

## **Cranial Electrotherapy Stimulation**

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### **What is Cranial Electrotherapy Stimulation?**

**CES (Cranial Electrotherapy Stimulation) is a process which utilizes minute electrical stimulation for therapeutic treatment of anxiety, depression, and insomnia.**

### **What does CES feel like?**

**Applied through electrodes to the area between the mastoids and the jaw, the sensation felt by the individual is normally one of relaxation.**

**Can I use it while I sleep? If there is high stress or anxiety just prior to treatment, the individual may go to sleep while using CES, particularly if in a reclining chair or bed. Sleep at the time of application is not required to benefit from CES, although individuals frequently report an improvement in the quality of their night time sleep.**

### **How does CES work?**

**As with a number of medicines, the mechanism of action (how it works) of CES is not fully understood. Research has led to the hypothesis that it has a mild effect on the hypothalamic area of the brain. Researchers also have noticed rapid increases in serotonin, also associated with relaxation and calmness, and decreases in cortisol, one of the primary stress-related biochemicals. Interestingly, CES also increases levels of norepinephrine and dopamine, both associated with alertness and feelings of pleasure. This may be why so many CES users report feeling both relaxed and alert.**

**What is CES used for?**

**CES was originally developed in the Soviet Union in 1949, its primary focus being the treatment of sleep disorders, hence its initial designation as "electrosleep." Treatment of insomnia, however, has been overshadowed by psychiatric application for depression and anxiety.**