What We Know Today About the Causes of ADHD

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What Causes ADHD?

Attention deficit hyperactivity disorder, or ADHD, is a common neurodevelopmental disorder which begins in childhood that affects many children, as well as adults. Notable characteristics of ADHD are inattention, hyperactivity, inability to regulate emotions, poor cognitive function, disorganization, and inability to read social cues.

We know what ADHD is and what it affects. We see the turmoil it causes in our lives or in that of our children, but what causes ADHD?

Although there may be some clues, science has yet to identify a specific cause of the disorder. Certain areas of the brain are different in those with ADHD, but what causes those differences? What misconceptions still abound?

The Few Factors Commonly Attributed to Causing ADHD

- Genetics
- Environmental factors
- Brain injuries
- Nutrition
- Social environment
- Poor parenting
- Smoking/drinking alcohol during pregnancy
- Too much television/video games

Some of these have a real impact on ADHD; others are purely a myth. Opinions vary among doctors as well as patients and parents. Misconceptions often rule the ideas of the general public.

Separating Fact from Fiction

The cause of ADHD can be a heated topic. Even among adults with ADHD or parents of children with ADHD, there can be much discord. Add the misconceptions of the public, and disagreements and misinformation abound.

My opinions might not be the same as others, but let's take a look at some common thoughts on possible causes of ADHD.

Genetics

The most substantial scientific evidence places a clear role in genetics as a factor of ADHD.

One study found that over 25% of relatives of a child with ADHD also had the condition. There is an 82% chance

that identical twins will both have ADHD if one has it, and a 38% chance among fraternal twins.

Even among families with no prior knowledge of ADHD, once a child receives a diagnosis, it usually becomes clear that someone else in the family has ADHD, often a parent.

I didn't know much about ADHD when my daughter was diagnosed. I had a nephew who had been diagnosed in the 1990s, and there was much confusion then around the disorder.

Once my daughter was diagnosed, I realized there was a link to my childhood and my adult behaviors. After I was diagnosed with ADHD, everything began to make more sense. Once I started researching, I knew several others in my family were also ADHD.

ADHD tends to run in families, and a fact that cannot be denied.

It is slightly more challenging to pinpoint a specific gene or specific abnormality that is the cause of ADHD. Science has shown us that variances in DNA in genes or regulatory regions of the brain increase the risk of ADHD. It appears, however, that instead of finding a specific gene that shows, without a doubt, that it is the cause, many genes show slight variations that all contribute to ADHD.

As more studies are being completed and the familial links being explored, more information should surface in the future that can help in the treatment or even prediction of ADHD.

Environmental Factors

There is some research to suggest a link between environmental risks such as lead exposure at a very young age.

Lead is a neurotoxin. It is perhaps the most widely studied as to its relation to mental disorders. This is because lead is stable, and the amount of lead on earth will always be the same.

Most exposure among children in the United States comes from lead paint, soil and dust, and imported toys, jewelry, canned foods, candy wrappers, cosmetics, and dietary supplements. Air pollution in areas where airports are located is also a point of exposure.

While the levels of lead found in children today are much less than it has been in the past, there is still about 100 times the "normal" amount of lead found. While no acute toxicity is detected at this rate, there are still effects on IQ and attention.

Lead causes alterations in neurodevelopment due to the way it disrupts brain signals in the prefrontal cortex. This means the executive function is impaired, which is associated with ADHD.

While lead may not be a primary cause of ADHD, it is nonetheless a contributor, especially in certain areas. In the past, studies on lead exposure in children focused on testing blood and studying the children. However, blood testing is only done under certain circumstances. Most studies now focus primarily on how to decrease the risk of lead exposure rather than focusing on testing children for lead levels.

Brain Injuries

Children who suffered a brain injury can show symptoms similar to those of ADHD. However, only a small percentage of children with ADHD suffered a traumatic brain injury.

I think it would be a fine line to wonder if the brain injury caused ADHD, or if a brain injury causes symptoms that are much the same as ADHD.

Smoking/Drinking Alcohol during Pregnancy

Studies have shown that fetal exposure to alcohol and tobacco cause a child to be 2.4 times more likely to have ADHD.

This may be another case where the symptoms mimic the disorder. Fetal alcohol syndrome produces the same symptoms that are predominant in ADHD. Again, the question is whether or not the exposure caused ADHD or if the child shares traits with those who have ADHD.

Next page: More information on the potential causes of ADHD, including nutrition, environment, and more.

Nutrition

Nutrition is essential to every child, not just those diagnosed with ADHD. As parents, we want to provide nutritionally healthy, balanced meals for our children. This is the best way to ensure overall health and wellness.

It is a popular opinion that sugar, food additives, or poor diet can cause ADHD. There has been limited research into these areas and all with inconclusive findings.

Some are certain that sugar or food additives increase symptoms of ADHD. Others are not so sure. Personally, I would question an ADHD diagnosis if a specific diet or omitting a particular food "cured" the ADHD. That is solely my opinion. There is such a cross over in symptoms from ADHD to even allergies or sensitivities to certain foods that I think it is hard to tell.

The idea that sugar or food additives cause ADHD is one that many medical doctors and researchers do not support. They do, however, support a balanced healthy diet to help control symptoms as well as maintain health.

When my daughter was diagnosed, one of the first things the ADHD specialist talked about was proper diet.

The specialist did not tell me to eliminate any foods or follow a specific diet. They simply said it was important for my daughter to eat regularly, and if medication affected her appetite, then let her make it up when she was hungry. For example, if she didn't eat lunch, not to worry if she ate more dinner. She said to balance every meal and snack with protein and carbohydrate.

I found it was helpful to keep snacks on hand if we were going to be out for a long time, and I made sure she ate breakfast, even though she resisted. I sent balanced lunches to school and mainly cooked healthy dinners as well. We all know that dinner was sometimes take- out or pizza, and I feel that's okay too.

This is one such area that can become a heated topic of conversation among parents. Maybe there is no right or wrong answer. There is what does or does not work for, or apply, to your child. Each child is unique, and there is no one universal way to treat ADHD.

As an adult with ADHD, I find that I feel better when I eat a healthy diet. Do I notice an increase or decrease in symptoms depending on what I eat? Not really. It stands to reason that I would feel fuzzy-headed and sluggish if I consumed a steady diet of junk food. Our brains and bodies function when we give them the proper fuel to do their jobs.

Social Environment

There is a reason that questions about a family's home life and possible stressors will be asked during the diagnosis of a child. Anxiety can produce symptoms similar to ADHD. While anxiety and ADHD can very often travel together, that doesn't mean that every child coming from a stressful environment is going to have ADHD.

While a chaotic household or certain parenting style can aggravate symptoms of ADHD, it is probably not the cause of the disorder.

Primarily symptomatic, however, are children from households that refuse to accept an ADHD diagnosis, or refuse to alter parenting styles to one more suited to their child's needs. This not only hurts the child but produces issues that are carried into adulthood.

Once ideas are implanted into a child's brain, it is tough to erase them as an adult. This is one reason why education about ADHD is so very important, not only to parents but to all teachers and caregivers.
Give children a chance to learn and grow in a supportive environment, and they can succeed.

Poor Parenting

This is only worth mentioning because it is such a hit with the general public. ADHD is not a result of bad parenting, lack of discipline, or soft parenting styles.

Children with ADHD do not "just" need more discipline, a good spanking, or whatever other extreme measures we see listed among the uninformed. They need understanding, compassion, and opportunities, just like any other child.

Too Much Television or Video Game Time

This is another area where limiting a child's screen time is healthy for them, but it is probably not the cause of ADHD.

Many children who do not play video games and watch very little television are diagnosed with ADHD. There is a link between general attention problems and watching too much TV, but that link is universal, among children with or without ADHD.

Today children and adults alike are immersed in technology. Immersion with technology may lead to decreased attention, as well as hyperactivity and impulsivity. Technology can cause us to seek that instant gratification that comes from everything being only a click away. It can also detach us from the world around us.

Limiting technology and taking breaks from it is a good idea for children and adults alike. We all do well to remember balance in things.

Misdiagnosis

It is still possible that ADHD is misdiagnosed. There is much overlap in symptoms between ADHD and other disorders. It is still very important to take your time with diagnosis, do your research and search for other possible answers.

Is the Cause as Important as the Treatment?

There is still much to be discovered about what causes ADHD. Maybe learning the exact cause of a disorder can aid in treatment down the road, or even in preventing it altogether.

For me, however, living with ADHD in the here and now, it is of little importance what caused me to have the disorder. I think how I handle my symptoms and subsequently manage the disorder is far more important.

I choose to focus on my strengths and how those strengths can help me overcome my weaknesses. I choose to help my daughter know that having ADHD can be a benefit. To find ways to use creativity and the innate intelligence to problem solve are beneficial skills.

We may never know what exactly causes ADHD, or we may find that there is no one cause, but that there can be several. Whatever causes the genes to vary from what is normal and put those many slight differences that together makeup ADHD could remain a mystery, or science could solve that puzzle in time.

Opinions will probably always vary, and one study will always contradict another. Perhaps knowledge can help to decrease the number of people diagnosed, or maybe it can assist in developing better treatment plans and better ways to manage symptoms.