

NEUROPSYCH UPDATE

ISSUE #1 *Diagnosing and Treating ADHD*

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Fall ADHD **A L E R T**

It's School Transition Time

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Welcome

to the first edition of **NEUROPSYCH UPDATE** designed for Bay Area pediatricians and psychologists. As a specialist in the neuropsychological assessment, diagnosis and treatment of children and adolescents, I hope to provide critical support in clinical areas that are often complex and difficult to treat with the involvement of emotional and neuropsychological conditions in conjunction with medical issues.



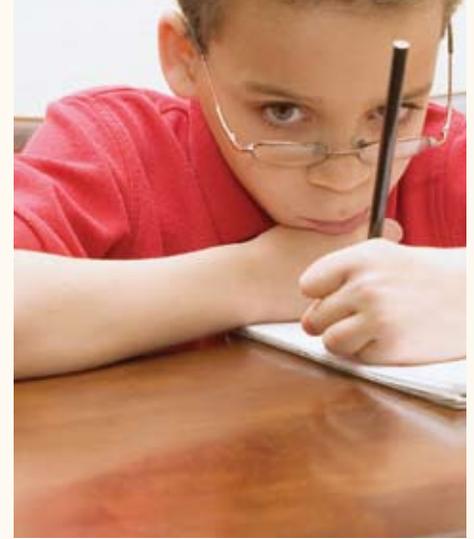
I consult with pediatricians, psychologists, and their patients to implement effective interventions at home and in school by clarifying neurologically based issues and providing comprehensive treatment planning.

I sincerely hope that receiving **NEUROPSYCH UPDATE** in the fall, winter and spring, will be helpful to your practice, providing thoughtful guidelines for diverse issues that arise with patients and their families.

In this first issue, we explore Attention Deficit Hyperactivity Disorder (ADHD), one of the most common neurobehavioral disorders in childhood. According to the Centers for Disease Control and Prevention, nearly eight percent of youth ages 4-17 are diagnosed with ADHD throughout the U.S. – that amounts to more than 4.5 million.

I invite you to contact me with any comments about **NEUROPSYCH UPDATE**.

Dr. Howard J. Friedman, PhD, ABPP



Fall ADHD ALERT

It's School Transition Time

By October, kids showing potential signs of ADHD may begin to present more significant problems. Children with neuropsychological problems like ADHD often display performance problems most clearly during school transition times as they find it hard to adapt, or to manage the increased level of difficulty in school demands.

Other transition issues relate to the beginning of 4th grade, middle school, or high school, due to increases in their workload and in expectations for independent functioning. This is their first major period of testing as they take midterms, and their parents attend their first meetings with teachers and participate in back-to-school nights. In addition, parents may begin logging onto school websites to check their kids' progress, and become aware of issues including missed assignments their kids failed to mention.

Teachers discussing with parents the need for improvement may comment that their kids aren't paying attention, their homework is incomplete, they're starting to fall behind in class, or test performance is problematic.

A few simple questions can reveal critical answers to pursue further assessment for effective treatments: How is the child or adolescent performing in school? Are their parents concerned about incomplete homework? Are they resisting going to school? Are teachers complaining about them to their parents?

NON-MEDICATION OPTIONS FOR ADHD

I'm sure you are asked some of the same questions I receive about non-medication approaches to ADHD. Here is a brief summary of their current status:

NEUROFEEDBACK: Sometimes called EEG biofeedback, this treatment consists of training a person to enhance generation of brain rhythms associated with paying attention. Some research is beginning to be conducted on this approach. (see *Research News*)

MEDITATION: There is no standardized research relating to this as an effective treatment for ADHD. However, anecdotal comments suggest that meditation can have a calming effect, although this option likely has more appeal for adults than children.

COACHING: This approach is also more frequently applied to adults; with children, it would fit into the area of tutoring. The focus is usually on enhancing organization skills and executive functions such as self-regulation, time management, and prioritization.

DIET: There are no controlled studies supporting diet as a treatment regimen for ADHD; in fact, controlled studies have not seen significant effects. However, diet can be impacted by ADHD medications, and some attention needs to be paid to ensure a balanced diet is maintained.

EXERCISE: Exercise has a positive effect on mood, such as combating depression. John Ratey, MD, of Harvard Medical School, suggests that there is evidence of exercise also activating brain regions that impact ADHD.

The only empirically based treatments for ADHD remain medication and behavior management. Behavior management is generally preferred by parents as a treatment option. The difficulty in utilizing it relates to parents' expectations about effectiveness, since many see it as more effective than medication. There is a problem in sustaining parental involvement, because it requires long-term, active efforts to maintain improvement; this can become problematic as initial expectations meet the reality of modest improvement when medication is not also used.



ADHD RATING SCALE

DIAGNOSING AND TREATING ADHD

When parents complain about their child's school performance difficulties and problems with attention, it can suggest ADHD; of course, other conditions may need to be screened as well.

I have found the following ADHD Rating Scale (see sidebar) to be the most efficient initial screening to assess all of the key symptoms. If the results are clearly negative, with fewer than five of the odd or even numbered symptoms, it very likely rules out ADHD and there is no need to use a more extensive questionnaire. You could then explore the possibility of Learning Disabilities or emotional issues that may be undermining the child's performance.

The odd numbered symptoms are the Inattention components of ADHD; the even numbered symptoms are the Impulsive/Hyperactive components.

If you find positive indications from the rating scale, a more extensive medical history is warranted and a diagnosis can be confirmed in the pediatric office. Parents can then be consulted about initiating treatment. If they are concerned about medicating their child without an additional investigation, a neuropsychological evaluation would be well advised, providing quantified data to support the diagnosis and help them pursue the best treatment plan. A thorough analysis of the child's strengths and weaknesses for treatment purposes would also enable enhanced treatment beyond medication. In particular, I have found that the medication treats only the attention problems and does not remediate the associated cognitive/academic limitations that develop as a byproduct of ADHD.

An August 2009 Consumer Reports Health study of 934 parents with children diagnosed with ADHD found that while 67% identified drug therapy as the most effective approach, they also said non-drug strategies worked very well. Their leading strategies for handling ADHD included:

- Switching to a school better suited to help with ADHD (identified as helpful by 45% of the parents)
- Giving one instruction at a time (39%)
- Having a private tutor or learning specialist work with the child (37%)
- Providing structure by maintaining a schedule of activities (35%)

In my experience, adding treatment options can enhance the effectiveness of the medication, and appeals to many parents who would prefer approaches such as school accommodations, behavioral management, tutoring strategies and psychotherapy.

CHILD'S NAME: _____
 AGE: _____ GRADE: _____
 COMPLETED BY: _____

Circle the number that best describes your patient's homeschool behavior over the past six months.

0=Never 1=Very Rarely 2= Sometimes 3=Often

1. Fails to give close attention to details or makes careless mistakes in schoolwork.....0 | 2 3
2. Fidgets with hands or feet or squirms in seat
.....0 | 2 3
3. Has difficulty sustaining attention in tasks or play activities.0 | 2 3
4. Leaves seat in classroom or in other situations in which remaining seated is expected....0 | 2 3
5. Does not seem to listen when spoken to directly
.....0 | 2 3
6. Runs about or climbs excessively in situations in which it is inappropriate.....0 | 2 3
7. Does not follow through on instructions and fails to finish work.....0 | 2 3
8. Has difficulty playing or engaging in leisure activities quietly.....0 | 2 3
9. Has difficulty organizing tasks and activities
.....0 | 2 3
10. Is "on the go" or acts as if "driven by a motor"
.....0 | 2 3
11. Avoids tasks (e.g., schoolwork, homework) that require mental effort.....0 | 2 3
12. Talks excessively.....0 | 2 3
13. Loses things necessary for tasks or activities
.....0 | 2 3
14. Blurts out answers before questions have been completed.....0 | 2 3
15. Is easily distracted.....0 | 2 3
16. Has difficulty waiting his/her turn..0 | 2 3
17. Is forgetful in daily activities.....0 | 2 3
18. Interrupts or intrudes on others..0 | 2 3

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BAY AREA CHILD ASSESSMENT CLINIC



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Comprehensive assessments for:

- Attention Deficit Hyperactivity Disorder (ADHD)
- Learning Disability/Dyslexia
- Autistic Spectrum disorders
- Testing for school accommodations/IEP consultations
- Second opinions for complex cases
- Screening for brain injuries such as sports or accident related concussions
- Behavior changes following serious illness, or emotional problems such as depression, aggression, or anxiety

RESEARCH NEWS

ADHD SYMPTOMS CAN PREDICT INTERNET ADDICTION IN TEENS. More than 10% of teens were classified as internet-addicted, with ADHD symptoms being the most significant predictor of such addiction, followed by symptoms of hostility. Ko, C. et al. (2009), Predictive values of psychiatric symptoms of Internet addiction in adolescents. Arch. Pediat. Adol. Med., 163, 937-943.

CHILDREN WITH ADHD DISPLAY ELEVATED LEVELS OF AGGRESSIVENESS, especially in response to provocation, and they also stay angry longer. This was described as not surprising given the problem of impulse control with ADHD children. Stimulant medication was effective in reducing the tendency of such children to react aggressively to provocation. King, S. et al. (2009), Subtypes of aggression in children with attention deficit hyperactivity disorder: Medication effects and comparison with typical children. J. Clin. Child Adol. Psych., 38, 619-629.

RESEARCH ON NEUROFEEDBACK TRAINING IN ADHD suggests this could be a possible non-medication intervention. The study involved computerized attention skills training with neurofeedback. More than 50% of the children were considered to have responded to treatment, with 25% improvement in symptoms according to parent ratings. Conclusions suggested the treatment was efficacious, but requires further study. A second study examining such programs suggested that the effectiveness was greater in children with more severe ADHD symptoms. Gevensleben, H., et al., (2009), Is neurofeedback an efficacious treatment for ADHD? A randomized controlled trial. J. Child Psych. Psychiat., 50, 780-789. Rabiner, D.L. et al., (2009). A randomized trial of two promising computer-based interventions for students with attention difficulties. J. Abnorm. Child Psych. (online edition).

MEDICATION FOR CHILDREN WITH ADHD IMPROVES ACADEMIC PERFORMANCE when examining a span of several years. However, the extent of improvement is small: by 5th grade, children gained about 0.2 school years for math and 0.5 for reading. Scheffler et al., (2009). Positive association between Attention-Deficit/Hyperactivity Disorder medication use and academic achievement during elementary school. Pediatrics, 123, 1273-1279.