Could my child’s clumsiness be a sign of a coordination disorder?

washingtonpost.com/lifestyle/2021/07/29/developmental-coordination-disorder-kids

July 29, 2021

From the time my son was old enough to walk,he was running into people, tripping over rocks and stepping into holes. Recently, during a fishing trip with his Boy Scout troop, he fell into the lake — shoes, pole, bait and all — then climbed out soaking wet and laughing at himself. I often wonder if he inherited his clumsiness from my dad, a legendary klutz.

It turns out, a growing body of research suggests that whether a kid has two left feet is probably hard-wired. About 1 in 20 school-age children suffer from developmental coordination disorder (DCD), also known as clumsy child syndrome; that’s at least one kid in every classroom. First recognized in the 1930s and introduced in the Diagnostic and Statistical Manual of Mental Disorders in 1989, DCD is just beginning to garner some attention with clinicians.

As funny as it is to watch these children take a spill (assuming no one gets hurt), klutziness can have serious consequences. “The motor system, which works with the brain to coordinate movements, is the basis of everything we do,” says Priscila Tamplain, an associate professor of kinesiology at the University of Texas at Arlington who studies DCD. “Many of these kids struggle with everyday tasks and fall short of their potential because their coordination deficits impact their social, emotional and physical development.”

Kids with DCD may have trouble mastering fine and gross motor skills, such as tying their shoes and finishing a meal without spilling milk. At school, they might shy away from participating in sports or group activities and get teased on the playground for their coordination difficulties. And despite the word “developmental” in the name of the disorder, motor challenges persist into adulthood.

Scientists aren’t clear what causes DCD. Theories range from deficits in spatial awareness to sensory integration and visual processing challenges. Whatever the cause, imaging studies show that the brains of kids with DCD are markedly different from those of typically developing children, with evidence of alterations in motor and sensory regions and the corpus callosum, the thinking side of the brain that helps plan and execute motor tasks. “Kids with DCD struggle to analyze information from the environment and plan their movements accordingly,” says Naomi Steiner, a developmental behavioral pediatrician at Boston Medical Center. “The classic example is a kindergartner who traverses a room leaving a trail of destruction behind him.”

To complicate matters, using feedback to correct errors is challenging for DCD children. When neurotypical children throw a Frisbee for the first time, for instance, the disc may over- or undershoot the target. But with each subsequent attempt, they’re able to adjust their movements to make tosses more accurate. In children with DCD, that cognitive feedback loop seems to be compromised. “It’s almost as if they’re *always* performing a motor skill for the first time,” Tamplain says.

DCD is three times as common in boys as in girls and six times as likely to affect kids born before 32 weeksof pregnancy. Born just shy of 34 weeks, my sonstarted walking before he hit his first birthday. Now 9, he reads at a 12th-grade level and can bust out a stage-ready break dance with confidence and swagger. But he also writes messily with an ironclad grip, can’t seem to find his homework folder in his backpack, and he’s always the last to put on his shoes.

If these descriptors sound a lot like attention-deficit/hyperactivity disorder, that’s not an accident. “About half of children with ADHD also have DCD,” Steiner says. “And kids with DCD are commonly misdiagnosed with ADHD.” DCD also tends to coexist with other conditions, such as autism spectrum disorder, learning disabilities and emotional problems.

According to Tamplain, kids with DCD can come off as disruptive or lazy. They may turn in assignments late or with sloppy handwriting. When teachers ask them to rewrite their work, DCD kids who slogged through their first attempt may shut down because they’re overwhelmed. “Some of these kids have learning challenges and may be eligible for an individual educational program or 504 plan, which allows for accommodations to help children develop and master fine motor skills at their own pace,” says Steiner, who frequently writes prescriptions allowing children to use keyboards and skip learning cursive.

Even more concerning, childhood clumsiness is associated with long-haul issues such as social isolation and anxiety. “Repeated frustration with motor tasks can lead to poor academic performance, low self-esteem, behavior problems and depression,” says Lisa Dannemiller, an associate professor of physical medicine and rehabilitation at the University of Colorado School of Medicine. Studies suggest kids with DCD are two to three times as likely to show signs of clinical depression as neurotypical kids.

Yet klutzy kids rarely raise red flags for clinicians. The reason? Like my son, they often meet (or exceed) developmental milestones like crawling and talking. They’re cognitively bright and tend to do well academically. Unlike such conditions as dyslexia and ADHD that are easy to recognize and have identifiable treatments and supports, DCD often flies under the radar.

“Most people, educators and clinicians alike, don’t know what DCD is,” Steiner says. “If you go to the doctor with concerns that your child can’t draw a pretty picture, they’ll probably say your child will get better with practice and send you on your way. As a parent, you have to explain why your kid’s indecipherable pictures deserve further investigation.”

The good news: There are treatment programs for DCD. Whether children struggle with handwriting or playing sports, a skilled therapist can tailor a program to enhance kids’ motor skills. There’s even evidence to suggest that practicing things like taekwondo and Nintendo Wii can act as a sort of buffer against clumsiness, though the benefits are not likely to transfer to a child’s specific motor deficits.

So how do parents know if their kid’s missteps are run-of-the-mill stumbles or an indication of something more pervasive? Dannemiller says there are four key criteria for a DCD diagnosis:

- Fine or gross motor coordination skills that fall below the child’s age level.
- Clumsy, slow or inaccurate movements that affect their daily activities.
- Noticeable motor impairments during early childhood.
- Motor symptoms that cannot be explained by another neurological disorder, disability or other diagnosis.

While my kid frequently trips over his feet and can’t write with crystal-clear lettering, he’s able to hop on one foot, do a series of jumping jacks and skip down the hallway without incident. Most important, his klutziness doesn’t affect his ability to perform daily tasks, so he doesn’t meet the criteria for DCD.

But Dannemiller tells me a diagnosis is not needed for intervention, particularly with a condition like DCD. “Coordination difficulties fall on a spectrum, and it’s good to have any child — whether they’re diagnosed or not — learn strategies to overcome motor challenges,” she says. “The key is to look at the child’s deficits and identify activities the child enjoys that target those areas.”

My son’s current preferred pursuit is basketball. To help him succeed, Dannemiller tells me to break up the task into manageable chunks, starting with dribbling solo on the court and progressing to shooting hoops. Once he masters those two skills, I can bring his brothers into the fold. Even if my child masters basketball, I

may not be able to prevent him from falling into the lake the next time he goes fishing, and he may never write calligraphy. But I can recognize his motor challenges for what they are: evidence of a differently wired brain. And I can give his teachers, coaches and scout leaders a road map for how to best support him.

“These kids are really intelligent; they can do big things,” Steiner says. “But if we try to fit them into a box, we’re holding them back from achieving their potential.”

Amy Paturel is a health writer and professor in Southern California who also teaches personal essay writing. Find her on Twitter @AmyPaturel.