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Autism Agenda



Linn Benton Lincoln ESD-Cascade Regional Autism Program

# Are There Differences Between Autistic Boys and Girls?

Autistic boys and girls may show signs and symptoms of autism in different ways. This can lead to delays in diagnosis in girls, and boys being diagnosed with autism more than girls.

Autism is a neurological and developmental disorder that affects how a person interacts with others, learns, and behaves. Though it can affect anyone, it overwhelmingly affects boys compared to girls.

In part, this may be due to biological differences. But biases, as well as differences, in how each shows the classic symptoms may also play a role.

# Is autism more common in boys vs. girls?

Autism is more common in boys than girls.



Research from 2021 found that autism is about <u>4.2 times Trusted Source</u> more prevalent in boys than girls. This means that for every girl with autism, there are 4 boys with autism.

A <u>2021 study</u> looked at the differences in autism between males and females. Among other findings, they stated that most studies find a rough ratio of 4 boys to 1 girl. They noted that gender differences could affect diagnosis and treatment.

Continued on page 2.

# ARE THERE DIFFERENCES BETWEEN ... CONTINUED....

Many high-profile organizations, like the <u>Centers for Disease Control and Prevention (CDC)Trusted Source</u>, typically report the ratio as 4 to 1 as well.

While most experts think autism is four times more prevalent in boys, there is evidence that says that the difference may be somewhat less dramatic.

A <u>2017 meta-analysisTrusted Source</u> that reviewed over 54 studies found that the ratio may be closer to 3 boys to I girl. Researchers point out that the difference may be due to missed clinical symptoms in girls, which means that many may go unreported and untreated.

Future research will help clarify the role of gender and diagnosis.

# Male vs. female signs and symptoms

The **<u>CDCTrusted Source</u>** describes the signs and symptoms of autism as deficits in:

- social communication and interaction skills, including both verbal and nonverbal communication and interactions
- restricted or repetitive behaviors or interests

They also note that many people on the spectrum may also have additional characteristics, such as delayed speech, motor skill issues, and anxiety.

Some signs of autism that doctors and other specialists may look out for include:

- avoiding eye contact
- not talking as much
- repeating the same words or phrases
- not responding to their name
- showing less facial expressions
- repetitive movements (flapping hands or rocking)
- not talking with other children

A <u>study from 2021</u> has shown that boys and girls without cognitive impairment may present autism symptoms differently.

For example, studies found that boys are more likely to:

- develop rituals and routines
- make less eye contact when in a conversation
- experience unusual fear or distress due to noisy, crowded spaces
- lack interest in peer pressure
- become distressed due to wearing particular clothing items

The differences in signs and symptoms between males and females are subtle, and can often go undetected by common screen tests.

This can lead to the underdiagnosis of girls with lower support needs, which can impact their mental health and overall well-being. Continued on page 3.

#### **ARE THERE DIFFERENCES BETWEEN...**

# HOW IS DIAGNOSING AUTISM DIFFERENT IN BOYS VS. GIRLS?

There is no medical test, like a blood sample, that a doctor can use to diagnose autism. Instead, doctors look at a child's behaviors and developmental history to make a diagnosis.

One of the problems in diagnosing autism in females is the underdiagnosis of females.

Some studies suggest that, in addition to slightly different presentations between boys and girls, girls may be better able to camouflage their differences from "normal" child behaviors.

A <u>2019 studyTrusted Source</u> found similar results to earlier studies that suggested camouflaging or <u>masking</u> is more common among girls.

Camouflaging means a child hides behaviors or traits that may make them look different from others.

Girls may do better at imitating those around them, making it more difficult for caregivers, teachers, doctors, and others to recognize their differences.

Check out this resource for more information on early signs of autism in infants and young children.

# Let's Recap!

Autism has the same clinical signs and criteria for both boys and girls. Many studies report a much higher incidence rate among boys than girls, but this may be skewed due to biological differences, biases, and symptom presentation.

Studies suggest that girls may present autism symptoms differently, though they experience both social issues and repetitive behaviors associated with autism.

If you suspect your child may not be developing the same as their peers, you may want to consider talking with a doctor.

A family doctor can often help connect families with local resources that can help diagnose a potential issue and find services to help.

https://psychcentral.com/autism/comparison-of-boys-and-girls-living-with-autism-spectrum-disorder#recap



#### **GIRLS AND BOYS ON AUTISM SPECTRUM...**

# Girls and Boys on Autism Spectrum Tell Stories Differently, Could Explain "Missed Diagnosis" in Girls

#### Findings highlight the need for sex-sensitive screening and diagnostic tools

Boys are four times more likely than girls to be diagnosed with <u>autism spectrum disorder (ASD)</u>, yet a growing body of research shows that the condition is more common in girls than previously thought, strongly suggesting that new methods are required to diagnose the disorder at younger ages.

A new study from Children's Hospital of Philadelphia (CHOP) examined differences in the way girls and boys on the autism spectrum used certain types of words during storytelling. This study found that autistic girls used significantly more "cognitive process" words such as "think" and "know" than autistic boys, despite comparable autism symptom severity. The results were recently published in the journal <u>Molecular Autism</u>.

The authors suggest that identifying differences like these opens the door to making sure girls with ASD receive the diagnosis and support they need to achieve the best possible quality of life.

"In order to place these findings in context, it's important to understand that because girls tend to exhibit different traits than autistic boys do, they are often incorrectly diagnosed or missed entirely by standard diagnostic tools. That discrepancy also skews the research literature," explained lead author Julia Parish-Morris, PhD, a scientist in the Center for Autism Research and faculty member in the Departments of Child Psychiatry and Biomedical & Health Informatics at CHOP. "Autism studies have historically included three to six times as many males as females. This means that we don't yet know enough about gender differences in autism, and so we miss girls whose traits differ from those of boys."

A misdiagnosis means many girls do not receive early intervention and that standard interventions may not be appropriate for meeting girls' unique needs. Many autistic women are not diagnosed until they are adults and report significant social challenges and a profound sense of being different from their typically developing peers.

"Autism is a social condition diagnosed using observable behavior,



so we wanted to study an observable skill that relates to social ability," Parish-Morris said. "We chose storytelling because it involves much more than grammar and vocabulary; it relies on a sense of social appropriateness and sheds light on what speakers decide is important to convey."

The researchers focused on how participants used nouns (object words) compared with cognitive process words, because prior studies found that reduced use of cognitive process words predicted social challenges in ASD. Although past studies used primarily male samples, the results were assumed to generalize to girls, and prior ASD studies never included enough girls to test whether sex differences that exist among typically developing individuals persist in those with ASD.

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#### **GIRLS AND BOYS ON AUTISM SPECTRUM... CONTINUED**

Parish-Morris and her co-authors studied 102 verbally fluent school-aged children who either had a diagnosis of ASD (21 girls and 41 boys) or were typically developing (19 girls and 21 boys), and were matched on age, IQ and maternal education. The children viewed a sequence of pictures involving a fisherman, a cat and a bird, and told a story based on what they saw.

Results revealed that autistic girls used significantly more cognitive process words than autistic boys did, even when they had similar levels of autism severity. Girls with ASD and typical girls used comparable numbers of cognitive process words. Interestingly, autistic boys and girls both used more nouns than typically developing children, demonstrating object-focused storytelling. Thus, autistic girls showed a unique narrative profile that overlapped with typical girls and boys as well as with autistic boys.

"Through storytelling, we were able to identify key similarities and differences in the language patterns of autistic girls and boys," Parish-Morris said. "These findings suggest that sex-informed screening and diagnostic methods may help us identify autism in verbal girls at an earlier age, which should spur efforts to develop appropriate, personalized early interventions resulting in improved support for girls and women with ASD."

This study was supported by the Autism Science Foundation, the Eagles Charitable Trust, the McMorris Family Foundation, the Allerton Foundation, and a National Institute of Child Health and Human Development grant 5U54HD086984-03.

https://www.chop.edu/news/girls-and-boys-autism-spectrum-tell-stories-differently-could-explain-misseddiagnosis-girls

#### **ADDITIONAL RESOURCES**

Here are some additional articles to help support girls/women on the autism spectrum:

https://www.elevatedinsights.org/a-collection-of-resources-for-women-and-girls-on-the-autism-spectrum/ #:~:text=The%20Autistic%20Women%20%26%20Nonbinary%20Network,parents%20seeking% 20information%2C%20support%2C%20and

https://online.simmons.edu/blog/interventions-girls-women-autism-spectrum/

https://childmind.org/article/every-autistic-girl-wishes-parents-knew/

https://autismlittlelearners.com/girl-with-autism/

https://www.autism.org.uk/advice-and-guidance/what-is-autism/autistic-women-and-girls

https://www.choosingtherapy.com/autism-in-girls/

https://medicine.yale.edu/childstudy/services/autism-support/girls-women-with-autism/

## **AUTISM IN GIRLS**

# Autism in Girls: Signs, Symptoms and Underdiagnosis

Autism in Girls May Look Different From Autism in Boys

<u>Autism</u> in girls may look different than in boys.<sup>1</sup> Sometimes, caregivers and even healthcare providers may doubt that a female child is autistic because they do not show the "typical" autism signs. This is because these symptoms were largely based on research focused on boys.

Signs and symptoms of autism in females, particularly those on the high-functioning end of the spectrum, include:

- Relying on other people to guide or speak for them
- Having unusual sensitivity to sensory challenges
- Having passionate but limited interests
- Difficulty making and keeping friends
- Having conversations that are restricted to limited topics of interest
- Difficulty with social communication (which increases with age)
- Appearing to be shy, quiet, or unusually passive
- Having depression, anxiety, or other mental health symptoms
- Difficulty controlling emotion
- Having <u>epileptic seizures</u>



It's true that the signs of autism in girls and women are not always the same as the signs of autism in boys and men.<sup>2</sup> This means that females may not get an autism diagnosis until much later in life—if ever.

This article will go over how autism is different in girls. You'll learn about the signs and symptoms of autism in girls and women, as well as how the differences in autism between girls and boys can delay diagnosis.

# SIGNS OF AUTISM IN GIRLS

While there is no single sign or symptom that diagnoses autism in anyone, regardless of their sex at birth or gender identity, there are some characteristics of autism that can help providers make the diagnosis.<sup>3</sup>

That said, autistic girls may not show some of the "classic" autism signs that are more often seen in boys. Sometimes, autistic girls learn how to hide these behaviors or overcompensate for them.<sup>4</sup>

Whether you are female and think you might be autistic or you are caring for a child who might be on the <u>autism spectrum</u>, there are some experiences that are shared and resonate with many autistic girls and women.

An autistic girl may:

Rely on other children to guide and speak for her during the school day.

Continued on page 7.

# AUTISM IN GIRLS CONTINUED....

- **Have passionate but limited interests.** The list of things that interest her is very narrow and restricted. For example, an autistic child may talk endlessly about a TV show's characters, locations, props, or actors, but know little or nothing about the show itself (e.g., the plot).
- Have conversations that are limited to her topics of interest. She may share her focus on a specific interest with you but cares little for another person's response. This may interfere with her ability to join groups or make friends.
- **Be unusually sensitive to sensory challenges** such as loud noises, bright lights, and strong smells (a symptom that's as common in many autistic people regardless of sex).
- Have a low frustration level and find it hard to manage feelings when she is frustrated. She may have inappropriate "tantrums" for her age—which are really <u>autistic meltdowns</u>. The behavior can become disruptive at school, and may lead to detentions or even suspension.
- Have different behavior at home and school: Some kids with autism may spend so much energy trying to cope and trying to follow what is expected of them at school and then may release it with meltdowns at home. Other kids may thrive on a routine at home and then have difficulty functioning at school or vice versa.<sup>5</sup>
- Have depression, anxiety, or other mental health symptoms. People of all ages with autism often have co-occurring mental health conditions, including obsessive-compulsive disorder (OCD) and eating disorders.

Some autism symptoms can be perceived as being part of a young girl's personality, or just "quirks" in how she connects with others.

In fact, these can be subtle but missed signs of autism in girls:

- She has a hard time making or keeping friends. She may seem oblivious to nonverbal social cues and even somewhat clueless about how the girls around her behave.<sup>6</sup>
- She is called "quiet" or "shy" in school and other social situations. Autistic people have varied <u>language skills</u>, but having these challenges can make it hard for a child to jump into talks with friends, raise their hand in class, or respond quickly in social settings.
- She is unusually passive. Being passive can be a sign that she's unsure what to do or say in a situation and has decided the safest option is to do nothing. Some autistic people are actually quite assertive, but young girls may learn that being passive is more likely to be accepted or rewarded, especially at school.
- She developed typically as a child but starts to find social communication increasingly difficult as she enters her teen years. Autistic girls often find ways to mask and cope with their differences early on. However, once social expectations become more complex in the early teenage years, her challenges become a lot more clear and harder to manage (or hide).
- She has epileptic seizures. Some research has suggested that <u>epilepsy</u> could be more common in autistic girls than boys.<sup>7</sup>

There is also some research that suggests that girls with autism may not identify as readily with conventional gender norms and have higher rates of gender variance. For example, they may not identify as female or may be more likely to feel negatively about their assigned gender group.<sup>8</sup> However, more research is needed.

#### Continued on page 8.



#### AUTISM IN GIRLS CONTINUED...

#### WHY AUTISTIC GIRLS GO UNDIAGNOSED

Some girls have clear autism symptoms like <u>self-stimulating behaviors</u> (stims), or extreme speech and language difficulty.

If challenges with social communication or cognitive tasks are obvious, girls are usually referred for help and diagnosed at a young age. However, for girls with subtle symptoms and those who have learned to mask, autism may not be diagnosed—or even discussed—until they are pre-teens, teens, or adults.<sup>9</sup>

Cultural beliefs (and misbeliefs) also contribute to missed autism diagnoses. Many girls are expected to behave in quieter and less assertive ways than boys. A girl who seems shy and withdrawn might be seen as "feminine," while a boy with the same characteristics would get intervention because they are not exhibiting more outward, "typical "boy" behavior.

Similarly, a girl who seems "spacey" and unengaged is often called a "dreamer" in a positive way, but the same behaviors might be viewed as disruptive in boys and, again, would lead to intervention.

Healthcare providers and mental health professionals can miss autism in girls, too. The diagnostic criteria for autism spectrum disorder (ASD) were put together based on available research, which has long been primarily focused on boys and men.<sup>10</sup>

Strides are being made to help make the criteria more inclusive for autistic people who are not male, but there is still a long way to go.

#### SUMMARY

Autistic girls and women may not get diagnosed as early as boys and men—if they are diagnosed at all. The "classic" signs of autism do not always show up in girls, and some girls <u>learn how to cover up</u> the symptoms at a young age.

There are many factors that contribute to the missed and misdiagnosis of autism in girls, and some of them have to do with cultural expectations. Not only does this make it harder for autistic girls to get diagnosed, but it also means they go longer without the support they need to thrive.

Continued on page 9 is a visual from the article.



The LBL ESD Autism Agenda Newsletter is a compilation of national and regional resources designed to support families and school teams. Every effort is made to provide accurate and complete information in the LBL ESD Autism Agenda Newsletter; however, LBL ESD cannot guarantee that there will be no errors. For example, some of the content within curated resources from across the nation may not apply to Oregon. LBL ESD does not assume any legal liability for any direct, indirect or any other loss or damage of any kind for the accuracy, completeness, or usefulness of any information, product, or process disclosed herein, and do not represent that use of such information, product, or process would not infringe on privately owned rights.

#### **AUTISM IN GIRLS CONTINUED...**





**Difficulty moderating** feelings when frustrated

verywell





Unusual depression, anxiety, and moodiness

Unusual sensitivity to sensory challenges



**Difficulty making and** keeping friends



Conversation is restricted to limited topics of interest



Often described as quiet or shy



Difficulty with social communication

increases with age



**Epileptic seizures** 

Verywell / JR Bee

https://www.verywellhealth.com/signs-of-autism-in-girls-260304



# **BOOK REVIEWS**



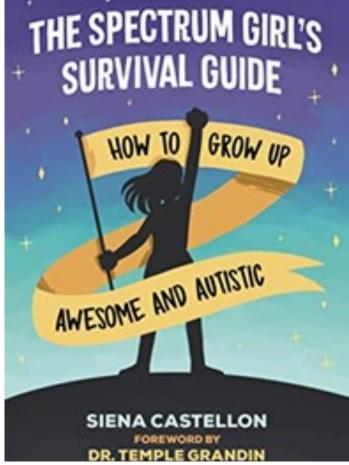
#### But You Don't Look Autistic At All by Bianca Toeps

In this book, Bianca Toeps explains in great detail what life is like when you're autistic. She does this by looking at what science says about autism (and why some theories can go straight in the bin), but also by telling her own story and interviewing other people with autism. Bianca talks in a refreshing and sometimes hilarious way about different situations autistic people encounter in daily life. She has some useful tips for non-autistic people too: what you should do if someone prefers not to look you in the eye, why it is sometimes better to communicate by email, and, most important of all, why it is not a compliment if you say: "But you don't look autistic at all!" This book is a must-read for autistic people, especially girls, as well as parents and educators.

# The Spectrum Girl's Survival Guide: How to Grow Up Awesome and Autistic

by Sienna Castelon (author) and Temple Grandin (forward)

In this essential go-to guide, award-winning neurodiversity campaigner Siena Castellon gives autistic girls all the advice and tools they'll need to help them flourish and achieve their goals. The book answers questions such as 'Am I using appropriate body language?' and 'Did I say the wrong thing?', as well as discusses the importance of understanding one's emotions, looking after one's physical and mental health, and coping with anxiety and sensory overloads. With practical tips on friendships, dating, body image, consent, and appearance, as well as how to survive school and bullying, **The Spectrum Girl's Survival Guide** provides autistic girls with the power to embrace who they are, while reminding them that even during the toughest of teen moments, they are never alone.





#### Linn Benton Lincoln ESD Cascade Regional Inclusive Services Autism Program

905 4th Ave SE Albany, Or. 97321 Tel: 541- 812-2600 Fax: 541 926-6047 E-mail: webmaster@lblesd.k12.or.us

#### Autism Consultants:

Amanda Stenbergamanda.stenberg@lblesd.kl2.or.us

Jill Sellersjill.sellers@lblesd.k12.or.us

#### Kayla Huntkayla.hunt@lblesd.k12.or.us

Michelle Neilsonmichelle.neilson@lblesd.k12.or.us

Ryan Stanleyryan.stanley@lblesd.k12.or.us

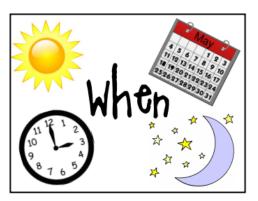
Scott Bradleyscott.bradley@lblesd.k12.or.us

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writing	spelling	reading	math <sup>AA</sup>	story time	listen }→≫	timer	
worksheet	candy	balls	toys	color	draw	M & M's	
dinosaur	snack	music	play doh	puzzle	game	parachute	



and the local







https://msgardenia.com/school-speech-therapy/wh-questions-in-speech-therapy