

## Attune Health Approach to ADD, ADHD and ASD (a Combination of Light and Sound Therapies)

ADD (Attention Deficit Disorder), ADHD (Attention Deficit Hyperactivity Disorder), and ASD (Autism Spectrum Disorder) are conditions that demonstrate a desynchronization of the brain's hemispheres and the deep brain regions of the Default Mode Network (DMN), with a weakening of the Autonomic Nervous System (ANS) stress handling centers. A weakening of the body's physical stress handling ability and the desynchronizing of the DMN, which coordinates sense of self and sense of surroundings with emotional control centers of the hippocampus and amygdala regions of the brain, can lead directly to childhood neurological disorders, aberrant behavior and learning disabilities.

Our approach uses a combination of non-invasive brain hemisphere and DMN resynchronization, an ANS stress-reduction technique to restore integrity to these systems and Photobiomodulation (PBM) therapy to provide the additional cellular energy required to achieve lasting change. Rebuilding the physical stress handling ability of the ANS and re-synchronizing the brain hemispheres and the DMN are critical to restoring the primary neurological stress handling centers, energising and optimising neurological communication networks and reintegrating emotional stability.

## Neuroacoustic Sound Therapy

This therapeutic approach uses precisely tuned sound pulses, pulsing at specific brainwave and DMN re-integration speeds to re-time the biological clock mechanisms of these systems. These therapeutic sounds are delivered through headphones and a custom designed low frequency vibroacoustic chair/couch delivery system.

This Brainwave Entrainment process can also rapidly change one's state of consciousness as the brainwaves and one's state shift from the current state to this new entrained state. This process has varied clinical uses. In the case of ADD, ADHD and Autism, it is useful to entrain an agitated stressful brain pattern to a quiet, relaxed non-stressed state. Continued use of this process begins to exercise the brain's ability to expand the functioning of the targeted brain state. It is like going to an "Inner Gym". We can supply vibroacoustic "pillows" for home use between clinic visits to enhance the brain entrainment process.

## Transcranial Photobiomodulation Therapy (tPBMT)

tPBMT is the use of near-infrared (NIR) light to stimulate the mitochondria of the cells in the brain.



To continue the "Inner Gym" analogy we all know that working out requires extra energy. tPBMT provides the brain with additional energy by stimulating the mitochondria (the energy factories of the cells) to make more Adenosine Tri-Phosphate (ATP) which improves metabolic functioning of the brain cells. This leads to a cascade of changes including increased oxygenated blood flow to the brain, protection of brain cells from damage, reduced inflammation and increased synaptogenesis (i.e formation of new connections of nerve cells).

At Attune Health we deliver NIR light to the brain using a "helmet" with 256 Light Emitting Diodes (LEDs) pulsed at the same frequencies used in the Bio-Tuning process thus enhancing the brain entrainment process initiated by the Bio-Tuning Neuroacoustic Sound Therapy. We can also supply tPBMT devices for use in the home to enhance the benefits and reduce the number of clinic visits required to achieve results.

Our combined therapies provide clients with benefits that will assist in their ability to function in society whether that be at home, school, work or play. The expected benefits include:-

- Decreased irritability
- Lessened lethargy and social withdrawal
- Reduced inappropriate speech
- Lessened stereotypical behaviour
- Reduced episodes of hyperactivity
- Minimized non-compliant behaviour

Please give us a call or book a free consultation if you would like to learn more about what we do and how we can help.

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