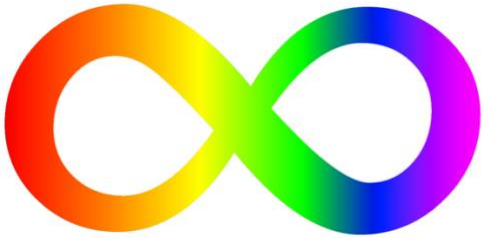
Facts & Myths about Neurodevelopmental Conditions

Clearing Up Common Misconceptions about Neurodevelopmental Conditions

Neurodevelopmental conditions such as autism (ASD), dyslexia, Tourette's syndrome, attention deficit hyperactivity disorder (ADHD), dyspraxia (DCD), dyscalculia, and dysgraphia, are frequently misunderstood. **Misconceptions can lead to stigma**, delayed diagnosis, and inadequate support. Let's learn and help others to learn the facts and myths, too.

Autism Spectrum Disorder (ASD)

MYTH	FACT
Autism is caused by vaccines.	Multiple large-scale studies involving millions of children have found no link between vaccines and autism. The original 1998 study claiming this was retracted, and its author was struck off the medical register.
Autistic people lack empathy.	Many autistic people feel empathy deeply. They may process or express it differently and can experience 'empathy overload'. The 'double empathy problem' also highlights mutual communication differences.
Autism is a childhood condition.	Autism is a lifelong neurological difference. Adults are autistic — the condition doesn't disappear; it may simply become better masked or managed over time.
All autistic people have savant abilities.	While some autistic people have exceptional skills in specific areas, this is not universal. Autism is a broad spectrum with huge variation in strengths and challenges.
Autistic people can't form relationships or love.	Autistic individuals form deep, meaningful relationships. They may socialise differently, prefer smaller social circles, or need clearer communication — but connection and love are absolutely part of autistic lives.



Attention Deficit Hyperactivity Disorder (ADHD)

MYTH	FACT
ADHD is just an excuse for laziness or bad parenting.	ADHD is a recognised neurodevelopmental condition with a strong genetic basis, backed by decades of neurological and psychological research.
Only children have ADHD — they grow out of it.	ADHD persists into adulthood for roughly 60–70% of people. Millions of adults live with undiagnosed or managed ADHD.
People with ADHD can't focus on anything.	People with ADHD can experience 'hyperfocus' — intense, prolonged concentration on activities they find engaging, alongside difficulty with less stimulating tasks.
ADHD only affects boys.	ADHD affects all genders. Girls are frequently underdiagnosed because they more often present with inattentive symptoms rather than hyperactivity.
Medication is the only treatment for ADHD.	A combination of approaches is most effective: behavioural therapy, coaching, lifestyle adjustments, and in some cases medication — tailored to the individual.

Dyscalculia

MYTH	FACT
Dyscalculia is just 'being bad at maths'.	Dyscalculia is a specific learning difficulty affecting number sense, mathematical reasoning, and arithmetic. It is not poor mathematics performance due to a lack of teaching.
If you can use a calculator, you don't have dyscalculia.	Dyscalculia affects the fundamental sense of numbers — understanding quantity, sequences, and relationships. Calculators help with computation, but do not address the underlying processing difficulty.
Dyscalculia only affects maths in school.	Dyscalculia can affect daily life significantly: telling time, managing money, following directions, cooking with measurements, and understanding timetables are all impacted.
Dyscalculia is very rare.	Dyscalculia is not rare, affecting an estimated 3% to 7% of the population worldwide. It is a persistent math learning difficulty rather than a measure of intelligence, with prevalence rates similar to dyslexia.

Dyslexia

MYTH	FACT
Dyslexia means seeing letters backwards.	Dyslexia is primarily a phonological processing difference — difficulty connecting sounds to letters. Letter reversal is common in early childhood for all children and is not a defining sign of dyslexia.
Dyslexia is a sign of low intelligence.	Dyslexia has no connection to intelligence. Many highly successful scientists, entrepreneurs, artists, and leaders are dyslexic. It affects the way the brain processes written language, not overall cognitive ability.
People with dyslexia just need to try harder.	Dyslexia is a neurological condition, not a lack of effort. Without appropriate support and teaching strategies, no amount of extra effort will overcome the underlying processing difference.
Dyslexia can be cured.	Dyslexia cannot be 'cured', but with structured literacy support, assistive technology, and tailored strategies, dyslexic individuals can become highly effective readers and writers.
Boys are more likely to have dyslexia than girls.	Research suggests dyslexia affects boys and girls in roughly equal numbers. Boys are historically referred for assessment more often, possibly due to different behavioural presentations.

Key Takeaways 🤔

These conditions are neurological in origin and not the result of poor parenting, laziness, or a lack of intelligence. Early identification, appropriate support, and genuine understanding make an enormous positive difference to the lives of neurodivergent individuals. If you suspect you or someone you know may have one of these conditions, speak to a GP, educational psychologist, or relevant specialist.

Approximately 15–20% of the global population is neurodivergent, yet many of these people face high unemployment rates (up to 40%) and significant workplace challenges due to their lack of understanding.

While 60% of employers now focus on neuroinclusion, 35% of neurodivergent staff feel unsupported, and 50% of managers are uncomfortable hiring them as they fear the unknown and different. Let's all help with that.