

## Early Identification + Targeted Treatment = Recovery

One in 500 people have X & Y Chromosomal Variations that cause complex learning disabilities. Of the 10 children born each day with this genetic disorder, only three are ever diagnosed.

Too many health care providers and educators are unaware that common learning disabilities are often caused by X & Y Variations.



Since children with X & Y Variations often have Dyslexia and Dyspraxia, the knowledge gained from their care benefits *all children* who have reading, speech and motor planning dysfunction.

### Our Focus:

Children who have

- X & Y Variations
- Dyslexia
- Dyspraxia

**Because every child deserves a chance to succeed.**

# The children we serve. The conditions we study.

*Because many people with X & Y Variations also have Dyslexia or Dyspraxia, children with reading and learning difficulties of an unknown origin should undergo a simple, genetic blood test to determine the presence or absence of a chromosomal anomaly. There are medical treatments for X & Y Variations, and all three conditions may be overcome through early detection and targeted therapeutic interventions.*

- **X & Y Variations** (also called **X & Y Chromosomal Variations** or **Sex Chromosome Disorders**) are common but frequently undiagnosed neurogenetic abnormalities that differ from the normal gender chromosome pairings of **XX for females and XY for males.**

More than 500,000 people in the United States are believed to have an X & Y anomaly. Research reveals that the vast majority of children with chromosomal disorders—such as XXY, XYY and XXX—are undiagnosed. Another problem is that widespread misinformation about these conditions causes unnecessary distress to families. Contrary to common belief, people with X & Y differences are often bright and exceptionally talented in perceptual tasks (such as design and computers). They can play a variety of sports. They are not hermaphrodites, asexual or sexually confused. They do not have an increased incidence of homosexual or transgender behavior. They typically are not infertile (although they can have low fertility). They are not prone to violence or criminal activity. And they do not have an increased incidence of mental retardation, provided their neurogenetic disorder is identified early and treated appropriately.

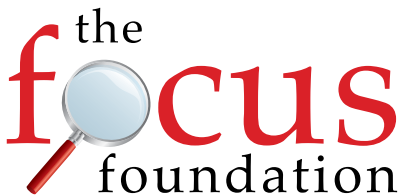
- **Dyspraxia** (also called **Developmental Dyspraxia** or **Childhood Apraxia of Speech**) is a neurological disorder that results in a severe delay or absence of developmentally appropriate verbal, oral-motor, ocular and/or fine or gross motor skills.

A motor coordination and processing disorder, Dyspraxia impacts many domains of development. Symptoms vary and may include challenges with speech, balance and coordination, social skills, reading and writing.

- **Dyslexia** is a neurological processing disorder that impacts reading, word recognition and decoding abilities.

Roughly 10 percent of the U.S. population is believed to have Dyslexia, which is more common in males than in females. Children with Dyslexia struggle academically but are not “dumb” or “lazy.” While Dyslexia is often debilitating if not addressed, the condition can be successfully managed—and even overcome.

**With early identification and targeted treatment, children with these conditions succeed at higher education and lead productive, independent lives.**



**Because every child  
deserves a chance  
to succeed.**

**We are the first and only research-based agency dedicated  
to identifying and helping children who have:**

**X & Y Variations • Dyslexia • Dyspraxia**

Together and individually these conditions can lead to language-based disabilities, attention challenges, learning delays, physical impairments, and social and behavioral dysfunction.

- We strive to help each child develop to his or her fullest potential by assisting in the transformation from vulnerable to powerful, from school failure to academic success, from disabled to able.
- We advocate for and facilitate the research and programs that are needed to best care for children with these conditions throughout the world.
- We promote early detection and intervention efforts for children who have X & Y Variations, Dyslexia and/or Dyspraxia in order to promote recovery.
- We are a 501(c)(3), non-profit, human-service foundation specifically created to address the needs of the estimated one million children in the United States alone who have these conditions. Donations to The Focus Foundation are tax-deductible to the full extent allowed by law.

**To learn more about The Focus Foundation  
and the children we serve, please visit**

**[www.thefocusfoundation.org](http://www.thefocusfoundation.org)**

**General inquires can be addressed to  
[info@thefocusfoundation.org](mailto:info@thefocusfoundation.org) or 443-223-7323**

**Media requests can be directed to  
[focus@coryplacecommunications.com](mailto:focus@coryplacecommunications.com)**

# The Atypical Learner

**Children who exhibit the following symptoms are considered “atypical learners” and could possibly have an X & Y Variation, Dyslexia and/or Dyspraxia.**

- Delayed development of speech
- Clumsiness
- Difficulty interacting with peers
- A short attention span
- Deficits in reading, writing and math
- Behavioral problems
- Disorganization
- Being “just a step” behind when compared to his or her peers
- Impulsivity

It's believed that 40 percent of all children with developmental delays will be diagnosed with a genetic disorder. Parents with a child who exhibits developmental delays or developmental dysfunction should consider asking their pediatrician or primary care provider to draw blood for a karyotype (also called a chromosomal analysis), or provide a referral to a clinical geneticist for an evaluation. Such an evaluation and lab testing should:

- Determine if the child has the appropriate number of chromosomes (46)
- Rule out deletions (missing pieces of chromosomal material) or additions (excess chromosomal material)

These findings are important for diagnosing syndromes, identifying related medical issues and developing appropriate, targeted treatment plans.

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**THE FOCUS FOUNDATION** was founded by Carole Samango-Sprouse, Ed.D. Dr. Samango-Sprouse is an associate clinical professor of pediatrics at The George Washington University Medical School and is on the medical staff of Children's National Medical Center in Washington D.C. She is the director of the Neurodevelopmental Center for Young Children, located near Annapolis, Maryland, and serves on multiple advisory boards for Autism Speaks, among other organizations. The author of more than 60 published articles about brain-based neurodevelopmental assessments and children with neurogenetic disorders, Dr. Samango-Sprouse's book, *The Atypical Learner*, will be published in 2010.