

EVIDENCE BASE FOR SYNPHNE

Related Scientific Publications

Evidence Base in Practice

- Andrasik, F., & Rime, C. (2007). Can behavioral therapy influence neuromodulation? *Neurological Sciences*, 28, S124-S129.
- Baehr, E., Rosenfeld, J. P., Baehr, R., & Earnest, C. (2001). Clinical use of an alpha asymmetry neurofeedback protocol in the treatment of mood disorders: Follow-up study one to five years' post-treatment. *Journal of Neurotherapy*, 4(4), 11-18.
- Burke, A. (2003). Biofeedback and the CAM consumer. *Biofeedback* 31(3), 13-15. *Clinical EEG* (2000). Special issue on "The State of EEG Biofeedback Therapy (EEG Operant Conditioning) in 2000." *Clinical electroencephalography*, 31(1), v-viii, 1-55.
- Cannon, R., Congredo, M., Lubar, J., & Hutchens, T. (2009). Differentiating a network of executive attention: LORETA neurofeedback in anterior cingulate and dorsolateral prefrontal cortices. *International Journal of Neuroscience*, 119(3), 404-441. doi:10.1080/00207450802480325
- Davidson, R. J. (1998). Anterior electrophysiological asymmetries, emotion, and depression: Conceptual and methodological conundrums. *Psychophysiology*, 35, 607-614.
- Davidson, R. J. (2000). Affective style, psychopathology, and resilience: Brain mechanisms and plasticity. *American Psychologist*, 55(11), 1196-1214. doi: 10.1037/0003-066X.55.11.1196
- Evans, J. R., & Abarbanel, A. (Eds.) (1999). *Introduction to quantitative EEG and neurofeedback*. San Diego: Academic Press.
- Finniss, D. G., Kaptchuk, T. J., Miller, F., & Benedetto, F. (2010). Biological, clinical, and ethical advances of placebo effects. *Lancet*, 375, 686-695. doi:10.1016/S0140-6736(09)61706-2
- Geyman, J. P., Deyon, R. A., & Ramsey, S. D. (Eds.) (2000). *Evidence-based clinical practice: Concepts and approach*. Boston: Butterworth-Heinemann.
- Gordon, J. (2003, March). Mind-body medicine and the future of health care. Keynote address to the annual meeting of the Association for Applied Psychophysiology and Biofeedback, Jacksonville, FL.
- Greenhalgh, J., Dickson, R., & Dundar, Y. (2009). The effects of biofeedback for the treatment of essential hypertension: A systematic review. *Health Technology Assessment* 2009, 13(46), 1-104. doi:10.3310/hta 13460
- Hammond, D. C. (2006). Quantitative electroencephalography patterns associated with medical conditions. *Biofeedback* 34(3), 87-94. doi: 10.1007/s10484-009-9106- 1
- Lake, J., & Moss, D. (2003). QEEG and EEG biofeedback in the diagnosis and treatment of psychiatric and neurological disorders: An authentic complementary therapy. *Biofeedback*, 31(3), 25-28.
- LaVaque, T. J., Hammond, D. C., Trudeau, D., Monastera, V., Perry, J., Lehrer, P., Matheson, D., & Sherman, R. (2002). Template for developing guidelines for the evaluation of the clinical efficacy of psychophysiological evaluations. *Applied Psychophysiology and Biofeedback*, 27(4), 273-281. Copublished in *Journal of Neurotherapy*, 6(4), 11-23.
- Monastera, V. J., Lynn, S., Linden, M., Lubar, J. F., Gruzelier, J., & LaVaque, T. J. (2005). Electroencephalographic biofeedback in the treatment of attention-deficit/hyperactivity disorder. *Applied Psychophysiology and Biofeedback*, 30(2), 95-114.
- Moss, D. (2003). Mind/body medicine, evidence-based medicine, clinical psychophysiology, and integrative medicine. In D. Moss, A. McGrady, T. Davies, & I. Wickramasekera (Eds.), *Handbook of mind body medicine in primary care: Behavioral and physiological tools* (pp. 3-18). Thousand Oaks, CA: Sage

Evidence Base in Practice

Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (Eds.) (2000). *Evidence - based medicine: How to practice and teach EBM* Edinburgh, New York: Churchill Livingstone.

Thompson, M., & Thompson, L. (2015), *The neurofeedback book: An introduction to basic concepts in applied psychophysiology* (2nd ed.). Wheat Ridge, CO: Association for *Applied Psychophysiology and Biofeedback*.

Wheat, A. L., & Larkin, K. T. (2010). Biofeedback of heart rate variability and related physiology: A critical review. *Applied Psychophysiology and Biofeedback*, 35(3), 229-242. doi: 10.1007/s10484-010-9133-y

World Medical Association (2000). *The Declaration of Helsinki*. 52nd WMA General Assembly, Edinburgh, Scotland.

Overview of Research

Arns, M., de Ridder, S., Strehl, U., Breteler, M., & Coenen, A. (2009). Efficacy of neurofeedback treatment in ADHD: The effects on inattention, impulsivity and hyperactivity: A meta-analysis. *Clinical EEG and Neurosciences*, 40(3), 180-189.

Bembalgi, V., & Naik, K. R. (2013). Comparative study on the efficacy of electromyography and galvanic skin resistance biofeedback in tension type headache: A single blinded randomized controlled trial. *International Journal on Disability and Human Development*, 12(3), 353-361. doi: 10.1515/ijdh- 2012-0116

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 68(3), 438- 450.

Nestoriuc, Y., & Martin. A. (2007). Efficacy of biofeedback for migraine: A meta-analysis *Pain*, 128, 111-127.

Nestorluc. Y., Rief. W.. & Martin, A. (2008). Meta-analysis of biofeedback for tension-type headache:Efficacy, specificity, and treatment moderators. *Journal of Consulting and Clinical Psychology*, 76(3), 379-396. doi: 10.1037/0022-006X.76.3.379

Smelts, R. J. E. M., Beelen, S., Goossens, M. E. J. B., Schouten, E. G. W., Knottnerus, J. A., & Vlaeyen, J. W. S. (2008). Treatment expectancy and credibility are associated with the outcome of both physical and cognitive-behavioral treatment in chronic low back pain. *Clinical Journal of Pain*, 24(4), 305-315. doi:10.1097/AJP.0b013e318164aa75

Taub, E., & School, P. J. (1978). Some methodological considerations in thermal biofeedback training. *Behavioral Research Methods and Instrumentation*, 10, 617-622.

Clinical Efficacy of Biofeedback Therapy: Explanation of Efficacy Levels

Moss, D., & Gunkelman, J. (2002). Task force report on methodology and empirically supported treatments: Introduction and summary. *Biofeedback*, 30(2), 19-20.

Moss, D., & Gunkelman, J. (2002). Task force report on methodology and empirically supported treatments: Introduction and summary. *Applied Psychophysiology and Biofeedback*, 27(4), 261-262.

Chronic Conditions:

Adult Headache

Kang, E. H., Park, J. E., Chung, C. S., & Yu, B. H. (2009). Effect of biofeedback-assisted autogenic training on headache activity and mood states in Korean female migraine patients. *Journal of Korean Medical Science*, 24, 936-40. doi: 10.3346/jkms.2009.24.5.936

Leonardi, M., Steiner, T. F., Scher, A. T., & Lipton, R. B. (2007). The global burden of migraine: Measuring disability in headache disorders with WHO's Classification of Functioning Disability and Health (ICF). *Journal of Headache Pain*, 6, 429-440.

Evidence Base in Practice

Nestoriuc, Y., & Martin, A. (2007). Efficacy of biofeedback for migraine: A meta-analysis. *Pain* 128 (1-2), 111-127.

Walker, J. E. (2011). QEEG-guided neurofeedback for recurrent migraine headaches. *Clinical EEG and Neurosciences*, 42(1), 59-61.

Yucha, C., & Montgomery, D. (Eds.). (2008). Evidenced-based practice in biofeedback and neurofeedback (2nd ed.). Wheat Ridge, CO: Association for *Applied Psychophysiology and Biofeedback*.

Ageing

Camargo E.C., Weinstein, G., Beiser, A.S., Tan, Z.S., DeCarli, C., Kelly-Hayes, M., Kase, C., Murabito, J.M., Seshadri, S. Association of Physical Function with Clinical and Subclinical Brain Disease: The Framingham Offspring Study. *Journal of Alzheimer's Disease* 53 (2016) 1597–1608. doi 10.3233/JAD-160229

Merchant, R.A., Banerji, S., Singh, G., Chew, E., Poh C.L., Tapawan, S.C., Guo, Y.R., Pang, Y.W., Sharma, M., Kambadur, R., Tay S. Is Trunk Posture in Walking a Better Marker than Gait Speed in Predicting Decline in Function and Subsequent Frailty? *Journal of the American Medical Directors Association(JAMDA)*, 2016 Jan;17(1):65-70. doi: 10.1016/j.jamda.2015.08.008

Attention Deficit Hyperactivity Disorder (ADHD)

Arnold, L. E., Lofthouse, N., Hersch, S., Pan, X., Hurt, E., Bates, B., Grantier, C. (2012). EEG neurofeedback for ADHD: Double-blind sham-controlled randomized pilot feasibility trial. *Journal of Attention Disorders*, 17(5> . 410--419. doi:10.1177/1087054712446173

Arns, M., & Kenemans, J. L. (2012). Neurofeedback in ADHD and insomnia: Vigilance stabilization through sleep spindles and circadian networks. *Neuroscience and Biobehavioral Reviews*, 44, 183-194. doi:10.1016/j.neubiorev.2012.10.006

DeBeus, R., & Kaiser, D. (2011). Neurofeedback with children with attention deficit hyperactivity disorder: A randomized double-blind placebo-controlled study. In R. Coben & J. Evans (Eds.), *Neurofeedback and neuromodulation: Techniques and applications* (pp. 127-152). San Diego: Elsevier.

Duric, N. S., Assmus, J., Gundersen, D. I., & Ellen, I. B. (2012). Neurofeedback for the treatment of children and adolescents with ADHD: A randomized and controlled clinical trial using parental reports. *BMC Psychiatry*, 12(1), 107. doi:10.1186/1471-244X-12-107

Lutzenberger, W., Elbert, T., Rockstroh, B., & Birbaumer, N. (1979). The effects of self-regulation of slow cortical potentials on performance in a signal detection task. *The International Journal of Neuroscience*, 9(3), 175-183.

Rockstroh, B., Elbert, T., Birbaumer, N., Wolf P., Duchting-Roth, A., Raker, M., ... Dichgans, J. (1993). Cortical self-regulation in patients with epilepsies. *Epilepsy Research*, 14(1),63-72

Sonuga-Barke, E. J., Brandeis, D., Cortese, S., Daley, D., Ferrin, M., Holtmann, M., ... European ADHD Guidelines Group. (2013). Nonpharmacological interventions for ADHD: Systematic review and meta-analyses of randomized controlled trials of dietary and psychological treatments. *American Journal of Psychiatry*; 170(3), 275-289. doi: 10.1176/appi.ajp.2012.12070991

Steiner, N. J., Frenette, E. C., Rene, K. M., Brennan, R. T., & Perrin, E. C. (2014). In-School neurofeedback training for ADHD: Sustained improvements from a randomized control trial. *Pediatrics*, 133(3), 483-492. doi:10.1542/peds.2013-2059

Anxiety and Anxiety Disorders

Barlow, D. H., Cohen, A. S., Waddell, M. T., Vermilyea, B. B., Klosko, J. S., Blanchard, E. B., & Di Nardo, P. A. (1984). Panic and generalized anxiety disorders: Nature and treatment. *Behavior Therapy*, 15(5), 431-449.

Evidence Base in Practice

Meuret, A. E., Wilhelm, F. H., & Roth, T. W. (2001). Respiratory biofeedback-assisted therapy in panic disorders. *Behavior Modification*, 25(4), 584~605.

Reiner, R. (2008). Integrating a portable biofeedback device into clinical practice for patients with anxiety disorders: Results of a pilot study. *Applied Psychophysiology and Biofeedback*, 33, 55-61.

Roome, J. R., & Romney, D. M. (1985). Reducing anxiety in gifted children by inducing relaxation. *Roeper Review*, 7(3), 177-179.

Scandrett, S. L., Bean, J. L., Breeden, S., & Powell, S. (1986). A comparative study of biofeedback and progressive relaxation in anxious patients. *Issues in Mental Health Nursing*, 8, 255-271.

Arthritis

Baird, C. L., Muraski, M. M., & Wu, J. (2010). Efficacy of guided imagery with relaxation for osteoarthritis symptoms and medication intake. *Pain Management Nursing*, 11(1), 56-65. doi:10.1016/j.pmn.2009.04.002

Morone, N. E., & Greco, C. M. (2007). Mind-body interventions for chronic pain in older adults: A structured review. *Pain Medicine*, 8(4), 359-375.

Zijlstra, A., Mancini, M., Chiari, L., & Zijlstra, W. (2010). Biofeedback for training balance and mobility tasks in older populations: A systemic review. *Journal of NeuroEngineering and Rehabilitation*, 7, 58. doi:10.1186/1743-0003-7-58

Autism

Oberman, L. M., Hubbard, E. M., McCleery, J. P., Altschuler, E. L., Ramachandran, V. S., & Pineda, J.A. (2005) EEG evidence for mirror neuron dysfunction in autism spectrum disorders. *Cognitive Brain Research* 24, 190-198.

Pineda, J. A., Brang, D., Hecht, E., Edwards, L., Carey, S., Bacon, M., Futagaki, C., Suk, D. Tom J., Birnbaum, C., & Rork, A. (2008) Positive behavioral and electrophysiological changes following neurofeedback training in children with autism. *Research in Autism Spectrum Disorders*, 2(3), 557-581. Doi: 10.1016/j.rasd.2007.12.003

Pineda, J.A., Carrasco, K., Datko, M., Pillen, S., & Schalles, M. (2014) Neurofeedback training produces normalization in behavioral and electrophysiological measures of high-functioning autism. *Philosophical Transactions of the Royal Society of London Biological Sciences*, 369(1644) 20130183. doi:10.1098/rstb.2013.0183

Cerebral Palsy

Bolek, J. E. (2003). A preliminary study of modification of gait in real-time using surface electromyography. *Applied Psychophysiology and Biofeedback* 28(2), 129-138.

Bolek, J. E. (2006). Use of multiple-site performance-contingent SEMG reward programming in pediatric rehabilitation: A retrospective review. *Applied Psychophysiology and Biofeedback*, 31(3), 263-272.

Bloom, R., Przekop, D., & Sanger, T. (2010). Prolonged electrogram biofeedback improves upper extremity function in children with cerebral palsy. *Journal of Child Neurology*, 25(2), 1480-1484. doi:10.1177/0883073810369704

Cincinnati Children's Hospital Medical Center (2010). Best evidence (BEST). Biofeedback intervention for children with hemiplegic cerebral palsy. *Agency for Healthcare Research and Quality*.

James, R. (1992). Biofeedback treatment for cerebral palsy in children and adolescents: A review. *Pediatric Exercise Science*, 4, 198-212.

Malhotra, S., Pandyan, A., Day, C. Jones, P., & Hermens, H. (2009). Spasticity, an impairment that is poorly defined and poorly measured. *Clinical Rehabilitation*, 23(7), 651-658. doi:10.1177/0269215508101747

Evidence Base in Practice

Schleenbaker, R. E., & Mainous, A. (1993). Electromyographic biofeedback for neuromuscular reeducation in the hemiplegic stroke patient: A meta-analysis. *Archives of Physical Medicine and Rehabilitation*, 74(12), 1301-1304.

Van Dijk, H., Jannink, M., & Hermens, H. (2005). Effect of augmented feedback on motor function of the affected upper extremity in rehabilitation patients: A systematic review of randomized controlled trials. *Journal of Rehabilitation Medicine*, 37(4), 202-211.

Wolf, S., & Binder-MacLeod, S. (1983). Electromyographic biofeedback applications to the hemiplegic patient: Changes in upper extremity neuromuscular and functional status. *Physical Therapy*, 63, 1404-1413.

Chronic Pain

Bennett, R. M. (1999, April). Emerging concepts in the neurobiology of chronic pain: Evidence of abnormal sensory processing in fibromyalgia. *Mayo Clinic Proceedings*, 74(4), 385-398.

deCharms, C. R., Maeda, F., Glover, G. H., Ludlow, D., Pauly, J. M., Soneji, D., ... Mackey, S. C. (2005). Control over brain activation and pain learned by using real-time functional MRI. *Proceedings of the National Academy of Sciences of the United States of America*, 102(51), 18626-18631.

Donaldson, C., Nelson, D., Skubick, D., & Clasby, R. (1998). Potential contributions of neck muscle dysfunctions to initiation and maintenance of carpal tunnel syndrome. *Applied Psychophysiology and Biofeedback*, 23, 59-72.

Diabetes Mellitus

Fowler, J. E., Budzynski, T. H., & VandenBergh, R. L. (1976). Effects of an EMG biofeedback relaxation program on the control of diabetes: A case study. *Biofeedback and Self-Regulation*, 1(1), 105-112.

McGinnis, R. A., McGrady, A., Cox, S. A., & Grower-Dowling, K. A. (2005). Biofeedback-assisted relaxation in type II diabetes. *Diabetes Care*, 28(9), 2145-2149.

McGrady, A., Bailey, B. K., & Good, M. P. (1991). Controlled study of biofeedback-assisted relaxation in type I diabetes. *Diabetes Care*, 14(5), 360-365.

Turkat, I. D. (1982). The use of EMG biofeedback with insulin-dependent diabetic patients. *Biofeedback and Self-Regulation*, 7(3), 301-304.

Hypertension

Chobanian, A., Bakris, G., Black, H., Cushman, W. C., Green, L. A., Izzo, J. L., Jr., ...Rochella, E. J. (2003). The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC VII report. *Journal of the American Medical Association*, 289, 2560-2572.

Henderson, R. J., Hart, M.G., Lal, S. K., & Hunyor, S. N. (1998). The effect of home training with direct blood pressure biofeedback of hypertensives: A placebo-controlled study. *Journal of Hypertension*, 16(6), 771-778.

Linden, W., & Moseley, J. (2006). The efficacy of behavioral treatments for hypertension. *Applied Psychophysiology and Biofeedback*, 31(1), 51-64.

McCarty, R., Atkinson, M., & Tomasino, D. (2003). Impact of a workplace stress reduction program on blood pressure and emotional health in hypertensive employees. *Journal of Alternative and Complementary Medicine*, 9(3), 355-369.

Insomnia

Freedman, R., & Papsdorf, J.D. (1976). Biofeedback and progressive relaxation treatment of sleep-onset insomnia. *Biofeedback and self-regulation*, 1(3), 253-271.

Evidence Base in Practice

Harvey, A.G., & Tang, N.K. (2003). Cognitive behavior therapy for primary insomnia: Can we rest yet? *Sleep Medicine Reviews*, 7(3), 237-262.

Irritable Bowel Syndrome

Mazur, M., Furgala, A., Jablonski, K., Madroszkiewicz, D., Ciecko-Michalska, I., Bugajski, A., & Thor, P. (2007). Dysfunction of the autonomic nervous system activity is responsible for gastric myoelectric disturbances in the irritable bowel syndrome patients. *Journal of physiology and pharmacology. An official Journal of the Polish Physiological Society*, 58(3), 131-139.

Orr, W., Elsenbruch, S., & Harnish, M. (2000). Autonomic regulation of cardiac function during sleep in patients with irritable bowel syndrome. *The American Journal of Gastroenterology*, 95(10), 2865-2871.

Performance Enhancement

Arns, M., Kleinnijenhuis, M., Fallahpour, K., & Breteler, M.H.M. (2008). Golf performance enhancement by means of "real-life neurofeedback" training based on personalized event-locked EEG profiles. *Journal of Neurotherapy*, 11, 11-18.

Baumeister, J., Reinecke, K., Liesen, H., & Weiss, M. (2008). Cortical activity of skilled performance in a complex sports related motor task. *European Journal of Applied Physiology*, 104(4), 625-631. Doi:10.1007/s00421-008-0811-x

Blumenstein, B., Bar-Eli, M., & Collins, D. (2002). Biofeedback training in sport. In B. Blumenstein, M. Bar-Eli, & G. Tenenbaum (Eds.), *Brain and body in sport and exercise: Biofeedback applications in performance enhancement* (pp. 55-76). Chichester, UK: Wiley

Galloway, S.M. (2011). The effect of biofeedback on tennis service accuracy. *International Journal of Sport and exercise psychology*, 9, 251-266.

Gruzelier, J., Egner, T., & Vernon, D. (2006). Validating the efficacy of neurofeedback for optimizing performance. *Progress in Brain Research*, 159, 421-431.

Repetitive Strain Injury (RSI)

Moore, L. E., & Wiener, S. L. (1996). Hypnotically-induced vasodilation in the treatment of repetitive strain injuries. *American Journal of Clinical Hypnosis*, 39(2), 97-104.

Peper, E., & Gibney, K. H. (2006). Muscle biofeedback at the computer: A manual to prevent repetitive strain injury (RSI) by taking the guesswork out of assessment, monitoring, and training. *Woerden, The Netherlands: FE.*

Peper, E., & Harvey, R. (2008) From technostress to technohealth. *Japanese Journal of Biofeedback Research*, 35(2), 27-34.

Peper, E., Wilson, V. S., Gibney, K. H., Huber, K., Harvey, R., & Shumay, D. M. (2003). The integration of electromyography (SEMG) at the workstation: Assessment, treatment, and prevention of repetitive strain injury (RSI). *Applied Psychophysiology and Biofeedback* 28(2), 167-182.

Spence, S. H., Sharpe, L., Newton-John, T., & Champion, D. (1995). Effect of EMG biofeedback compared to applied relaxation training with chronic, upper extremity cumulative trauma disorders. *Pain*, 63, 199-206.

Stroke

Barclay-Goddard, R., Stevenson, T., Poluha, W., Moffatt, M. E., & Taback, S. P. (2004). Force platform feedback for standing balance training after stroke. *Cochrane Database Syst Rev*, 18(4), CD004129.

Bolek, J. (2012). Quantitative surface electromyography: Applications in neuromotor rehabilitation. *Biofeedback*, 40(2), 47-56. doi: 10.5298/1081-5937-40.2.6

Evidence Base in Practice

- Centers for Disease Control and Prevention. (2005). Disparities in deaths from stroke among persons aged <75 years. - United States, 2002. *MMWR Morb Mortal Wkly Rep*, 54(19), 477-481.
- Dickstein, R. (2008). Rehabilitation of gait speed after stroke: A critical review of intervention approaches. *Neurorehabil Neural Repair*, 22(6), 649-660. doi:10.1177/15459683080220060201
- Glanz, M., Klawansky, S., Stason, W., Berkey, C., Shah, N., Pham, H., & Chalmers, T. C. (1995). Biofeedback therapy in poststroke rehabilitation: A meta-analysis of the randomized controlled trials. *Arch Phys Med Rehabil* 76(6), 508-515.
- Hayward, K., Barker, R., & Brauer, S. (2010). Interventions to promote upper limb recovery in stroke survivors with severe paresis: A systematic review. *Disability and Rehabilitation*, 32(24), 1973-1986. doi:10.3109/09638288.2010.481027
- Horowitz, S. (2006). Biofeedback applications: A survey of clinical research. *Alternative and Complementary Therapies*, 12(6), 275-281. doi:10.1089/act.2006.12.275
- Jorgensen, H., Nakayama, H., Raaschou, H. O., & Olsen, T. S. (1995). Recovery of walking function in stroke patients. The Copenhagen Stroke Study. *Arch Phys Med Rehabil*, 76(1), 27~32.
- Nelson, L. A. (2007). The role of biofeedback in stroke rehabilitation: Past and future directions. *Topics in Stroke Rehabilitation*, 14(4), 59~66.
- Pollack, A., Baer, G., Langhorne, P., & Pomeroy, V. (2007). Physiotherapy treatment approaches for the recovery of postural control and lower limb function following stroke: A systematic review. *Clin Rehabil*, 21(5), 395-410.
- Sandercock P., Algra, A., & Anderson, C. (2009). Cochrane Stroke Group, The Cochrane Collaboration, 2.
- Scianni, A., Butler, J. M., Ada, L., & Teixeira-Salmela, L. F. (2009). Muscle strengthening is not effective in children and adolescents with cerebral palsy: A systematic review. *Australian Journal of Physiotherapy*, 55(2), 81-87.
- Stanton, R., Ada, L., Dean, C. M., & Preston, E. (2011). Biofeedback improves activities of the lower limb after stroke: A systematic review. *J Physiother*, 57(3), 145-155. doi:10.1016/S1836-9553(11)70035-2
- Wade, D. T. (1992). *Measurement in neurological rehabilitation*. Oxford: Oxford University Press.
- Woldag, H., & Hummelsheim, H. (2002). Evidence-based physiotherapeutic concepts for improving arm and hand function in stroke patients: A review. *Journal of Neurology*, 249(5), 518-528.
- Woodford, H. J., & Price, C. I. M. (2007). EMG biofeedback for the recovery of motor function after stroke. *Cochrane Database Syst Rev* (2), CD004585. doi:10.1002/14651858.CD004585.pub2
- Traumatic Brain Injury (TBI) and Post Traumatic Stress Disorder (PTSD)**
- Hoffman, D. A. Stockdale, S., & Van Egeren, L. (1996) EEG neurofeedback in the treatment of mild traumatic brain injury. *Clinical electroencephalography*, 24, 6.
- Thornton, K., & Carrmody, D. (2013). The relation between memory improvement and QEEG changes in three clinical groups as a result of EEG biofeedback treatment. *Journal of Neurotherapy*, 17(2), 116- 131. doi:10.1080/10874208.2013.785183
- Wing, K. (2001). Effect of neurofeedback on motor recovery of a patient with brain injury: A case study and its implications for stroke rehabilitation. *Topics in Stroke Rehabilitation*, 8(3) 45~53.

Evidence Base in Practice

Zorcec, T., Demerdzieva, A., & Pop-Jordanova, N. (2011). QEEG, brain rate, executive functions and neurofeedback training in patients with traumatic brain injury. *Acta Informatica Medica*, 9, 23-28.

Zepek, V. (2002). QEEG brainwave amplitude and coherence values as predictors of cognitive improvement to neurofeedback after moderate-to-severe acquired brain injury. *Journal of Head Trauma and Rehabilitation*, 23(5), 343. doi: 10.1097/01.HTR.0000336856.67692.17