

Attention deficit hyperactivity disorder

Information for the public

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About this information

NICE guidelines provide advice on the care and support that should be offered to people who use health and care services.

This information explains the advice about attention deficit hyperactivity disorder (ADHD for short) that is set out in NICE guideline CG72.

The information about dietary advice for parents and carers of children and young people with ADHD was updated in 2016. This information can be found in [what advice and support can we expect after diagnosis of ADHD?](#)

In March 2013, the information about courses for parents was removed from [what treatment should my child be offered?](#) For information about parent training courses see [antisocial behaviour and conduct disorders in children and young people](#) (NICE guideline CG158).

Does this information apply to me?

Yes, if you

- have ADHD
- are a family member or carer of someone with ADHD.

The NICE guidance does not specifically look at the treatment of children younger than 3 years, or at the treatment of conditions other than ADHD.

ADHD

ADHD is a common behavioural disorder in children and young people. It usually starts in early childhood and some people will continue to have ADHD as adults. Severe ADHD is sometimes known as 'hyperkinetic disorder'.

The symptoms of ADHD include being:

- inattentive – unable to concentrate for very long or finish a task, disorganised, often losing things, easily distracted and forgetful, unable to listen when people are talking
- hyperactive – fidgety and unable to sit still, restless (children may be running or climbing much of the time), talking constantly, noisy, having difficulty doing quiet activities
- impulsive – speaking without thinking about the consequences, interrupting other people, unable to wait or take their turn.

Not all people with ADHD have all these symptoms, and everyone can be inattentive, hyperactive or impulsive some of the time, particularly children. But a person with ADHD has symptoms most of the time that can seriously affect their everyday life. They may also be clumsy, unable to sleep, have temper tantrums and mood swings and find it hard to socialise and make friends.

It can sometimes be difficult to work out if a person has ADHD because there are conditions that can cause similar behaviour, such as conduct disorder in children or personality disorder in adults. The person may also have other conditions, for example, conduct disorder, anxiety or learning difficulties, as well as ADHD.

Your care team

A range of professionals who specialise in different areas of treatment or support may be involved in your care. These could include specialists in ADHD such as doctors, learning disability specialists, social workers and occupational therapists, as well as paediatricians and child psychiatrists for children and young people with ADHD. All of these professionals will be trained and experienced in providing particular treatments or support.

Working with you

Your care team should talk with you about ADHD. They should explain any tests, treatments or support you should be offered so that you can decide together what is best for you. Your family or carer can be involved in helping to make decisions, but only if you agree. If you are a child or young person, your parent or carer may be involved in helping to make decisions depending on your age. There are questions throughout this information that you can use to help you talk with your care team.

You may also like to read NICE's information for the public on [patient experience in adult NHS services](#) and [service user experience in adult mental health](#). These set out what adults should be able to expect when they use the NHS. We also have more information on the NICE website about [using health and social care services](#).

Some treatments or care described here may not be suitable for you. If you think that your treatment does not match this advice, talk to your care team.

Information for parents of children with ADHD

What should happen if I think my child has ADHD?

If you or someone else (such as a teacher) thinks that your child's behaviour could be a sign of ADHD, it is likely that you will visit your GP first. If your GP thinks that your child may have ADHD, they should ask you and your child about how your child's behaviour is affecting their everyday life.

Your GP may ask to see your child again to check if their behaviour improves, stays the same or gets worse.

A special educational needs coordinator (SENCO) at your child's school may talk to your child and help with their behaviour.

After your child sees your GP or a SENCO, you may be offered a place on a course to help parents with their child's behaviour (see [what treatment should my child be offered?](#)).

If your child's behaviour doesn't improve and you and your GP think it is seriously affecting your child's home and school life and relationships with friends, you and your child should also be offered an appointment with a [specialist](#) in ADHD.

The specialist may be a [paediatrician](#), a [child psychiatrist](#) or someone with specialist experience in ADHD in children and young people (such as a [learning disability specialist](#), social worker or [occupational therapist](#)).

Your child should only be formally diagnosed with ADHD by a specialist, who should first assess your child. In the [assessment](#) they will want to know about your child's physical health and if they have any other conditions besides ADHD. The specialist will also ask about your child's life at home and at school, and you may be asked about your own emotional or mental health.

This assessment may include you and your child's teachers filling out a questionnaire. Where possible, your child should be asked directly about how their symptoms and behaviour affect their life, and this should be recorded in their notes.

If your child has not been seen by a specialist, but is taking medication for ADHD (see [about medication](#)) prescribed by your GP, your child should be offered an appointment with a specialist as a priority.

What advice and support can we expect after diagnosis of ADHD?

Your specialist or another healthcare professional should give you advice on having clear rules about behaviour, encouraging and rewarding your child's good behaviour, and making sure that your child's day has structure and routine.

With your permission, your specialist should contact your child's nursery or school teacher about your child's ADHD and work out whether your child needs extra help in class.

During any major changes in your child's life (such as puberty, starting or changing school, or the birth of a brother or sister), your healthcare professional should make sure that there is adequate care and support for your child if needed.

Your specialist should offer you advice about a good diet and regular exercise for your child.

If you or a healthcare professional have noticed any food or drink that seems to affect your child's behaviour, you should be advised to keep a diary of what your child eats and drinks, and their behaviour afterwards. If there seems to be a link between certain food and drink and your child's behaviour, you should be offered an appointment with a dietitian.

There is little evidence that dietary supplements such as fatty acids (omega 3 or omega 6), or cutting out foods containing artificial colouring and other additives, can help children with ADHD.

There is limited evidence that following a diet containing a small number of foods (sometimes called a 'restricted' or 'few foods' diet) may improve symptoms of ADHD in children in the short term. But there is no evidence about long-term benefits or possible harms, and keeping to this type of restricted diet is difficult.

Questions you might like to ask your care team

- Can you tell me more about ADHD?
- Are there any support organisations in my local area?
- Can you provide any information for me and my child?
- How can I help my child?
- Are there any self-help books or videos about managing behaviour that you can recommend?

What treatment should my child be offered?

The treatment your child should be offered will depend on how old they are and their symptoms of ADHD. A specialist should give your child most of their treatment and care when they are first diagnosed with ADHD, but after this your GP may provide some care.

Treatment for very young children with ADHD

If your child is under 5, they should not be offered medication for ADHD. You should be offered a place on a course to help with your child's behaviour if you have not attended one before, or if you and your specialist feel that attending one again would help.

If the treatment and care you and your child have received so far have helped your child's behaviour, your specialist may decide that they no longer need to see your child about their ADHD. Before this happens, your child should be checked for any other conditions, such as [conduct disorder](#) or [learning difficulties](#), besides ADHD. Healthcare professionals should also see your child

after they start school to check whether the ADHD symptoms are causing any difficulties with their relationships or school work.

If the treatment and care you and your child have received so far have not helped your child's behaviour, you and your child may be offered an appointment with another ADHD specialist.

Treatment for school-age children with ADHD

If your child is old enough to go to school, they should not usually be offered medication first.

Your child's teachers should be informed about how to support children with ADHD. If they have also had training about ADHD, they should be able to use a number of methods to help your child in class.

You should be offered a place on a course to help parents with their child's behaviour. Sometimes it is helpful if your child also attends a course of group treatment, which may be a [psychological therapy](#) called [cognitive behavioural therapy](#) (CBT) or [social skills training](#). This should cover:

- solving problems
- developing their ability to control themselves
- listening when other people are talking to them
- coping with and expressing their feelings
- improving relationships with their friends and other children.

If your child is a teenager, one-to-one psychological therapy for them may be an option instead of a course for both of you.

If your child has a learning disability as well as ADHD, you should be given the choice of group or one-to-one sessions for you and your child.

If the treatment so far has helped, your child should be assessed for any other conditions, such as [anxiety](#), aggression and [learning difficulties](#), so that these can be addressed.

If the treatment so far has not helped, your child should be offered medication (see [about medication](#)). This should be alongside other support and treatment including courses for parents

and children. Medication may also be offered if you and your child would prefer not to attend a course for parents or have psychological treatment.

Treatment for school-age children with severe ADHD

If your child has [severe ADHD](#), they should be offered medication as this is the best treatment for them. Medication should only be started by a specialist in ADHD after a full [assessment](#) of your child's symptoms, and after discussion with you and your child (see [about medication](#)).

After this, your GP can continue to prescribe your child's medication and check how your child is doing. As well as your child being offered medication, you should also be offered a place on a course to help parents with their child's behaviour.

If you do not want your child to take medication, or if your child does not want to take it, your specialist should talk to you about this. You should still be offered a place on the course to help parents with their child's behaviour. If the course helps, your child should be assessed to see whether they have any other conditions such as [anxiety](#), aggression or [learning difficulties](#), besides ADHD. The specialist should develop a long-term plan for your child's care after discussion with you and your child.

If the course does not help, then your specialist should talk to you again about medication or extra psychological help for your child.

If you want to know more about the treatments for ADHD there are some examples of questions you could ask your child's doctor in [information for adults with ADHD](#).

What happens when my child becomes an adult?

At school-leaving age, young people with ADHD should be assessed to see if they need treatment as adults. If they still need treatment, the responsibility for their care should be transferred to adult services, and this should be arranged by the time your child is 18. Your child should be given information about adult services and offered a full [assessment](#) of their symptoms when they transfer.

Questions about support for children, parents and carers

- Where can I find local activities (such as sports, summer camps and holiday schemes) for children with ADHD?
- Are there any other ways of helping my child, using books, websites and toys?
- Is there any additional support that carers might benefit from or are entitled to?

Information for young people with ADHD

If your parents, carers or teachers think that your behaviour is causing problems for you and you are not able to concentrate at school, they may talk to you and arrange for you to see a doctor about these problems. The doctor will talk to you about whether your behaviour is causing you serious problems at home and at school. If it is, then you will be offered an appointment with an expert or [specialist](#), who will ask you some questions about how it feels when you can't keep still, or can't concentrate.

If the specialist thinks that you have a condition called ADHD (which stands for attention deficit hyperactivity disorder), they will work out what treatments can best help you. If you agree, you and your parents should be involved in all the decisions about your care (see [working with you](#)). You can find more information about ADHD in [ADHD](#).

The treatments for ADHD include medication and [psychological therapy](#) to help you cope with your feelings and behaviour. If your ADHD is not causing you serious problems, you should not usually be offered medication first.

If you and your parents agree, your doctors may let your teachers know about your ADHD so that they can help and support you at school. Your parents or carers should be offered a place on a course that will help them to give you extra support when you need it. You may also be offered psychological therapy with other young people with ADHD, which can help you to:

- solve problems by yourself
- control your feelings and behaviour
- listen to other people when they are talking
- have better relationships with your friends and other people.

If you are a teenager, your doctor may offer you a psychological therapy for you on your own.

If these treatments do not help your ADHD, you may be offered medication (there is more information in [about medication](#)).

If your ADHD symptoms are severe and are seriously affecting you, your doctor should offer you a package of care that includes medication and psychological therapy. Medication, which should be the first treatment offered, should only be started by a specialist in ADHD and not by your GP.

If you decide not to have medication and the course for your parents or your psychological therapy does not help, then your doctor may talk to you again about the possibility of taking medication or having another type of psychological therapy.

If you want to know more about the treatments for ADHD there are some examples of questions you could ask your doctor in [information for adults with ADHD](#). When you reach school-leaving age, you should be offered another [assessment](#) to see if you need to carry on with your treatment. You should be given full information about the care and treatment available for adults.

Information for adults with ADHD

If you find it difficult to concentrate, your behaviour is hyperactive and impulsive, and this is causing you difficulties in your everyday life, you should see your GP. Your GP should offer you an [assessment](#) with a [specialist](#) in ADHD if you were not diagnosed with ADHD as a child. If you were diagnosed with ADHD as a child, you should be referred to general mental health services.

The specialist should thoroughly assess you to see whether you have ADHD. Only a specialist can make a formal diagnosis of ADHD.

You should be fully involved in all discussions about your healthcare. Professionals should always treat you with respect and give you the information you need in a form that is suitable for you, including details about support groups and voluntary organisations. There are some examples of questions you might like to ask your care team below.

Medication should usually be offered to you first, unless you would prefer to try a [psychological therapy](#) (such as [cognitive behavioural therapy](#) [CBT]). Medication should only be prescribed under the guidance of a specialist.

More information about medication is in [about medication](#). Medication should always be part of a package of care, which should address other needs you may have because of your diagnosis. These may include psychological help and support in finding or continuing in a job.

If you are taking medication but still have symptoms of ADHD, you should also be offered a course of CBT. CBT may also be offered if medication has not helped you at all, if you have side effects from the drugs, or if your symptoms are getting better but you still need some additional support.

Questions about treatment for all people with ADHD

- Why have you decided to offer this particular type of treatment?
- What are the pros and cons of having this treatment?
- What will the treatment involve?
- How will the treatment help? What effect will it have on symptoms and everyday life? What sort of improvements might be expected?
- Is there some other written material (like a leaflet) about the treatment?
- How long will the medication take to work? What should I do if I don't think it is working?
- How long will the medication need to be taken for?
- Might there be problems when the medication is stopped?
- Are there any serious or long-term side effects with medication for ADHD? How common are they?
- What should I do if there are any side effects? Should the GP or specialist be called, or should I go to the emergency department at a hospital?
- Are there different treatments that could be tried?
- What will happen if the treatment is not followed?

About medication

What medication is used for ADHD?

The medications recommended to treat ADHD in children and young people are methylphenidate, atomoxetine and dexamfetamine.

People with ADHD should not be offered drugs called [antipsychotic drugs](#) to treat their symptoms.

What should happen before medication starts?

The [specialist](#) should offer to give the person:

- a full physical and mental health [assessment](#), including discussion with the person about their views and preferences for treatment
- clear instructions about taking the medication.

Which medication should be offered?

For children and young people, this will depend on a number of things, such as:

- whether they have other conditions such as [Tourette's syndrome](#), [tics](#) or epilepsy
- the side effects associated with each medication
- whether the child or young person will need to take the medication while they are at school
- their preferences.

In children and young people, methylphenidate should normally be offered if they do not have any other serious mental health problems or if they also have [conduct disorder](#). Methylphenidate or atomoxetine should normally be used if the person also has tics, Tourette's syndrome or [anxiety](#), or if they are misusing [stimulants](#). If methylphenidate has been tried and does not help, atomoxetine should be offered.

The type of methylphenidate that should be offered to children and young people is usually long lasting (sometimes called 'modified release') so that they do not have to take another dose during school hours. Tablets that work straight away ('immediate release') may be considered if children and young people need to take their medication at different times of the day.

Methylphenidate is usually the first treatment offered to adults with ADHD.

Are regular checks needed?

Adults with ADHD, partners, parents or carers and teachers should be asked to keep a record of changes in symptoms and behaviour when medication is started or the dose is changed. A specialist should contact them regularly to check on how things are going.

Healthcare professionals should also check for side effects regularly. These could include:

- weight loss or not reaching an expected height in children and young people
- an increase in heart rate or blood pressure
- anxiety
- serious changes in mental state (such as seeing or hearing things that are not there)
- seizures
- the appearance of tics.

If there are side effects, the dose of medication may need to be reduced, stopped or changed.

For all people taking medication for ADHD, their weight should be measured 3 months and 6 months into the treatment, and every 6 months after that. In children and young people, their height should be measured every 6 months. A healthcare professional may suggest stopping the medication over the school holidays to allow the child's growth to 'catch up'.

If any person on medication for ADHD loses weight, then healthcare professionals should advise that the drug is taken with or after food rather than before meals. Additional meals or snacks in the early morning or late evening may help. The healthcare professional may seek dietary advice and suggest high-calorie foods of good nutritional value. If weight loss continues, a different drug may need to be considered.

All people taking medication for ADHD should have their heart rate and blood pressure checked every 3 months and before and after any change in dose.

Atomoxetine

Healthcare professionals should warn that some people (especially young adults) taking [atomoxetine](#) may feel more agitated or irritable than usual, have thoughts about suicide, self-harm,

and experience unusual changes in behaviour, especially during the first few months of treatment or after a change in dose. Parents or carers should be asked to report these effects to their healthcare professional. Healthcare professionals should warn people (of any age) taking atomoxetine, and their parents and carers if applicable, about the rare possibility of liver damage (the signs of this are stomach pain, nausea, dark urine or [jaundice](#)).

Healthcare professionals should ask older boys and men about any sexual problems as a result of taking atomoxetine. They should also ask girls and women whether the medication has had any effect on their periods.

Parents and teachers should be advised that [stimulant](#) medication can be misused. The risk may increase as the child or young person gets older or if their circumstances change.

How can a person be supported when taking their medication?

Visual reminders to take medication regularly (such as clocks, pill boxes and notes on calendars or fridges) can be helpful. Taking medication should be part of a daily routine (for example, before meals or after brushing teeth). Having a positive attitude about taking medication, and giving appropriate praise to a child, may also help. If taking medication regularly is difficult, the healthcare professional may suggest attending a support group.

What if medication does not help?

If [methylphenidate](#) or [atomoxetine](#) (together with courses for parents and [psychological therapy](#) for the child or young person) do not help children and young people with ADHD, healthcare professionals should review the treatment so far. The dose of the medication may then be increased or [dexamfetamine](#) or another drug may be offered. Other psychological treatments may also be offered.

In adults, if methylphenidate does not help, either atomoxetine or dexamfetamine may be tried instead. Psychological help may also be offered.

For how long should medication be taken?

Medication should be continued for as long as it is helpful. This should be reviewed every year after a full [assessment](#), and at least every year in children and young people. Healthcare professionals should work with the person to find a pattern of treatment that works best. This may include periods when medication is not taken.

Terms explained

Antipsychotic drugs

A type of medicine that is sometimes used to treat serious changes in mental state (such as seeing or hearing things that are not real).

Anxiety

Feelings of worry or fear that can be difficult to control.

Assessment

A meeting with a healthcare professional, when they will ask questions about a person's physical and mental health, to establish what the illness is, how severe it is and what treatments would suit the person best. An assessment may involve a physical examination and tests.

Atomoxetine

A type of drug called a 'selective noradrenaline re-uptake inhibitor' used to treat ADHD. At the time of publication, atomoxetine may be recommended for 'off-label' use in this guideline. Your doctor should tell you this and explain what it means.

Child psychiatrist

A doctor specialising in the treatment of children's mental health.

Cognitive behavioural therapy (CBT)

A psychological treatment where people work with a therapist to look at how their problems, thoughts, feelings and behaviour fit together. CBT can help people to challenge negative thoughts and change any behaviour that causes problems.

Conduct disorder

A disorder affecting children who show antisocial, aggressive or defiant behaviour. It is more serious than childish mischief or teenage rebelliousness.

Dexamfetamine

A type of drug called a stimulant; it can improve concentration and reduce restless or hyperactive behaviour in people with ADHD. At the time of publication, dexamfetamine may be recommended for '[off-label](#)' use in this guideline. Your doctor should tell you this and explain what it means.

Jaundice

A condition that causes yellowing of the skin or the whites of the eyes.

Learning difficulty

A condition in which children experience problems with specific aspects of learning such as reading, writing or concentrating. It is often used to describe children and young people with special educational needs.

Learning disability specialist

A person with expertise in working with people who have learning disabilities or learning difficulties.

Methylphenidate

A type of drug called a stimulant; it can improve concentration and reduce restless or hyperactive behaviour in people with ADHD. At the time of publication, methylphenidate may be recommended for '[off-label](#)' use in this guideline. Your doctor should tell you this and explain what it means.

Occupational therapist

A person with expertise in treating psychiatric and physical conditions using activity.

'Off-label' use

In the UK, medicines are licensed to show that they work well enough and are safe enough to be used for specific conditions and groups of people. Some medicines can also be helpful for conditions or people they are not specifically for. This is called 'off-label' use. There is more information about licensing medicines on [NHS Choices](#).

Paediatrician

A doctor specialising in the treatment of children.

Personality disorder

A condition that leads to a person having unstable moods, thoughts, behaviour and self-image.

Psychological therapy or treatment

A general term used to describe meeting with a therapist to talk about feelings, moods and behaviour.

Severe ADHD

Also called hyperkinetic disorder. A person with severe ADHD has all the symptoms of ADHD (inattention, impulsivity and hyperactivity) in more than one situation (such as school or workplace, home, or with friends). The symptoms affect a person's life to a great degree.

Social skills training

Teaching people to be more socially aware in their relationships with other people.

Specialist

A psychiatrist, paediatrician, learning disability specialist, social worker or occupational therapist with expertise in ADHD.

Stimulant

A drug that increases activity in the brain, and has a calming influence on hyperactivity and improves concentration.

Tics

Movements of the muscles over which a person has no control.

Tourette's syndrome

A disorder in which a person has tics and speaks involuntarily (sometimes in obscenities).

Sources of advice and support

- ADDers.org
www.adders.org
- ADDISS (The National Attention Deficit Disorder Information and Support Service), 0208 952 2800
www.addiss.co.uk
- ADHD Foundation
www.adhdfoundation.org.uk
- Adults with Attention Deficit Disorder UK (AADD-UK)
www.aadd.org.uk
- YoungMinds, 0808 802 5544 (helpline for parents)
www.youngminds.org.uk

You can also go to [NHS Choices](#) for more information.

NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.

Other NICE guidance

- [Antisocial behaviour and conduct disorders in children and young people \(2013\) NICE guideline CG158](#)

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Accreditation

