



Brain scans shed light on ADHD

Images reveal differences in neurological activity

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LONDON, Nov. 21 - Scientists said they have uncovered new clues about the underlying cause of attention deficit/hyperactivity disorder (ADHD), which affects up to 6 percent of children in the United States.

Using high-resolution magnetic resonance imaging scans, Elizabeth Sowell, a professor of neurology at the University of California Los Angeles, and her colleagues found differences in areas of the brain linked to attention and impulse control in children with ADHD.

The disorder is characterized by impulsive behavior, a poor attention span and inability to sit still, follow instructions and complete tasks. There is no cure but medication can decrease the symptoms, along with behavioral therapy.

"These findings may help us understand the sites of action of the medications used to treat ADHD, particularly stimulant medications," said Bradley Peterson, an associate professor of psychiatry at Columbia University, who worked on the research.

Peterson said the findings, reported Friday in *The Lancet* medical journal, could help to develop new treatments.

The researchers compared MRI scans of brains of 27 children and adolescents with ADHD and 46 others. The ADHD children had changes in brain structure in certain areas of the brain.

"The changes are not only in brain regions controlling attention, but also in regions that subserve impulse control. Disordered impulse control is often the most clinically debilitating symptom in children with ADHD," Peterson added.

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