

IMT and Psychosomatic Medicine

BIOCHEMICAL AND IMMUNOLOGICAL EFFECTS OF INTEGRATED MENTAL TRAINING

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NEUROPHYSIOLOGICAL CRITERIA OF INTEGRATED MENTAL TRAINING (IMT)

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SEMINAR – EFFECTS OF LONGTERM SELF-HYPNOTIC TRAINING (IMT)

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Integrated Mental Training (IMT) is a self-instructional, systematic, long-term and evaluated training in order to learn and integrate mental skills and attitudes aiming at Peak Performance and Wellness. It is based on an alternative state of consciousness during which body systems can be controlled, changed and programmed by Mental Processes like Internal Images. Among the changes that happen during and after IMT-training will be mentioned:

1. A significant reduction of the level of cortisol and free fat acids in the blood plasma
2. Decrease of symphathetic-adrenal system activity by a simultaneous and significant increase of the level of endogenic-opiatic neuro-peptides and age-dependent hormone-dihydroepiandrosterone
3. Immunomodulating effects expressed in the normalization of cellular and humoral activity
4. Optimization of the interaction of ergo- and tropho-tropic subsystems of the cortico-visceral self-regulation

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Integrated Mental Training (IMT) is based on a specific and unique state of consciousness combined with alternative systems of control. A decrease of the "reality-testing" makes it possible to influence body systems by means of mental processes (thoughts, images, attitudes, emotions).

The patterns of EEG neuro-mapping and the spectral analysis of EEG point to the fact that the mental training state ("Inner Mental Room") is characterized by the following neuro-dynamic correlates

1. An intensification of theta-activity in antecentral sections of the brain and smoothing of alpha-activity in the frontal-occipital direction.
2. The subsequent analysis showed that the EEG frequency spectrum in retrocentral sections of the cortex represents a set of subdominant and harmonously bound frequencies in the range of delta, theta, alpha 1 and 2 and beta-rhythms. Thus, the polymodal frequency harmonization of cortical bioelectrical activity whose basis may be considered as so-called "golden ratio" or "section divine" (1,618) has been shown to be one of the specific neuro-dynamic correlates of the "IMT-state".
3. The quantitative and the qualitative changes of brain activity during and after IMT-training seems to change the informational system in such a way that the body through decreased "reality testing" interprets internal images as "real". The differences between a "physical event" and the image of such an event seem to diminish or disappear in the "Inner Mental Room". This may be the main explanation for the significant impact which the IMT-training has on various psychosomatic problems.

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The seminar will give an overview of the effects of a longterm and systematical self-hypnotic training (Integrated Mental Training) on areas like Performance (in Sport, School, Stage and Work), Neurophysiology (EEG, Omega Potential), Biochemistry (cortizol, DHEAS etc.) and Immunology (T helpers/T suppressors). The seminar will also show some new and sophisticated methods of measuring human energy

The various investigations, which are covered in this seminar, are based on the Swedish model of Mental Training, from which more than 30 of the training programs have been translated to Russian. The programs have been used and evaluated in Schools, Sport and Health.

The base of IMT-training is the "inner mental room"(IMR), which is an operational definition of an alternative state of consciousness (Self-Hypnosis).

Measurements of the difference between IMR and the "dominant state of consciousness" (waking) have shown that IMR is characterized by:

1. An increase in theta activity
2. A decrease of alpha activity in frequency 10-13 and an increase of frequency 7-9
3. A disappearing of hemispheric assymetry and a synchronisation of total hemispheric activity

Regular use of daily IMT-training for a few months has shown the following effects:

1. Decrease in cortizol levels
2. Increase in beta-endorphine levels
3. Increase of the general immunomodulating capacity
4. Prevention of the reduced immunologi, normally related to overtraining
5. Reversal of the age-related decrease of the DHEAS hormone
6. Increase of self-regulating capacities and homeostatic processes

Among other changes can be mentioned an improvement of the psycho-emotional status, measured by POMS, the Wellness scale, etc.

Many of the investigations have been concerned with the creation of ideal or optimal zones of functioning in regard to sport, school, work or rehabilitation from illness or injury.

Field investigations with the "Omega potential" has pointed to an optimal sport performance zone of 15 to 25 MV, where the difference between topathletes and lower level athletes seem to be in the left hemisphere.

A similar assymetry between the left and right side of the body has also been shown to disappear with IMT-training