Fetal Alcohol Spectrum Disorder (FASD) is an umbrella term describing the range of effects that can occur in an individual prenatally exposed to alcohol. Since alcohol is a teratogen, it can greatly affect the developing fetus including the brain, heart, liver, kidneys, eyes, ears, bones and face. Such effects may include physical, mental, behavioral, and/or learning disabilities with lifelong implications.

FASD is not a diagnostic clinical diagnosis, but actually refers to an umbrella range of 4 more specific medical diagnoses. The conditions associated with prenatal alcohol exposures are listed in the picture.

Effects of FASD are dependent upon the time and frequency of maternal alcohol consumption. Often these effects can also be the result of poor prenatal care and nutrition. FASD is referred to as a “hidden” disability because its physical characteristics can be subtle and may go unrecognized. Children are affected in varying degrees, from mild to severe.

- Growth deficits
- Brain damage including intellectual delay
- Tremors, seizures
- Heart, lung, and kidney defects
- Hyperactivity and behavioral problems
- Attention and memory problems
- Vision and hearing problems
- Poor coordination and motor skills

Abnormal facial characteristics
- Small eye opening
- Thin upper lip
- Smooth philtrum
- Short nose
- Flat mid-face
- Small upper jaw

Common co-occurring/Misdiagnosis of FASD
- Speech and language Delay
- Autism, Asperger’s
- Sensory Integration Dysfunction
- Pervasive Developmental Delay
- ADHD
- Oppositional Defiant Disorder
- Reactive Attachment Disorder
- Learning Disability

Suggested school accommodations
- Educational evaluation
- Psychological evaluation
- Behavioral Assessment
- Review of medical records
- PT/SLP/OT evaluations
- Plans for change
- Build in transitions
- Use of visual, auditory, and sensory cues
- Simple, clear steps
- Model and demonstrate appropriate behaviors
- Provide structure
- Maintain a daily schedule
- Use of multiple modalities
- Small classrooms
- Create quiet zones
- Limited distractions
- Organization of materials
- Establish clear rules for classroom learning
Understanding the brain will also help educators prepare and implement appropriate interventions. According to "What Educators Need to Know about FASD" (link found at end of page), nine brain domains are covered with appropriate strategies identified. Below is a short list developed from this educational resource:

- **Physical motor:** poor coordination, low tone, often fidgety, poor body/spatial awareness, clumsy, poor fine motor from decreased hand strength and grasp
- **Sensory processing:** misinterpretation of sound, smell, touch, movement, sensitive to stimuli, may require safe space for calm and quiet, prefer visual learning but be mindful not to overwhelm visual environment
- **Cognition:** wide range of cognitive functioning depending on severity of diagnosis, dramatic effects include miscommunication between left and right brain hemispheres
- **Communication:** language delay, have difficulty retrieving the word from memory and/or processing the information, may respond better to more concrete instructions leaving little room for abstract misinterpretation
- **Academic achievement:** slow to develop abstract thinking and problem solving, difficulty getting started on tasks and translating ideas, keep instructions brief using verbal and visual aids, allow processing time, check for understanding
- **Memory:** concrete learners who learn best when using their senses, experimental learning may be helpful, offer routine and structure, repeat tasks several times, use pre/post teaching strategies
- **Executive functioning and abstract reasoning:** can be referred to as common sense which is often affected in children with FASD, difficulty with cause and effect, consequences should be immediate and consistent (don’t discipline at home from issue at school) and assist student to problem solve
- **Attention deficit:** limit visual and auditory distractions in classroom, encourage self-regulation and for the student to identify when a break is needed, physical exercise to exert energy is sometimes helpful, rhythmic exercises to hold attention, as well as teaching through music

<table>
<thead>
<tr>
<th>SHNIC school nurses information:</th>
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<tbody>
<tr>
<td><strong>Specific health issues for individual health care plans</strong></td>
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<tr>
<td>• Diagnosis including co-occurring effects that could include heart defects, kidney defects, GI issues</td>
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<tr>
<td>• Review medication records and any current treatments</td>
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<tr>
<td>• Seizure action plan, if applicable</td>
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<td>• Note any untreated defects</td>
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<tr>
<td>• Adaptations or adapted PE</td>
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<tr>
<td>• Supervision as needed for safety</td>
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<tr>
<td>• Identified safe areas for student</td>
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<td>• Rest breaks</td>
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Resources & Manuals

- **National Organization on Fetal Alcohol Syndrome**
  http://www.nofas.org

- **Fetal Alcohol Syndrome and Educational Strategies**
  http://www.psychiatry.emory.edu/PROGRAMS/GADrug/Edfas.htm

- **What Educators Need to Know about FASD**