



Autism Awareness

South Cook County EMS
Relicensure Program for EMS
February, 2011

Autism

Objectives: Upon completion of this program the participant will be able to:

1. Define autism, and list common characteristics and symptoms
2. Define Asperger syndrome and list common characteristics and symptoms
3. Discuss the epidemiology and other common conditions in children with Autism.
4. Discuss emergency management of patients with Autism

“thirteen-year old boy dies in Missouri home fire.”

“firefighter injured rescuing 10 year-old boy.”

“Oregon couple sentenced for fire death of 19 year-old son.”

These headlines all involved children and young adults with autism. The 13 year old refused to escape with his family; his body was found in the bathroom behind a locked door.

The 10 year old was safely removed by his mother, but then ran back into the fire seeking the comfort of his bedroom.

The Oregon couple locked their son in his room when they went out because he would often wander away and had no sense of danger.

Autism

Can tragedies like these occur in your town or EMS coverage area?

Absolutely and Unfortunately!

The right knowledge and training can help prevent similar tragedies and situations.

Autism

(Autism Spectrum Disorder, ASD)

Definition

A disorder of neural development characterized by impaired social interaction and communication, and by restricted and repetitive behavior.

Autism

Characteristics

- First appears during infancy or early childhood.
 - Generally follows a steady course without remission
 - Overt symptoms gradually begin after the age of 6 months and become established by age 2 or 3 years.
 - Distinguished not by a single symptom, but by a triad of symptoms
1. Impairment in social interaction
 2. Impairment in communication
 3. Restricted interests and repetitive behavior.

Autism

Repetitive Behavior



Autistic individuals display many forms of repetitive behavior, which is characterized by the Repetitive Behavior Scale-Revised:

1. **Sterotypy**-repetitive movement, such as hand flapping, making sounds, head rolling, body rocking
2. **Compulsive behavior**-appears to follow rules, i.e. arranging objects in stacks or lines
3. **Sameness**-resistance to change, i.e. insisting that furniture not be moved or refusing to be interrupted during an activity
4. **Ritualistic behavior**-i.e., unchanging menu, dressing ritual, same TV program each day.
5. **Restricted behavior**- limited in focus, interest, or activity, such as preoccupation with a single toy or game
6. **Self-injury**- includes movements that can injure, such as eye poking, skin picking, head banging. This may affect up to 30% of children with Autism

Autism

(Other Symptoms)

- .5%-10% show unusual abilities, such as memorization of trivia to the extraordinarily rare talents of savants

(Definition of Savant – rare condition in which people with developmental disorders have one or more areas of expertise, ability, or brilliance that are in contrast with the individual's overall limitations.)

- 60-80% have motor signs that include poor muscle tone and toe walking.
- Approx 75% of children have unusual eating behaviors (rituals, food refusal, etc.)

Inability to relate to children or adults



Poor speech or lack of speech



Oversensitivity or undersensitivity to noises



Inappropriate toy play



Difficulty dealing with changes in routine



Inappropriate laughter or crying



Lack of awareness of danger



Hyperactivity or passiveness



Oversensitivity or undersensitivity to touch



Strange attachment to objects



Lack of eye contact



Asperger Syndrome

Characterized by significant difficulties in social interaction, along with restricted and repetitive patterns of behavior and interests. Physical clumsiness and atypical use of language are frequently reported.

Asperger

Often children lack nonverbal communication skills, demonstrate limited empathy with their peers, and are physically clumsy.

Medical management- aimed at improving symptoms and function. Uses behavioral therapy, focusing on specific deficits. Many individuals may improve over time and independent living can exist and continue into adulthood.



Autism

Epidemiology

- Most recent reviews estimate that autism occurs in approximately 1 in 150 births, however, this is just an estimate due to inadequate data and underestimate of autism's true prevalence.
- Boys are at a higher risk than girls.
- The risk of autism is associated with advanced age in either parent and with diabetes, bleeding, and use of psychiatric drugs during pregnancy.
- Most professionals believe that race, ethnicity, and socioeconomic background do not affect the occurrence of autism.

Conditions Common in Children with Autism

- **Genetic Disorders** - 10-15% have a single-gene condition or chromosome abnormality.
- **Mental Retardation** - 25-70% of autistic individuals may meet the criteria for mental retardation.
- **Anxiety Disorders** - common, with an 11-84% prevalence .
- **Metabolic Defects** - such a phenylketonuria (PKU)
- **Minor Physical Anomalies**
- **Sleep Problems** - affect about two-thirds of individuals at some point. Most common is difficulty falling asleep, frequent nocturnal awakenings, and early morning awakenings.

Autism Screening

About half of parents of children with ASD notice their child's unusual behaviors by age 18 months, and about four-fifths notice by age 24 months. As postponing treatment may affect long-term outcome, any of the following signs is reason to have a child evaluated by a specialist without delay:

- No babbling by 12 months
- No gesturing (pointing, waving goodbye, etc.) by 12 months
- No single words by 16 months
- No two-word spontaneous phrases by 24 months
- Any loss of any language or social skills, at any age.

Autism Diagnosis

Diagnosis is based on behavior, not cause or mechanism
(as per the ICD-10 diagnostic tool)

For diagnosis, a patient must exhibit at least 6 symptoms total, including at least two symptoms of social interaction impairment, one symptom of communication impairment and at least one symptom of restricted/repetitive behavior

Onset must be prior to 3 years of age.

Autism Awareness and Management

Studies have shown that autistic individuals have 7 times more contact with EMS than typical citizens. Although their risk is partly due to coexisting medical conditions, the most tragic interactions may stem from the misinterpretation or misunderstanding of typical behaviors associated with Autism

Autism

Autism is an invisible disability. It is often misinterpreted as mental retardation, drug abuse, psychosis, defiance, or criminal activity. Often children are labeled as “spoiled brats” and their parents as being too lenient as caregivers.

I'm not misbehaving



I have Autism

Please be understanding

The goal in EMS is to:

- Improve the situation
- Minimize damage
- Prevent further injury.



Management



The National Autism Association reports that drowning is the leading cause of death for children and adults with ASD. They are often fascinated by water and usually fail to detect the dangers of cliffs, rushing water, slippery rocks, cold water, etc.

Be especially mindful during water rescues or when responding to areas that have water hazards.

Management

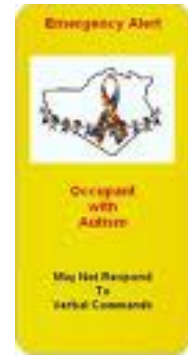


Individuals with ASD often seek shelter in the place that they feel safe. It is important to be mindful of this during rescues, such as fire, because the victim may want to return to their safety net. A firefighter or medic should be assigned to stay with the victim once they have been safely removed to decrease the chance of them returning to the hazard.





Management



Persons with ASD are often described as fearless, prone to wander, and attracted to high places. Caregivers frequently install home modifications to minimize this danger. These may include locked interior/exterior doors, locked windows, gates, fences. There may be break resistant windows/glass.

Proactively flagging these addresses in dispatch may help to protect the medics and occupants during rescue situations.



Autism

Rescue personnel will interact with ASD children, teenagers, young adults, and older adults throughout their careers. It is important for EMS to have continuing education training for these special situations with may lead to ASD risk reductions in the community.

References

Wikipedia: *Autism, Asperger syndrome, and Savant syndrome.*

Martin, A. & Mims, T. (2009). *Autism awareness for responders.* Fire Engineering