## Neurofeedback Training for Depression and Anxiety

Neurofeedback offers a new modality for treating depression which impacts the basic mechanisms by which the brain controls its physiological states. By using biofeedback training a person learns to regulate a normal state of arousal. With EEG training we see all the symptoms of depression begin to normalize. One begins to sleep normally, her quality of thought improves, she becomes more functional and active. In general, a normal range of behavior and affect returns.

Neurofeedback training is effective for depression regardless of how the person became depressed, whether genetically predisposed, early childhood trauma or an emotional experience. As training proceeds the client may find that antidepressant medications are no longer needed. We work with her physician to assure correct monitoring of dose.

Neurofeedback for depression is the process whereby we feed back to the individual information about the way her brainwaves are functioning. By giving immediate feedback, the individual is able to learn how to control her brainwave states which will reflect changes in her behavior and emotions. Emotions are no longer at the mercy of external events.

There is evidence that once a person experiences a depressive episode, subsequent episodes are more likely. Hence, training the brainwaves to remediate depression may have a beneficial effect on making subsequent recurrences much less likely.

The most common use of biofeedback over the past 20 years has been for relaxation and stress management. Stress, both chronic and acute, can lead to various anxiety states. Anxiety states can manifest in a number of different ways – from panic attacks and phobias, to performance anxiety and stage fright, PTSD and dissociation. A threatened brain reacts by being in an overly heightened condition. The problem then begins to compound itself. The person becomes more anxious by observing himself becoming more anxious. He begins to notice his heart beating rapidly or feel other autonomic changes and as he pays more attention, the autonomic changes increase. Anxiety becomes paralyzing. Panic often becomes a self-fulfilling prophecy: fear of having a panic attack often causes a panic attack.

Anxiety is one manifestation of a disregulated brain. The condition is often quite obvious on the EEG screen and is highly responsive to brainwave training. By teaching the brain to regulate itself better, it subsequently functions better in anxiety states, but also in life's normal challenges. Once the brain has been trained to self-regulate, it is no longer as vulnerable to the downward and upward spirals of anxiety and depression.

In doing EEG biofeedback training for anxiety, the individual is shown information derived from his own EEG. The training repeatedly challenges the brain to improve its regulatory processes.

As with much learning, the process of EEG training is largely accomplished at a subconscious level. We don't generally have any awareness of the mechanisms by which the brain regulates its own activity, but we are aware the brain can be trained.

We find that most individuals who undertake the training gain significantly in their ability to control anxiety and panic states so they no longer interfere with the conduct of their normal lives. After completing the training which may take approximately 20 to 40 sessions, no

continuing willful effort is required to control the anxiety or panic state. It happens normally. Based on learning this technique is unlikely to require follow up sessions after completion of the training.