Attention Deficit Disorder

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Attention Deficit Disorder Attention deficit disorder (ADD) is a developmental disability estimated to affect between 3-5% of all children (Barkley, 1990). The disorder is characterized by three predominant features: inattentiveness, impulsivity, and in many but not all cases, restlessness or hyperactivity. The disorder is most prevalent in children and is generally thought of as a childhood disorder. Recent studies, however, show that ADD can and does continue throughout the adult years. Estimates suggest that approximately 50-65% of the children with ADD will have symptoms of the disorder as adolescents and adults (Barkley, 1990).

What Causes ADD
Scientists and medical experts do not know precisely what causes ADD. Scientific evidence suggests that the disorder is genetically transmitted in many cases, and is caused by a chemical imbalance or deficiency in certain neurotransmitters (chemicals that regulate the efficiency with which the brain controls behavior). Results from a landmark 1990 study showed that the rate at which the brain uses glucose, its main energy source, is lower in subjects with ADD than in subjects without ADD. Even though the exact cause of ADD remains unknown, we do know that ADD is a neurologically-based medical problem and is not caused by poor parenting or diet.
From ADD Briefing Paper, National Information Center for Children and Youth with Disabilities, 800-695-0285.

Typical Characteristics of a Child With Attention Deficit Disorder

- Fidgets, squirms, is restless
- Has difficulty remaining seated when required
- Is easily distracted by extraneous stimuli
- Has difficulty awaiting his turn
- Difficulty following instructions
- Difficulty sustaining attention in task or play
- Often shifts from one unfinished activity to another
- Has difficulty playing quietly
- Often talks excessively
- Often interrupts/intrudes on others
- Often does not seem to listen
- Often loses things necessary for tasks or activities
- Often engages in physically dangerous activities without considering possible consequences

According to the Diagnostic and Statistics Manual, version III, revised.

Medical Considerations for Therapeutic Riding
By Colleen Zanin, M.S., OTR

For years, therapeutic riding programs have been a haven for riders with ADD with and without hyperactivity. The triad of symptoms that characterize the hyperactive riders (impulsivity, distractability and hyperactivity) have frequently prevented success in other attempts at organized sports. However, the individuality and novelty inherent in therapeutic riding appears to be a natural medium for these "motor-driven" children.

As researchers gain more knowledge about individuals with this disorder, it becomes apparent that there is a considerable amount of diversity within the scope of attention deficit disorders.

Frequently, children with attention deficit disorder with hyperactivity (ADD/H) also have secondary difficulties with learning or language disabilities, fine or gross motor delays, and behavioral/social problems. Many children with ADD/H are on medication. The school or parents should inform the riding program about the medication so the riding instructor is alert for side-effects and medical problems. As part of the enrollment process in a therapeutic riding program, it is important to consult with the rider's parents, teachers, psychologist, therapist, etc. to develop a more accurate rider profile. Keeping in mind the environment of the riding facility, the nature of horses, and the potential hazards that occur in the setting, it is wise to develop a questionnaire to help you prepare for the rider prior to their arrival. The questionnaire may include questions regarding some of the predominant features of a child with ADD/H (Hanschu, 1997).

Poorly Sustained Attention
Is the rider easily distracted by extraneous noise?
Does he have difficulty organizing tasks?
Does he fail to finish what he started?
Does he seem to "not listen" to directions?
Is he forgetful and frequently loses things?

Impaired Impulse Control
Does he usually act before thinking?
Can he delay gratification, or does he want things now?
Does he blurt out answers in a group?
Can he wait his turn when playing or conversing?
Does he intrude or interrupt others who are speaking?

Excessive "task irrelevant" Activity
Is the rider excessively restless, fidgety, or squirmy?
Does he frequently shift positions?
Does he have difficulty staying seated or waiting in line?
Does he have difficulty with quiet times or quiet tasks?
Does he have difficulty adapting his behavior to the task?

Secondary Psychological Complications
Is the rider developing a pattern of underachieving?
Does he become easily frustrated?
Does he appear sad or depressed?
Does he lose his temper easily?

Once the riding instructor has an accurate diagnosis of the rider and has discussed the results of the secondary deficits with the child's educational team, a lesson plan can be developed. External limits and controls are very important when working with these specific riders. Concrete examples and repeated demonstration will help the rider organize his actions and develop a feeling of security within the therapeutic riding setting. An orientation to the riding facility and to the rules of the facility will help the rider determine the boundaries of the setting. Consistent routines allow the rider to start developing a sequenced approach to this new setting. Posters with rules, lists of procedures, and pictures of grooming/tack supplies are helpful visual cues to assist the rider. Many riders may need one-to-one assistance with grooming and tacking due to their impulsivity and difficulty with remembering how to sequence multi-step tasks. The novelty of the barn with animals, hay, tools, wheelbarrows, etc. may also prove to be great distracters. It may be more beneficial to tack the horses in their stalls than in an open aisle to decrease the amount of distractions during class preparation. The rider may also benefit from reinforced learning by using hand-over-hand training techniques coupled with precise language during grooming and tacking. Predictability is important to riders with ADD/H. Therefore, an established routine helps to allay some of the insecurities that may arise in this environment. Consistent use of leaders, sidewalkers and the same dependable mount will initially help to establish trust as the rider becomes immersed in the "equestrian world."

The long-term goal for most riders with ADD with or without hyperactivity is to become an accomplished rider. This is an achievable goal as long as the proper framework is provided. Initially, a small group is essential to reinforce the principles of a balanced riding seat, proper use of the reins, and independent use of the legs, seat and trunk. Frequently these riders will exhibit subtle motor or sensory delays which may require a longer period of practice and repetition to gain proficiency. The strong sensory input provided by the moving horse helps reinforce the rider's body scheme, which usually results in improved motor reactions (greater ability to follow the horse's movements, improved use of the reins for guiding the horse, greater ability to stabilize the leg underneath the body). As the rider becomes more familiar with the language used in riding (inside, outside, right, left, reverse, change of rein, etc.), he is able to make a spontaneous language/motor match. This process of linking the words with the actions enhances attention and memory. Additional teaching techniques of task analysis (breaking down large tasks into small tasks), and the use of strong proprioceptive input (heavy work, such as standing in the stirrups, pushing hands down on the pommel and cantle of the saddle, the use of weighted props) also helps to reinforce the rider's position in space and proper sequencing of motor tasks.

Many therapeutic riding programs now offer remedial or sports vaulting. This may be an outlet for the more distractible rider who has difficulty with independent control of the horse. The compulsory figures prescribed in vaulting present an ideal opportunity for the rider to learn how to move his body in space. The various positions (flag, kneel, mill, flank and stand) incorporate a variety of motor-planning and proprioceptive opportunities. Learning to work as a team member is an important component for riders participating in a vaulting group. However, the rider with ADD/H may have difficulty waiting his turn and sharing the horse. The instructor may consult with the rider's parent or educational staff to determine if there are specific behavioral interventions that are effective for this rider. It is important to remember that many riders with ADD/H are easily bored by mundane tasks, often lack a "healthy respect" for danger, and may shift gears at a moment's notice.

The following are a few general behavioral interventions that may be effective:
1. Build rapport with the rider from the first lesson. Try to develop understanding and a sense of empathy for his very real difficulties with behavioral controls. Plan ahead to decrease distractions and to offer a novel, quick-paced lesson. Try to arrange for a special "buddy" who will help to monitor the rider, especially if there are several riders in the session.
2. Take time during the initial sessions to teach the behaviors you expect. Often riders with ADD/H have difficulty with inferences. Be very clear with behavioral expectations.
3. Provide positive attention by using the rider's name. Praise specific behaviors ("You are keeping your hands very quiet today. I can see that your horse appreciates it!"). These riders become immune to neutral praise, such as, "good job!"
4. Some riders respond to the instructor's proximity. A rider may respond positively to private attention, but negatively to public attention. Asking the rider to dismount for a "private discussion" is a tool that may be useful if the rider is not paying attention or is starting to take excessive risks.

Many parents of riders enrolled in a therapeutic riding program marvel at their child's newfound skills. The riding center may be one of the first places where their child experiences success and acceptance. The motivating lure of the large, gentle animal, the calm and consistent support of the therapeutic riding team, and the naturally accepting environment of the "stable" provide opportunities for the child to learn and develop. These opportunities may help to turn the often disparaging label of ADD into a child who is Absolutely Delightfully Driven.

References

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