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## **A Model of Convulsive Reactions of the Brain According to Neurodynamics**

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The problem of convulsive reactions of the brain has high interest in many fields of medicine. Convulsive activity of the brain occurs in many diseases both of the brain and the body in general.

Investigations of the convulsive readiness and convulsive activity of the brain are more often limited to monitoring the bioelectric activity of the brain (BEAB) by EEG. However, EEG registration with preprocessing of amplitude-frequency data is not sufficient for monitoring the disease, determining the size and duration of convulsive seizures, opportunities for objective control of efficient treatment and prognosis for the disease.

The current level of knowledge about the features of the brain functioning, its bioelectric activity enables to consider in a new way the diagnostic-therapeutic neurodynamic system with a feedback effect, which enables both to model certain situations in the brain, and purposefully to influence certain energy processes occurring in the brain.

Our experience has shown that it is required to create a multidisciplinary project for more thorough study of neurodynamic processes, mathematical modeling of physiological and pathological situations in the brain with the possibility of individually personalized monitoring of convulsive states and foreseeing the effectiveness of treatment and terminating such states.