



## Autism Spectrum Disorder (ASD)

### OBJECTIVE

The objective of this Clinical Practice Guideline (CPG) is to provide evidence-based recommendations for the screening of children for Autism Spectrum Disorder (ASD). Included in the CPG are recommendations on assessment, diagnosis, and treatment as well as information on signs and causes of ASD as well as information on vaccine safety.

### OVERVIEW

Autism spectrum disorder (ASD) is a developmental disorder characterized by persistent and significant impairments in social interaction and communication and restrictive and repetitive behaviors and activities, when these symptoms cannot be accounted for by another condition. In 2010, the prevalence of ASD in the United States was estimated at 14.7 cases per 1000 children, or 1 in 68 children, with substantial variability in estimates by region, sex, and race/ethnicity.<sup>1</sup> ASD occurs in all racial, ethnic, and socioeconomic groups, but is about 4.5 times more common among boys than among girls.<sup>2</sup> Autism is usually identified by the time a child is 30 months old. It is often discovered when parents become concerned that their child may be deaf, is not yet talking, resists cuddling, and avoids interaction with others. Early signs and symptoms which suggest a young child may need further evaluation for autism include:<sup>3</sup>

- No smiling by six months of age
- no back and forth sharing of sounds, smiles or facial expressions by nine months
- No babbling, pointing, reaching or waving by 12 months
- No single words by 16 months
- No two word phrases by 24 months
- Regression in development
- Any loss of speech, babbling or social skills

Autism spectrum disorder can cause significant social, communication, and behavioral challenges for affected children and place substantial strain on family members and other caregivers. Treatment and maturation may reduce the effects of the core symptoms of ASD for some children, but others may experience long-term effects on education, employment, and ability to live independently. It is important that clinicians listen carefully to parents when concerns are raised by the parents or during an examination and make prompt use of validated tools to assess the need for further diagnostic testing and services. Disparities have been observed in the frequency and age at which ASD is diagnosed among children by race/ethnicity, socioeconomic status, and language of origin, creating concern that certain groups of children with ASD may be systematically underdiagnosed.<sup>1</sup>

Additional information on signs and symptoms as well as screening and treatment options can be found in the Care Management section below. Information regarding causes, vaccine safety, and research efforts are in the Addendum.

### Hierarchy of Support

#### GUIDELINE HIERARCHY

CPGs are updated annually or as necessary due to updates made to guidelines or recommendations by the United States Preventive Services Task Forces (USPSTF), Centers for Disease Control and Prevention (CDC), American

Academy of Child and Adolescent Psychiatry (AACAP), and the National Institute for Health and Care Excellence (NICE). When there are differing opinions noted by national organizations, WellCare will default to the member's benefit structure as deemed by state contracts and Medicaid / Medicare regulations. If there is no specific language pertaining to autism spectrum disorder (ASD), WellCare will default (in order) to the following:

- National Committee for Quality Assurance (NCQA);
- United States Preventive Services Task Force (USPSTF), National Quality Strategy (NQS), Agency for Healthcare Research and Quality (AHRQ);
- Specialty associations, colleges, societies, etc. (e.g., American Academy of Family Physicians, American Congress of Obstetricians and Gynecologists, American Cancer Society, etc.).

Links to websites within the CPGs are provided for the convenience of Providers. Listings do not imply endorsement by WellCare of the information contained on these websites. NOTE: All links are current and accessible at the time of MPC approval.

WellCare aligns with the USPSTF, CDC, AACAP, and NICE on the topic of ASD. Highlights from their respective publications are noted below.

#### UNITED STATES PREVENTIVE SERVICES TASK FORCE (USPSTF)<sup>1</sup>

The USPSTF concludes that there is insufficient evidence to assess the balance of benefits and harms of screening for ASD in children aged 18 to 30 months for whom no concerns of ASD have been raised. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.<sup>1</sup>

Research is limited regarding the harms of screening for ASD in children. Reported potential harms include misdiagnosis and the anxiety associated with further testing after a positive screening result, particularly if confirmatory testing is delayed because of resource limitations. Behavioral treatments are not generally thought to be associated with significant harms but can place a large time and financial burden on the family. The USPSTF highlighted the recommendations of other leading national organizations regarding ASD:

The **American Academy of Pediatrics' Bright Futures** guidelines recommends that universal screening for ASD in all children at ages 18 and 24 months in addition to developmental surveillance and monitoring.

The **American Academy of Family Physicians** concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for ASD in children for whom no concerns of ASD have been raised by their parents or clinical provider.

The **American Academy of Neurology and the Child Neurology Society** recommend routine developmental surveillance be performed on all children to identify those at risk for any type of atypical development, followed by screening specifically for autism using one of the validated instruments (the M-CHAT or Autism Screening Questionnaire).

For additional information regarding the USPSTF's recommendation on ASD, click [here](#).<sup>1</sup>

#### AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY (AACAP)<sup>4</sup>

Assessment and treatment highlights of the AACAP practice parameter are noted below:

- **Recommendation 1.** The developmental assessment of young children and the psychiatric assessment of all children should routinely include questions about ASD symptomatology.
- **Recommendation 2.** If the screening indicates significant ASD symptomatology, a thorough diagnostic evaluation should be performed to determine the presence of ASD.
- **Recommendation 3.** Clinicians should coordinate an appropriate multidisciplinary assessment for ASD.
- **Recommendation 4.** The clinician should help the family obtain appropriate, evidence-based, and structured educational and behavioral interventions for children with ASD.
- **Recommendation 5.** Pharmacotherapy may be offered to children with ASD when there is a specific target symptom or comorbid condition.
- **Recommendation 6.** The clinician should maintain an active role in long-term treatment planning and family support and support of the individual.

- **Recommendation 7.** Clinicians should specifically inquire about the use of alternative/complementary treatments and be prepared to discuss their risk and potential benefits.

The AACAP practice parameter can be found in its entirety [here](#).

#### NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE (NICE)<sup>5,6</sup>

The National Institute for Health and Care Excellence (NICE) developed a guideline covering how to recognize and and diagnose ASD in children and young people from birth to age 19. The guideline aims to improve the experience of children, young people, and providers and includes recommendations on:<sup>5</sup>

- Local pathway for recognition, referral and diagnostic assessment of possible autism;
- Recognizing children and young people with possible autism;
- Referring children and young people to the autism team;
- Autism diagnostic assessment for children and young people;
- Medical assessment;
- Communicating the results from the autism diagnostic assessment; and
- Information and support for families and careers.

NICE outlines the following guidance for those providing care to individuals with ASD:<sup>6</sup>

- Establish principles for working with adults with autism and their families, partners and careers;
- Identification, assessment, and monitoring which includes effective identification and initial assessment of autism, as well as a comprehensive assessment for suspected autism (including diagnostic, needs and risks);
- Identifying correct interventions;
- Interventions for autism including psychosocial interventions for the core symptoms of autism as well as for life skills, as well as biomedical (pharmacological, physical and dietary) interventions;
- Interventions for challenging behavior including psychosocial, combined, and pharmacological interventions;
- Interventions for coexisting mental disorders including psychosocial pharmacological interventions;
- Assessment and interventions for families, partners and careers;
- Organization and delivery of care and developing local care pathways; this includes improving access to care and residential care.

In addition, NICE recommends the following with respect to future research:

- Facilitated self-help for anxiety and depression in adults with autism
- The structure and organization of specialist teams
- Augmentative communication devices for adults with autism

The complete guidelines be accessed [here](#) (children and adolescents) and [here](#) (adults).

## Evidence Based Practice

### AGENCY FOR HEALTHCARE RESEARCH AND QUALITY (AHRQ)

The Agency for Healthcare Research and Quality (AHRQ) has published the following report(s):

- **Interventions Targeting Sensory Challenges in Children with Autism Spectrum Disorder—An Update** <sup>7</sup> ([click here](#))

The purpose of this report was to evaluate the effectiveness and safety of interventions targeting sensory challenges in children with ASD.

- **Medical Therapies for Children with Autism Spectrum Disorder--An Update** <sup>8</sup> ([click here](#))

The purpose of this report was to assess effectiveness and safety of medical interventions for ASD.

- **Genetic Testing for Developmental Disabilities, Intellectual Disability, and Autism Spectrum Disorder** <sup>9</sup> ([click here](#))

The purpose of this report was to summarize information on genetic tests clinically available in the United States to detect genetic markers that predispose to developmental disabilities (DDs). The Technical Brief primarily focuses on patients with idiopathic or unexplained DDs, particularly intellectual disability, global

developmental delay, and autism spectrum disorder. Several better-defined DD syndromes, including Angelman syndrome, fragile X syndrome, Prader-Willi syndrome, Rett syndrome, Rubinstein-Taybi syndrome, Smith-Magenis syndrome, velocardiofacial syndrome, and Williams syndrome are also included. Patient-centered health outcomes (e.g., functional or symptomatic improvement) and intermediate outcomes (e.g., changes in clinical decisions or family reproductive decisions, the tests' diagnostic accuracy and analytic validity) are examined.

- **Therapies for Children With Autism Spectrum Disorder: Behavioral Interventions Update**<sup>10</sup>[\(click here\)](#)  
The report focuses on treatment for ASDs and focuses on improving core deficits in social communication, as well as addressing challenging behaviors to improve functional engagement in developmentally appropriate activities. In addition to addressing core deficits, treatments are provided for difficulties associated with the disorder (anxiety, attention difficulties, sensory difficulties, etc.). Individual goals for treatment vary for different children and may include combinations of therapies.

## MEASUREMENT OF COMPLIANCE

WellCare is committed to adhering to the measures and standards published by the Centers for Medicare and Medicaid Services (CMS) and the National Committee for Quality Assurance (NCQA). Please reference WellCare's Clinical Policy Guiding Document titled *Quality Improvement*.

NOTE: To access Clinical Policy Guiding Documents visit [www.wellcare.com](http://www.wellcare.com) – select the Provider tab, then “Tools” and “Clinical Guidelines”.

## Care Management

Autism Spectrum Disorder (ASD) includes a wide range of symptoms, skills and levels of disability that include; difficulty communicating and interacting with others, repetitive behaviors and limited interests or activities. These symptoms hurt their ability to function socially at school, work or at home. Treatment is focused on improving their symptoms and increasing their ability to function.<sup>11</sup>

## SIGNS AND SYMPTOMS

Autism spectrum disorder (ASD) is a neurological and developmental disorder that begins early in childhood and lasts throughout a person's life. It affects how a person acts and interacts with others, communicates, and learns. It includes what used to be known as Asperger syndrome and pervasive developmental disorders. ASD is called a "spectrum" disorder because people with ASD can have a range of symptoms. Currently there is no one standard treatment for ASD however, there are many ways to increase an individual's ability to grow and learn new skills. Treatments include behavior and communication therapies, skills training, and medicines to control symptoms.<sup>12</sup>

There is often nothing about how people with ASD look that sets them apart from other people, but people with ASD may communicate, interact, behave, and learn in ways that are different from most other people. The learning, thinking, and problem-solving abilities of people with ASD can range from gifted to severely challenged. Some people with ASD need a lot of help in their daily lives; others need less. People with ASD often have problems with social, emotional, and communication skills. The following signs of ASD begin during early childhood and typically last throughout life:<sup>2</sup>

- Not point at objects to show interest (for example, not point at an airplane flying over)
- Not look at objects when another person points at them
- Have trouble relating to others or not have an interest in other people at all
- Avoid eye contact and want to be alone
- Have trouble understanding other people's feelings or talking about their own feelings
- Prefer not to be held or cuddled, or might cuddle only when they want to
- Appear to be unaware when people talk to them, but respond to other sounds
- Be very interested in people, but not know how to talk, play, or relate to them
- Repeat or echo words or phrases said to them, or repeat words or phrases in place of normal language
- Have trouble expressing their needs using typical words or motions
- Not play “pretend” games (for example, not pretend to “feed” a doll)
- Repeat actions over and over again

- Have trouble adapting when a routine changes
- Have unusual reactions to the way things smell, taste, look, feel, or sound
- Lose skills they once had (for example, stop saying words they were using)

Even as infants, children with ASD may seem different, especially when compared to other children their own age. They may become overly focused on certain objects, rarely make eye contact, and fail to engage in typical babbling with their parents. In other cases, children may develop normally until the second or even third year of life, but then start to withdraw and become indifferent to social engagement.<sup>13</sup>

Many people with ASD find social interactions difficult. The mutual give-and-take nature of typical communication and interaction is often particularly challenging. Children with ASD may fail to respond to their names, avoid eye contact with other people, and only interact with others to achieve specific goals. Often children with ASD do not understand how to play or engage with other children and may prefer to be alone. People with ASD may find it difficult to understand other people's feelings or talk about their own feelings.<sup>13</sup>

People with ASD may have very different verbal abilities ranging from no speech at all to speech that is fluent, but awkward and inappropriate. Some with ASD may have delayed speech and language skills, may repeat phrases, and give unrelated answers to questions. In addition, people with ASD can have a hard time using and understanding non-verbal cues such as gestures, body language, or tone of voice. For example, young children with ASD might not understand what it means to wave goodbye. People with ASD may speak in flat, robot-like or a sing-song voice about a narrow range of favorite topics, with little regard for the interests of the person they are speaking to.<sup>13</sup>

Many children with ASD engage in repetitive movements or unusual behaviors such as flapping their arms, rocking from side to side, or twirling. They may become preoccupied with parts of objects like the wheels on a toy truck. Children may also become obsessively interested in a particular topic such as airplanes or memorizing train schedules. Many people with ASD seem to thrive so much on routine that changes to the daily patterns of life — like an unexpected stop on the way home from school — can be very challenging. Some children may even get angry or have emotional outbursts, especially when placed in a new or overly stimulating environment.<sup>13</sup>

For many children, symptoms improve with age and behavioral treatment. During adolescence, some children with ASD may become depressed or experience behavioral problems, and their treatment may need some modification as they transition to adulthood. People with ASD usually continue to need services and supports as they get older, but depending on severity of the disorder, people with ASD may be able to work successfully and live independently or within a supportive environment.<sup>13</sup>

## **SCREENING AND DIAGNOSIS**

A diagnosis of ASD now includes several conditions that used to be diagnosed separately: autistic disorder, pervasive developmental disorder not otherwise specified (PDD-NOS), and Asperger syndrome. These conditions are now all called autism spectrum disorder.<sup>2</sup>

Very early indicators of that require evaluation by an expert include:

- No babbling or pointing by age
- No single words by age 16 months or two-word phrases by age
- No response to name
- Loss of language or social skills previously acquired
- Poor eye contact
- Excessive lining up of toys or objects
- No smiling or social responsiveness

Later indicators of ASD include:

- Impaired ability to make friends with peers
- Impaired ability to initiate or sustain a conversation with others
- Absence or impairment of imaginative and social play
- Repetitive or unusual use of language
- Abnormally intense or focused interest

- Preoccupation with certain objects or subjects
- Inflexible adherence to specific routines or rituals

A comprehensive evaluation requires a multidisciplinary team, including a psychologist, neurologist, psychiatrist, speech therapist, and other professionals who diagnose and treat children with ASD. The team will conduct a thorough neurological assessment and in-depth cognitive and language testing. Because hearing problems can cause behaviors that could be mistaken for ASD, children with delayed speech development should also have their hearing tested.

#### *Screening Tools and Assessments*

A number of tests are available for screening for ASD in children younger than 30 months (e.g., Modified Checklist for Autism in Toddlers (M-CHAT), Modified Checklist for Autism in Toddlers With Follow-Up [M-CHAT-F], Modified Checklist for Autism in Toddlers–Revised, With Follow-Up [M-CHAT-R/F]). Several screening tools for ASD are available, but the strongest and most applicable evidence is for the M-CHAT/F and M-CHAT-R/F. Both use a parent-rated scale that can lead to a follow-up interview, which, if positive, leads to referral for confirmatory diagnosis by a behavioral or developmental specialist. The initial screening process takes 5 to 10 minutes.<sup>1</sup>

Findings from CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network help us understand more about the number of children with autism spectrum disorder (ASD), the characteristics of those children, and the age at which these children are first evaluated and diagnosed. These findings are critical for:<sup>14</sup>

- Promoting early identification of children with ASD;
- Planning for services for children and families affected by ASD, and trainings for the professionals who provide those services;
- Guiding future ASD research; and
- Informing policies that promote improved outcomes in health care and education for individuals with ASD.

#### *Additional Resources<sup>15</sup>*

- Centers for Disease Control and Prevention web-based continuing education *Autism Case Training* ([here](#)).
- Health Resources and Services Administration provided links for professional training resources ([here](#)).
- The M-CHAT screening tool is available online for free at <https://m-chat.org>
- Additional scientific articles on ASD listed are available on the CDC website ([here](#)).

### **MEASURABLE HEALTH OUTCOMES**

Targeted Case Management outcomes (**Extended Program Goals**) result from successful self-management (see Case Management Objectives).

- **Symptoms:** Member's sleep will increase by at least 20 minutes a night within 90 days as evidenced by member guardian written sleep log
- **Adherence:** Member will be set up with Behavioral therapy, and/or PT, OT and attend >75% of scheduled appointments within 90 days as evidenced by medical claims and provider report
- **Engagement:** Member's guardian will attend >75% of meetings with teacher and school psychologist to discuss IEP/504 and modifications for member within 90 days as evidenced by member guardian or provider report
- **Engagement:** Member will attend a recreation program, social skills or play skills program for children with ASD or tutoring program at least once a month within 90 days as evidenced by member guardian report
- **Engagement:** Member's guardian will be connected to a local Autism Advocacy or Support Group and attend at least one meeting a month within 90 days as evidenced by member guardian report
- **Utilization:** Member will have reduced ER or BH inpatient admissions by >20% for self-injurious or aggressive behavior within 90 days as evidenced by medical claims and service authorizations

### **CASE MANAGEMENT GOALS**

Goals should target specific care gaps and/or adherence issues, and measure the member's progress towards self-management and adherence which lead to the targeted health outcomes above.

- **Symptoms:** Member's guardian will verbalize at least 2 different strategies for assisting member in being able to communicate needs and emotions more effectively within 60 days

- **Symptoms:** Member's guardian will begin logging member's sleep patterns and behavioral outbursts in journal within 90 days
- **Symptoms:** Member's guardian will verbalize at least 3 strategies to use at home to assist member with improved communication and/or social skills within 60 days
- **Symptoms:** Member's guardian will verbalize at least 3 coping skills, soothing skills or relaxation techniques that can be used with member to reduce member self-injury or aggression within 60 days
- **Symptoms:** Member will have plan in place with teacher and/or therapist to reduce physical aggression at home and at school within 30 days
- **Adherence:** Member will have a scheduled PCP appointment within 60 days to address medical issues such as seizures or GI problems
- **Engagement:** Member's guardian will be connected to a caregiver training program or educational group for parents with children diagnosed with ASD within 60 days
- **Engagement:** Member's guardian will be able to list at least 2 people that he/she can turn to for emotional support within 30 days
- **Engagement:** Member will guardian will meet with teacher to discuss modifications in classroom within 90 days
- **Engagement:** Member will be connected to a vocational rehab program within 60 days (adults with ASD)
- **Engagement:** Member's guardian will have a list of at least 3 tasks for member to complete daily and a plan of reinforcing positive behaviors within 60 days

#### **CASE MANAGEMENT OBJECTIVES**

- Assist member's guardian in getting IEP or 504 plan implemented for member
- Refer member's guardian to community resources for ASD such as day care programs, recreational programs and educational programs
- Assist member's guardian in applying for available Medicaid waiver programs
- Assist member's guardian in scheduling appointments for member including any evaluations or testing needed
- Refer to Targeted Case Management (TCM) if available
- Refer member's guardian to local ASD support group for parents
- Assist member's guardian in applying for disability or any other government sponsored program member may be eligible for
- Ensure member is set up with speech therapy and occupational therapy
- Refer member to academic tutoring programs for those with ASD
- Educate member parent on structuring tasks in simple steps and using regular positive reinforcement of behavior
- Educate member's guardian on the importance of soothing strategies for transitions
- Educate member's guardian on using member's special interests to assist them in helping member complete tasks
- Refer member to behavioral therapy such as play therapy, ABA or PBS if covered
- Refer member to a social skills group for ASD
- Educate member parent that children that have ASD often have food sensitivities that can be tested for with a IgG food sensitivity test
- Educate member's guardian that member may be unable to communicate medical problems such as ear infections or appendicitis, dental problems, sprains or broken bones, burns or frostbite
- Educate member parent on the importance of following a sleep schedule and setting a bedtime routine
- Educate member's guardian on sensory activities and incorporating sensory breaks into member's day
- Educate member's guardian on autism symptoms and treatment
- Refer member's guardian to organizations that provide respite care
- Refer member's guardian to parent support programs such as Parent 2 Parent
- Educate member's guardian on creating a notebook to record conversations with providers and teachers as well as recording doctors' reports and evaluations

#### **MEDICAL BEHAVIORAL INTEGRATION**

About 25% of children with ASD also have seizures. Medications used to treat seizures can also cause behavioral changes – this should be monitored. Around 1/3 of children who have Fragile X syndrome also meet criteria for ASD so children with ASD should be checked for this genetic disorder. Some with ASD also suffer for GI disorders such as stomach pain, diarrhea, constipation, acid reflux, vomiting or bloating. Children with ASD are also at higher risk for

developing anxiety, depression and other behavioral health conditions that can worsen ASD symptoms if untreated.<sup>16</sup>

Treatments for ASD include behavioral, medical, educational, speech/language, and occupational therapy and complementary and alternative medicine approaches. Treatments for young children in the target age group for routine screening for ASD are primarily behavioral interventions, particularly early intensive behavioral and developmental interventions, which may include approaches incorporating applied behavior analysis principles, parent training components, and play- or interaction-based interventions. Among the behavioral interventions, those based on applied behavior analysis have the highest-quality data supporting their effects on cognitive and language outcomes. These interventions can be delivered in a home or school setting and are generally time-intensive, with some programs requiring up to 40 hours a week.<sup>1</sup> There is no cure for ASD. Therapies and behavioral interventions are designed to remedy specific symptoms and can substantially improve those symptoms. The ideal treatment plan coordinates therapies and interventions that meet the specific needs of the individual. Most health care professionals agree that the earlier the intervention, the better.<sup>13</sup>

*Educational / Behavioral Interventions.* Such interventions have been very successful in many children with ASD. In these interventions therapists use highly structured and intensive skill-oriented training sessions to help children develop social and language skills, such as applied behavioral analysis, which encourages positive behaviors and discourages negative ones. In addition, family counseling for the parents and siblings of children with ASD often helps families cope with the particular challenges of living with a child with ASD.<sup>13</sup>

*Early Intervention Services.* Research shows that early intervention treatment services can greatly improve a child's development. Early intervention services help children from birth to 3 years old learn important skills. Services include therapy to help the child talk, walk, and interact with others.<sup>2</sup>

*Behavior and Communication Approaches.* According to reports by the American Academy of Pediatrics and the National Research Council, behavior and communication approaches that help children with ASD are those that provide structure, direction, and organization for the child in addition to family participation. A notable treatment approach for people with an ASD is called applied behavior analysis (ABA). ABA has become widely accepted among health care professionals and used in many schools and treatment clinics. ABA encourages positive behaviors and discourages negative behaviors in order to improve a variety of skills. Types of ABA include:<sup>2</sup>

- **Discrete Trial Training (DTT)** – A style of teaching that uses a series of trials to teach each step of a desired behavior or response. Lessons are broken down into their simplest parts and positive reinforcement is used to reward correct answers and behaviors. Incorrect answers are ignored.
- **Early Intensive Behavioral Intervention (EIBI).** This is a type of ABA for very young children with an ASD, usually younger than five, and often younger than three.
- **Pivotal Response Training (PRT).** PRT aims to increase a child's motivation to learn, monitor his own behavior, and initiate communication with others. Positive changes should have widespread effects on other behaviors.
- **Verbal Behavior Intervention (VBI).** VBI is a type of ABA that focuses on teaching verbal skills.

Other therapies that can be part of a complete treatment program for a child with an ASD include:

- Developmental, Individual Differences, Relationship-Based Approach (DIR or "Floortime")
- Treatment and Education of Autistic and related Communication-handicapped Children (TEACCH)
- Occupational Therapy
- Sensory Integration Therapy
- Speech Therapy
- The Picture Exchange Communication System (PECS)

Visit the Autism Speaks website ([here](#)) or the Autism Society website ([here](#)) for more information about these therapies.

*Dietary Approaches.* Some dietary treatments have been developed by reliable therapists. But many of these treatments do not have the scientific support needed for widespread recommendation. An unproven treatment might help one child, but may not help another. Many biomedical interventions call for changes in diet. Such changes include removing certain types of foods from a child's diet and using vitamin or mineral supplements. Dietary treatments are based on the idea that food allergies or lack of vitamins and minerals cause symptoms of ASD. Some parents feel that dietary changes make a difference in how their child acts or feels.<sup>2</sup>

**Medication.** While not a cure or treatment for the main symptoms of ASD, some medications can help treat related symptoms such as anxiety, depression, and obsessive-compulsive disorder. Antipsychotic medications are used to treat severe behavioral problems. Seizures can be treated with one or more anticonvulsant drugs. Medication used to treat people with attention deficit disorder can be used effectively to help decrease impulsivity and hyperactivity in people with ASD.<sup>8</sup> Medications might not affect all children in the same way. It is important to work with a health care professional who has experience in treating children with ASD. Parents and health care professionals must closely monitor a child's progress and reactions while he or she is taking a medication to be sure that any negative side effects of the treatment do not outweigh the benefits.<sup>2</sup>

**Complementary and Alternative Treatments.** To relieve the symptoms of ASD, some parents and health care professionals use treatments that are outside of what is typically recommended by the pediatrician. These types of treatments are known as complementary and alternative treatments (CAM). They might include special diets, chelation (a treatment to remove heavy metals like lead from the body), biologicals (e.g., secretin), or body-based systems (like deep pressure). Despite controversy, current research shows that as many as one third of parents of children with an ASD may have tried these types of treatments. For more information CAM therapies, visit the National Center for Complementary and Alternative Medicine website ([here](#)).<sup>2</sup>

## MEMBER EDUCATIONAL RESOURCES

There are currently no Krames educational materials available for this topic. The following resources can be shared with individuals diagnosed with ASD and their families / caregivers:

- [American Academy of Child and Adolescent Psychiatry \(AACAP\)](#)
- [Centers for Disease Control and Prevention](#)
- [Medline Plus](#)
- [National Institute of Neurological Disorders and Stroke](#)

## PHARMACOLOGY

While there are no medications that treat ASD specifically, there are some medications that can help some members with ASD function better. Risperidone and Aripiprazole can help irritability, aggression and hyperactivity in children with ASD ages 6-17 and may reduce emotional distress, repetitive behavior and self-injury. Weight gain and sedation are common side effects with these medications and yearly monitoring of lipids and fasting blood sugar is recommended. There is also a risk of EPS including muscle stiffness and tremors with antipsychotic medications. Antidepressants such as Prozac and Zoloft are also sometimes prescribed to help with repetitive behaviors and managing aggression and anxiety. Stimulant medications such as methylphenidate can also be used to reduce inattention and hyperactivity in children with ASD. Vitamins such as Magnesium-vitamin B6 and amino acids L-carnosine and dimethylglycine have also been tried in ASD for potential behavioral effects. Fish oil and evening primrose supplements have also been considered as possible benefitting ASD.<sup>17</sup>

## Related WellCare Guidelines

In addition to the information contained in this document, please reference the following Clinical Coverage Guideline (CCG) *Applied Behavioral Analysis: HS-238* and the Clinical Practice Guideline (CPG) *Depressive Disorders Children & Adolescents: HS-1022*.

NOTE: Clinical Policies can be accessed by going to [www.wellcare.com](http://www.wellcare.com) – select the Provider tab, then “Tools” and “Clinical Guidelines”.

## References

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## Disclaimer

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WellCare (Arizona, Arkansas, Connecticut, Florida, Georgia, Illinois, Kentucky, Louisiana, Mississippi, Nebraska, New Jersey, New York, South Carolina, Tennessee, Texas)*

## Medical Policy Committee Approval History

Date	History and Revisions by the Medical Policy Committee
5/3/2018	<ul style="list-style-type: none"> <li>• Approved by MPC. No changes.</li> </ul>
7/24/2017	<ul style="list-style-type: none"> <li>• Approved by MPC. Added sections on Care Management and Health Equity, Health Literacy, and Cultural Considerations.</li> </ul>
6/28/2017	<ul style="list-style-type: none"> <li>• Approved by MPC. Updated reference links; revision needed for SC submission.</li> </ul>
10/6/2016	<ul style="list-style-type: none"> <li>• Approved by MPC. New.</li> </ul>

## Addendum

### CAUSES

While all of the causes of ASD are unknown, researchers have learned that there are likely many causes for multiple types of ASD. There may be many different factors that make a child more likely to have an ASD, including environmental, biologic and genetic factors. Highlights of recent research include the following:<sup>2</sup>

- Most scientists agree that genes are one of the risk factors that can make a person more likely to develop ASD.
- Children who have a sibling with ASD are at a higher risk of also having ASD.
- ASD tends to occur more often in people who have certain genetic or chromosomal conditions (e.g., fragile X syndrome, tuberous sclerosis).

- Valproic acid and thalidomide have been linked with a higher risk of ASD when taken during pregnancy.
- Some evidence shows a critical period for developing ASD occurs before, during, and immediately after birth.
- Children born to older parents are at greater risk for having ASD.

The National Institute of Neurological Disorders and Stroke (NINDS) has completed many research studies on causes and medical correlations for people with ASD. Research shows people with ASD have a higher than average risk of having epilepsy. About 20 to 30 percent of children with ASD develop epilepsy by the time they reach adulthood. NINDS also notes that imaging studies of people with ASD have shown differences in the development of several regions of the brain suggesting ASD could be a result of disruptions in normal brain growth in early development. The theory that parental practices are responsible for ASD has long been disproved and multiple studies have shown that vaccinations to prevent childhood infectious diseases do not increase the risk of autism. Recent research shows that de novo (spontaneous) gene mutations can influence the risk of developing autism spectrum disorder. De novo mutations are changes in sequences of DNA which can occur spontaneously in a parent's sperm or egg cell or during fertilization. Complete NINDS research study information can be found [here](#).<sup>13</sup>

### VACCINE SAFETY

Many studies have looked at whether there is a relationship between vaccines and autism spectrum disorder (ASD). To date, the studies continue to show that vaccines are **not** associated with ASD. To address concerns of vaccines, the CDC is part of the Inter-Agency Autism Coordinating Committee (IACC) which is working with the National Vaccine Advisory Committee (NVAC) on the issue. For more information about vaccines and ASD, see:<sup>18</sup>

- [CDC Studies on Thimerosal in Vaccines](#)
- [Immunization Safety Office](#)
- [Vaccine Safety: Concerns About Autism](#)
- [Mercury and Vaccines \(Thimerosal\)](#)
- [Measles, Mumps, and Rubella \(MMR\) Vaccines Safety](#)
- [Thimerosal in Seasonal Influenza Vaccine](#)
- [Timeline: Thimerosal in Vaccines \(1999–2010\)](#)

The American Academy of Pediatrics (AAP) also provides an overview of vaccines and ASD [here](#).

### RESEARCH

The mission of the National Institute of Neurological Disorders and Stroke (NINDS) is to seek fundamental knowledge about the brain and nervous system and to use that knowledge to reduce the burden of neurological disease. The NINDS is a component of the National Institutes of Health (NIH). The Autism Coordinating Committee (NIH/ACC) was formed 20 years ago to enhance the quality, pace, and coordination of efforts at the NIH to find a cure for autism. The NIH/ACC has been instrumental in promoting research to understand and advance ASD. The NIH/ACC also participates in the broader Federal Interagency Autism Coordinating Committee (IACC), composed of representatives from various U.S. Department of Health and Human Services agencies, the Department of Education, and other governmental organizations, as well as public members, including individuals with ASD and representatives of patient advocacy organizations. One responsibility of the IACC is to develop a strategic plan for ASD research, which guides research programs supported by NIH and other participating organizations. For additional information regarding the NIH/ACC, click [here](#).

NINDS and several other NIH institutes support autism research through the Autism Centers of Excellence (ACE), a trans-NIH initiative that supports large-scale multidisciplinary studies on ASD, with the goal of determining the causes of autism and finding new treatments. NINDS currently supports an ACE network focused on ASD and tuberous sclerosis complex (TSC). Other ACE centers and networks are investigating early brain development and functioning; genetic and non-genetic risk factors, including neurological, physical, behavioral, and environmental factors present in the prenatal period and early infancy; and potential therapies.<sup>13</sup>

NINDS funds additional research aimed at better understanding the factors that lead to ASD, including other studies on genetic disorders associated with ASD, such as TSC, Fragile X Syndrome, Phelan-McDermid syndrome, and Rett syndrome. NINDS researchers are also studying aspects of brain function and development that are altered in people with ASD as well as studying the relationship between epilepsy and autism. For additional information regarding

research on ASD, click [here](#).<sup>13</sup>

*Research Needs and Gaps.* The USPSTF notes that research has focused on screening and diagnostic tools and treatment for symptomatic children, especially those who are severely affected. Good-quality studies are needed to better understand the intermediate and long-term health outcomes of screening for ASD among children without obvious signs and symptoms and whether earlier identification through universal screening is associated with clinically important improvements in health outcomes. The USPSTF also states that studies are needed in populations with low socioeconomic status and minority populations, where access to care may be more limited.<sup>1</sup>