

AUTISM

Neurodevelopmental
Affects Neural Development

Heterogeneous
A Wide Range of Presentations

Diagnosis Levels

1
Less Support
Required

2

3
More Support
Required

Diagnostic Criteria

Deficits in Social Communication
and Social Interaction

e.g. Lack of Eye
Contact

e.g. Difficulties
Maintaining
Conversations

Restricted and Repetitive Patterns
of Behaviors, Interests, or Activities

e.g. Repetitive
Motor Movements

e.g. Unusual
Sensory Interests
or Reactions

Can Be RELIABLY Diagnosed

Age 2

VS

Diagnosis Most Often Occurs

After Age 4

Who Can Diagnose (Ontario)

Psychiatrist (MD)

Pediatrician

Family Doctor

Nurse Practitioner

Psychologist (PhD)

Psychological Associate

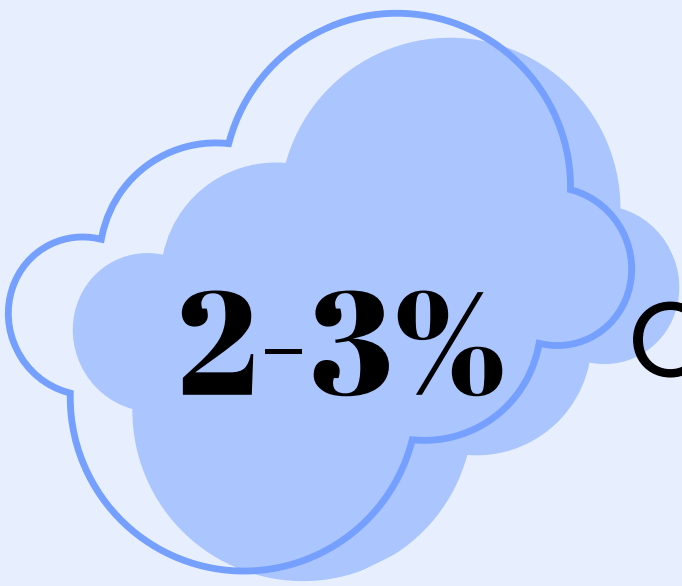
Diagnosis: How (Ontario)

Caregiver Interviews

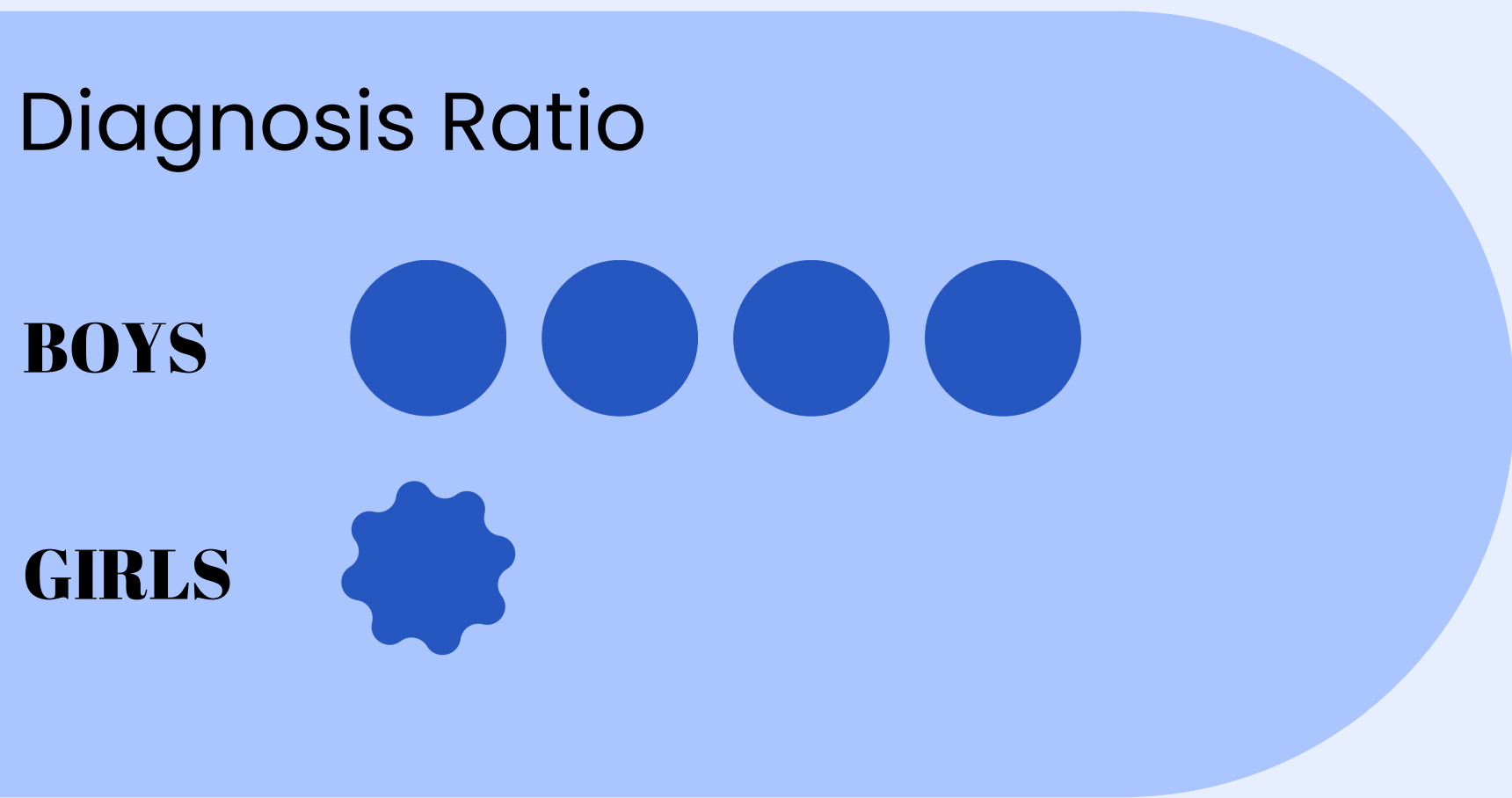
Behavioral Observations

Screening Assessments

DSM-5 Diagnostic Criteria



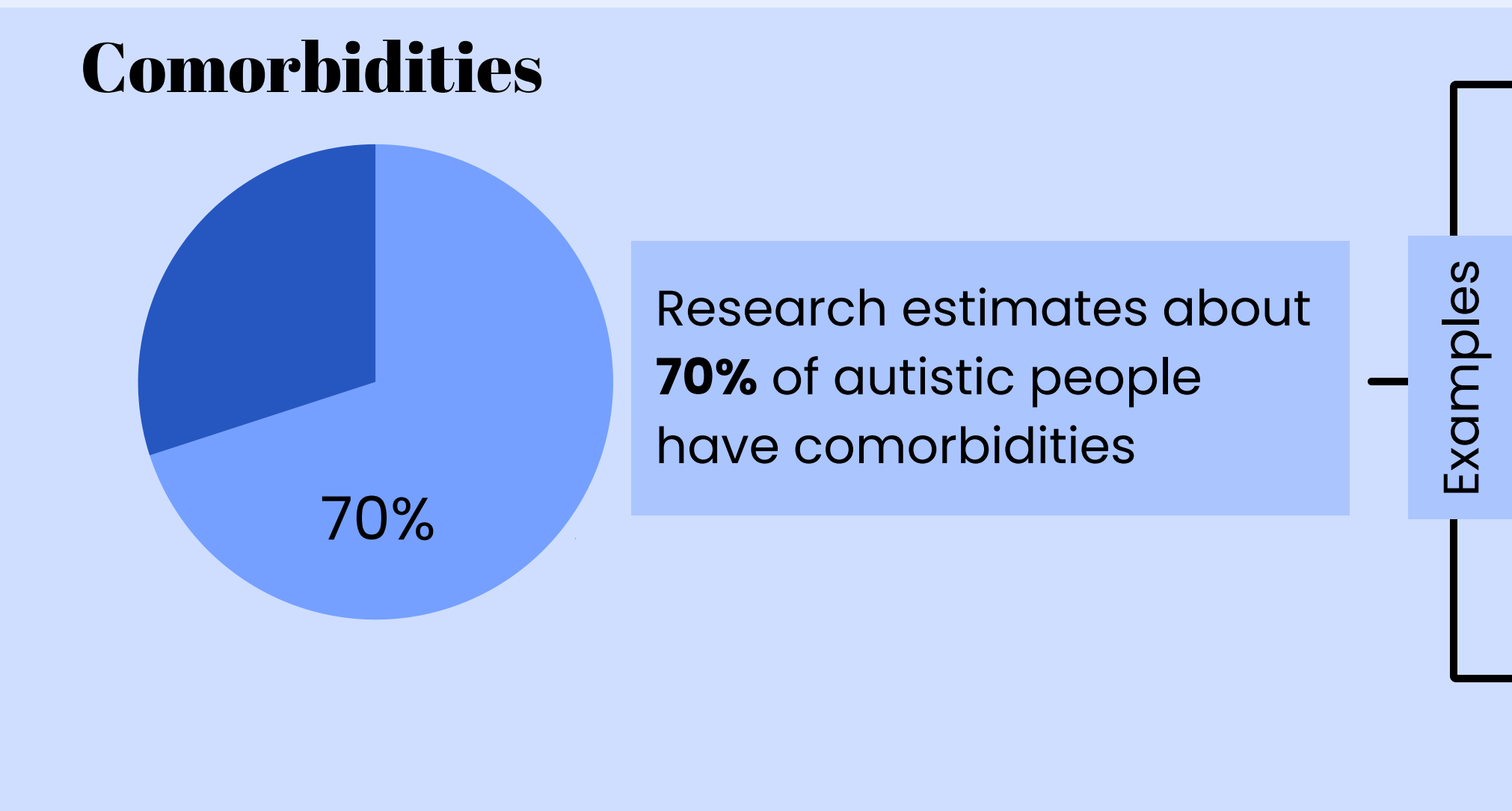
2-3% Ontario Autism Prevalence in Children



Diagnosis Rate

≠ Across Ethnic & Racial Groups

White Children Diagnosed Earliest & Most



- Examples
- Anxiety
 - Estimated 15-40%
 - ADHD
 - Estimated 50-70%
 - Intellectual or Learning Disorders
 - Estimated 20-70%

Supports

- BOTH AGE AND IQ CAN AFFECT SUCCESS OF EVIDENCE-BASED SUPPORTS

e.g. Applied Behavior Analysis

ABA has several subsections such as Pivotal Response Training

The most evidence-based support as of right now is ABA

However, researchers have called for further exploration and evidence

Pivotal Response Training focuses on pivotal behaviors for functioning, using strategies such as offering choices, reinforcement, and more in a natural environment

Sensory Processing in Autism

Autism Diagnostic Criteria

Restricted and Repetitive Patterns of Behaviors, Interests, or Activities

e.g. Repetitive Motor Movements

e.g. Unusual Sensory Interests or Reactions

Currently, differences in **Sensory Processing** fall under 1 diagnostic feature

However, recent research suggests **Sensory Processing** has relationships with BOTH diagnostic features

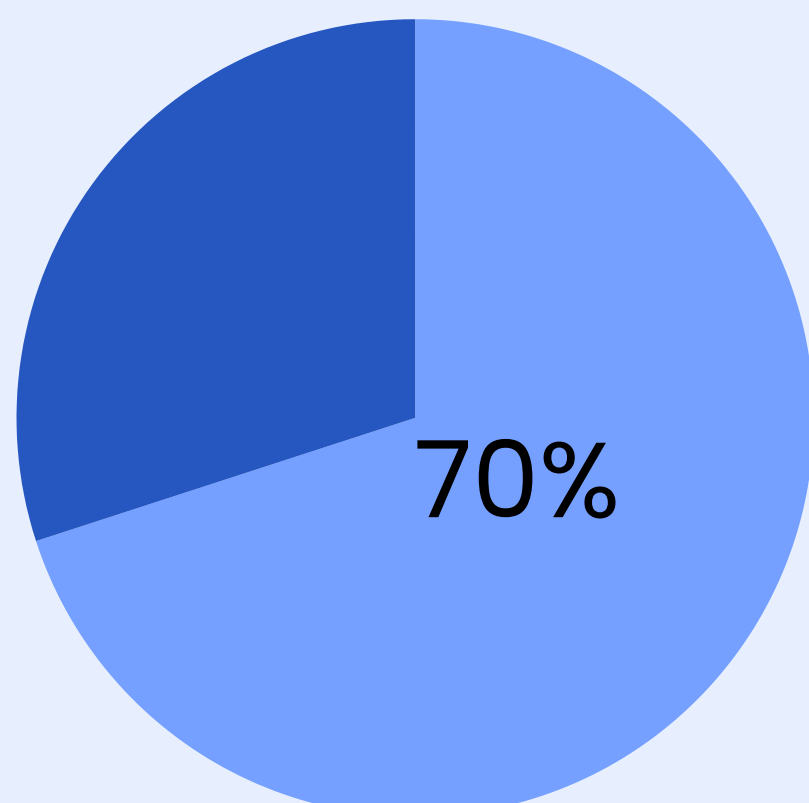
Sensory Processing Differences

Deficits in Social Communication and Social Interaction

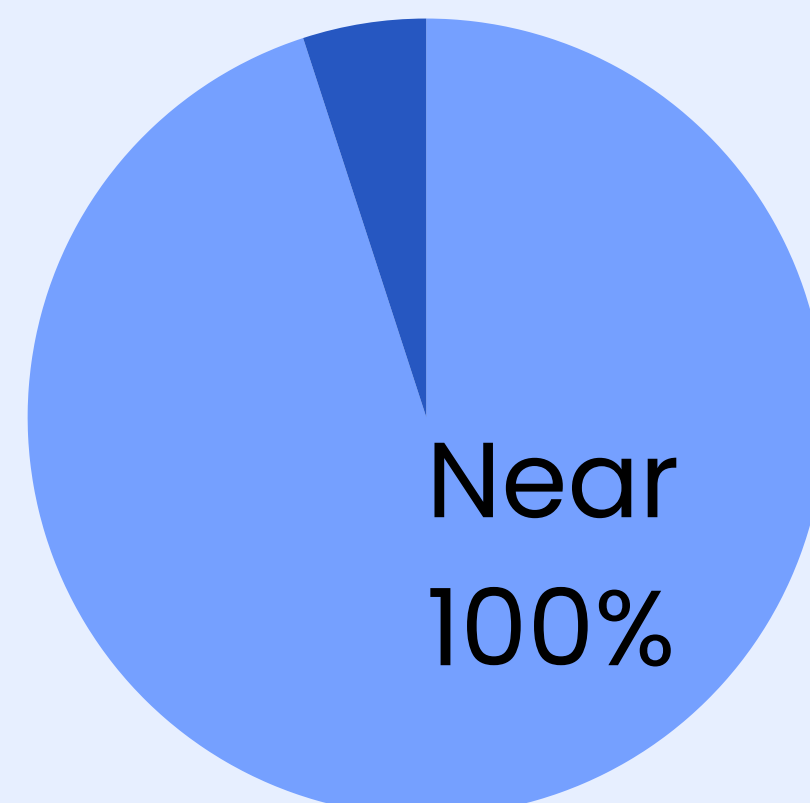
It is possible it has a more fundamental role in autism

Restricted and Repetitive Patterns of Behaviors, Interests, or Activities

The estimate of differences in Sensory Processing in autistic people ranges from...



TO



Sensory Processing Differences In Autism + Examples of Related Outcomes

Mental Health
e.g. Anxiety

Reduced Academic
Achievement/Learning Difficulties

Reduced Quality of Life

Reduced Cognitive Function

Challenging Behaviors

8 Possible Affected Senses

- Sight
- Sound
- Smell
- Taste
- Touch
- Balance (Vestibular)
- Awareness of Body Location (Proprioception)
- Awareness of Internal Cues e.g. Hunger (Interoception)

How Sensory Processing Differences In Autism Can Manifest

HYPO (Decreased) vs HYPER (Increased)

- Sensitivity (Detection) or Reactivity (Response)
 - When experiencing sensory stimuli

Sensory Seeking

- Seeking MORE Sensory Input
- Related To **HYPO**

e.g. Self-Stimulatory Behavior
which can function to provide
Sensory Regulation

Sensory Avoiding

- Avoiding Certain Sensory Input
- Related To **HYPER**

AUTISTIC PEOPLE CAN BE BOTH HYPO AND HYPER OR
SEEK AND AVOID, DEPENDING ON THE STIMULI, SITUATION, ETC.

Sensory Supports

- Sensory Diets: Personalized Sensory Activities
- Sensory Activity Schedules: A Sensory Diet WITH A Task Specific Schedule

Sensory Activity Schedules have greater supportive evidence for IMPROVING classroom performance

Other Evidence-Backed Strategies

Sensorimotor Enrichment (e.g. Provision of Sensory Stimulating Items)
Sensory Integration (e.g. Goal Directed Activities Using Sensory Stimulating Items)
Alternative Seating (e.g. Air Cushion)
Environmental Changes

For More Information...

[Holland Bloorview: MANY Sensory Processing Differences Resources](#)

[AIDE Canada Sensory Processing Differences Resource](#)

[AIDE Canada Sensory Friendly Classrooms Resource](#)

[AIDE Canada Teacher Resources](#)

[Self-Stimulatory Behaviors Resource](#)

[Self-Stimulatory Behaviors Resource \(with Example List\)](#)

References

[Autism Diagnosis Ontario](#)

[Autism Diagnosis Rates Ontario](#)

[Special Education Policies Ontario](#)

[Autism and Comorbidities](#)

[Autism and Anxiety](#)

Autism and ADHD

Autism and Intellectual Disorders

Autism and Intellectual Disorders (2).

Autism Supports

Autism Supports: Pivotal Response Training

Sensory Processing in Autism

Sensory Processing in Autism (2).

Sensory Processing in Autism (3).

Sensory Processing in Autism (4).

Sensory Processing and Functioning

Sensory Processing and Functioning (2).

Sensory Processing and Behaviors

Autism and Sight

Autism and Sound

Autism and Smell

Autism and Touch

Autism and Vestibular

Autism and Proprioception

Autism and Interoception

Autism and Reactivity.

Autism and Self-Stimulatory Behavior

Autism and Self-Stimulatory Behavior (2).

Autism and Self-Stimulatory Behavior (3).

Sensory Supports and Strategies

Sensory Activity Schedule

Sensory Activity Schedule (2).

Sensory Processing and School

Sensory Processing and School (2).