Early Identification & Intervention for the

Spectrum of Autism

Developed by
the Minnesota Low Incidence Projects

Minnesota
Low Incidence
Projects

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Why is Early Identification Important for Children with Autism Spectrum Disorders?

"Children with ASD are making remarkable changes with specially designed intensive programming combined with parent training, coaching and support during regular home visits."

Chrissy Christensen, ECSE Teacher

"Early intervention changed our life as a family. I see now how we struggled just to get by on a day-to-day basis. In just a short time, our son became a calmer child. With new strategies, we became happier, more effective parents-able to actually enjoy our children once again. It was as if an enormous weight was being lifted from our shoulders."

Luann Quayle, parent of two young children with ASD, 2009

"Her primary reason for early identification of ASD is that identification leads to appropriate , specialized intervention and provides the opportunity to educate and empower families."

Wendy Stone, PhD: *Lessons from the Field Workshop*, Feb 12, 2009

"Because of underlying neurodevelopmental differences, the way the brain in autism handles information may be very different...left on its own, a child with autism will process information in atypical ways...autism is an example of the extreme need for early intervention."

Diane L. Williams, *March 2008 Zero to Three*, page 14-15

"A large body of...research has demonstrated substantial progress in individual responses to specific intervention techniques. Studies have reported substantial changes in large numbers of children in which they received a variety of interventions. The needs and strengths of young children with autism spectrum disorders are very heterogeneous."

National Research Council, 2001

"Identifying children with autism and initiating intensive, early intervention during the preschool years results in improved outcomes for most young children with autism."

P.A. Filipek, M. D., Neurology 55. 2000

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Why is Early Identification Important for Children with Autism Spectrum Disorders?

In Minnesota, local school districts are the lead agency in providing evaluation, early intervention, and special education services for children birth through twenty-one years of age.

If you have concerns that your child is not meeting the following milestones, contact the special education department of your local school district. A school professional will listen to your concerns, answer your questions, and gather intake information. As a team, you and the school will develop an action plan. This might include a screening, a referral to community resources, or an evaluation planning meeting.

Milestones enable parents and educators to monitor a child's learning, behavior, and development. While each child develops differently, some differences may indicate a slight delay and others may be a cause for greater concern. The following milestones provide important guidelines for tracking healthy development from four months to three years of age. Check to see if your child is achieving these typical milestones in the three core areas of autism.

By 3-4 months
- Watches faces with interest and follows moving objects
- Recognizes familiar objects and people; smiles at the sound of your voice
- Begins to develop a social smile
- Turns head toward sounds

By 7 Months
- Responds to other people's emotions
- Enjoys face-to-face play; can find partially hidden objects
- Explores with hands and mouth; struggles for out of reach objects
- Responds to own name
- Uses voice to express joy and displeasure; babbles chains of sounds

By 12 Months/1 Year
- Enjoys imitating people; tries to imitate sounds
- Enjoys simple social games, such as "gonna get you!"
- Explores objects; finds hidden objects
- Responds to "no;" uses simple gestures, such as pointing to an object
- Babbles with changes in tone; may use single words ("dada," "mama," "Uh-oh!")
- Turns to person speaking when his/her name is called.

By 24 Months/2 Years

- Imitates behavior of others; is excited about the company of other children
- Understands several words
- Finds deeply hidden objects; points to named pictures and objects
- Begins to sort by shapes and colors; begins simple make-believe play
- Recognizes names of familiar people and objects; follows simple instructions
- Combines two words to communicate with others, such as "more cookie?"

By 36 Months/3 Years

- Expresses affection openly and has a wide range of emotions
- Makes mechanical toys work; plays make-believe
- Sorts objects by shape and color, matches objects to pictures
- Follows a 2- or 3-part command; uses simple phrases to communicate with others, such as "go outside, swing?"
- Uses pronouns (I, you, me) and some plurals (cars, dogs)

By 48 Months/4 Years

- Cooperates with other children; is increasingly inventive in fantasy play
- Names some colors; understands concepts of counting and time
- Speaks in sentences of five to six words
- Tells stories; speaks clearly enough for strangers to understand
- Follows three-part commands; understands "same" and "different"

By 60 Months/5 Years

- Wants to be like his/her friends; likes to sing, dance, and act
- Is able to distinguish fantasy from reality
- Shows increased independence
- Can count 10 or more objects and correctly name at least four colors
- Speaks in sentences of more than five words; tells longer stories

*Adapted from : *AutismSpeaks.org*

Red Flags

The following red flags may indicate a child is at risk for atypical development and is in need of an immediate evaluation. Contact your local school district.

- No warm, joyful engagement by five months (e.g., no big smiles)
- No two-way, back-and-forth gesturing by nine months (e.g., no smiles that encourage a smile, no sounds that encourage vocalization)
- No babbling by 12 months
- No pointing or other gestures by 12 months
- No single words by 16 months
- No two-word spontaneous (not echolalic) phrases by 24 months
- ANY loss of ANY language or babbling or social skills at ANY age

The indicators for immediate evaluation were compiled by **First Signs** (http://www.firstsigns.org) from the following sources: Greenspan, S.I., (1999) *Building Healthy Minds*, Perseus Books; and *Neurology 2000,* 55: 46-469.

Autism Spectrum Disorders

Autism is often referred to as a spectrum disorder, meaning the symptoms and characteristics of autism can present themselves in a wide variety of combinations, from mild to severe. Although autism is defined by a certain set of behaviors, children and adults can exhibit *any combination* of the behaviors in *any degree of severity.* Autism occurs in people across all cultures, races and socioeconomic status. It occurs more frequently in boys than girls. Two children, both with a label of autism, can act very differently from one another and have individualized needs and services. Siblings of children with ASD are at higher risk of having ASD or a related condition.

In Minnesota the educational criteria for special education services under ASD includes three core areas:

1. Qualitative impairment in social interaction, as documented by two or more behavioral indicators, for example: limited joint attention and limited use of facial expressions directed toward others; does not show or bring things to others or indicate an interest in the activity; demonstrates difficulties in relating to people, objects, and events; a gross impairment in ability to make and keep friends; significant vulnerability and safety issues due to social naivete; may appear to prefer isolated or solitary activities; misinterprets others's behaviors and social cues.

2. Qualitative impairment in communication, as documented by one or more behavioral indicators, for example: not using finger to point or request; using other's hand or body as a tool; showing lack of spontaneous imitations or lack of varied imaginative play; absence or delay of spoken language; limited understanding and use of nonverbal communication skills such as gestures, facial expressions, or voice tone; odd production of speech including intonation, volume, rhythm, or rate; repetitive or idiosyncratic language or inability to initiate or maintain a conversation when speech is present.

3. Restricted, repetitive, or stereotyped patterns of behavior, interest, and activities, as documented by one or more behavioral indicators, for example: insistence on following routines or rituals; demonstrating distress or resistance to changes in activity; repetitive hand or finger mannerism; lack of true imaginative play versus reenactment; overreaction or under reaction to sensory stimuli; rigid or rule-bound thinking; an intense, focused preoccupation with a limited range of play, interests, or conversation topics.

In addition, children often demonstrate difficulties with sensory processing and emotional self regulation. The Minnesota Department of Education requires school districts to follow due process procedures to determine eligibility for ASD as well as other disability categories.

Often there is confusion between an educational designation of ASD and a medical diagnosis. In order for a child to qualify for special education services under the category of ASD, the child must demonstrate characteristics in at least two of the three core areas and demonstrate special educational needs.

Although a medical diagnosis can be considered by the educational team, it is not required for a student to be eligible for special educational services. A medical diagnosis does not necessarily mean that the student will demonstrate a need for special education services.

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Characteristics of Autism at Different Levels of Severity

	Mild Impairment	Moderate Impairment	Severe Impairment
Social Behavior	Shows clear social interest but limited reciprocity. Seeks social interactions but relationships may be hampered by limited understanding of the perspective and feelings of others.	Shows enjoyment in a limited number of social routines, especially those involving physical activities or satisfaction of needs. Shows little interest in interacting with peers, though may engage in parallel play or chasing games.	Shows limited social awareness and interest. Social interactions may be restricted to simple routines with familiar adults. Shows little social initiation and inconsistent responsiveness to others.
Language and Communication	Speaks in complete sentences, but language may be rigid or inflexible. Conversational skills may be limited by persistence on particular topics and poor understanding of nonverbal cues. May show comprehension problems and difficulty with abstract concepts.	Verbalizations may contain a combination of functional speech, jargon, and immediate and/or delayed echolalia. Initiation of communication is for the purpose of satisfaction of needs rather than for the purpose of social interaction.	Uses no functional speech. Nonverbal communication is limited and may include using others' hands as tools.
Repetitive Activities	Shows some behavioral rigidity and inflexibility. May have circumscribed areas of interest and specific routines or rituals that interfere only minimally with daily activities.	Resists changes in routines or interruption of activities. Shows repetitive play with toys and may have motor stereotypes, such as rocking or spinning.	Shows extreme resistance to changes in activities and routines. Stereotyped motor behaviors may be persistent and difficult to interrupt. May focus on sensory aspects of toys or other objects.

Wendy Stone, PhD

Range of Services

Common Features of Effective Early - Intervention Programs for ASD
Educating Children with Autism, National Research Council, 2001

- Start services at a young age
- Encourage active involvement of parents
- Develop individualized goals based on assessment information
- Provide specialized instruction in core deficit areas (e.g., social interaction, communication, imitation, play)
- Encourage active, sustained engagement of child
- Provide a structured environment with predicable routines
- Promote generalization of skills
- Employ a functional, proactive, positive, approach to problematic behaviors
- Provide at least 25 hours/week, 12 months/year
- Involve staff with training & experience in autism

A Quality Program for Children with Autism Involves High Levels of Engagement in a Variety of Settings

The goal of engagement is to move toward establishing joint attention and developing reciprocal social interaction.

Engagement exists when a child is actively participating in an activity with at least one other person. It must include increasingly frequent communicative interaction, either nonverbal or verbal. The critical component is that the child is actively learning and practicing reciprocal interaction skills.

Young children with autism are often not easily engaged in learning through environments and teaching strategies that are affective with typical children or those with other development delays.

Important Program Consideration

- Environment may be less busy (number of people, amount of movement, fewer toys and materials available at any one time)
- There may be more structure
- Beginning and ending rituals to activities
- More distinct physical boundaries
- More routine in the schedule
- Predictable sequence of activities
- Fewer choices available at one time
- There may be more adult direction and fewer open-ended choices for the child
- More direct teaching
- Skills may be taught in more distinct units, practiced in isolation, and gradually generalized to increasingly complex environments.
- May include regular specific sensory motor activities
- Social groups and activities may be more structured and regulated by an adult. Peer meditation skills are taught directly.
- More visual cues, including a visual schedule and less complex verbal directions.

Early Intervention Strategies - Maximize...

- the child's interest - use preferred objects & activities, start at child's level
- the predictability of events - create play routines, use visual cues & supports
- the child's likelihood of success - use physical prompts as needed
- the child's motivation to communicate - create surprising/silly events, place objects out of reach, pause during play routines
- the clarity of expectations - limit language, use consistent vocabulary, provide visual cues

Trends in Intervention

Since the initial use of the term autism in 1943, debate concerning cause and appropriate intervention has raged among professionals in the field. This debate is understandable given the diverse nature of the individuals diagnosed with autism spectrum disorders. The field of autism has been inundated with strong and diverse opinions, methodologies, and theories that come and go and then return again. The responsibility of the educational team is to be knowledgeable about current research and continue to make decisions for individualized student programs and teaching strategies.

Some current trends include the following:

- Proactive Behavioral Programming and Supports
- Sensory Integrative Treatments
- Gentle Teaching Methods
- TEACCH Method (Structured Teaching)
- Video Modeling
- Applied Behavior Analysis
- Music Therapy
- Inclusive Educational Practices
- Social Stories and Comic Strip Conversations
- Communication Alternatives
- Picture Exchange Communication System
- Intensive Early Behavioral Interventions (discrete trial instruction)
- Relationship Development Intervention
- Floor Time
- Pharmaceutical/Vitamin Diet Treatments
- Alternative Therapies (Craniosacral, Aroma Therapy, Vision Therapy, and Auditory Training)

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Questions to consider when selecting among various treatment approaches…..

The Autism Society of America's Panel of Professional Advisors has developed guidelines to evaluate theories and practices related to autism. Listed here are a few of the things to consider as you evaluate treatment options:

- Will the treatment result in harm to the child?
- How will failure of the treatment affect my child and family?
- Has the treatment been validated scientifically?
- Are there assessment procedures specified?
- How will the treatment be integrated into the child's current program? Do not become so infatuated with a given treatment that functional curriculum, vocational life and social skills are ignored.

In addition, consider the following questions when asking about specific treatments (compiled by the National Institute of Mental Health):

- How successful has the program been for other children?
- How many children have gone on to placement in a regular school and how have they performed?
- Do staff members have training and experience in working with children and adolescents with autism?
- How are activities planned and organized?
- Are there predictable daily schedules and routines?
- How much individual attention will my child receive?
- How is progress measured?
- Will my child's behavior be closely observed and recorded?
- Will my child be given tasks and rewards that are personally motivating?
- Is the environment designed to minimize distractions?
- Will the program prepare me to continue the therapy at home?
- What is the cost, time commitment, and location of the program?

Other Health Concerns

It is not uncommon for individuals on the autism spectrum to develop additional health conditions. Commonly coexisting conditions include:

- Anxiety disorders
- Depression
- Mood disorder
- Fragile X syndrome
- ADHD
- Cognitive delays
- Learning disability
- Heightened immune response in the central nervous system (CNS)
- Motor skills delays
- Obsessive-compulsive disorder
- Tourette syndrome
- Seizures
- Sensory issues
- Sleep disorders
- Gastro-intestinal problems

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Resources

The Minnesota Department of Education is committed to building the capacity of school districts throughout the state to provide free and appropriate education to learners with autism. Technical assistance to local teams is available from members of the Minnesota Autism Network by contacting the Low Incidence Regional Facilitator by contacting the Low Incidence Regional Facilitator for the region.

Regional Offices	Facilitator	Contact Information
Warren/Bemidji Region 1 & 2	Brenda Ackerson	(218) 745-5628, x 248 backers@wao.k12.mn.us
Mountain Iron Region 3	Phyllis Hauck	(218) 748-7606 phauck@nesc.k12.mn.us
Fergus Falls Region 4	Dennis Ceminski	(218) 739-3273 dceminski@lcsc.org
Staples Region 5 & 7	Earl Mergens	(218) 894-5462 earlm@ncscmn.org
Marshall Region 6 & 8	Bob Braun	(507) 537-2252 bob.braun@swsc.org
Mankato Region 9	Linda Watson	(507) 389-2123 lwatson@mnscsc.org
Rochester Region 10	Carol Anhalt	(507) 775-2037
Twin Cities Metro (Minneapolis/St. Paul) Region 11	Ingrid Aasan-Reed	(612) 638-1517 ingrid.aasan-reed@metroecsu.org

Resource List

American Academy of Pediatrics
AAP guidelines
www.aap.org/publiced/autismtoolkit.cfm
Primarily for professionals; research articles links

Autism Society of America
www.autism-society.org
National autism organization

Autism Society of Minnesota
www.ausm.org
Local state autism information for workshops, support and resources

Autism Speaks Video Glossary
www.autismspeaks.org/video/glossary.php
Parents/professionals can view video clips of individuals with ASD to learn of the wide spectrum

Center for Inclusive Child Care
www.inclusivechildcare.org/index.cfm
Online and on-site trainings on various topics

Due Process/ Advocacy
www.pacer.org

Interactive Collaborative Autism Network
www.autismnetwork.org
Modules that can be utilized by parents, professionals and anyone who works with individuals with ASD

Living with Autism Study
www.Easterseals.com

Minnesota Department of Education

www.mde.edu

Minnesota First Signs Project

www.firstsigns.org
First Signs project goal is to improve the frequency and quality of screening of young children from birth through early school years

National Early Childhood Technical Assistance Center
NECTAC

http://nectac.org/topics/autism/autism.asp
Good site for parents and educators to view a variety of topics on autism

Ohio Center for Autism and Low Incidence (OCALI)

www.autisminternetmodules.org
Training modules for learning about autism and specific strategies

Parent to Parent/Minnesota Parents Know

www.parentsknow.state.mn.us
Site for parents that provides overview of typical developmental stages and addresses atypical development and disorders as well as answering parenting questions

Tool Kit for Parents: Autism Speaks

www.autismspeaks.org/press/100_day_kit.php
Especially for those parents who recently had a child diagnosed on the spectrum