



## CES Case Studies

“ CES is the doorway to good health. It works as an important adjunct in programs invoking nutrients, hormones, and medications. Its multiplicity of health benefits include: induction of relaxation response; exertion of control over frontal lobe behavior; modulating hormone levels; a possible antidote to electromagnetic field radiation. When amino acid supplementation is coupled with CES therapy, this combination is a potentially potent therapeutic regimen for anti-aging. ”

—Eric Braverman, M.D.,  
Director, PATH Medical  
*The Edge Effect*

The following are a few of the many case studies of patients experience with CES. They have been reported directly to us by mental health counselors, psychologists, MDs, substance abuse counselors, and in one instance, a parent, who posted her experience on the net. For purposes of privacy, their identities are not disclosed.

- 35 year old pregnant female: Severe depression
- 45 year old female: General anxiety disorder and agoraphobia
- Multi-Patient Rehabilitation Center: Insomnia
- 16 year old male, Depression and anxiety
- 21 year old female college student, Anxiety
- 14 year old Male: Anxiety, depression, and insomnia

### **35 year old pregnant female. Severe depression.**

L., age 35, was diagnosed with chronic depression. She was being prescribed Prozac for several years, which modulated her mood and prevented suicidal ideations. When she became pregnant her physician was concerned about her fetus while on Prozac. She shared her concern with her therapist who asked me if CES could replace her antidepressant. At the time the therapist and I shared space in a The Family Counseling Center and she would consult with me whenever a patient might warrant CES use if medications were not advisable.

I was skeptical at first about recommending CES because in the literature there had not been any studies of CES treatment during pregnancy. The therapist and I consulted with the physician about this dilemma. He recommended that CES could be safely used for the first and second trimester and not in the third trimester for fear of inducing labor. He had few worries of CES affecting the fetus. His primary concern was L's possible slide into a severe suicidal depression. Without the Prozac he hoped CES treatment would keep her depression under control. The physician began careful monitoring during the first 2 weeks of CES use and was satisfied that no side effects were noted.

The result was encouraging. Just prior to her first having being prescribed Prozac L's depression was quite severe—a 9 on a 10-point scale, 10 being the most depressed, with constant suicidal thoughts. After having been prescribed Prozac she rated her depression a 3, with no suicidal ideations. Once her pregnancy was verified, the physician immediately had her stop taking Prozac (there was a time when Prozac was not recommended during pregnancy) and L. noticed her slide toward a severe depression.

After the physician consulted with the therapist and me, he decided to prescribe daily CES treatment, 30 minutes per day, for the first 2 weeks, then re-evaluated her condition. L complied willingly, along with weekly psychotherapy with her therapist, and rated her depression as 4 or 5 without suicidal thoughts. This rating was slightly higher than what she rated her depression with Prozac but she was not suicidal and her depression was manageable. The physician was satisfied with the CES effects and continued CES until her third trimester at which time he stopped the treatments completely. He kept close observation as L continued to keep her depression in check with weekly psychotherapy. Two weeks into her trimester without CES L rated her depression as a 6 without suicidal thinking. Both the physician and the therapist saw the results they wanted, no severe suicidal depression.

As the birth of her child neared there was some brightness to L's affect. Whether it was a change in her hormones or perhaps just the thought of bringing into the world her own child gave L hope. It was a prayer answered by L and her family to have a healthy child and this prayer was answered one Sunday morning in November, a 6 1/2 pound baby girl. We were all pleased with our effort to keep L psychiatrically stable.

After the birth of her child, L continued with a CES device that she eventually purchased. She was beginning to find CES as a good alternative to anti-depressants and a comforting backup to medications

#### **45 year old female. General anxiety disorder and agoraphobia.**

I have been treating the patient for generalized anxiety disorder and agoraphobia for approximately three weeks. She has been having increasing difficulty with this symptom complex for approximately three years. Stopping the use of nicotine, alcohol, and most caffeine proved not to be therapeutic. She has also had clinical trials of beta blockers and MAO inhibitors without success. In the past, a hypoglycemic diagnosis was made by glucose tolerance test, but a therapeutic diet has not been found effective in stopping this symptom complex. A work-up for mitral valve prolapse, including EKG and ultrasound by a cardiologist has proven to be negative.

With the continuing progress of these symptoms increasingly limiting not only her personal activities but her public related business activities, we elected for a clinical trial of cranial electrotherapy stimulation therapy.

For the first time in three years she is now experiencing uninterrupted sleep of eight to twelve hours duration, depending on her level of fatigue at bedtime. Her anxiety episodes have been reduced by approximately eighty percent. Her depression, though still present, has been reduced by approximately fifty percent and her overall ability to be out of her home, making social contacts of a personal or business nature has improved significantly as well. Given that this therapy has essentially no side effects and has proven to be so efficacious in this patient, I have recommended that she continue daily use of the CES unit, a minimum of 20 minutes per day for at least the next six to twelve months.

#### **Multi-Patient Rehabilitation Center. Insomnia.**

Reestablishing a normal sleep pattern is a significant milestone on a client's road to recovery. Many different factors influence when that will occur: age, lifestyle, drug of choice, pattern of use, state of health, etc.

Many studies have been compiled confirming the effectiveness of using low current electrical stimulation to help promote sleep. Many studies have also been done confirming specific biochemical interventions to help normalize sleep. Our institution can add to these observations since we make use of both protocols, simultaneously.

Before CES arrived, we addressed insomnia by prescribing a variety of natural chemicals: the hormone, melatonin; calming amino acids GABA, L-tryptophan, and taurine; a unique product called Bio-GH Releasers, which helped to stimulate the production of human growth hormone to stimulate a deep restful sleep; the mineral magnesium, often depleted to alarmingly low levels in chronic alcoholics.

Weekly check-ins done in a group setting allows clients to update how well they are sleeping. After CES became part of our standard treatment protocol turn-around time for normalizing sleep was faster. Some generalities can be stated about different addicts. Those who abuse drugs that rob excitatory neurotransmitters (cocaine, amphetamines) generally have no problem sleeping, although, staying awake has sometimes been a problem. Many alcoholics come to rely on a drink to knock them out. Once they become abstinent, sleep becomes a problem, sometimes lasting for several weeks. Using CES, they generally normalize their sleep in two days to a week. The most difficult people to return to normal sleep patterns are those getting off prescription drugs: anti-anxiety, antipsychotic, and sedative drugs in particular. Without CES, normal sleep patterns can elude these people for months. Because it is often necessary to wean off these potent drugs, it takes more time before sleep normalizes for them; however, with CES and specific biochemical repair, most return to normal sleep within three weeks.

### **16 year old male. Depression and anxiety.**

Thirty Day Clinical Trial of Cranial Electrotherapy Stimulation in Adolescent Patient with Depression, Anxiety and developmental deviation with hyperkinetic element.

J. is a sixteen year old Caucasian male with a history of psychiatric treatment including medication intervention for developmental deviation with a hyperkinetic element. His history of school functioning had been very poor with low motivation to succeed. His father reports that Justin would often experience feelings of anger and anxiety with behavioral acting out. During the initial psychological evaluation he had great difficulty attending to tasks presented to him, was emotionally labile, and on a measure of depression he scored at the 24th percentile, while on a measure of anxiety he scored at the 2nd percentile with present moment (state) anxiety and at the 27th percentile with general proneness (trait) anxiety. On the Wechsler Adult Intelligence Scale-Revised (WAIS-R) Full Scale intellectual functioning was in the Average range (Full Scale IQ = 96) with verbal area functioning in the Low Average range (Verbal IQ = 81) and performance area functioning in the Superior range (Performance IQ = 122).

After thirty days daily usage of at least forty-five minutes with the CES device he was again administered a psychological evaluation. On the same measure of depression Justin scored at the 1st percentile, while on the same measure of anxiety he scored at the 3rd percentile with present moment (state) anxiety and at the 16th percentile with general proneness (trait) anxiety, a noticeable decrease with his levels of depression and trait anxiety. On the WAIS-R Full Scale intellectual functioning was in the High Average range (Full Scale IQ = 111) with verbal area functioning in the Low Average range (Verbal IQ = 88) and Performance area functioning in the Very Superior range (Performance IQ = 139).

Higher scores in the Verbal, Performance, and Full Scale areas indicated a gain of more than three standard deviations which by chance alone would occur in less than two in ten thousand cases ( $p < .0002$ ). He was observed to be much more at ease with a noticeable improvement in his affect and cooperativeness as well as his ability to not only stay on task, but more motivation to do well with tasks. His mother stated that his ability

to tolerate difficult situations and tasks was greatly improved as was his mood and that it was much easier and more pleasant to be around him.

### **21 year old female college student. Anxiety.**

#### CES Clinical Trial of Cranial Electrotherapy Stimulation in Patients with Learning Disability

The patient is a twenty-one year old female college student whose learning disability took the form of hyperactivity turned inward where it emerged as a self punitive hyper-irritability.

Rage states could be triggered by someone in the classroom dropping a pencil nearby, a teaching assistant looking over her shoulder, a nearby student tapping his toe, someone snuffling his nose nearby, students leaving early and letting the door slam, or a teacher lecturing and writing on the board at the same time. At such times the patient would sometimes leave the room, go somewhere and cry cathartically in self anger for having become irritable.

Throughout childhood she was often sick, was known for carrying tissues at all times, could not digest her food if she ate just prior to going to school, and could not digest “junk food” snacks eaten during the school day. Anything sweet was a special digestion problem.

She could not mobilize and focus her energy for more than three hours at a time during the day, was always tired, never standing when she could sit, and never walking when she could ride. In any case, she needed to nap every three hours for ten to twenty minutes in order to make it through a school day. This she did by putting three chairs together in the library stacks and seeping on them. Yet she had good learning and memory skills during the few calm moments of her day. She also studied better at night after the family was in bed.

Various treatments were tried with this patient, including visits to other physicians, chiropractors, educational kinesiologists, and holistic therapists. She was given enzymes, thyroid tests, massage for “tight intestines”, brain entrainment audio tapes, vitamin B shots, and work with an “alpha pacer”. The vitamin B helped her energy level when it sagged, the entrainment tapes and “alpha pacer” helped temporarily. Light and sound stimulators were not effective.

A year ago, the patient was introduced to cranial electrotherapy stimulation (CES) which made significant improvements early on. She used it 45 minutes per day at first, then began wearing it also during college examinations. Presently she wears the device twice a day for an hour and a half.

Her hyper-irritability has subsided, her energy level has balanced out, she no longer carries a box of tissues everywhere she goes, and most significantly she is able to concentrate and learn with greater ease. She now gets up in the morning without encouragement, functions well in early morning classes, no longer needs to frequently nap during the day, and is completing her studies with less effort and worry. Her digestive system is functioning normally even as she continues to eat junk food.

She observed early on with the CES and that when the device was in use “it numbed my anger” so on one occasion when she desired to feel anger, act it out, and cry as in the past she refused to wear the CES device until she had finished “having my fit”.

CES intervention was also associated with the cessation of a difficult premenstrual tension syndrome. She reports no further menstrual cramps since using the device and states “I am not witchy anymore” during her menstrual periods. She states that she is no longer bothered by the chronic fatigue that so dramatically affected her earlier learning efforts. Her educational therapist reports she is now functioning normally for an adult college student with superior intelligence.

## **14 year old Male. Anxiety, depression, and insomnia.**

We've been doing a trial w/the CES Unit the past week. The subject was DS, our 14 year old with diagnosed insomnia, anxiety and depression. He used the unit for 20 min. per day, at bedtime.

I would rate the improvement in apparent anxiety and depression to be significant. Anxieties are no longer a major topic of discussion. DS is starting to leave the house on his own for activities other than school. He's walked outside for exercise many days since starting the program. Last night he performed w/his school orchestra and said he didn't feel strung out about it like he usually has in past. He settled down well afterwards, which is a first.

Insomnia has shown moderate improvement. We had hoped for more improvement in that dept., but perhaps we will see this continue over a longer term. DS does like to use it at bedtime, finds it easier to fall asleep. He is no longer asking for a prescription for sleeping pills. But still some early morning waking, etc.

My DH and I find our son more talkative, less defensive, and quite a bit more mellow in the past week. That is something we have not seen for a long time. Irritability has been markedly decreased ... now closer to normal teenage irritability than what we endured before. I suspect the reduced anxiety and reduced depression are contributing to the mellower kid.

Side effects: DS feels dozy after using it. Would not do a treatment just before driver's ed. No negative side effects otherwise noted.

Our family gives CES an "A," and "thumbs up." The unit's positive effect on our anxious, depressed, irritable, insomniac teen has taken a lot of stress off of the entire family. And I must add -- finding a psych doc who gave us a "free" (w/consult) week-long trial period on the device was very helpful before making the full investment in purchase, which we plan to do.