

# Alcohol linked to mental troubles

BY ANNA ROGERS  
AND KELSEY LANCASTER  
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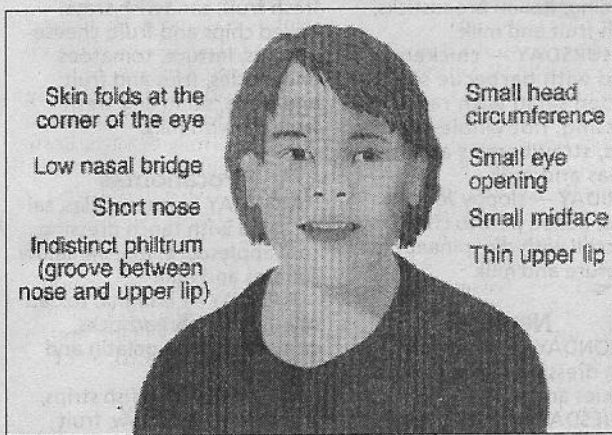
Everybody knows that doctors urge pregnant women not to smoke because the possible effects of tobacco on the babies. Something similar can be said about alcohol.

When a pregnant woman drinks alcohol, the blood-alcohol levels in the mother and fetus are approximately equal within minutes after consumption. That is, if a pregnant woman gets drunk so does the fetus.

The most common defect associated with drinking during pregnancy is fetal alcohol syndrome, which refers to certain physical and mental birth defects resulting from a woman's heavy alcohol consumption during the crucial stages of pregnancy.

FAS is the leading cause of mental retardation in the United States and is estimated to affect 0.33 to 10 children per 1,000 live births in North America. However, in high-risk regions of the United States, Arkansas included, FAS has been documented to occur in as many as 15 per 1,000 live births.

Individuals suffering from FAS display below average height and weight. They also have a variety of facial malformations. The eyes are the most common and consistent sign of FAS. Children with FAS appear to have widely spaced eyes, but measurements show that the eyes are spaced normally. The apparent large spaces are caused by short eye openings. The distance between the inner and outer corner of the eye is shortened making the eyes appear farther apart than normal.



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## Craniofacial features associated with fetal alcohol syndrome.

Another common facial defect results from the slow growth of the center of the face. FAS produces an undeveloped midface, and the zone between the eyes and mouth seems to be flattened. Other associated features are a thin upper lip, a low nasal bridge and smallness of the jaws.

Besides altering appearance, prenatal alcohol exposure can lead to a variety of defects. Autopsies of children with FAS reveal brain abnormalities including partial or complete absence of the corpus callosum (the structure that connects the two hemispheres of the brain), microcephaly (a smaller circumference of the head) and a small cerebrum. FAS can cause motor delays, attention deficits, poor memory and complications with higher-level functioning: planning, abstract thinking, rule acquisition, mathematics and language.

Some physicians have concluded that attention-deficit hyperactivity disorder is the most common warning sign in children with fetal alcohol syndrome. Researchers from Emory University School of Medicine studied a group of 149 children. The children were classified into four groups: fetal alcohol syndrome with facial deformities, alcohol-exposed without facial deformities, ADHD and normal controls.

Mothers of the latter two groups abstained from alcohol during pregnancy. The investigators evaluated the children's neurological function-

ing and attention using several different tests. Those diagnosed with ADHD and those with FAS had similar overall intellectual deficits on all tests compared with the controls and the alcohol-exposed children without facial defects. However, when more specific tests were administered, distinct patterns emerged for each group.

Children with ADHD lack the ability to focus and maintain attention, whereas those with FAS appear to lack normal visual-spatial skills, ability to encode information and adjustability in problem solving. Therefore, while some treatments for ADHD will help children with FAS, those treatments will not give them the ability to interpret information they have learned or use new information for problem solving.

Some FAS individuals can acquire the skills required to be independent citizens, such as riding buses for transportation, learning how to prepare meals and using money appropriately. Others never succeed at school or work despite appearing alert and verbal. Therefore, the only safe amount of alcohol to drink during pregnancy is none.

More information on the effects of alcohol is available on the Alcohol Awareness Web at [http://breitlinks.com/alcohol\\_awareness/alcohol\\_&\\_the\\_brain.htm](http://breitlinks.com/alcohol_awareness/alcohol_&_the_brain.htm).

Rogers and Lancaster are undergraduate students at the Department of Biological Sciences at Arkansas State University.