To Medicate or Not to Medicate?
That Is the Question Asked by Parents Each Summer

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With summer upon us, many parents are questioning the need to have their child or adolescent with Attention Deficit Hyperactivity Disorder (ADHD) take their stimulant medication when they are not in school. When trying to answer this question, it is important to remember that ADHD does not just affect individuals when they are in school. While the deficits in ADHD may be most apparent in academic settings, the core symptoms impact all aspects of an individual's life. Through research we are learning more and more about the genetics and brain mechanisms involved but we already know a great deal.

ADHD is related to disturbances in the neurotransmitters dopamine and norepinephrine. In individuals with ADHD, these neurochemicals are under-produced in certain parts of the brain such as the frontal lobes (Wilens, 2006). These areas of the brain are responsible for helping us think before we act, organize and plan, sustain attention to tasks, manage our time, and regulate our emotional responses (Barkley, 2000). While most people focus on the hyperactivity in ADHD, the cognitive and emotional impact of the disorder is often more impairing to individuals than the activity level.

Numerous studies have indicated that when children are on the appropriate medication, there are fewer behavioral problems at home, there are fewer disagreements with friends and siblings, and the child has less irritability. The benefits of medication have been well-documented and reported. Debate continues, however, about the side effects and risks of using stimulant medications. Dr. Russell Barkley, a well-respected research psychologist in the area of ADHD, and others have published a number of studies about the impact of not treating ADHD with medication (Barkley, 2002; Mannuzza & Klein, 2000).

According to Dr. Barkley's research (Barkley, 2002) parental reports indicate that children with ADHD are more likely to have a variety of accidental injuries. Up to 57% of hyperactive ADHD children are reported to be accident prone by their parents, while only 11% of children from the general population are described in the same way. However, children who are hyperactive and impulsive do not have less knowledge about safety. Rather, they forget to utilize what they know to prevent accidents. Unfortunately, this means that knowledge about safety may not be enough to help reduce the accident risks of hyperactive children. Research has shown that children with ADHD have approximately a three-fold increased likelihood of accidental poisoning. Studies have shown that 15.6% of hyperactive children have had at least four serious accidental injuries, including broken bones, lacerations, head injuries, severe bruises, and lost teeth. In contrast, only 4.8% of children in the general population sustain such injuries. At the same time, 68.4% of children with ADHD (and only 39.5% of the general population) have experienced physical trauma sufficient to warrant sutures, hospitalization, or extensive/painful procedures. Bone fractures are also more common in ADHD children.

As children with ADHD grow up and become teenagers with ADHD, these accidental injuries become much more frightening. Adolescents with ADHD who do not have their driver's license are at high risk of taking cars out and driving without a license. For those with a driver’s license, teenagers with ADHD have a significantly greater number of vehicular crashes and a greater
frequency of citations for speeding, than the general population. Nearly 40% of teens with ADHD have experienced two or more driving accidents, compared to only 5.6% of teens without ADHD. In addition, four times more teens with ADHD (compared to teens without ADHD) were at fault in their crashes. The dollar damage from the group of ADHD young adults was estimated to be twice as high as the control group. In the general adult population, 4% of drivers have had their licenses suspended. This figure soars to 24% in adult drivers with ADHD. Interestingly, the hyperactive adult subjects who had been on stimulant medications as adolescents had significantly fewer car accidents than those untreated with stimulants. Most alarming is the statistic that those with ADHD have a 2.5 increase in risk of accidental death or suicide.

But the risks for individuals with ADHD who are not being treated goes beyond accidents that cause physical harm. Summer is a time during when teenagers have less structure and more opportunities for risk-taking behavior. Those with ADHD are much more likely to engage in risk-taking behaviors and to continue in those behaviors even when caught or punished. Those with ADHD begin to experiment with cigarette smoking at a younger age and continue to smoke at a rate much higher than that found in the general population. There is a higher rate of substance abuse in this population (Wilens, 2006) and an earlier age of sexual activity (average age of 15 versus 16) (Barkley, 2002). And those with ADHD are less likely to use contraception than their non-ADHD peers. Success in jobs is also impacted by those with ADHD who are not being treated. Those with untreated ADHD have an increased rate of being fired from jobs (55% versus 23%) (Barkley, 2006).

These findings reinforce the fact that ADHD is not a benign disorder. The good news is, its impact can be curbed with appropriate treatment. The correlation between ADHD and accident proneness is clear. Children and adolescents with co-existing disorders (such as depression or anxiety) are likely at higher risk of accidents than those with ADHD only. Studies have indicated that risk of accidents improves when children and adolescents are on their stimulant medications. This is likely due to improvements in impulse control, desire to engage in risk-taking behaviors, ability to participate in structured activities, and improved attention and alertness. Summertime is a time of increased injury in general. Children and adolescents have more free time, they are participating in more active sports, and they often have less adult supervision. For those children and adolescents with ADHD, summertime is likely to be as important a time – or more important – for use of medication as during the school year. For children and adolescents who have not been diagnosed with ADHD but who have had frequent accidents, summer may be the appropriate time to further investigate the possibility of ADHD and/or other co-existing conditions.

What is the answer to the question, “To medicate or not to medicate?? Experts respond with overwhelming support for appropriate use of medication to treat ADHD during the summer, as well as on school days and weekends.
References:

- National Resource Center on AD/HD (2006). *The new CHADD information and resource guide for AD/HD*. Published by CHADD.