



## New Approaches to Trauma and Brain Injury INDIGO Biofeedback

The effects of traumatic brain injury may include any or all of the following: severe memory loss such as not remembering names or faces of lifelong friends or turning on a burner with a pot and forgetting about it, impaired reasoning skills, paralysis of the limbs, loss of vision, smell, and/or hearing. Speech impairment, and suffering from headaches or seizures. Highly common also are chronic pain, psychiatric disturbances and alterations in behavior, personality, and emotional regulation, as are often seen in Post Traumatic Stress Disorder. (Warriner & Velikonja,2006).

In the last 30 years, incidences of traumatic brain injury have increased dramatically be it from young adults in car accidents, athletic injuries, or wounded soldiers. Brain injury has become a significant medical and societal concern as the costs can be astronomical, financially, socially and emotionally. Approximately 1.7 -2 million people sustain a traumatic brain injury (TBI) annually. A TBI is caused by a bump, blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain; it accounts for 52,000 deaths and 275,000 hospitalizations annually. <http://www.cdc.gov/traumaticbraininjury/> In Canada, 66% of TBI survivors living in the community reported an ongoing need for assistance with some activities of daily living, 75% were not working, and 90% reported limitations or dissatisfaction with social integration. The lifetime costs for one person surviving a severe TBI can reach \$4 million [http://www.caregiver.org/caregiver/jsp/content\\_node.jsp?nodeid=441](http://www.caregiver.org/caregiver/jsp/content_node.jsp?nodeid=441)

Recent best practices models indicate that biofeedback is an advantageous and efficacious means of retraining the brain and nervous systems after trauma. The TOPS program of East Carolina University, utilized biofeedback with wounded warriors suffering from TBI and PTSD and found that biofeedback showed recorded increases in positive mood and interpersonal skills; decreases in pain, agitation, anxiety and panic; and better control of anger for a large majority of their participants. (Carmen Russoniello, PhD, LRT, LPC/ Matt Fish, BS, Jennifer Parks, BS, LRT/John Rhodes,Bennie Stover, BS, Holly Patton,Ginger Gold, EdD,and Tami Maes, LRT, BCIA Biofeedback Volume 37, Issue 1, pp. 12-17)

Luckily, biofeedback is entirely gentle and accessible.INDIGO Biofeedback offers great potential for addressing the stress, pain and anxiety suffered by trauma/TBI survivors. Clients with damaged Central and Autonomic Nervous System responses will benefit from our unique, individualized retraining programs; while learning how to gain better relaxation responses, and control over their physiological reactions. The INDIGO provides unique specialized protocols and individualized reports of stress reactions for each client's optimal education, as well as cognitive and behavioral retraining. While traditional biofeedback and neuro-feedback work exclusively with brain waves or heart rhythms, the INDIGO generates holistic programs designed to retrain emotional as well as physical responses in all areas of the body and mind.

For a personal initial consultation or to find out how to bring INDIGO Biofeedback to your Trauma clinic please visit us or contact:

