

## **LENS Neurofeedback and EMDR: Integrating Neurobiologically based Interventions**

Ulrich Lanius, Ph.D.

The integration of neurobiologically based Therapies for Complex PTSD and Attachment Disorders is discussed, specifically, the use of LENS Neurofeedback and EMDR Therapy. Both the AIP model, as well as recent research findings support the notion of EMDR Therapy intervening at the neurobiological level. Similarly, neurofeedback can be considered to be a neurobiologically based intervention that attempts to forge adaptive associations among neural networks in the brain.

Recent research in the neurosciences suggests that the brain organizes itself in its oscillatory patterns. People with histories of early neglect and abuse, i.e., developmental trauma, routinely exhibit disorganized and dysregulated brain activity that interferes with effective Adaptive Information Processing.

It is proposed that the addition of LENS neurofeedback during all three trauma treatment phases (stabilization phase, trauma processing, re-integration) can assist in increasing Adaptive Information Processing by directly intervening at the level of the electrical or frequency domain of brain function. The LENS is unique in the field of neurofeedback in that the LENS feedback terminates at the scalp, rather than in a video or auditory display, which is likely more effective in facilitating the brain to re-organize its' physiology

Case studies will be presented to demonstrate how the integration of LENS neurofeedback into the standard EMDR therapy protocol, can further increase the effectiveness and efficiency of EMDR Therapy. The neurobiological rationale for the integration of these techniques with EMDR Therapy is discussed.

Learning Objectives:

1. Participants will become familiar with LENS Neurofeedback including a basic understanding of theory and purported mechanisms.

2. Participants will learn strategies of using LENS neurofeedback during all three trauma treatment phases (stabilization phase, trauma processing, re-integration)
3. Participants will learn about specific LENS neurofeedback protocols designed to enhance EMDR effects.
4. Participants will learn how to apply LENS Neurofeedback as an adjunctive intervention to assist with stabilization and deepen EMDR processing in cases that do not respond or respond insufficiently to the standard protocol.
5. Participants will learn about possible underlying synergistic mechanisms that underlie both neurofeedback and EMDR.