Fetal Alcohol Syndrome

Alcohol consumption during pregnancy is one of the leading preventable causes of birth defects and childhood disabilities in the United States. The adverse effects associated with fetal alcohol syndrome (FAS) range from growth deficiency, brain structure and function anomalies, and abnormalities of the head and face. In 2000, the estimated cost of treating FAS-affected infants, children, and adults surpassed $2.8 billion. The lifetime cost per child affected with FAS is $1.4 million.

FAS and Public Awareness

• In 1981, the Surgeon General first advised that women should not drink alcoholic beverages during pregnancy due to the risk of birth defects.
• 27 U.S.C. 215 was implemented in 1989, requiring warning labels on all alcoholic beverages sold in the U.S.
• Since 1990, the Dietary Guidelines for Americans have advised that women who are pregnant or planning to become pregnant should not drink alcohol.
• 19 states require the posting of alcohol health warning signs where alcoholic beverages are sold.
• Only 24% of medical text books published since 1990 recommend abstinence from alcohol during pregnancy.

FAS Statistics

• FAS occurs in an estimated one to two live births per every 1,000 in the U.S. each year.
• Fetal Alcohol Effects (a less severe set of alcohol-related abnormalities) is estimated to occur in three to five live births per every 1,000 in the U.S. each year. Although the physical symptoms of FAE are less obvious, the neurobehavioral disorders as just as severe, the risk for secondary disabilities is higher, and therefore the outcome for FAE can be more serious than FAS.
• According to the birth defects monitoring program, FAS rates among American Indians occur in three live births per every 1,000. This is compared to a rate of 0.6 per 1,000 live births among African Americans and 0.1 per 1,000 live births among Caucasians.
• FAS is not just a childhood disorder; exposure to alcohol as a fetus can cause a wide range of lifelong physical and mental disabilities, including mental retardation, learning disabilities and serious behavioral problems.
• Fetal alcohol exposure may increase the risk for later alcohol, tobacco, and drug dependence in adults.

Alcohol Use and Pregnancy

• More than one in ten pregnant women report current alcohol use.
• In 1995, four times as many pregnant women consumed alcohol frequently as in 1991. Researchers speculate that the increase in alcohol consumption by pregnant women may be attributed to widespread reports on the health benefits of moderate drinking. While the overall rate of any alcohol use (at least one drink) among pregnant women has declined since 1995, rates of frequent and binge drinking remain at high levels.
• The Centers for Disease Control and Prevention (CDC) estimates that more than 130,000 pregnant women per year in the U.S. consume alcohol at levels shown to increase the risk of having a baby with FAS or other alcohol-related condition.
• Of the women who reported drinking during their pregnancy, 23% reported drinking in their first trimester; 6% reported drinking in their third trimester.
### Percentages of Females Aged 15 to 44 Reporting Past Month Use of Alcohol, by Pregnancy Status and Age: 1999 and 2000

<table>
<thead>
<tr>
<th>Past Month Use</th>
<th>15 to 17 Pregnant</th>
<th>15 to 17 Non-Pregnant</th>
<th>18 to 25 Pregnant</th>
<th>18 to 25 Non-Pregnant</th>
<th>26 to 44 Pregnant</th>
<th>26 to 44 Non-Pregnant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Alcohol</td>
<td>8.6</td>
<td>26.1</td>
<td>10.1</td>
<td>53.6</td>
<td>14.0</td>
<td>50.2</td>
</tr>
<tr>
<td>Binge Alcohol Use*</td>
<td>7.0</td>
<td>15.4</td>
<td>4.8</td>
<td>29.6</td>
<td>3.1</td>
<td>17.1</td>
</tr>
<tr>
<td>Heavy Alcohol Use**</td>
<td>2.0</td>
<td>3.3</td>
<td>0.9</td>
<td>7.5</td>
<td>0.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Binge Alcohol Use: 5 or more drinks on one occasion

**Heavy Alcohol Use: 5 or more drinks on 5 or more occasions within the past month

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### Possible Solutions: Treatment, Education, & Higher Taxes

- Studies prove that FAS is completely preventable and that the consumption of alcohol during pregnancy can result in lifelong physical and mental impairments on the fetus. Research suggests that physicians should screen all pregnant women for alcohol use during prenatal visits, early identify those who test positive or who prove to be at-risk, and refer them for counseling and treatment.18

- A recent survey illustrated the need for physician education on “how much” alcohol consumption is “too much” during pregnancy. Forty-one percent of physicians placed the threshold for FAS at one to three drinks per day while 38% placed the threshold at one or fewer drinks per day.19 Both opinions directly contradict the Surgeon General’s advice that women not consume any alcoholic beverages during pregnancy because of the risk of birth defects.

- Research suggests that the most effective public health strategy for reducing FAS is a combination of public health messages that target alcohol abuse, coupled with higher taxes on alcoholic beverages. Studies have shown that heavy drinking and binge drinking rates are inversely affected by price changes.20

- Alcoholic-beverage warning labels have increased awareness of the risks involved with alcohol consumption during pregnancy.21 However, over time, alcohol warning labels have become commonplace, with the message often being overlooked. Changing the appearance (i.e., size, color, etc.) and rotating different warning labels on alcoholic-beverage containers may help prolong awareness while eventually decreasing the number of women who expose their fetuses to alcohol.

- Prenatal alcohol exposure leads to a variety of neurological and physical anomalies. This wide range of symptoms has prompted the development of a confusing array of names for such birth defects. In order to address this problem, there is currently a trend toward grouping these birth defects together into Fetal Alcohol Spectrum Disorder (FASD), and explicitly defining Fetal Alcohol Syndrome (FAS) as a severe form of this disorder. This classification scheme should allow more accurate diagnosis and greater access to treatment for children who were exposed to alcohol, yet do not manifest all the criteria of FAS.

#### Common Terms for Disabilities and Abnormalities Associated with Prenatal Alcohol Exposure

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAS</td>
<td>Fetal Alcohol Syndrome</td>
<td>Facial characteristics, central nervous system or neurobehavioral disorders, small head/body, prenatal alcohol exposure</td>
</tr>
<tr>
<td>FAE</td>
<td>Fetal Alcohol Effects</td>
<td>Behavior disorders, attention deficits</td>
</tr>
<tr>
<td>ARBD</td>
<td>Alcohol Related Birth Defects</td>
<td>Heart defects, sight/hearing problems, joint anomalies</td>
</tr>
<tr>
<td>ARND</td>
<td>Alcohol Related Neurodevelopmental Disorders</td>
<td>Attention deficits, behavior disorders, and other neurological problems</td>
</tr>
<tr>
<td>FASD</td>
<td>Fetal Alcohol Spectrum Disorders</td>
<td>Encompasses all pre-natal alcohol exposure related deficiencies</td>
</tr>
</tbody>
</table>

November 2003
References:


