

# Handout II: Differential and Etiologic Diagnosis of Autism Spectrum Disorder

<b>Developmental delay/ intellectual disability</b>	Children with intellectual disability may have “autistic features,” but not meet criteria for autism spectrum disorder (ASD). Children with ASD may have intellectual disability or normal intelligence. Children with intellectual disability usually have better social and communication skills than do children with ASD with the same cognitive level.
<b>Fetal alcohol spectrum disorders</b>	There is an increased risk of ASD and other neurodevelopmental disorders in children exposed to alcohol in utero.
<b>Genetic syndrome</b>	<p>There may or may not be a family history, depending on the specific disorder. If dysmorphic features are present, a genetic disorder should be considered. There are certain neurogenetic syndromes that tend to be associated with ASD. These include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Fragile X syndrome – intellectual disability, macrocephaly, large ears, large testicles, hypotonia, and joint hyperextensibility</li> <li>• Tuberous sclerosis – hypopigmented macules, central nervous system hamartomas, seizures, intellectual disability</li> <li>• Angelman syndrome – global developmental delay, hypotonia, wide-based ataxic gait, seizures, progressive spasticity</li> <li>• Rett syndrome – disorder seen primarily in girls. They have apparently normal development for the first 5 months of life and have a normal head circumference at birth. Deceleration of head growth is seen from 5 to 48 months of age resulting in microcephaly. They lose previously acquired hand skills and begin to have hand-wringing stereotypes. They often develop seizures.</li> </ul>
<b>Hearing Impairment</b>	There may be a history of recurrent otitis media or fluid. Children with hearing impairments often have speech delays, but will typically use compensatory nonverbal forms of communication. They make eye contact and use facial expressions. Children with ASD may be described as having “selective hearing” (i.e., may not respond when their name is called, but are oversensitive to other noises). Children with a hearing impairment will usually be underresponsive to all noises, although this will be somewhat variable depending on the degree of hearing loss.

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<p><b>Mental health disorders</b></p>	<p>This is a broad category of differential diagnoses with variable symptomatology depending on the specific diagnosis.</p> <ul style="list-style-type: none"> <li>a. Obsessive compulsive disorder (OCD) – The obsessive thoughts and repetitive actions seen in OCD can appear very similar to the ritualistic behaviors and motor stereotypes seen in ASD.</li> <li>b. Anxiety – Children who have problems with anxiety may be hesitant to interact with others. They may have difficulties with transitions. Children with anxiety are still socially related and have appropriate social insight.</li> <li>c. Depression – Depression in children can present in a variety of ways. Children may be withdrawn and isolate themselves. They may have a blunted affect and avoid eye contact.</li> <li>d. Attention deficit-hyperactivity disorder (ADHD) – Children with ADHD may have impairments in their social skills due to their hyperactivity and impulsivity. They may have difficulty sustaining a conversation because of inattention. Children with ASD often have problems with hyperactivity, impulsivity, and inattention.</li> <li>e. Oppositional defiant disorder (ODD)/behavior problems – The behavior problems seen in children with ODD are usually intentional. Most children will have temper tantrums at some point. Children with ASD are more likely to have tantrums associated with transitions or “for no apparent reason.”</li> <li>f. Tourette syndrome – Tics seen in Tourette syndrome may appear similar to motor stereotypes associated with ASD. Children with Tourette syndrome will usually not have the social or communication impairments seen with ASD. However, there may be some social isolation due to embarrassment or peer avoidance.</li> </ul>
<p><b>Psychosocial (e.g., neglect)</b></p>	<p>Children who have a history of significant abuse or neglect may be withdrawn and hesitant to interact with others. They may also have regression of skills, such as loss of language, and behavior problems.</p>
<p><b>Sensory problems</b></p>	<p>Children with ASD often have sensory issues such as being hypersensitive to loud noises or avoiding certain food textures. A child that has sensory impairments but is not on the autism spectrum will not have the core features of ASD (impairments in social communication, etc.).</p>
<p><b>Speech/language disorder</b></p>	<p>Children with speech/language disorders will compensate with nonverbal forms of communication such as pointing and gestures. They lack severe social deficits, although there may be some social impairment due to the communication difficulties.</p>

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