



by Karen Sampson, MA

# ON THE MOVE

## THE DISCIPLINE OF AN ATHLETIC SPORT

can, for some, bring order to a busy mind. For people affected by AD/HD, being active in a sport can help to improve symptoms and build self-esteem and a sense of accomplishment that could be lacking in other areas of their lives.

For seventh-grade student Taylor Tucker of Wyoming, the benefits of wrestling include friends from many different schools and a chance at the governor's award in wrestling. For attorney and former CHADD board of directors member Robert Tudisco, running in the early morning brings more focus to the afternoon.

"When I run, I think of myself as a thought factory powered by the movement of my body," Tudisco says. "AD/HD has always caused a very big separation for me among the things I wanted to accomplish and things I knew I had to accomplish, versus what could be done right now. When I'm running is really the only time that everything really merges together."

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Karen Sampson, MA, writes from Hanover, Maryland.



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Wrestling is the sport of choice for Taylor Tucker of Wyoming.

# THE DISCIPLINE OF SPORT IMPROVES THE OUTLOOK OF SOME WITH AD/HD

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Becoming active in a sport, especially one with an element of risk, such as horseback riding, rock wall climbing, or martial arts, can help one learn to focus and sustain attention in other areas of life, according to Debbie Crews, PhD, of Arizona State University. A kinesiologist whose research has focused on how the brain functions cognitively when young people are engaged in sports, Crews has studied children affected by AD/HD as they learn golf. She also founded and serves on the board of directors of the Hunkapi Horse Program, which offers research-based equine-assisted activities for youth affected by AD/HD and autism.

### Setting a positive tone

Tudisco says he has a greater attention for his work and a more focused approach towards projects when he runs in the morning, as opposed to when he doesn't. "It helps me organize my thoughts," he says. "It helps me to clear my head and figure out a lot of things. Every article I write, I work out while I'm running. If I'm working on a trial I run like crazy. For me when I run, I wake up at the crack of dawn while everyone else is still sleeping and, for the first time, I feel like I'm a little bit ahead. That really sets a positive tone for my day."

Diagnosed with AD/HD as an adult, about ten years ago, Tudisco says the diagnosis clarified some of the challenges in his life. He took an introspective look at the times when things were working well for him and when those same things weren't. It was in reviewing

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**For people affected by AD/HD, experts often recommend athletic outlets that are not necessarily team-based, such as running, golf, or horseback riding.**

his college transcripts that he realized running made the difference for him in his ability to cope with AD/HD symptoms.

“I’d work out at the gym, but if I really had a lot on my mind, a paper or a test, I would run,” Tudisco says. “It didn’t matter what time it was, even 2 o’clock in the morning, I’d grab my shoes and run. When things were going well in college, I realized, I had been running. Based upon my understanding of AD/HD and the effect it has on me, I embraced running again. It has been extremely helpful to me.”

Tudisco often speaks about adult AD/HD at seminars and workshops. Many times he has the opportunity to share his success at controlling his symptoms through running and his prescribed medication. Other adults frequently approach him at the end of the session. “They want to talk with me about this mythical AD/HD diet or that kind of supplement,” he says. “I’m very cautious about that. I tell them that if they want to manage AD/HD, to take up some kind of activity. One of the good things about sports, from my experience, is the movement and what takes place in the body. It has to be something that drives you, otherwise it’s work, and you don’t want to do it.”

### **Achieving goals, making friends**

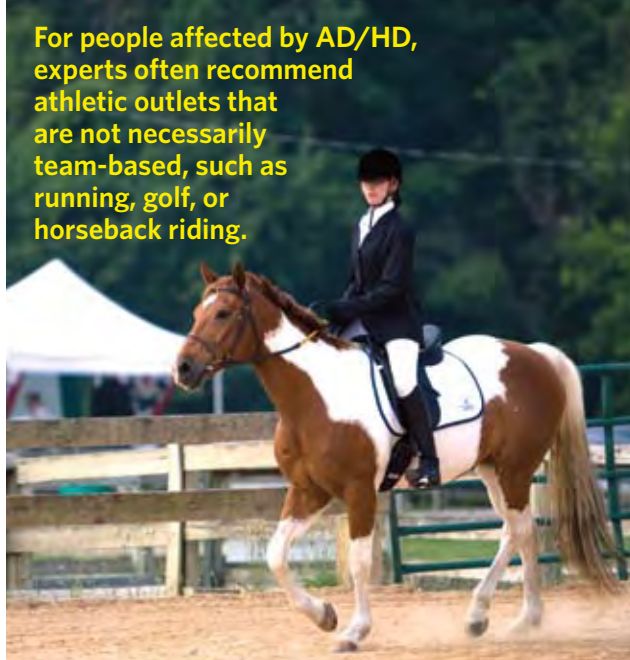
What drives Taylor, the scholar-athlete, is the one-on-one aspect of his sport. “You have no fall-back,” he said. “It’s just you. You have to be with it a lot. You have to condition, you have to be ready and be in shape.”

Taylor’s mother, Wendy Tucker, points out that he has been wrestling since he was five years old. Joe, his father, was a wrestler and is now a coach. “Taylor has always been around the sport because his dad was a wrestler in high school and his older brother Andrew was also a wrestler,” she explained. “Since the time Taylor was little he was running around wrestling meets and watching his brother and others participate in this sport. He started USA Wrestling at the age of five and has loved it ever since. His dad, mostly, and I will travel with him to any place he wants to go for a tournament, and Wyoming is a large state to cover distance-wise. His dad has never missed a tournament and will schedule his work week so that he can go with Taylor to his wrestling events.”

Wrestling has taught Taylor how to set and achieve goals and how to build friendships—important skills for any middle-school student. “If you want to make a goal and achieve it, wrestling is really good for it,” Taylor says. “You have to condition, and the coaches won’t let you stop. You have to be mentally strong.”

“He realizes this is something he does well,” says Wendy Tucker. “He has to work at it but he has some natural ability, too. Taylor’s pretty outgoing anyway, but he really enjoys the social aspect of meeting kids from different schools. They form pretty good friendships. I’ve seen him socially get a lot more comfortable with new kids and grow in the ability to make new friends.”

Taylor’s latest goal is to achieve his state’s governor’s award for wrestling. “The governor’s award is a pretty high award and the best thing



Christine Reno of Maryland enjoys equestrian competition.

we can get,” he explains. “If you’re doing really well that whole year and the judges notice, in every age division there’s a kid who gets the governor’s award. Last year I beat the kid who was third place, so I’ve got a shot.”

Wendy Tucker sees improvement in Taylor’s abilities off of the wrestling mat from his involvement in the sport. “He knows he can set a goal and reach a goal and that he has talent,” she says. “He has things that are easy for him and then, on the other hand, he has things that are challenges. He knows that’s how it is in life: you have some challenges and some natural abilities, and he

gets to experience both of those. He could have taken piano lessons or art lessons, but this seems to fit his personality. It’s an added benefit that he gets to be busy and active, and it does help him at the end of the day. He gets to release some of that extra energy. Taylor understands that to be a student-athlete at the high school level, or even possibly at the college level, will mean that he has to be as good of a student as he is an athlete.”

### **Learning to focus and stay present**

Crews, who is currently working with college athletes at Arizona State University, says she and her colleagues have been studying sports activities for children with AD/HD for some time. “We tested the different interventions and after six years we found that horseback riding was most consistently positive for the challenges of attention deficit, autism, and emotional disorders,” she says. “Golf is often so good and there are plenty of tour players with ADD. Swimming is the other one that’s good for attention deficit because they’re in the pool and it’s quiet.”

Crews is working with a group of young people who are learning to play golf as a way to help manage their AD/HD symptoms. She says she has seen positive results for many of the young people.

“What we have them do is A—aim the ball, B—get yourself balanced, and C—‘camera,’ they have to smile,” she explains. “Those kids play really well. Because if they do A, B and C, the ball will fly for them. But if they get too quick or don’t pay attention, it doesn’t. They get the immediate feedback from the ball: if they focus, the ball will fly for them. The parents always tell me that after golf, they are easier [to deal with] at home.”

Crews compares learning the ability to focus one’s attention to learning how to dial the volume on a radio. The young people in her program begin to recognize when they are calm and focused through the repetition of their sport. “They can learn to turn it up and turn it down,” she says. “They have to use that dial and turn it up and down on their own instead of having the outside world do it for them all the time. For them, to have a routine to focus on every step of the way—walk up to the ball, put things in place—that is a very good skill for the kids to learn. Then the ball will give them immediate feedback. If they catch all those steps, the ball will probably fly pretty well for them. But if they miss one, if they don’t take the time to do the steps, it probably won’t fly very well for them. You have to stay in the present in golf. It’s a hard thing for the kids to do, to be in the moment.”

In Taylor's case, staying present in the moment is when he and his opponent grapple on the wrestling mat. "It's a good sport," he said. "It's my favorite sport."

Wendy Tucker, Rob Tudisco, and Debbie Crews all encourage other young people and adults to find a sport where they can excel as part of their treatment plan for AD/HD. Tudisco and Crews suggest looking for an athletic outlet that is not necessarily team-based, such as running, golf, or horseback riding.

"You've got your reactive sports and your individual self-paced sports," Crews says. For people with AD/HD, team sports, especially where a ball is moving fast, can be difficult. "If they can focus, that's good. Individual sports are easier for them, if they are interested in the sport." She suggests sports such as golf, swimming

and horseback riding for young people but was very interested in Taylor's success at wrestling.

Tudisco would caution adult athletes about competitive sports since frustrations can grow and tempers can fly. "Sports I'd stay away from are ones in which overall aggressiveness and frustration could be an issue," he says. Tudisco recommends yoga, martial arts, and sports that include mindful breathing. And, of course, his own sport of running, which has made a big difference in his life.

"There are days when the sun isn't up yet and I have a lot on my mind, I push off from the curb and don't even feel my feet hit the pavement," Tudisco said. "I'm totally lost in my head; I'm on autopilot. I don't consider it physical exercise so much as mental and emotional exercise." ●

## FINDING A SPORT THAT WORKS FOR YOU OR YOUR CHILD

### ROB TUDISCO REVIEWED *SPARK*:

*The Revolutionary New Science of Exercise and the Brain* by John J. Ratey, MD, for *Attention* in June 2008.\* He says the book brought him a better understanding of how exercise affects the brain and the relationship between exercise and the brain in the context of various brain-based disorders.

"It talks a lot about the actual neuroscience of exercise," Tudisco said. "As I understand it, exercise, in addition to increasing blood flow, also increases the flow of dopamine, which is similar to the stimulant medications."

"Everyone agrees that exercise boosts levels of dopamine and norepinephrine," Ratey writes in *Spark*. "And one of the intracellular effects of these neurotransmitters, according to Yale University neurobiologist Amy Arnsten, is an improvement in the prefrontal cortex's signal-to-noise ratio. She has found that norepinephrine boosts the signal quality of synaptic transmission, while dopamine decreases the noise, or static of undirected neuron chatter, by preventing the receiving cell from processing irrelevant signals.... Arnstein also suggests that levels of the attention neurotransmitters follow an upside-down U pattern, meaning that increasing them helps to a point, after which there's a negative effect. As with every other part of the brain, the neurological soup needs to be at optimum levels. Exercise is the best recipe."

What does this mean when you're looking for a sport for yourself or your child to participate in? Debbie Crews, PhD, suggests looking for individual sports

with a sense of excitement.

Some sports to look into include the various martial arts, such as karate and tae kwon do. Others include running or jogging, swimming, skateboarding, horseback riding, ice skating, rock wall climbing, bicycling, golf, wrestling, tennis and bowling. Crews refers to these as "closed skills" sports, where the player is reliant on just himself rather than needing to keep track of multiple players or sustain attention in an outfield.

"When you have an individual sport where 'I just have to keep track and focus on myself,' it's easier for someone with AD/HD," she says. "I would recommend a 'closed skill' sport for them to be successful and have a good sport experience."

The author of *Spark* also recommends sports that require focus. "For



Rob Tudisco credits running as the best way to improve his attention and focus

AD/HD in particular, the complex, focus-intensive sports such as martial arts and gymnastics are a great way to tax the brain," Ratey writes. "By engaging every element of the attention system, it holds you rapt. These sports are just more interesting than running on a treadmill, and participation tends to be self-perpetuating—it's easier to stick with it."

Ratey considers the structure and discipline offered by a sport important for someone affected by AD/HD. "The AD/HD brain faces a monumental challenge in initiating a task, and it is a master procrastinator," he writes. "Paradoxically, one of the best treatment strategies for AD/HD involves establishing extremely rigid structure. Over the years, I've heard countless parents offer the same observation about their AD/HD children: Johnny is so much better when he's doing tae kwon do. He wasn't doing his homework, and he was angry, difficult, and problematic; now his best qualities have come out."

"You could substitute any of the martial arts here or any highly structured form of exercise such as ballet, figure skating, or gymnastics. Less traditional sports, such as rock climbing, mountain biking, whitewater paddling, and—sorry to tell you, Mom—skateboarding, are also effective in the sense that they require complex movements in the midst of heavy exertion," Ratey concludes. "The combination of challenging the brain and the body has a greater positive impact than aerobic exercise alone."

*\*Spark: The Revolutionary New Science of Exercise and the Brain* by John J. Ratey, MD, with Eric Hagerman. New York: Little, Brown, 2008.