

How Alcohol Damages a Baby's Brain:

The alcohol molecule is very tiny and passes easily across the placenta as early as 2 weeks after conception until birth. Although the alcohol can affect the development of all cells and organs, the brain is particularly vulnerable to the effects of alcohol exposure, and damage can occur *throughout pregnancy*.

Regions of the brain most affected:

- ◆ Corpus Callosum – processes information between right and left brain
- ◆ Cerebellum – motor control
- ◆ Basal Ganglia – processes memory
- ◆ Hippocampus – learning and memory
- ◆ Frontal lobes – executive functions, impulse control, judgment

In persons with Fetal Alcohol Syndrome (FAS) or Alcohol Related Neurodevelopment Disorder (ARND), the corpus callosum may be damaged and may not function adequately. There may not be as many pathways between the two sides of the brain, and so information may pass slowly or ineffectively.

People with FAS or ARND have permanent brain damage which can lead to learning disabilities, behavior problems, memory deficits, attention deficits, hyperactivity, or mental retardation. This is “static encephalopathy,” meaning brain damage that doesn't get any better and doesn't get any worse.

There is no way to reverse the damage to the brain.

People with FAS and ARND often have trouble in three areas:

1. Difficulty translating information from one sense or modality into appropriate behavior. Translating hearing into doing, thinking into saying, feelings into words.
2. Difficulty generalizing information. Links are not automatically formed.
3. Difficulty perceiving similarities and differences. Unable to compare and contrast, sequence, predict or judge.

Behaviors that your client may exhibit as a result of this brain damage:

- ❖ She may repeat your instructions accurately, but forget as soon as she leaves the office.
- ❖ What is learned on one day may be forgotten by the next.
- ❖ Expressive language may be better than receptive language, i.e., she may speak better than she is able to comprehend.
- ❖ Her long-term memory may be fine; however, the storage of information may be disorganized and difficult to retrieve.
- ❖ She may be unable to generalize or substitute words with similar meanings.
- ❖ Similarly, she may be unable to take information from one situation and generalize it to another similar situation.
- ❖ Her behavior may be socially inappropriate at times.

The following strategies may be helpful when treating clients with FAS or ARND:

1. When giving instructions:
 - ❖ Talk in concrete terms – stay away from words with double meanings or idioms.
 - ❖ Have patient demonstrate her understanding of directions by showing you the skill. (DON'T RELY ON HER VERBAL RESPONSE!)
 - ❖ Give simple (5th grade level), written instructions along with verbal. Illustrations are also helpful.
 - ❖ Say exactly what you mean – give simple step-by-step instructions.
 - ❖ Revisit important teaching points at each visit – expect to re-teach!
 - ❖ Remember that instructions may not be transferable to another similar situation.
2. Seek to stabilize presenting issues rather than pursuing a cure for permanent disabilities in reasoning, judgement and memory.
3. When prescribing birth control, a long-term, more reliable method may be the best option because of memory and judgement disabilities.
4. Consistency is important both in the environment and with the people providing care. If the primary provider needs to change, provide a transition period where the new provider is introduced by the current provider.

Resources:

Fetal Alcohol and Drug Unit (FADU) website:
<http://depts.washington.edu/fadu/>
(206) 543-7155

Fetal Alcohol Syndrome Diagnostic & Prevention
Network: (Diagnosis)
<http://depts.washington.edu/fasdpn/>
(206) 526-2522

The FAS Family Resource Institute:
<http://www.fetalalcoholsyndrome.org>
(800) 999-3429

National task force on FAS/FAE:
<http://www.cdc.gov/ncbddd/fas/taskforce.htm>

Parent – Child Assistance Program: (Advocacy)
Seattle: (206) 323-9136
Tacoma: (253) 475-0623

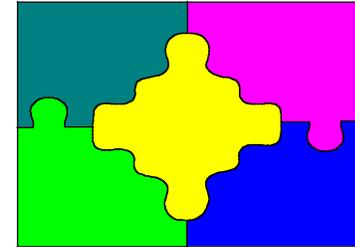
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Guide for Families and Communities. Baltimore, MD:
Paul H. Brooks Publishing Co.

Streissguth, A., et al (1996). Understanding the
Occurrence of Secondary Disabilities in Clients with
FAS and FAE. Final report for the CDC. U.W. (see
FADU website to order)

Malbin, D. (1993). FAS/FAE; Strategies for
Professionals. Hazelden, Center City, MN.

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Developing Successful Interventions for Clients with FAS or ARND



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