

Audio-Visual Entrainment: From AD/HD to Anxiety to Pain and Much More

AVE means audio-visual entrainment. Gentle and comfortable blinking of soft lights in specially designed eyeglasses and or tones pulsing in the ears at different frequencies from 1 to 25 Hz have a safe and effective influence on brainwave activity. The brain responds to or resonates (mirrors) to the stimuli, being able to speed up or slow down with the stimuli.

As clinical experience grows and research is published, AVE has shown applications for diagnoses of ADD/HD, chronic pain, fibromyalgia, fatigue, anxiety, depression, insomnia, stress, headaches, hypertension, premenstrual syndrome, cognitive decline, and more. Some references are cited below.

Our brains produce “sweeping” electrical charges. These charges create a rhythm know as brainwave patterns, and these patterns are discussed below. You do not need to get caught up on all the details, and please do not try to interpret them as indicative of anything related to you and your health. That is a matter left up to me and professional means of assessments.

Now, these brain wave patterns are observable through electroencephalograph (EEG) instruments. EEGs record and measure large amounts of neurons firing in unison. Brainwave patterns are commonly grouped into four different categories: Beta, Alpha, Theta and Delta. Each of these brainwave patterns are associated with various states of mind.

BETA WAVES

Beta waves are quick, low amplitude waves of 14 to 40 times per second (Hz). Beta brainwave patterns are generated naturally when in an awake, alert state of consciousness. Beta waves are produced when you perform any task that requires you to concentrate.

ALPHA WAVES

Alpha waves oscillate between 8 and 13 Hz. Alpha waves occur during sensorial rest (eg. when the eyes are closed), intellectual relaxation, deep relaxation, meditation or quietening of the mind. Alpha waves are the desired results of meditators. Traditional methods of meditation may require 10 years of practice to produce good alpha waves.

Alpha brainwave rhythms produce:

- (1) peaceful feelings
- (2) warm hands and feet
- (3) a sense of well-being
- (4) improved sleep
- (5) improved academic performance

(6) increased productivity in the workplace

(7) reduced anxiety

(8) improved immune functioning

It is believed that many creative geniuses, such as Einstein, were in a semi-permanent alpha state. Most of these insightful people had poor grades in school and were thought to be slow learners. Perhaps they were too busy creating to pay attention in class.

ALPHA/THETA BORDER

These sessions are the Schumann Resonance and the State Five Meditation. At the Alpha/Theta border (7 to 8 Hz), exceptional insights and personal transforming experiences happen. Anger, resentment or buried, troubling memories from childhood dissolve more quickly.

THETA WAVES

Theta waves are between 4 and 8 Hz. This is commonly referred to as the dream or “twilight” state. Theta is associated with hypnogogic states, REM and dreaming. Memory development is enhanced in this state. In the theta brainwave state, memory is improved (particularly long term memory), and access to unconscious material, reveries, free association, sudden insight and creative ideas are increased. It’s a mysterious, elusive state of mind. For a long time researchers couldn’t study this brain state because subjects had difficulty maintaining this state for any period of time without falling asleep (which generates large amounts of theta).

DELTA WAVES

This rhythm is observed when in a sleeping state. As we fall asleep the dominant natural brainwave becomes delta. Delta waves are the slowest of brainwaves spanning from 1 to 4 Hz in frequency. There is growing evidence that individuals may maintain a slightly conscious state while in delta.

Here is just some of the research relating to the use of light and sound, such as AVE used for those challenged by:

- **Autism** (Woodbury, 1996);
- **Chronic Fatigue Syndrome** (Berg & Siever, 2000; Trudeau et al, 1999);
- **Chronic Pain and Fibromyalgia** (Boersma & Gagnon, 1992; Siever, 1999);
- **Dementia and Cognitive Decline Seniors** (Budzynski & Sherlin, 2002; Siever, in press; Tan et al, 1997);
- **Dental Anxiety and Pain** (Manns et al, 1981; Morse & Chow, 1993; Siever, 2003);
- **Depression in Adults and Seniors** (Berg & Siever, 2005; Kumano et al, 1996; Siever, in press; Tan et al, 1997);
- **Headaches** (Anderson, 1989; Solomon, 1985);
- **Hypertension** (Siever, 2002);
- **Premenstrual Syndrome** (Anderson et al, 1997; Noton, 1997);
- **Psychosomatic Conditions** (Chijiwiina et al, 1993);
- **Seasonal Affective Disorder** (Berg & Siever, 1999; Siever, 2004); and

- **Stroke** (Rozelle & Budzynski, 1995; Russell, 1997).