

## **The clinical role of computerized EEG in the evaluation and treatment of learning and attention disorders in children and adolescents.**

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Quantitative EEG (QEEG) can play an important role in the evaluation and treatment of children and adolescents with attention deficit and learning disorders.

Children with learning disorders are a heterogeneous population with QEEG abnormality in 25% to 45% of reported cases. EEG slowing is the most common abnormal finding, and the nature of the QEEG abnormality may be related to future academic performance.

Children with attention disorders are a more homogeneous population, with QEEG abnormalities in up to 80%. In this population, frontal/polar regions are most likely to show deviations from normal development, with the thalamocortical and/or septal-hippocampal pathways most likely to be disturbed.

QEEG shows high sensitivity and specificity for distinguishing normal children and children with learning disorders and attention disorders from each other and may provide useful information for determining the likelihood that children with attention problems will respond to treatment with stimulant medication.