



# THE COMORBIDITIES THAT EXACERBATE ADHD

**Dr Elizabeth Green**  
Paediatrician

**A**ttention deficit hyperactivity disorder, known as ADHD or ADD, is real. It affects 5-7 per cent of our kids and families. Less than 2 per cent of Western Australian children are prescribed stimulant medication to treat this significant condition.

Children function poorly at home and at school when they can't concentrate, listen and remember. These kids have the inattentive form of ADHD.

Children who are constantly busy, distractible and unable to focus, have ADHD with hyperactivity, or ADHD with inattention and hyperactivity.

The formal classification of ADHD is listed in the Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM - 5™).

ADHD is not about "naughty children", "drugged up kids" or "bad parenting". It is a recognised neurodevelopmental disorder that occurs when genes and circumstance influence the way the brain develops, functions and matures. There is a gender selection towards boys and a growing awareness that adverse factors such as smoking in pregnancy and prematurity play a role.

## ADHD and cognition

Children with ADHD have a normal range of intelligence, but have difficulty converting information into knowledge. They have problems with executive functioning – the working

memory and processing speed capacity of their brain. Impulsivity and poor choices can get them into trouble. Their social filter doesn't always work, so friendships can be lost.

Think of working memory as a sieve in which you put a to-do list of words. Kids with ADHD have a leaky sieve. This makes it hard for them to think, plan, organise, recall and focus. Remembering facts and time management is a challenge.

Yet, they are often creative, innovative and amazing people who prefer visual and hands-on learning tasks.

Music, drama, technology, poetry and sport are strengths. Written expression, spelling and the language convention of math can be weak.

Time pressure and deadlines create anxiety. Homework doesn't work for the student with ADHD. A teacher who "gets" the kid who thinks differently, does.

## ADHD is a clinical diagnosis

ADHD is a clinical diagnosis. We don't bombard kids with expensive brain imaging. Paediatricians listen to children and adolescents. They speak with parents and liaise with teachers, clinical psychologists, occupational therapists and speech pathologists. These are the people who value children and try to help kids with the behavioural, academic, social and emotional problems of ADHD.

ADHD benefits from a holistic approach, addressing the needs of the child, rather than treating a diagnosis. Stimulant medications, methylphenidate (Ritalin®) and dexamphetamine, are an effective part of management. They predominantly increase the level of dopamine, a neurotransmitter which improves concentration and mood. Atomoxetine (Strattera®) is a non-stimulant medication which raises the level of noradrenaline in the brain. It has a useful role in the medical treatment of ADHD when stimulants aren't tolerated because of adverse side effects.

Stimulant medication can be life changing for families but can't treat comorbid conditions. These include: anxiety, autism, specific learning disorders, motor tics, mental ill health, foetal alcohol spectrum disorder (FASD) and chromosome disorders which include Fragile X. They make ADHD worse.

## ADHD and anxiety

Anxiety amplifies the symptoms of ADHD. Bright kids cope in primary school but under-achieve. They fail in high school. They experience performance pressure and can't complete work within a given timeframe. These kids become anxious, sad and fall behind. Some students disengage from learning and socially withdraw. They act out or get angry and self-harm. Cutting has cult status.

ADHD, anxiety and motor tics is a recognised triad. It is best managed by treating the anxiety that accompanies ADHD. Stimulant medication can improve or worsen repetitive tics such as eye blinking or shoulder shrugs.

### ADHD and autism

Language and social skills are impaired in both ADHD and autism. In high functioning autism (HFA), better understood as Asperger syndrome, kids have language, but struggle with inferential and higher order language concepts and social cues.

When these neurodevelopmental disorders coexist, the functional impairment of the child is greater. ADHD frequently unmasks the anxiety and obsessive mannerisms of HFA around the time of puberty.

### ADHD and specific learning disorders

Students who have problems with reading (dyslexia), math (dyscalculia) and writing (dysgraphia) may also have inattentive ADHD. They have problems with processing information and visual and auditory short term memory. Language impairment is evident in both. Teenage boys with ADHD often present with a specific impairment with written expression, yet are eloquent orators.

These kids struggle with the school curriculum, but with timely support can achieve in tertiary studies. You must never give up on them.

### ADHD and FASD

Alcohol use in any stage of pregnancy can cause the specific facial, behavioural and cognitive markers of FASD. Associated problems with learning and emotional control are hard to distinguish from ADHD. Combined, these conditions result in severe academic and social deficit.

### ADHD and Fragile X

Fragile X is an inherited chromosomal abnormality. It is linked with autism and ADHD and complicates their management. Severe behavioural disturbance can occur, especially with puberty. It is the one genetic condition worth screening for in severe ADHD.

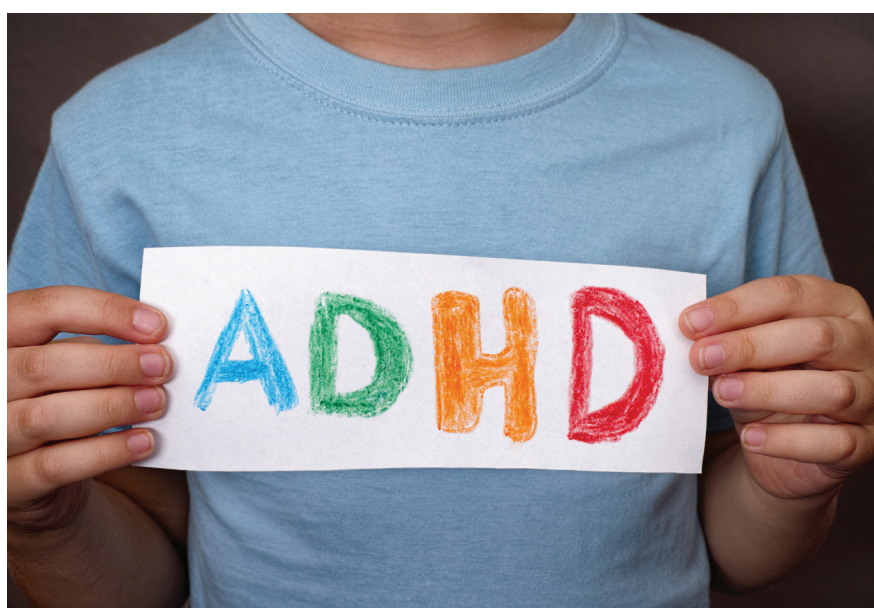
### ADHD and addiction

Addiction occurs in genetically and environmentally vulnerable families. Untreated ADHD with oppositional

important to try. Children hold the right to be believed, respected and valued.

### Conclusion

Medical professionals should acknowledge the complexity of ADHD, identify comorbid conditions and determine each child's needs. ADHD then becomes more manageable and a child can expect a positive outcome. When a child learns to handle their anxiety for example, they find that their ADHD improves.



behaviours can lead to young adults self-medicating with alcohol and drugs. The supervised use of stimulant medication may alter this trajectory.

### ADHD and attitude

Teachers, doctors, parents and peers determine how ADHD is perceived. Professionals have a responsibility to be ethical in their approach, especially when they have a personal bias about ADHD. It is hard for a child to cope with the adversity of ADHD. They shouldn't have to carry the added burden of judgement.

Unless you have a child or family member with ADHD, it is hard to walk in the shoes of the affected child. But, it is

Kids can't do this alone. ADHD kids respond to positive parenting. They thrive when parents and educators provide structure, firm but fair boundaries, limit setting and minimal choices.

Parents must also ensure they have robust mental health and seek professional health when they don't. It is a bad idea to parent when angry and impossible when a child is in emotional meltdown mode. Wait for the calm; acknowledge the child's distress. Step back, listen and try to understand how they feel.

Dislike the challenges of ADHD, but love the child. A diagnosis of ADHD does not define the child. ■