

● As there is no single medical test for ADHD, diagnosis can only be given following a battery of assessments



What I tell parents about **ADHD diagnosis**

Attention deficit hyperactivity disorder (ADHD) is a complex condition with a strong genetic and developmental basis. There are physical, cognitive, social, emotional, genetic, environmental and spiritual elements that influence the progress of ADHD, and these factors impact differently on each individual child. Rather than thinking of ADHD as a disability, it may be useful to view those with the condition merely as having a very different learning style from others.

What is important to understand is what ADHD means for your own child, and how to react positively to their strengths and weaknesses so that they might achieve as much as possible and enjoy a happy and fulfilling life.

What is ADHD?

There are many terms in use for difficulties caused by poor concentration, hyperactivity and impulsivity – ADD (that is, ADHD without hyperactivity) is, for example, sometimes used to refer to children with poor concentration without hyperactivity.

However, all of these behaviours are seen in the whole population from time to time. They vary from moment to moment, depending on what we are doing – so being active, having poor concentration and acting impulsively can also be considered 'normal'. It is normal to be excited around a birthday or holiday. We expect toddlers to have poor concentration and to be very busy, as they have not yet developed the skills and maturity to sit still. Even as adults we do impulsive actions – who hasn't

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bought clothes they then never wear! We should not think about ADHD behaviours as things that exist on their own, but understand them within the way that the young person fits into their world.

It is hard sometimes to understand the problems that children and young people present with, which is why gathering information about a patient's difficulties for an assessment can take some time. It is not unusual for people to mistake behavioural problems for ADHD, but it is really important to be able to separate out the features of hyperactivity, poor concentration and impulsivity.

What are the symptoms of ADHD?

ADHD is a behavioural disorder characterised by symptoms of inattention, impulsivity and hyperactivity. For children and young people to be diagnosed with ADHD, these symptoms should cause impairment in their psychological, social and educational development and functioning.

Is ADHD new?

Contrary to popular belief, ADHD is not a new phenomenon; the common features of inattention, hyperactivity and impulsivity have been seen in children for many years. One of the earliest accounts was made in 1845 by Dr Heinrich Hoffman, a German physician and poet, who told the story of 'Fidgety Philip'. ADHD is a global disorder, with children being diagnosed throughout the world.

How common is ADHD?

We understand that about 3–9% of school-aged children and young people could have ADHD. This figure is determined by the diagnostic criteria used, but in reality, in each class of 30 children, there could be one or two with ADHD. At present, ADHD affects about 2% of the world's adult population.

The symptoms associated with ADHD can create problems in a child's home life. Children with ADHD always seem to be 'on the go', fidgeting and interrupting others. Every child behaves like this from time to time, but for a child to be diagnosed with ADHD, the problems must have been present for at least six months and recognised throughout the child's life.

What causes ADHD?

The causes of ADHD are still not fully known. It is now widely agreed that there are various developmental factors that impact on the way in which a child behaves and that children develop at different rates, even when they are the same age. ADHD is not caused by 'bad parents' or those who are not good at their 'job'; rather, there is growing evidence that it is a neurobiological problem. There are special chemicals in the brain – dopamine and norepinephrine – called neurotransmitters. These chemicals help to pass messages around the brain and are thought to help with attention span, organisation and the regulation of emotions. It is believed that ADHD could be caused by poor transmission of messages in the brain – in particular, by low levels of neurotransmitters. The degree to which young people are affected varies and will depend on risk and resilience factors, the existence of other psychosocial difficulties and the support networks available to them.

As yet, we have not found a cause for ADHD, but we do know that there are many contributing factors. There is a lot more research being undertaken at the moment to aid our understanding of the condition. You cannot catch it from other people; rather, it is known that ADHD runs in families and that there may be a genetic link. It is known that we inherit our genetic make-up from our parents, which is why we are like them in so many ways. This suggests that if a member of your family has a problem, then you have a higher chance of experiencing the same problem. You may understand this from your own family's medical history.

More recently, it has been thought that the brains of people with ADHD may be different from those of other people. There is also a worry that ADHD is caused by some as yet unidentified environmental factors. Research into whether the symptoms of ADHD could be the result of influences in the world around us continues.



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● There is a misunderstanding that ADHD can be caused by food additives, particularly E numbers

How long do the problems associated with ADHD persist?

ADHD was once thought to be a disorder of childhood, but it is now recognised that in many cases it persists into adolescence and adulthood. For each individual, the symptoms will be different and will cause different difficulties for that child and their family; therefore, it is hard to say how long the problems will go on for. Some children grow out of ADHD – hyperactivity symptoms improve more quickly, while problems with concentration and organisation can remain quite problematic as the young person grows up.

Is ADHD more common in boys?

There are differences in the numbers of children diagnosed with ADHD. In health service clinics, many more boys are diagnosed than girls, at a ratio of 9:1. However, we know that it is harder to recognise ADHD in girls, and the number of girls with ADHD is thought to be much higher. Studies suggest that the ratio should be more like 4:1.

Are there any tests to diagnose ADHD?

There is no single medical test – such as a blood test, X-ray or scan – for ADHD as there is with other disorders. This is frustrating for parents, children and professionals alike. Even though there is information about how brains may be different in children with ADHD, a brain scan won't help make a diagnosis.

What assessments can we expect?

You will have been referred to either a child and adolescent mental health service or a paediatric service depending on where you live and what services are available in your local area. Each service will have their own ways of doing things, but NICE, a body from the Department of Health, has issued guidelines for what a comprehensive assessment of ADHD should include:

- Developmental and family interview to understand how the child has developed over time and the worries from the family about the child's progress
 - Medical history
 - Observations of current functioning in clinic and as reported by parents
 - Information from other sources – for example, school staff or other professionals who know the child.
- Rating scales may be used to help gather information, but a diagnosis should never be made from rating scales alone. Commonly used questionnaires include:
- Conners' Rating Scales
 - Strengths and Difficulties Questionnaire
 - Child Behaviour Checklist
 - Brown Attention Deficit Disorder Scales®
 - ADHD Rating Scale-IV.

What help will I get?

If your child is diagnosed with ADHD, there are different types of help available depending on your local service. ADHD treatment usually involves behavioural therapy, medication, or a combination of the two. In addition, learning about the condition and helping your child to find activities and clubs that suit their interests can be helpful. Often, putting their energies into sporting activities can help to alleviate symptoms.

Talking with your child's teachers is very important. When they understand your child has ADHD, there are many ways in which they can help – not only to help your child achieve their potential in school by organising the classroom and lessons and cutting out distractions, but by being aware of any extra learning needs they may have. Teachers may wish to seek advice from educational specialists available to schools, such as educational psychologists or behaviour support services.

Does medication help ADHD?

ADHD is often treated with medication, which improves the associated symptoms – that is, it increases concentration and reduces hyperactivity and impulsivity. Medication does not 'cure' ADHD – it can only reduce a child's difficulties. Medication aims to help children be less active, manage their emotions, get along more positively with those around them (including family, friends and teachers) and be more focused at school with their learning.

As with all medicines, the good effects are accompanied by side-effects; therefore, medication should only be prescribed to children who have been fully assessed and diagnosed by an expert.

What other conditions might my child have?

There are many problems that go hand-in-hand with ADHD. It is unusual for children to only have ADHD as

a problem. Accompanying difficulties can include:

- Behavioural problems (not doing as people ask)
- Learning difficulties
- Social communication disorders (including autism spectrum disorder and Asperger's syndrome, which make it difficult to get along with other people)
- Tourette's syndrome (tics and twitches)
- Anxiety
- Depression
- Sleep disorders.

How important is diet to ADHD?

There is a misunderstanding that ADHD is caused by food – particularly E numbers. However, it has been found that the adverse effects upon behaviour in terms of hyperactivity are not only seen in children with ADHD, but children in general. This means that some additives make normal children hyperactive, and hyperactive children even more hyperactive. Removing items from a child's diet or supplementing it (for example, with omega 3 fatty acids) have not been found to cause or help the symptoms of ADHD. NICE has suggested that if there is thought to be a direct link between a particular food and a child's symptoms of hyperactivity, this should be discussed and referral to a dietitian considered.

If you are in any doubt about your child's health, please talk to your family doctor or hospital specialist ■

Declaration of interest

The author has received payment from Eli Lilly and Janssen for speaking on nurse prescribing.

Helpful resources

1. Green C, Chee K. *Understanding ADHD*, 2nd edn. London: Vermillion Press, 1997.
2. Kutscher ML. *ADHD. Living Without Brakes*. London: Jessica Kingsley, 2008.
3. Laver-Bradbury C, Thompson M, Weeks A, Daley D, Sonuga-Barke EJ. *Step by Step Help for Children with ADHD: A Self-help Manual for Parents*. London: Jessica Kingsley, 2010.
4. Phelan TW. *1-2-3 Magic: Effective Discipline for Children 2-12*, 4th edn. Glen Ellyn, IL: ParentMagic, 2010.
5. www.addiss.co.uk
6. www.adders.org

Key points

- Attention deficit hyperactivity disorder (ADHD) is a complex condition characterised by symptoms of inattention, impulsivity and hyperactivity.
- The causes of ADHD are still not fully known. It is thought that ADHD runs in families and that there may be a genetic link.
- ADHD was once thought to be a disorder of childhood, but it is now recognised that, in many cases, it persists into adolescence and adulthood.
- ADHD treatment usually involves behavioural therapy, medication, or a combination of the two. In addition, learning about the condition and helping your child to find activities and clubs that suit their interests can be helpful.
- There are many problems that go hand-in-hand with ADHD; it is unusual for children to only have ADHD as a problem.

■ The new 'Practical resources' section is intended as a tool to help ADHD specialists communicate complex matters simply and clearly to non-specialists – from patients and their parents to teachers and GPs. Download PDFs of the articles free of charge from the website: www.adhdinpractice.co.uk