



Research Supporting MNRI®

www.MasgutovaMethod.com

2014 © S. Masgutova and Svetlana Masgutova Educational Institute for Neuro-Sensory-Motor and Reflex Integration, LLC. All rights reserved



SVETLANA MASGUTOVA INSTITUTE®
Neuro-Sensory-Motor and Reflex Integration (USA)

MNRI® in Research

The MNRI® approach is based on the results of the research of the effect of the MNRI® exercises and techniques for motor-cognitive development of children with neurodeficits and learning problems. The research studies, both internal and independent, have been carried out by Dr. S. Masgutova and her team and scientific colleagues at different time periods since 1989 and in different countries.

Over 30,000 children and adults were assessed by and went through the MNRI® Program. The study group of 3,650 children went through planned research aimed at several topics on neurodevelopment.

The group of children with Autism – 340 total (out of 3700 that participated in sessions) went through MNRI® research in Poland and IRB approved research in the USA (2011-2012, 2013).

www.MasgutovaMethod.com

2014 © S. Masgutova and Svetlana Masgutova Educational Institute for Neuro-Sensory-Motor and Reflex Integration, LLC. All rights reserved



MNRI® in Research

- Mathematic Statistic research of the MNRI Reflex Assessment Procedure (Prof. Anna Krefft algorithm; Medical Academy of Wroclaw, Poland).
- Research of the brain wave spectrum using the objective methods of EEG, EEGR, Brain Mapping, Evoked Brain Potential, EMG aimed at the analysis of changes in the brain wave spectrum under the influence of MNRI® exercises (340 children from Poland and the USA)
- Audiology research (internal research, 84 children from the USA)
- Studies on physiotherapy aimed at analysis of the effect of the MNRI® exercises on balancing proprioceptive system functioning (174 children from the USA)



MNRI® in Research

- Study on occupational therapy aimed at analysis of the effect of the MNRI® exercises on visual and manual system functioning (114 children from the USA)
- Study on speech development therapy aimed at analysis of the effect of the MNRI® exercises on language comprehension, speech, and communication skills (114 children from the USA)
- Research on the evoked brain potentials oriented on the study of the transmission of the visual and auditory nerves using BAER equipment – (3 year study, 60 children from Poland, USA and other countries)
- Study of the MNRI® influence on motor and cognitive development of children (IRB Research, 114 children from the USA)



SVETLANA MASGUTOVA INSTITUTE®
Neuro-Sensory-Motor and Reflex Integration (USA)

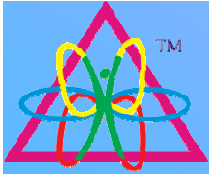
1. EEGR Research. In our research we have addressed the Electroencephalogram (EEGR) pilot study with the aim of finding of the possible effect of the MNRI® Program on the Brain changes. The EGGR study was used before, during and after MNRI® Program procedures.

The tasks for this research was to investigate:

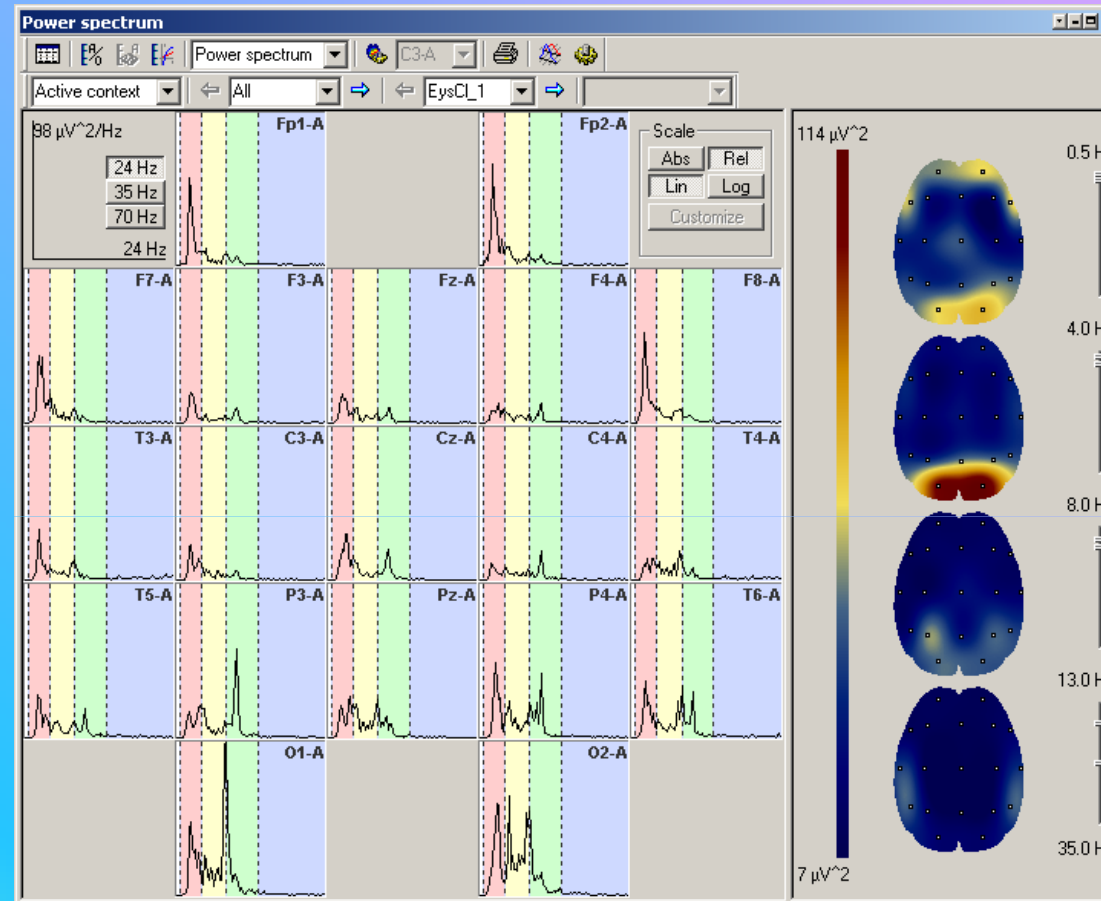
- the brain wave-spectrum development and its adequacy in the child for the level of his/her age development (which can indicate brain maturation),
- possible specific brain wave-spectrum disorders in the child,
- possibilities of MNRI® program to supply the effects of the brain wave changes and analyses of results for Program intervention,
- specific changes in the brain wave-spectrum for children with CP and other developmental deficits.

www.MasgutovaMethod.com

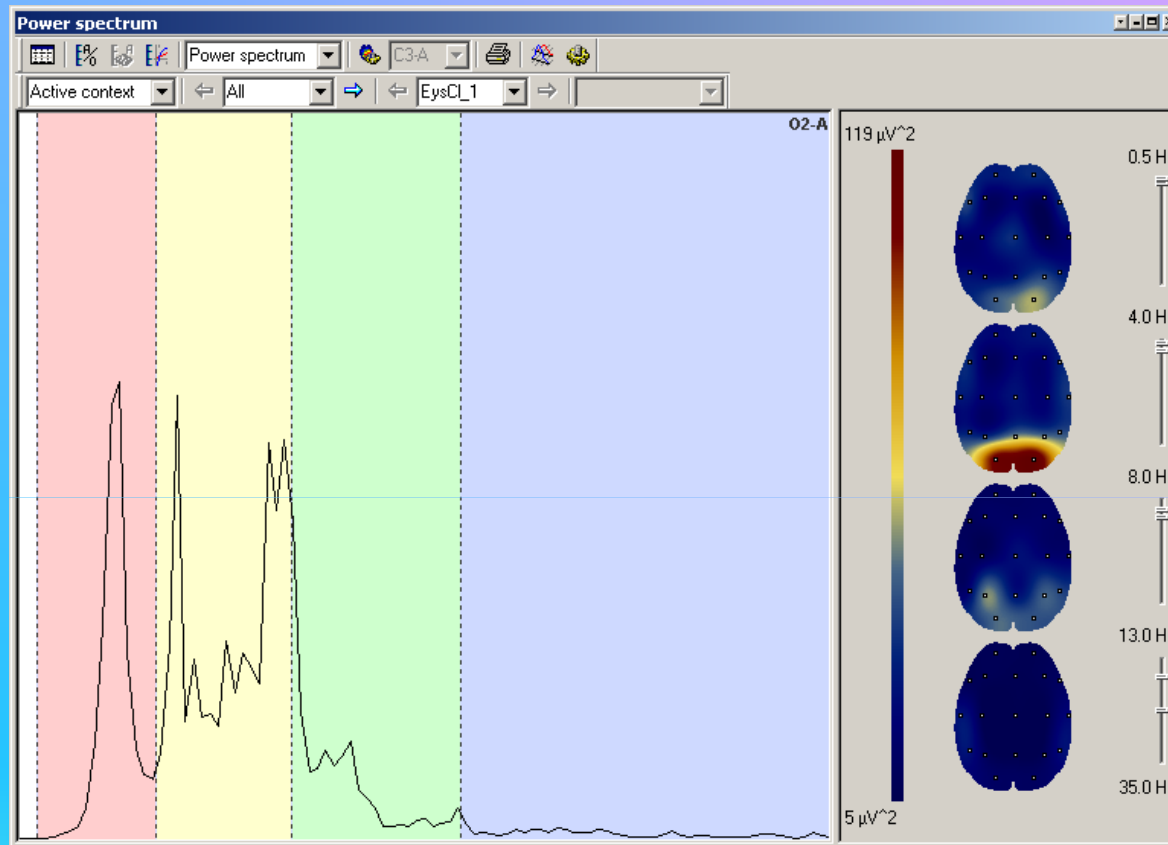
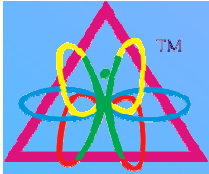
2014 © S. Masgutova and Svetlana Masgutova Educational Institute for Neuro-Sensory-Motor and Reflex Integration, LLC. All rights reserved



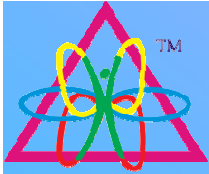
Picture 1. Topography of brain wave spectrum – delta, theta, alpha and beta. Initial background.



In the area of occipital tracks of the EEG in the initial background state of the 6 year old patient we clearly see the theta-rhythm with dominant frequency less than 8 Hz.
(this result shows not corresponding brain development to the age criteria).
On the topography (the second upper picture) we see the maximum of activity in the occipital brain area in the theta- spectrum EEG.

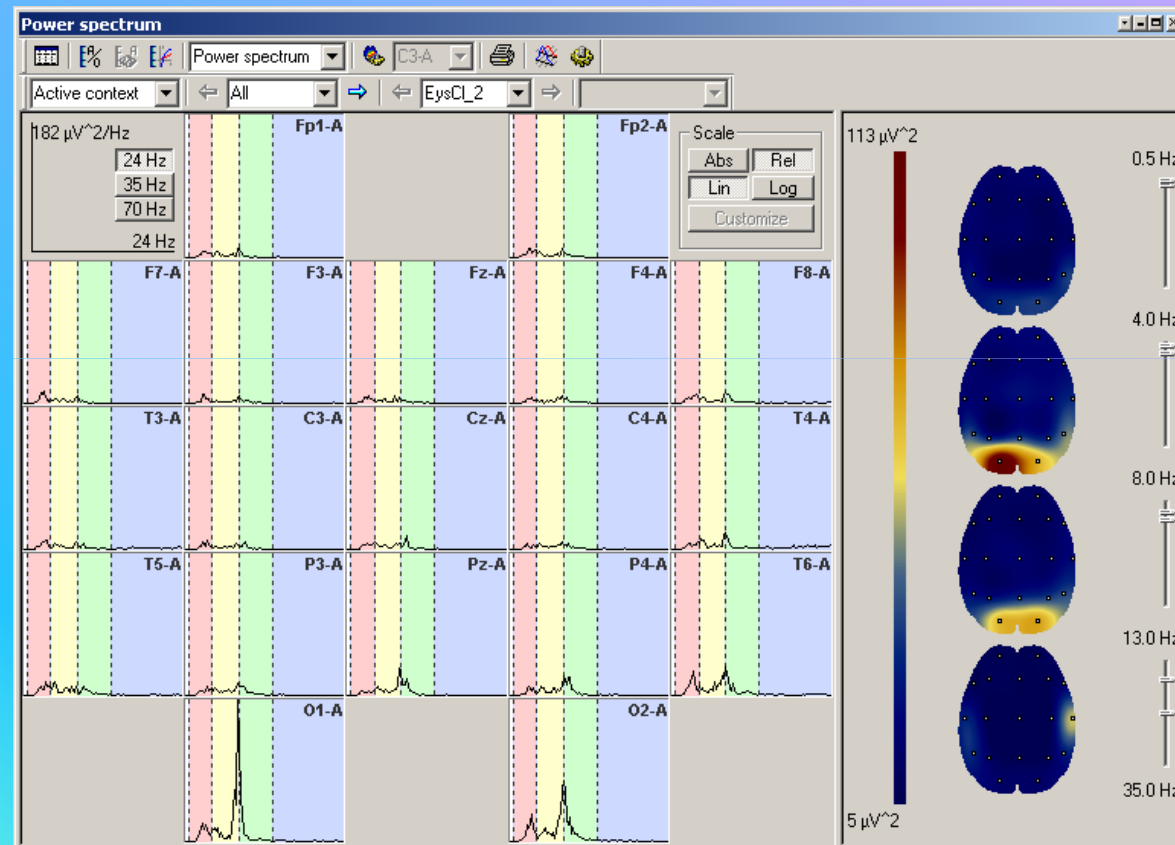


Picture 2. Extended topography of brain wave spectrum in the right occipital EEG electrode (O2) – delta, theta, alpha and beta. Initial background

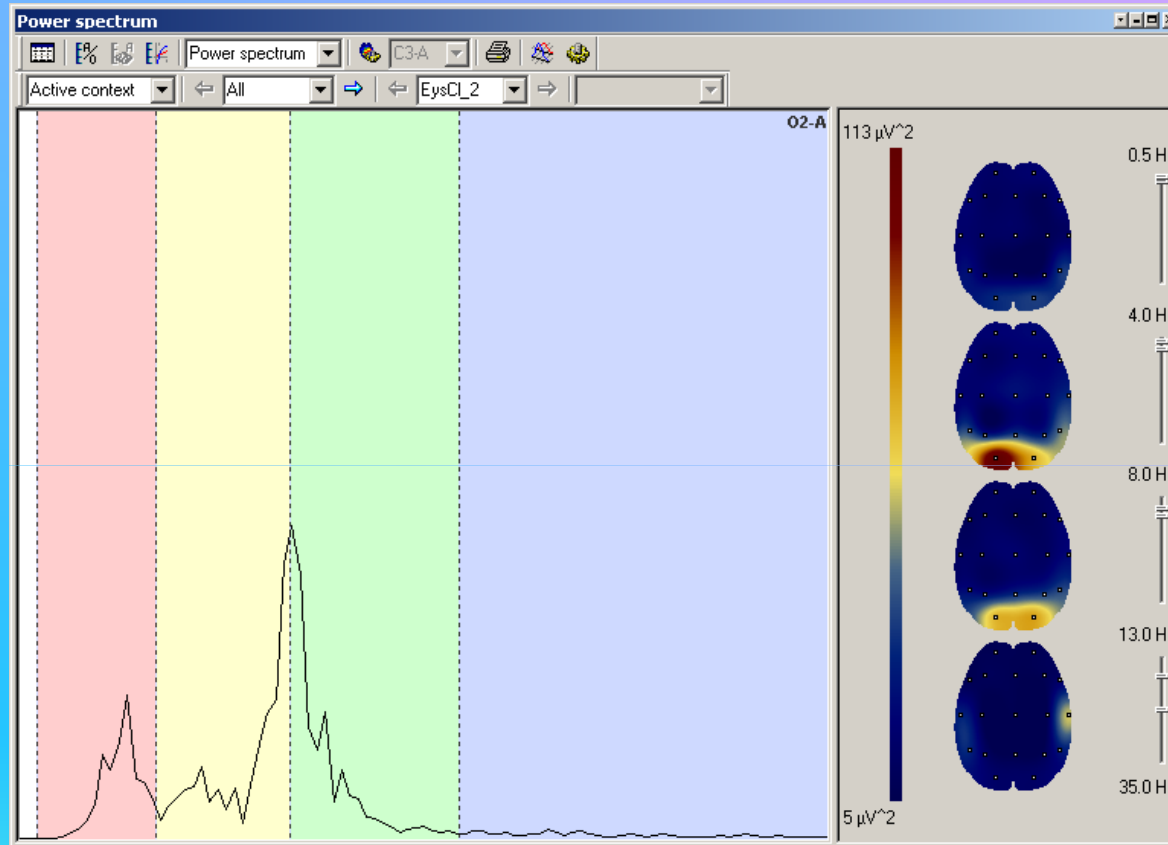
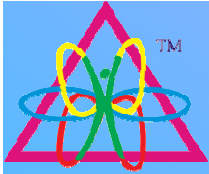


The resulting background

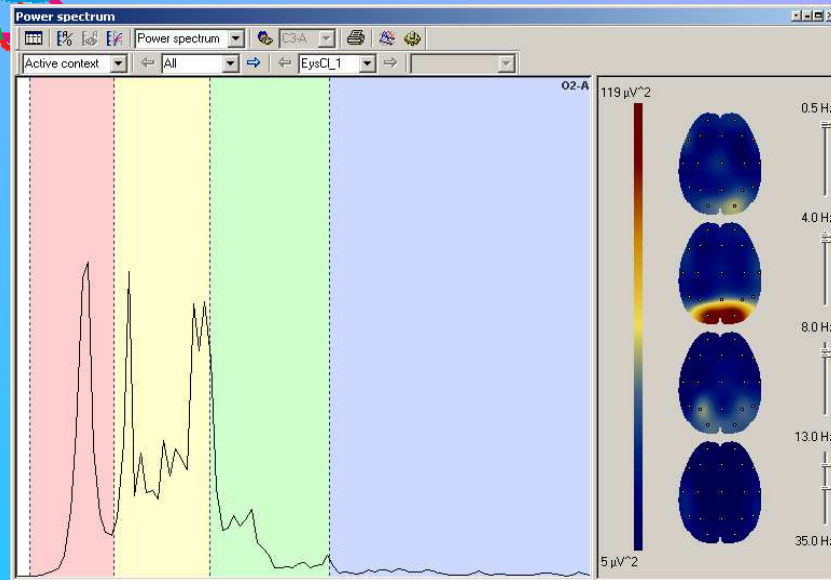
After MNRI Therapy intervention the EEG research procedure has found the tendency for increasing the dominant frequency (the transition for the spectrum in alpha diapason). On the picture we also can see that maximum of activity of both - theta-spectrum and alpha-spectrum EEG in the occipital area (the 2-d and 3-d topography map).



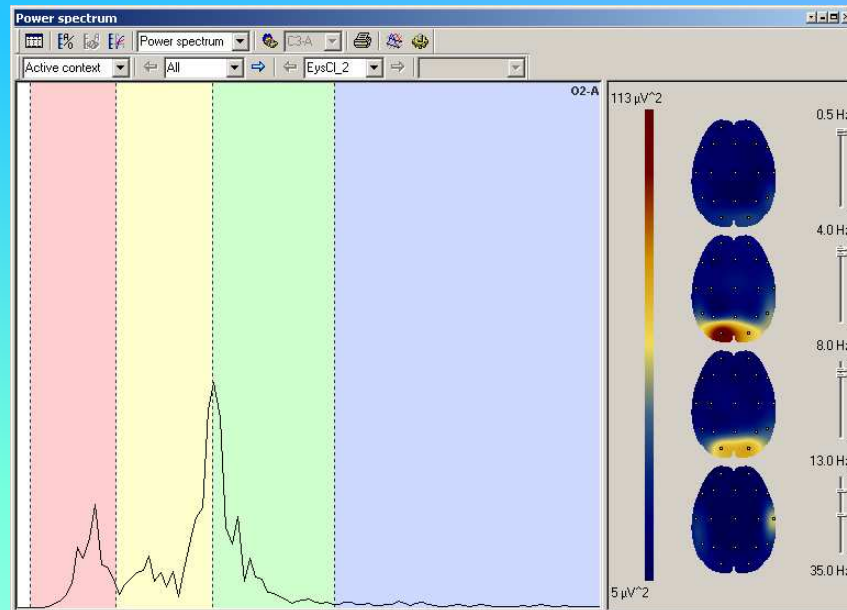
Picture 3. Topography of brain wave spectrum – delta, theta, alpha and beta. Resulting background.



Picture 4. Extended topography of brain wave spectrum in the right occipital EEG electrode (O2) – delta, theta, alpha and beta. Resulting background.



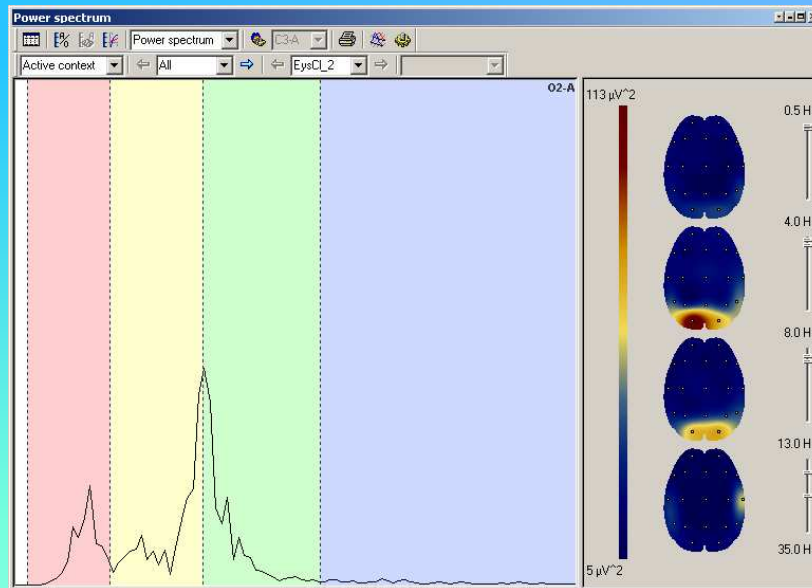
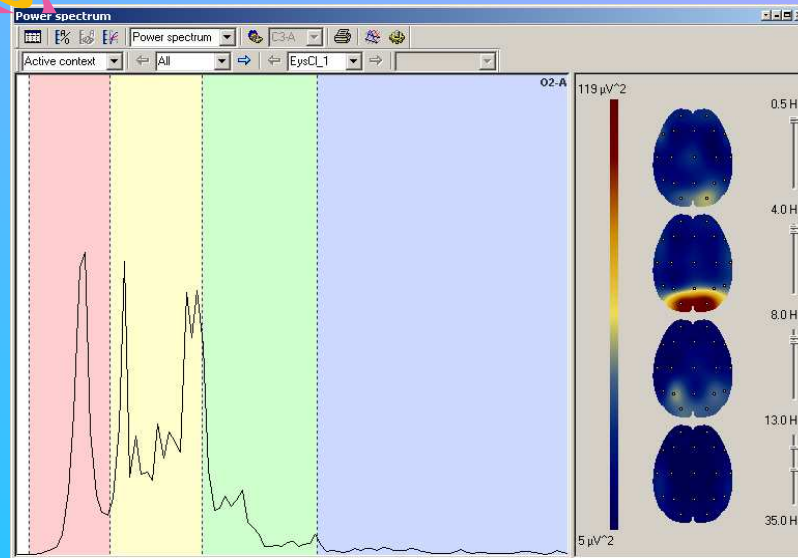
Picture 3. Topography of brain wave spectrum
– delta, theta, alpha and beta.
Resulting background.



Picture 4. Extended topography of
brain wave spectrum in the right
occipital EEG electrode (O2) –
delta, theta, alpha and beta.
Resulting background.



SVETLANA MASGUTOVA INSTITUTE® Neuro-Sensory-Motor and Reflex Integration (USA)



Boy of 4,5, CP.

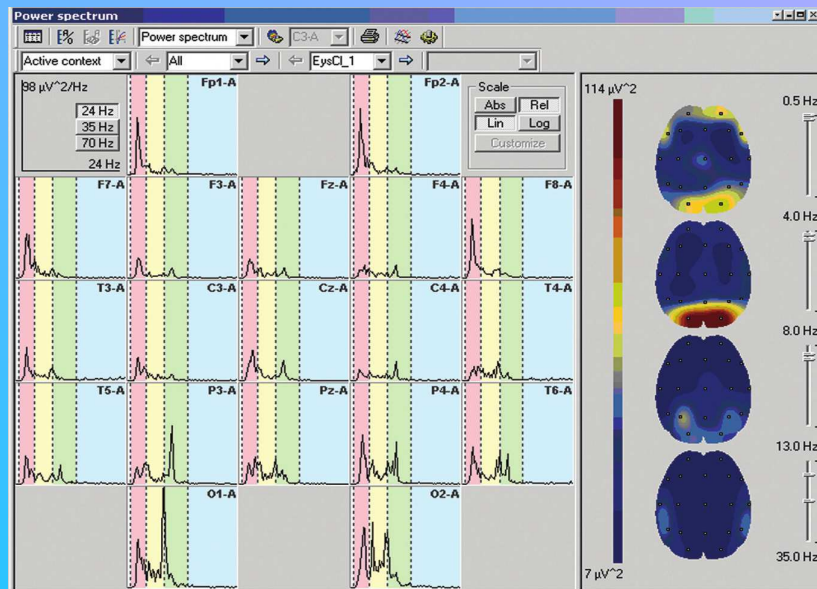
The EEGR test (bioelectrical activity of the brain) results:

The spectrum of brain waves shows the maximum theta wave activity in the occipital area of the brain - dominance of the frequency less than 8 Hz, which indicates the lack of proper brain development (in relation to the age).

The results obtained in the EEGR studies before, during and after the MNRI Reflex Integration showed changes in the alpha brain waves. Results revealed the effectiveness of Reflexes Integration techniques for the growth of brain maturity and improve the functioning of brain wave spectrum.

www.MasgutovaMethod.com

2014 © S. Masgutova and Svetlana Masgutova Educational Institute for Neuro-Sensory-Motor and Reflex Integration, LLC. All rights reserved



Boy of 4,5, CP.

The EEGR test results (before):

The spectrum of brain waves shows the maximum theta wave activity in the occipital area of the brain - dominance of the frequency less than 8 Hz (lack of proper brain development in relation to the age).

Fig 1. Topography of the brain waves spectrum - Delta, Theta, Alpha, Beta.

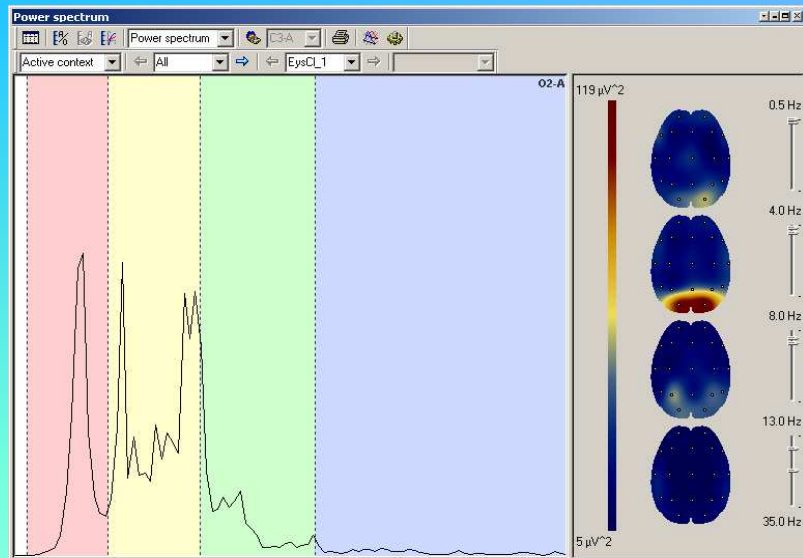
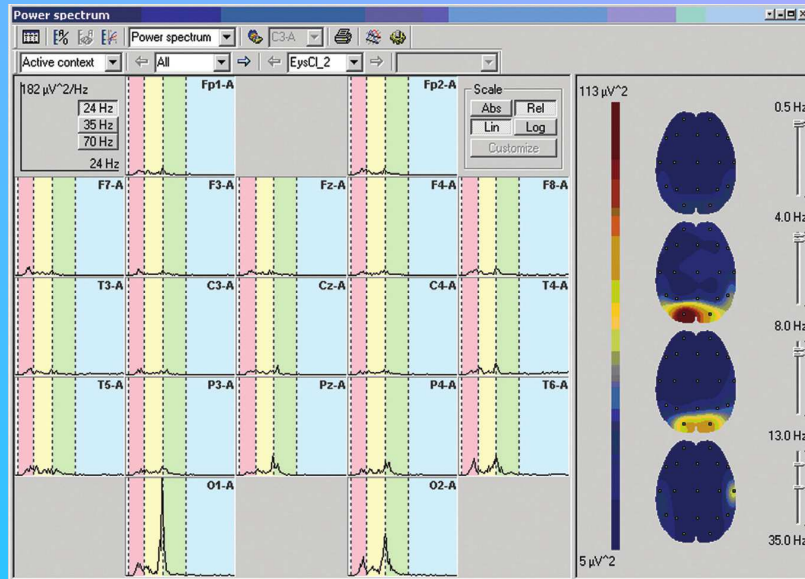


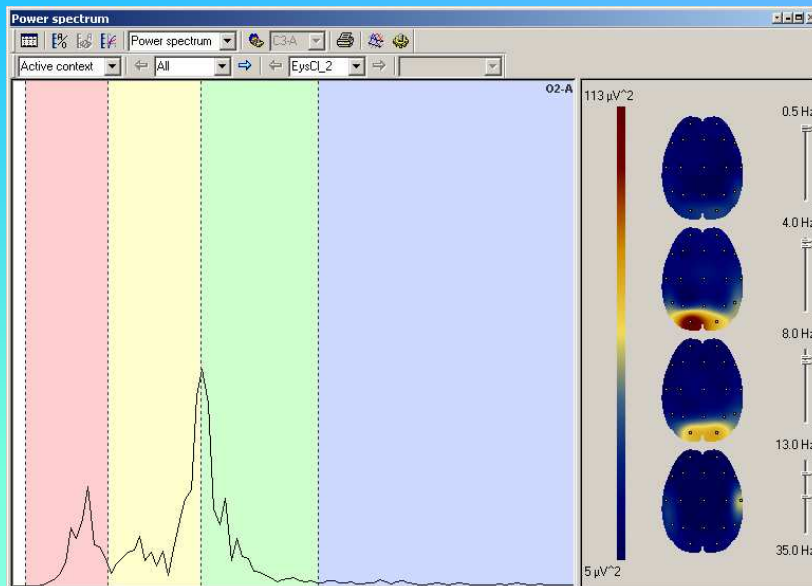
Figure 2. The increase in the topography of the spectrum of brain waves in the right portion of the occipital EEG electrode (02) - delta, theta and beta. The initial image.



Boy of 4,5, CP.

The EEGR test results (after):
 After application of MNRI integration techniques the EEGR test showed a tendency to increase the alpha-frequency waves in brain wave spectrum. The change in activity of two waves - theta and alpha is seen in the occipital area.

Figure 3. Topography brain wave spectrum - delta, theta, alpha and beta. Initial results.



After applying the MNRI techniques the EEGR showed a tendency to improve the overall functioning of the brain.

Figure 4. The increasing in the topography of the EEGR brain waves (O2) electrodes in the right side of the occiput - delta, theta and beta. Basic results.



2. The effects of the MNRI® Program for chronic inflammatory respiratory diseases

We reviewed the medical records of children and adults with chronic inflammatory or atopic diseases (chronic bronchitis) and concomitant OBS.

Observation cohorts involved 196 children aged 2 to 13 years (and 94 adults aged 20 to 60 years) who had undergone inpatient and outpatient treatment in clinical hospitals and later underwent MNRI® Intervention.



Abstract. Chronic inflammatory respiratory diseases, which afflict millions of people worldwide, are caused primarily by ineffective immune system regulation.

Treatment for these diseases has been primarily pharmacologic to date, although some dietary, nutritional, and supplemental therapies have been used.

In our study, we compared the effectiveness of MNRI® intervention, which is based on the neurobiologic activation of the primary motor system and the integration of reflexes, with that of standard treatment of chronic bronchial asthma or chronic bronchitis in children and adults.



The results revealed that MNRI® intervention enhances the effects of standard drug treatment on immune system cells, in particular, normalizing

- the number of T lymphocytes (CD3, CD4, CD8) and NK-cells,
- the metabolic function of leukocytes, and
- the level of regulatory and anti-inflammatory cytokines.