ADHD
A guide for UK teachers
Introduction -
Teachers and ADHD

Knowingly or not, you’ve probably already taught a child with Attention Deficit Hyperactivity Disorder (ADHD). The condition affects an estimated 5% of children\(^1,4\) – one or more in every class of 30 on average. While there is concern in some countries (especially the US) that ADHD is over-diagnosed and over-treated, it remains the case that in the UK some children with ADHD still go unrecognised and untreated.\(^2\)

ADHD causes significant disruption to children’s lives (and to the lives of those around them) both at home and at school. It leads to underachievement at school, and can result in anti-social behaviour, delinquency and drug abuse in later life.\(^3\)

ADHD is a valid clinical condition, with clear diagnostic criteria, an increasingly well-understood biological basis, and effective treatments supported by both NICE (The National Institute for Health and Clinical Excellence)\(^4\) and SIGN (The Scottish Intercollegiate Guidelines Network).\(^2\)

This document is designed to provide summary and guidance in relation to ADHD, specifically tailored to the needs of teachers. Separate but complementary versions are available for primary care workers and parents/carers.

All three versions are grounded in the European Guidelines for Hyperkinetic Disorder,\(^1\) which have recently been updated by a group of expert researchers and clinicians working in different countries across Western Europe. Recognising that practice varies between countries, these European guidelines are not prescriptive but consist of a series of statements of evidence based or consensus-driven general principles rather than detailed protocols. On some points of detail (for example certain medications and the significance of food additives) this document reflects current UK perspectives rather than the European guidelines.
While most specific treatments for ADHD will be given in secondary care, children with ADHD have behaviour problems that, by definition, affect both the home and the school, and the teacher has a number of important roles to play:

- A teacher may be the first person to express concern about a child’s behaviour and suggest seeking medical help or advice.
- Specialists investigating possible cases of ADHD often want to find out as much as possible about how the child behaves and performs at school.
- Teachers sometimes play an important role in treatment, working with psychologists and other specialists to develop approaches to the organisation of learning and classroom management that will help children improve their behaviour.

The aim of this guide is to provide you with the sort of information you will find useful as teachers, as well as some idea of what will happen once the child moves to specialist care. First, we provide some background to the condition. This is followed by a discussion of the whole process of diagnosis and treatment, with a special focus on the role of the teacher. We recognise that training for teachers in this area is limited, and this guide is a small contribution towards improving the situation.

We hope that the information about ADHD contained in this guide will help teachers to contribute towards improved management of this common, damaging and often misunderstood condition.

Dr David Coghill
University of Dundee

Professor Edmund Sonuga-Barke
University of Southampton
Background to ADHD

- ADHD is a clearly defined clinical condition.
- ADHD is common.
- ADHD tends to run in families, but probably results from a combination of factors.
- Children with ADHD often have other problems.

What is ADHD?
Attention Deficit Hyperactivity Disorder (ADHD) is a clearly defined clinical condition and not just a label for naughty or badly brought-up children.

ADHD is diagnosed when a child exhibits abnormally high levels of:
- Inattention (short attention span, easily distracted, doesn’t finish things, disorganised, forgetful etc)

and/or
- Hyperactivity and impulsiveness (fidgets, can’t sit still, always on the go, talks too much, interrupts, can’t wait their turn etc).

To qualify as true ADHD, these problems:
- Must be long-term (present for at least 6 months).
- Must be abnormal for the age and stage of development of the child (what’s normal in a 2-year-old is not normal in a 10-year-old).
- Must have been present before the age of 7. Symptoms are nearly always seen before the age of 5 years. ADHD is a developmental disorder, and doesn’t appear suddenly.
- Must be genuinely disruptive to the child’s everyday performance and wellbeing – mere naughtiness at home or not doing well at school is not enough.
- Must occur in more than one place, for example both at home and at school. Problems that are present just at home or just at school, are likely to have other causes.
Subtypes
Not all children with ADHD are hyperactive. Some children only have problems with inattention and some (actually very few) only have problems with hyperactivity and impulsiveness, but many have a combination of both types of problem.\(^5\)

The term “Hyperkinetic Disorder” is also sometimes used to describe those children with the most severe ADHD, where the symptoms of inattention and hyperactivity and impulsivity are seriously disrupting the lives of children at home, at school and in the community.\(^1\)

How common is ADHD?

Sex Differences
ADHD is more common in boys than in girls, with a ratio of approximately 4 boys to 1 girl.\(^4\)

What causes ADHD?
The exact causative mechanisms of ADHD are not known, but evidence from several sources points to the importance of biological factors.

There is not just one single cause: ADHD is almost certainly the result of a combination of factors, and this combination will vary from child to child.

Practical Point:
ADHD affects 5% of school-age children.\(^1,4\) This means that the average UK classroom will include at least one child with ADHD. The more serious cases that qualify as hyperkinetic disorder affect about 1.5% of primary school children.\(^1,4\) In the UK, not all of these children will have been investigated and diagnosed.
The role of genes

- **Studies of twins** suggest that 65%-90% of the risk of having ADHD is associated with a person’s genes. This means that ADHD is often inherited and tends to run in families.

- **Specific genes** have been linked to ADHD. People with these genes don’t all have ADHD, but they are more likely to have it than people without these genes. Many of these genes have to do with action of the neurotransmitters* dopamine and noradrenaline. The main medical treatments for ADHD boost the function of dopamine and noradrenaline.

The role of other factors

Some factors in the child’s development may increase the chances of having ADHD, but are not the whole cause of the problem. These include:

- Difficult or complicated labour.
- Low birth weight.
- Mother using benzodiazepines,† smoking or drinking excessive alcohol during pregnancy.
- Brain diseases and injuries.

Brain processes

Brain scan studies have found subtle but distinct differences between the brains of people with and without ADHD, in their structure, the way in which they develop and the ways that they work.

Other problems

Unfortunately, children with ADHD often have other problems too. These might include:

- Conduct disorder (persistent lying, stealing, truancy, vandalism etc) and oppositional defiant disorder (persistent and abnormally uncooperative and defiant behaviour).
- Anxiety and depression. Children with ADHD often have low self-esteem or feel insecure because of failures at school or in making friends.
- Problems with language, reading and writing.
- Clumsiness.
- Tic disorders.

There is also a link between ADHD in children and delinquency and academic underachievement in adolescents and young adults.3,4

---

* Neurotransmitters are substances that transmit nerve impulses from one nerve cell to another.
† Tranquillizers such as diazepam and temazepam.
The referral process

ADHD is diagnosed by specialists. However, different professions play a key role in the referral to specialist services.

The GP also plays a key role in the referral process.

If they suspect ADHD, the GP might ask about:

- The child’s behaviour (is (s)he easily distracted, does (s)he finish things (s)he started, does (s)he fidget a lot, can (s)he wait her/his turn etc).
- How long the problems have lasted.
- When the problems started.
- How the child’s behaviour is affecting life at home and at school.

To check for other causes of the problem, the consultation could also include a physical examination, a test of hearing and questions about how much sleep the child is getting.

The doctor may ask the parent and/or child to fill in a short questionnaire to give a clearer picture of the child’s problems.

Practical point

Teachers may be the first to spot ADHD as it often represents a barrier to school success. The first point of referral for classroom teachers is the Special Educational Needs Coordinator (SENCO) (or nearest equivalent in areas where there are no SENCOs), who can then refer on to outside agencies if appropriate. Clearly it is important to involve the parents or carers at an early stage.
The specialist team

The medical specialists who work in ADHD are child psychiatrists and paediatricians. They work in a team with other health professionals such as specialist nurses and psychologists.

At the first appointment, the specialist may not start a full assessment. In some cases, they may judge that some advice and support may be enough to improve things. If this doesn’t work, then a full assessment will be needed.

A full assessment will probably be spread over more than one appointment and involve more than one member of the specialist team.

A full assessment should usually include:

- A physical examination, vision and hearing check.
- An interview with the parents covering the child’s symptoms and medical history.
- An interview with the child, covering:
  - How he gets on in the family, at school and with friends.
  - Whether he seems depressed or anxious.
  - What he thinks about his problems and how he copes.

The specialist team may ask you for this information on the phone, in a written report, or in a questionnaire.

As part of the assessment, the parents and the child may be asked to complete questionnaires to get a fuller picture of the symptoms.

Practical point

Contact with the school or pre-school

Knowledge about how the child behaves and performs away from home is crucial to the diagnosis of ADHD. With the permission of the parents, the specialist team may contact the school (or pre-school) to ask about:

- Behaviour and behavioural problems.
- The child’s level of development.
- Social functioning.
- Symptoms of other possible disorders.
- Relationship with the teacher.
- How the teacher manages the child’s problems.
Advice, information and support for children, parents and teachers is an important part of ADHD treatment.

As a minimum, the specialist team should develop an understanding of the child’s problem and offer advice, support and lots of information about ADHD to the child, the parents and the teachers.

Treatment options

Other treatments depend on the individual case. Treatment is likely to include:

- A structured advice, support and behavioural programme for parents and/or the child and/or teachers including specific training on the management of the child’s behaviour.

- Medication.

Medication should only be prescribed following assessment by a specialist in ADHD. If symptoms are mild or temporary, medication may not be needed at all. In many cases it is recommended that a combination of both medication and a structured advice, support and behavioural programme is the best way to manage the full range of problems experienced by those with ADHD. However, the extent to which this is possible will vary from region to region based on local resources and expertise.

All these approaches work in many cases. None of them work in every case. If one approach doesn’t work, the specialist is likely to try another.

Some children may also be able to work one-to-one with a therapist, to develop techniques for monitoring their own behaviour and controlling it better.

Help with other problems

ADHD seldom occurs without other problems, and specific help may be offered for these:

- Training in social skills to help children make and keep relationships and avoid aggressive behaviour.

- Counselling to improve self-esteem.

- Remedial teaching.
Practical point

Structured advice, support and behavioural programmes

ADHD isn’t caused by bad parents or bad teachers, but research has shown that structured programmes of advice and support for parents and teachers can improve the child’s behaviour and concentration. Psychologists work with parents and teachers individually or in groups. They help them to:

- Consider classroom structure and task demands (e.g. having the child seated close to the teacher, brief academic assignments, interspersing classroom lectures with brief periods of exercise).
- Focus on particular problem times or situations (e.g. mealtimes, getting ready for school, start of the lesson) and track the child’s behaviour over time.
- Work out in advance what to do when a child behaves well or badly – then do it consistently.
- Develop techniques for getting a child to listen (e.g. eye contact, one thing at a time, what to do rather than what not to do).
- Use token systems and contracts.
- Use ‘time out’ as a sanction.
Medication

- What specialists prescribe.
- What side-effects to look out for.
- Guidance on the question of drug abuse.

Main agents

The medicines licensed in the UK for ADHD are:

- **Methylphenidate**
- **Dexamfetamine**
- **Atomoxetine**

*Methylphenidate* and *dexamfetamine* belong to the same class of medicines, called stimulants.\(^1\)

*Atomoxetine* is a selective noradrenaline reuptake inhibitor.\(^3\)

The development of long-acting medicines

The effect of methylphenidate lasts only for a few hours, so more than once daily dosing is recommended.\(^1\)

Three longer acting once-daily preparations of methylphenidate lasting for between 8 and 12 hours (equivalent to methylphenidate two or three times daily)\(^6,7,9\) are currently available in the UK.

Atomoxetine is also taken once or twice daily.\(^8\) While these drugs frequently provide effective treatment they also have side-effects.

Practical point

For the child, long-acting medications may avoid embarrassment and increase privacy at school, and may make it more likely that they will take the medicine as prescribed. For the school, not having to dispense a medication is a great advantage.\(^1\)

However, once-daily dosing may reduce dose flexibility and tailoring at different times of the day.

*Note* — There is no standard dose of these medicines — the best dose varies from child to child. Normally the specialist will start with a low dose and gradually increase it, looking for the best balance between effectiveness and side-effects. At this stage, parents and teachers may be asked to monitor the child’s behaviour quite intensively using standard questionnaires.
Treatment expectations

It is important to understand the potential benefits and limitations of medical treatment for ADHD.

- Treatment can greatly improve the symptoms of the child’s ADHD, but cannot cure it completely.
- The child’s doctor will be able to discuss the best treatment based on their individual needs.

Side effects that may occur with medication for ADHD include disturbed sleep, less appetite, stomach upset and headache, although other may also occur.

For a full list of possible side effects please speak to a health professional.

It may take some time to find the best dose of drug treatment to use for the child. The specialist may prescribe a low dose to begin with, then increase it, aiming to achieve symptom relief while minimising.

During the early stages of treatment, you may be asked to help monitor the child’s symptoms using forms provided to you, and to look out for side effects.

Length of treatment

How long will the child need medication for ADHD?

This is not fixed in advance. It may need to continue for years, and some adults are helped by medication\(^1\) (although these medications are not licensed for use in adults). Medication should be stopped periodically (for example, once a year) to see how the child gets on without it.
Medication

Does the use of methylphenidate and dexamfetamine in childhood increase the chances that a child will become addicted to similar drugs, or other drugs, in later life? This question naturally worries many parents, teachers and health professionals. More research needs to be done here before we can answer this with certainty. However we know that having ADHD increases the risk of substance abuse (drugs and alcohol) in later life.

Overall, the studies that have been done suggest that stimulants do more good than harm in this area. In young people with ADHD treated with stimulants, the risk of substance abuse is almost halved compared with those not treated with stimulants.¹

As always, if you have any concerns about a child’s health or medication, you should consult a specialist or general practitioner.

Practical point

Stimulants and Drug abuse

In the UK, methylphenidate and dexamfetamine are controlled drugs. Taken by mouth, methylphenidate is no good as a recreational drug, but there are some cases of it being diverted for illicit use by intravenous injection.¹ Once-daily formulations mean that children do not have to bring medications to school. The once-daily preparations are much more difficult to grind up or snort.¹⁰
Parents often feel that diet plays a role in their child’s ADHD.

The possible role of foods or additives (such as sugar, artificial colourings and preservatives) in causing behavioural disorders in children, particularly ADHD, has been a controversial subject.²

Published evidence suggests that while particular foods or additives don’t cause ADHD in most cases, in some cases ADHD patients have specific reactions to particular foods that can play a role for them. Furthermore a recent carefully designed trial showed that a combination of artificial colourings and preservatives significantly increased levels of ADHD symptoms in the general population.¹¹

The role of omega-3 fatty acids (important for brain development and function) in improving the symptoms of ADHD has been investigated in recent years. Dietary supplementation with fish oils (providing EPA and DHA) appears to alleviate ADHD-related symptoms at least in some children.¹²

A food diary is one way of trying to find out whether there is any link between behaviour and food in an individual child.¹

Elimination diets (i.e. avoiding specific foods) are sometimes recommended by specialists, although these may turn out to be effective for a minority of children only.¹
Treatment Recommendations*

Healthcare professionals should offer parents or carers of pre-school children with ADHD a referral to a parent-training/education programme as the first-line treatment if the parents or carers have not already attended such a programme or the programme has had a limited effect.

Teachers who have received training about ADHD and its management should provide behavioural interventions in the classroom to help children and young people with ADHD.

If the child or young person with ADHD has moderate levels of impairment, the parents or carers should be offered referral to a group parent-training/education programme, either on its own or together with a group treatment programme (cognitive behavioural therapy [CBT] and/or social skills training) for the child or young person.

In school-age children and young people with severe ADHD, drug treatment should be offered as the first-line treatment. Parents should also be offered a group-based parent-training/education programme.

Drug treatment for children and young people with ADHD should always form part of a comprehensive treatment plan that includes psychological, behavioural and educational advice and interventions.

When a decision has been made to treat children or young people with ADHD with drugs, healthcare professionals should consider:

- methylphenidate for ADHD without significant comorbidity
- methylphenidate for ADHD with comorbid conduct disorder
- methylphenidate or atomoxetine when tics, Tourette’s syndrome, anxiety disorder, stimulant misuse or risk of stimulant diversion are present
- atomoxetine if methylphenidate has been tried and has been ineffective at the maximum tolerated dose, or the child or young person is intolerant to low or moderate doses of methylphenidate.

Practical point
Tips for teachers

Don’t take it personally. There is a medical reason for much of the child’s behaviour.

A reason is not an excuse. ADHD is the reason for unacceptable behaviour, but not an excuse for it. With your help, children with ADHD can learn to control their behaviour better.

Keep in contact with the parents so that you know each other’s problems and share the same approach.

Sit the child close to you. Ideally put them between two calm and well-behaved pupils, and away from doors, windows and other potential distractions.

Provide legitimate opportunities to be physically active. Let them be the one to go and fetch something or wipe the board.

Try to find them a way to allow them to fidget, without driving you and everyone else crazy. Squeeze balls are at least quiet.

Children with ADHD have difficulty with planning activities and doing them in the right order. It’s helpful to give an overview of what you want them to achieve: “You’re going to write a review of a book.” Then break it into smaller steps: “First I’d like you to choose a book…” etc. A written checklist can be useful. Some children find it useful to say out loud what they are going to do next. Children with ADHD need practice in planning and sequencing activities.

Beware of changes to routine and changes of activity. Children with ADHD may find these particularly unsettling. Explain in advance what’s going to happen if it’s different to what they expect.

Improve their self-esteem by praising them in public for good behaviour and reprimanding them quietly, one-to-one.

Teasing and bullying by other pupils may be a problem, inside and outside the classroom. Setting children with ADHD up with an older “buddy” who can help to keep them out of trouble may be helpful in some cases.
Other useful information

Support Group
This group provides advice, information and support to individuals and families, and also promote better awareness of ADHD.

ADDISS - ADHD Information Services
2nd Floor, Premier House
112 Station Road
Edgware, HA8 7BJ
Phone: 020 8952 2800
www.addiss.co.uk
info@addiss.co.uk

Other resources
Website
www.livingwithadhd.co.uk
www.mentalhealth.org.uk
www.chadd.org
www.adders.org
www.teachernet.gov.uk

Book
References


