

# ABOUT ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

Many toddlers and young children are restless and excitable. This is normal, as they have lots of energy and are constantly learning about the world and moving from one experience to the next.

However, some children are extremely overactive and do not grow out of this type of behaviour. It can be very difficult to keep them safe and calm. They may be diagnosed with attention deficit hyperactivity disorder (ADHD) or attention deficit disorder (ADD), if they do not show the symptoms relating to hyperactivity.

Children and young people with ADHD may experience the following symptoms:

Issues around attention:

Problems with concentration, short attention span, getting distracted, finding it hard to follow instructions, losing things or not being organised

Issues around hyperactivity:

Struggling to sit still, finding it hard to keep sitting down, fidgeting and moving a lot, talking or making noises, fiddling with things.

Issues around impulsiveness:

Interrupting other people, finding it hard to wait their turn, doing things or saying things without thinking through the consequences, having a reduced sense of danger.

Children with ADHD find it really hard to control their behaviour and have problems concentrating. They may do things without considering the consequences, and then get into trouble

They may have problems at school because they cannot concentrate on their work, (whatever their level of intelligence) and they can have friendship problems if they are not able to listen to their peers or wait their turn.

ADHD is diagnosed in around one to two children out of every 100. It is more common in boys than girls. It is thought to be caused by problems in the part of the brain which controls impulses and concentration, but other factors may also have an impact. There is probably also a genetic element, as ADHD can run in families.

Background Information on ADHD Attention deficit hyperactivity disorder is a condition, which affects those parts of the brain which control attention, impulses and concentration (a neurobiological condition). It is thought to affect 3 to 7% of school age children.<sup>1 2 3</sup> There is some evidence that boys are three times more likely to suffer from ADHD than girls.<sup>4</sup> Until recent years it was thought that children outgrew ADHD in adolescence. However, it is now known that in approximately one third to one half of children with ADHD, the symptoms continue into adulthood.<sup>5</sup>

The best description for ADHD is that a child who suffers from this condition shows disruptive behaviours, which cannot be explained by any other psychiatric condition and are not in keeping with those of the same-aged people with similar intelligence and development. These behaviours are usually first noticed in early childhood, and they are more extreme than simple “misbehaving”. Children with ADHD have difficulty focussing their attention to complete a specific task. Additionally they can be hyperactive and impulsive and can suffer from mood swings and “social clumsiness”.

Although people with ADHD can be very successful in life, without identification and proper treatment, ADHD may have serious consequences, which can include<sup>4</sup>: -

- Under- performance at school
- Depression
- Problems with relationships
- Problems finding and keeping a job
- Criminal behaviour

Early identification by a healthcare professional is therefore very important to ensure that the child can fulfil his/her full potential.

Children with ADHD tend to display the following behaviours: -

- Hyperactivity
- Impulsive behaviour
- Inattention
- Social clumsiness
- Poor coordination
- Disorganisation
- Mood swings
- Specific learning disabilities such as dyslexia, language problems, difficulties with handwriting/written work

In people with ADHD, behavioural problems are seen in several places i.e. not just at school. Some children with ADHD have significant problems with concentration and attention but are not necessarily overactive or impulsive.

### **Symptoms and Diagnosis**

Typically the symptoms of ADHD develop in early childhood. Healthcare professionals use a list of symptoms to officially diagnose ADHD (known as the diagnostic criteria of the American Psychiatry Association DSM-IV or the World Health Organisation ICD10). Although the diagnostic guidelines state that symptoms

must start before the age of 7, leading researchers in ADHD argue that the criteria should be broadened to include a child developing ADHD anytime during childhood.<sup>2</sup>

Diagnosis can be quite challenging because: -

- There is no physical test for ADHD (such as a blood test)
- All children may have some problems with self-control
- Other problems can result in behaviour similar to ADHD
- e.g. language or hearing difficulties, dyslexia or major life disruptions
- ADHD exists in conjunction with many other conditions whose symptoms can overlap and mask those of ADHD
- e.g. Asperger's syndrome, language disorder, dyspraxia and obsessive compulsive disorder

Children with ADHD are restless and cannot sit still or do any one thing for very long. They are easily distracted and, because they find it so hard to pay attention, they may often be criticised for being careless and making too many mistakes at school. They appear not to listen when someone is talking to them, they find it hard to wait their turn and they can be disruptive in play.

### **Diagnostic Criteria for ADHD**

The official list of symptoms which healthcare professionals use to diagnose ADHD (diagnostic criteria DSM-IV1 or ICD-10)state that: -

The child must display either inattention or hyperactivity-impulsivity (or both) and symptoms must have been present for at least 6 months.

- Inattention. Usually at least 6 symptoms are seen.
  - Fails to pay close attention to details or makes careless errors in schoolwork, work or other activities
  - Has trouble keeping attention on tasks or play
  - Doesn't appear to listen when being told something
  - Neither follows through on instructions nor completes chores, schoolwork, or jobs (not due to failure to understand or a deliberate attempt to disobey)
  - Has trouble organising activities and tasks
  - Dislikes or avoids tasks that involve sustained mental effort (homework, schoolwork)
  - Loses materials needed for activities (assignments, books, pencils, tools, toys)
  - Easily distracted by irrelevant information
  - Forgetful
- Hyperactivity-Impulsivity. Usually at least 6 symptoms are seen.

#### Hyperactivity

- Squirms in seat or fidgets
- Inappropriately leaves seat

- Inappropriately runs or climbs (in adolescents or adults, there may be only a subjective feeling of restlessness)
  - Has trouble quietly playing or engaging in leisure activity
  - Appears driven or "on the go"
  - Talks excessively
  - Impulsivity
  - Answers questions before they have been completely asked
  - Has trouble waiting his/her turn
  - Interrupts others
- Symptoms begin before age 7
  - Symptoms must be present in at least 2 places, such as school, work or home
  - The disorder negatively affects school, social or occupational functioning
  - The symptoms do not occur solely due to a psychotic disorder (such as schizophrenia)
  - The symptoms are not better explained by an alternative disorder (such as a mood, anxiety or personality disorder)

### **Process for ADHD Diagnosis**

Only healthcare professionals can officially diagnose ADHD. One (or more) of the following types of healthcare professional could be involved in the process: -

- Child psychiatrist
- Child psychologist
- Paediatrician
- Psychiatric social worker
- Educational psychologist
- GP

There are four main steps which a child psychiatrist or paediatrician will use for diagnosing ADHD and which you can consider if you think your child may have ADHD.<sup>4</sup>

1. The healthcare professional will look for alarm signals: -
  - The child who significantly under-performs at school, despite having a normal intellect and no major specific learning disabilities
  - The child who has ADHD behaviour problems which are considerably worse than would be expected
- They will exclude ADHD look-alikes, such as: -
  - The normal active pre-school child
  - Intellectual disability
  - Hearing impairment
  - Autism
  - Epilepsy
  - Depression
- They may also use some objective pointers towards diagnosis: -
  - Questionnaires by parents and teachers e.g.
    - Conners Teacher and Parent Rating Scales

- Achenbach Child Behaviour Checklists
  - Edelbrock Child Attention Problems Rating Scale
  - Barley and DuPaul ADHD Rating Scale
- DSM-IV or ICD-10 criteria
- Tests which measure the length and type of mental process (psychometric tests and profiles)
- Tests of attention and persistence e.g.
  - The Paired Association Learning Test
  - Continuous Performance Test
- Healthcare professionals have been trained to look at a detailed history of someone with suspected ADHD in order that they may recognise the smallest signs and symptoms. It is therefore important that they are consulted to ensure an accurate diagnosis.

ADHD can be exhibited in mild, moderate and severe forms. The mild and moderate forms may be responsive to psycho-social interventions (i.e. those not requiring medication)

### **Treatment**

Most experts agree that the most effective way to treat ADHD is with a variety of different approaches. Depending on the needs of the individual child, a combination of medical, teaching and behavioural support can help the child to reach his/her full potential and live as normal a life as possible, having meaningful relationships and reducing family stress. Some treatment options are outlined below: -

#### **1. Psychiatry/psychology**

- Psychiatrists and psychologists have a major role in diagnosing ADHD, implementing behavioural programmes, prescribing medication (psychiatrists) and supporting parents

#### **2. Behavioural Therapies**

- Behavioural interventions can include:
  - Family therapy focusing on management strategies
  - Individual therapy focusing on changing behaviours

#### **3. Medications**

- Parents, in consultation with doctors, should decide if they would like their child to try medication
- Where medications are prescribed to treat ADHD these are mainly psychostimulants. There are some concerns with these current treatments and you must speak to your healthcare professional if you have any worries. Psychostimulants work by changing the levels of natural chemicals in the brain, which appear to be incorrectly balanced

in ADHD children. These treatments help the 'controlling' and 'inhibiting' part of the brain to work in a more normal way and the child is able, to concentrate better and behave in a calmer way.

- Tricyclic antidepressants are also used

#### **4. School-based Interventions and Preventive Measures**

- School-based intervention can include:
  - Help with reading, spelling, maths and organisation
  - Speech therapy
  - Physical education therapy
  - Counselling

#### **5. Social Skills Training**

- Many children with ADHD have difficulty socialising. Because they don't recognise the more subtle rules of communication, they frequently make mistakes and are teased by other children. In social skills training, children are taught in groups to think how their words and behaviour affect those around them

#### **6. Coordination Training**

- Since many children with ADHD have coordination problems, there are a few therapies that specifically help develop coordination (known as sensory-motor integration). Some children receive this therapy in schools

#### **7. Diet**

- Some parents see an improvement in their child's behaviour when the following foods are removed from the child's diet: -
  - Caffeine – found in chocolate, coffee and some fizzy drinks
  - Some cordials
  - Artificial colourings

#### **8. Parenting support**

- Support for parents is a vital component in the combination of therapies advised to tackle the disorder. It is particularly important as services to diagnose and treat ADHD are seriously underfunded and overloaded

- Although children with ADHD have unique problems, many of the principles of parenting still apply. They particularly need consistent discipline and a structured lifestyle
- Parents can attend parenting classes, as well as join associations and self-help groups to ensure their concerns and opinions are heard

Attention Deficit Hyperactivity Disorder (ADHD) is a complex condition in which the child can have several of a group of symptoms. Due to the range of potential symptoms, and the fact that some of these symptoms can be present due to other conditions or problems, the diagnosis of ADHD can be quite challenging. However, early identification so that treatment (whether behavioural, psychological or medication) can be started is very important, so that the child is able to achieve his/her full potential.

### References

- <sup>1</sup> American Psychiatric Association DSM IV diagnostic criteria
- <sup>2</sup> Barkley RA et al. ADHD: a handbook for diagnosis and treatment. New York 1998. Guilford Press Barkley RA
- <sup>3</sup> Wolraich ML et al. Comparison of diagnostic criteria for ADHD in a countrywide sample. Journal of the American Academy of Child and Adolescent Psychiatry 1996;35:319-324
- <sup>4</sup> Green C and Chee K. Understanding ADHD – A Parent's Guide to Attention Deficit Hyperactivity Disorder in Children. Vermillion Publishing 1997. ISBN 0 009 181700 5
- <sup>5</sup> Murphy KR and Barkley RA. The prevalence of DSM-IV symptoms in adult licensed drivers. Implications for clinical diagnosis. Comprehensive Psychiatry 1996;37:393-401

### Essential Reading

Green C and Chee K. **Understanding ADHD – A Parent's Guide to Attention Deficit Hyperactivity Disorder in Children.**

Dr Geoffrey Kewley, **ADHD Recognition Reality and Resolution**