

EEG BIOFEEDBACK CERTIFICATION PROGRAM (1-DAY PROGRAM)

CONDUCTED BY

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AND

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JOINTLY ORGANIZED BY

STRESS MANAGEMENT & RESEARCH CENTRE



AND

**THE INSTITUTE FOR MOLECULAR BIOLOGY AND BIOPHYSICS
(RUSSIAN ACADEMY OF MEDICAL SCIENCES)**

AND

KOLEJ SAINS KESIHATAN BERSEKUTU (SUNGAI BULOH)

AND



EEG BIOFEEDBACK CERTIFICATION PROGRAM

INTRODUCTION

Electroencephalographic (EEG) biofeedback , also known as Neurofeedback or brain wave training, is a form of operant conditioning. It is a tool that helps the individual change levels of electrical activity in the brain, to literally train person's brain to be more functional. It can be a treatment in and of itself or it can be used as an adjunctive procedure to enhance other techniques. Neurofeedback allows the patient to become an active participant in his or her own treatment as opposed to the traditional administration of medication.

Neurofeedback training can alleviate or eliminate symptoms of poor attention, emotional and behavioral symptoms, sleep symptoms, cognitive symptoms, pain symptoms, neurological symptoms, and immune system symptoms. It enhances peak performance by improving readiness and reaction time, decreasing distractibility, and increasing confidence and mental flexibility.

Neurobiofeedback is a safe and painless procedure. Neurofeedback training procedures are based on registration, recording and control of brainwaves of different frequencies.

Electrodes (EEG sensors) are placed on specific sites on the scalp using a gel to detect and record the electrical impulses within the brain. Brain waves are monitored by means of a computer while being viewed by the patient on a display.

When information about a patient's brain wave characteristics is available to him, he can learn to change them.

Several studies have investigated the effects of alpha-stimulating biofeedback training in the treatment of alcoholism, anxiety disorders, depression and stress-related disorders. Results indicate that alpha training reduces chronic anxiety and does appear to have some long range therapeutic effects on anxiety levels. EEG biofeedback contributes to improve self control, more effective concentration, and less acting out behavior.

Research has shown that brain waves in individuals with ADD/ADHD contain excessive slow waves (theta) and not enough fast waves (beta) during activities requiring concentration. During neurofeedback beta stimulation training individuals with ADD/ADHD learns to increase beta waves and decrease theta waves.

The number of sessions required varies with each individual. Progress in alpha-stimulating training may be seen after 8-10 sessions. For ADHD training it takes 40-60 sessions to achieve stable results. However, once the brain learns to regulate itself, it continues to do so on an ongoing basis.

OBJECTIVES

1. Education on the basic principles, theories and application of EEG Biofeedback (Neurofeedback).
2. Introduction to the BOSLAB Neurofeedback System for treatment of psychosomatic symptoms, motor disorders, AD/HD and stress management.
3. Conducting practical sessions with BOSLAB Neurofeedback System

PROGRAM OUTLINE

1-DAY

Introduction to the basics of EEG biofeedback
Physiology of EEG signal
Brain electrical rhythms: <ul style="list-style-type: none">• Alpha• Beta• Theta
Components of BOSLAB Neurofeedback System: <ul style="list-style-type: none">• Hardware (Instrumentation)• Software (BOSLAB Program)• Structure of BOSLAB EEG biofeedback training course: aims, procedure, schedule, and assessment
BOSLAB Applications (Alpha-stimulating Training) <ul style="list-style-type: none">• Use of alpha training in the treatment of psychosomatic symptoms, motor disorders and stress management<ul style="list-style-type: none">• Clinical outcome, precautions and contraindications<ul style="list-style-type: none">• Practical session with a patient
BOSLAB Applications (Beta-stimulating Training) <ul style="list-style-type: none">• Use of beta training in the treatment of AD/HD disorder<ul style="list-style-type: none">• Clinical outcome• Precautions and contraindications• Practical session with a AD/HD patient
Practical Exam
Questions and Answers

BRIEF PROFILE OF TRAINERS

DR. OLGA SHUBINA

Dr. Olga Shubina, PhD, graduated from Novosibirsk State Medical University in 1978, completed clinical residency training in psychiatry and psychotherapy in 1982. In 1997 she defended her thesis "Computer biofeedback technology in the treatment of dysthymic disorders accompanied by psychosomatic pathology". Currently she works as psychiatrist-psychotherapist at the Novosibirsk Municipal Hospital, Neurology Department. She holds position of senior scientific researcher at the Institute for Molecular Biology and Biophysics.

Dr Shubina's main interests as a researcher and practitioner are application of biofeedback and neurofeedback in the treatment of affective and psychosomatic disorders (depression, anxiety, ADHD), addictions and alcoholism, hypertension, chronic headache and stress management.

List of Dr Shubina's publications:

- EEG-Training in the Treatment of Addictive Disorders Association for Applied Psychophysiology and Biofeedback / Proceedings of XXVIII Annual Meeting, USA, March, 1997
- Game-based biofeedback as a methodology of preventing stress-induced disorders. Materials of Russian scientific Conference "Medical information systems". - Russia, Taganrog. 2000.
- Biofeedback game training in subjects of type A behavior Models of Health and Illness Behaviour: Abstract Book EHPS 2000. - Leiden (The Netherlands), 2000.
- Depression and biofeedback. Problems of suicidology. - Russia, Tyumen, 2003.
- Biofeedback in the treatment of tension type headache. Biofeedback-4. Theory and practice. - Russia, Novosibirsk, 2002.
- Dynamics of psycho-physiological aspects of addictive behaviour in the course of alpha-stimulating biofeedback training. Bulletin of Siberian Branch of Russian Academy of Medical Science. - Russia, Novosibirsk, 1999, #1.
- Biofeedback in psycho-neurological practice. Bulletin of Siberian Branch of Russian Academy of Medical Science. - Russia, Novosibirsk, 1999, #1.
- Correction of psycho-physiological aspects of addiction using EEG biofeedback (alpha-stimulating training). Biofeedback in medicine and sports. - Russia, Omsk. 2000
- Biofeedback in the treatment of migraine. Journal of Russian stomatology.

2001, #1

- Biofeedback and ADHD syndrome. Prevention of addictive states in children and adolescents. Materials of Russian Conference. Russia, Tomsk. 2003
- EEG biofeedback in the treatment of ADHD syndrome. Journal of Narcology. 2004, #1.
- Biofeedback - instrumental method of psychotherapy. Consilium. 2001, #2
- The application of alpha-theta EEG biofeedback training for psychological improvement in the process of rehabilitation of the patients with pathological addictions Proceedings of XXVII Annual Meeting of AAPB, Albuquerque - New Mexico, 1996
- Biofeedback in the treatment of irritable bowel syndrome. Proceedings of the 10-th annual meeting of OBFP. Vienna, 2006

MS. OLGA LAZAREVA

Ms. Lazareva is currently a Senior Researcher in Biofeedback and Neurofeedback at the Institute of Molecular Biology and Biophysics of the Russian Academy of Medical Sciences, Novosibirsk, Russia. She has been with the Institute since 1997.

Ms. Lazareva has a Bachelor Degree from the Economics Cybernetics Department at the Novosibirsk State University. She also has a Diploma in Social Psychology, a postgraduate study from the Novosibirsk State University in addition to a Certificate in Defectology (a study on children with learning disorder) from the Novosibirsk's Institute of Teacher's Post Qualification.

Ms. Lazareva has completed and was involved in a number of research and studies, which included the following:

- The use of Biofeedback and Neurofeedback for improving academic and sports performance
- Prevention of chronic stress in school students using Biofeedback computer game training
- The use of game-based Biofeedback for preventing stress-induced disorders

She is currently in Malaysia with SMRC as the Biofeedback Specialist

FEE

RM 1,200.00 per participant (including lunch and refreshments)

ABOUT STRESS MANAGEMENT AND RESEARCH CENTRE

We are a company that focuses on improving human function and performance through the use of biofeedback and other advance computer technologies. Our strategic R&D partner is the Institute of Molecular Biology and Biophysics, part of the Russian Academy of Medical Sciences. Our products are used by psychiatrists, psychologists, occupational therapists, and psychotherapists in general hospitals, private hospital and college of occupational therapy

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