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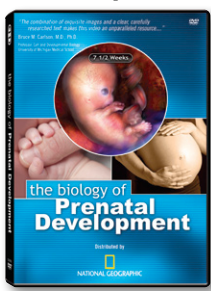
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## Greetings

This month, we resume our series describing the many links between prenatal and lifelong health by presenting the first of a two-part series on alcohol use during pregnancy.

## Consequences of Prenatal Alcohol Use (Part I)

Alcohol use during pregnancy is a major cause of birth defects and other lifelong complications in the United States (US) and around the world. Fetal Alcohol Spectrum Disorders (FASD) is the term used to describe the various types of problems caused by alcohol use during pregnancy. The most severe subset of FASD is Fetal Alcohol Syndrome (FAS). This condition includes impaired growth, abnormal facial features, and profound intellectual impairment.

Alcohol easily crosses the placenta and enters the fetal bloodstream, where it may harm developing nerve cells, causing some to die and some to malfunction.

### Did You Know...?

#### In the US:

- More than 1 in 5 pregnant women reports alcohol use in the first trimester, 1 in 14 in the second trimester, and 1 in 20 in the third trimester.
- 1 in 9 pregnant women engages in binge drinking in the first 3 months of pregnancy.
- 1 in 30 pregnant women reports high-risk drinking (7+ drinks/week, or 5+ drinks on any one occasion).

SOURCE: [Fetal Alcohol Spectrum Disorders By the Numbers](#) at the [FASD Center for Excellence website](#)

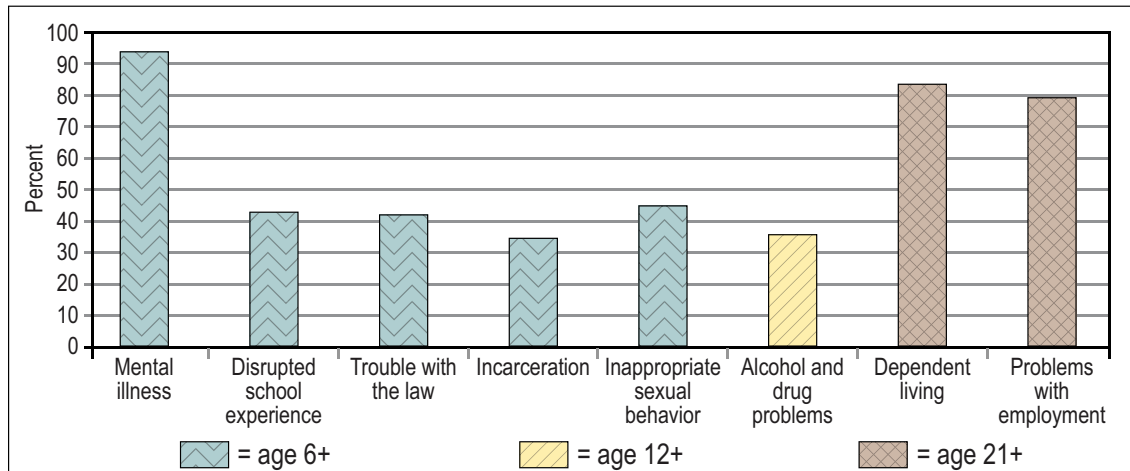


Binge drinking (defined as consuming 5 or more drinks in a single session) is particularly dangerous because it causes the highest alcohol levels in the fetus and causes the most damage.<sup>[1]</sup>

Consider the following US statistics:

- FAS is the leading preventable cause of mental retardation in the United States,<sup>[2]</sup> affecting between 2,000 and 8,000 newborns per year (between 0.5 and 2.0 newborns per 1,000 births).
- The estimated lifetime medical cost for each child born with FAS is at least \$2 million.<sup>[3]</sup>
- About 1% of all US newborns (40,000 per year) are born with an FASD.<sup>[4]</sup>
- Those with an FASD have much higher school dropout rates and are at high risk of mental illness, legal difficulties, incarceration, learning disabilities, substance abuse, and more.
- Many FASD victims are never able to live independently as adults and suffer from poor memory and limited attention spans.

## Percentages of FASD-Afflicted Persons with Secondary Complications



Source: Adapted from [Fetal Alcohol Spectrum Disorders \(FASD\)-The Basics](#) p36. Accessed from [FASD Center for Excellence](#).

Preventing alcohol-exposed pregnancies is no easy task, in part, because:

- Thirteen percent of US women of childbearing age engage in binge drinking,<sup>[5]</sup> while many more drink alcohol in lesser amounts.
- Roughly fifty percent of all pregnancies are unplanned.<sup>[6]</sup>
- Alcohol induced damage to the developing human can occur before a woman knows she is pregnant, during the early critical weeks when body systems are forming and beginning to function.
- Alcohol may cause damage in any amount and at any time throughout pregnancy.<sup>[7]</sup>

Most health experts in the United States strongly advise women to avoid all alcohol throughout pregnancy and until breastfeeding is discontinued. It is also advisable that women planning pregnancy, suspecting pregnancy, or who are at risk of becoming pregnant avoid alcohol as well.

Alcohol-related birth defects are, of course, not limited to the United States, though data for many countries is scarce or nonexistent. A physician involved in international adoption, after reviewing medical abstracts written in Russian, reported an FAS rate of 15 per 1,000 births in Russia.<sup>[8]</sup> A study conducted among school age children in a poor, wine-growing region of South Africa reported FAS rates exceeding 40 per 1,000 births. Another South African study in non-wine-growing areas reported rates as high as 26.5 per 1,000 births.<sup>[9]</sup>

The good news is that FAS and FASD are 100% preventable because alcohol use during pregnancy is the only cause. This is just one of the many reasons why reaching everyone with prenatal education is so important.

[1] Maier SE, West JR. 2001. Drinking patterns and alcohol-related birth defects. 25(3):168-74. PMID 11810954. <http://pubs.niaaa.nih.gov/publications/arh25-3/168-174.htm>

[2] FASD: What Everyone Should Know. National Organization on Fetal Alcohol Syndrome. <http://www.nofas.org/MediaFiles/PDFs/factsheets/everyone.pdf>

[3] Lupton C, Burd L, Harwood R. 2004. Cost of fetal alcohol spectrum disorders. Am J Med Genet 127C:42-50. PMID: 5095471. [http://www.ncbi.nlm.nih.gov/pubmed/15095471?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/pubmed/15095471?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum)

[4] May PA, Gossage JP. 2001. Estimating the prevalence of fetal alcohol syndrome. A summary. Alcohol Res Health 25:159-167. PMID: 11810953. <http://pubs.niaaa.nih.gov/publications/arh25-3/159-167.htm>

[5] Tsai J, Floyd RL, Bertrand J. 2007. Tracking binge drinking among U.S. childbearing-age women. Preventive Medicine 44:298-302. PMID 17150249. [Note: 2003 data]

[6] Henshaw SK. 1998. Unintended pregnancy in the United States. Fam Plann Perspect. 1998 Jan-Feb;30(1):24-9, 46. PMID: 9494812 [Note: 1994 data]

[7] CDC. Fetal Alcohol spectrum disorders fact sheet. <http://www.cdc.gov/ncbddd/factsheets/FAS.pdf>

[8] Aronson J. FAS and FAE Issues in Russia, Alcohol Related Birth Defects and International Adoption. <http://www.russianadoption.org/fas.htm>. Accessed February 4, 2008.

[9] Centers for Disease Control and Prevention (CDC). Fetal alcohol syndrome--South Africa, 2001. MMWR Morb Mortal Wkly Rep. 2003 Jul 18;52(28):660-2. PMID: 12869904. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5228a2.htm>

## Coming Soon

Next month, you will find out about EHD's global strategy to prevent birth defects and improve lifelong health through education. You will also learn about what's going on behind the scenes in preparation for the 2008-2009 school year.

Thank you for your interest in helping to improve lifelong health for everyone. Please invite your family and friends to visit our site and sign up for our free newsletter using the link below.