various research organizations. However, he was also active as a physician in occupational medicine. When he was 40 years old, he had to combat a serious illness, and realized only too well that he had been able to promote his own health particularly by means of very intensive relaxation every day. This gave him the courage and the strength to get his medical problem under control. With his extensive research experience he finally began to concentrate more and more on the investigation of the physiological phenomenon of relaxation. For this reason he engaged in the study of neurobiological technology and audio-visual stimulation and neuro-feedback (EEG-biofeedback). Dr. Gerlach has in the meantime become an acknowledged European authority in both these specialist fields.

> Study Methodology

During a period between May and August 2004 andullation therapy was tested on 50 test subjects in order to investigate the effect on EEG due to the medical hhp massage system, which had been developed for the purpose. The EEG diagrams were registered with the help of three different US Neurofeedback-2-channel-EEGs. All the andullation treatment programmes were tested. The investigation recorded for each test person the brain activity before, during and after the andullation therapy, both using the 1-channel and the 2-channel EEG. The measurement results in six important brain frequency fields were documented in a frequency band trace diagram (see diagram). Also, each person was given a questionnaire in order to evaluate their subjective well-being, their feeling of relaxation and their subjective feelings about stress.

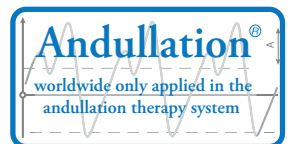
> Findings

In each test person the 15 minutes of andullation therapy on the andullation therapy system gave rise to a significant rest phase in the EEG. After the treatment each test person experienced a very positive effect in their general feeling of well-being. When the andullation treatment was additionally employed regularly thereafter, the capability of relaxing faster and better was also improved.



> Conclusion

Andullation therapy with infrared heat in combination with vibration stimulation over the whole body is an important treatment for being able to relax well. The repetition of this treatment increases the feeling of relaxation. The achievement of perfect relaxation contributes to combating negative stress.



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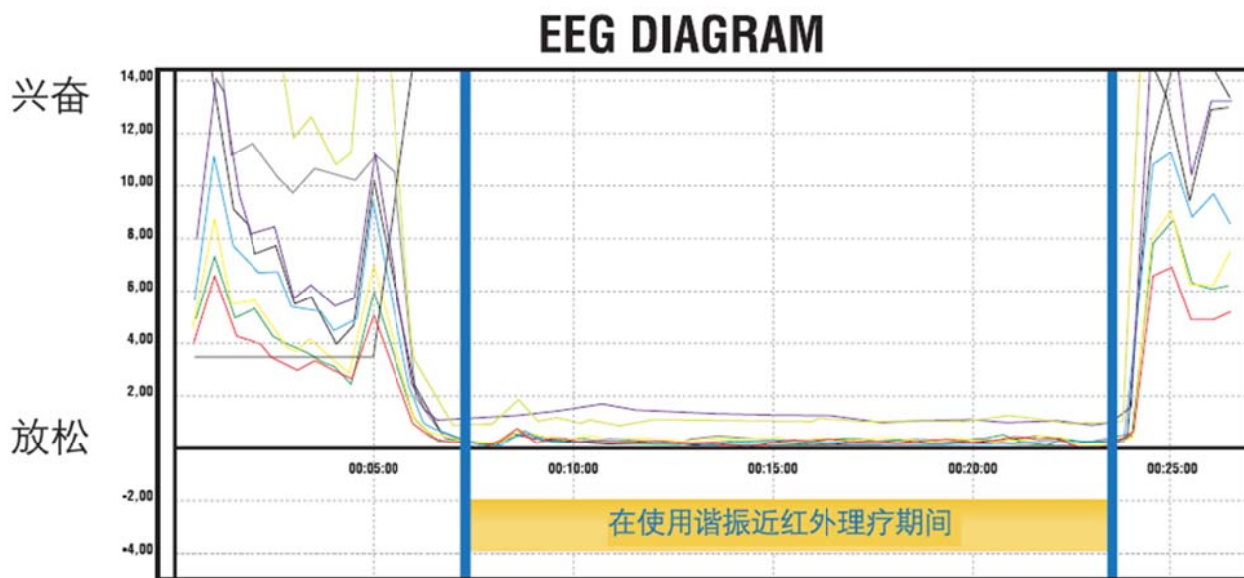
研究谐振近红外理疗对脑电图和放松能力的影响
谐振近红外理疗系统的印象
—谐振近红外—关于脑电图和放松能力

作者

在这项研究的时候，Uwe Gerlach 博士已经 60 岁了。作为一个专攻材料科学的物理学家，他在不同的研究机构都进行过研究。然而，他也积极从事职业医学医师的工作。当他 40 岁的时候，他不得不与一种严重的疾病作斗争，并且非常清楚地意识到，特别是他通过每天高强度的放松，才能够促进自己的健康。这使他有勇气和力量控制住他的疾病。凭借着他广泛的研究经验，他终于开始把越来越多的精力放在研究放松的生理现象上。为此，他从事神经生物学技术、视听刺激和神经反馈（EEG-bio.）的研究。Gerlach 博士在此期间成为欧洲这两个专业领域公认的权威专家。

研究方法

在 2004 年 5 月至 8 月期间，对 50 名受试者进行了雄激素疗法的测试，以调查为此目的开发的医用 hhp 按摩系统对脑电图的影响。在三种不同的 US Neurofeedback-2 频道脑电图的帮助下记录了 EEG 图。对谐振近红外理疗的所有程序都进行了测试。本研究采用 1 频道脑电图和 2 频道脑电图对每位受试者在谐振近红外理疗前、中、后的脑活动进行记录。在频带迹线图中记录了六个重要脑频率场的测量结果（见图）。此外，每个人都接受了问卷调查，以评估他们的主观幸福感，他们的放松感和他们对压力的主观感受。



发现

在每个测试者中，在谐振近红外理疗系统上进行 15 分钟的谐振近红外理疗，导致脑电图出现明显的宁静阶段。在理疗之后，每个测试者在他们的总体幸福感方面经历了非常积极的影响。此后有规律地使用谐振近红外理疗，更快、更好的提高了放松的能力。

总结

谐振近红外理疗是近红外热疗结合全身振动刺激，是放松的重要理疗方法。重复这种治疗会增加放松的感觉。完美放松的实现有助于对抗负面的压力。