


**FASD FACTS:**

How You Can Help Prevent Fetal Alcohol Spectrum Disorders



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**FETAL ALCOHOL SPECTRUM DISORDERS**  
*The Basics*



 SAMHSA  
Fetal Alcohol Spectrum Disorders  
Center for Excellence

 U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Substance Abuse and Mental Health Services Administration  
[www.samhsa.gov](http://www.samhsa.gov)

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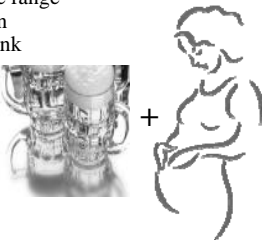
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**Fetal Alcohol Spectrum Disorders (FASD)**

- Umbrella term describing the range of effects that can occur in an individual whose mother drank alcohol during pregnancy
- May include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications
- Not a diagnosis



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## Terminology

- Fetal alcohol syndrome
  - Term first used in 1973 by Drs. Smith and Jones at the University of Washington
  - One of the diagnoses used to describe birth defects caused by alcohol use while pregnant
  - A medical diagnosis (760.71) in the International Classification of Diseases (ICD)

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## Terminology

- | Pregnancy  | Alcohol   |  |
|--|---|--|
|  |  |  |
| +  |   |  |
| May result in →  |   |  |
- Fetal alcohol effects (FAE)
  - Alcohol-related birth defects (ARBD)
  - Alcohol-related neurodevelopmental disorder (ARND)
  - Partial FAS (pFAS)

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## FASD Facts

- 100 percent preventable
- Leading known cause of preventable mental retardation
- Not caused on purpose
- Can occur anywhere and anytime pregnant women drink
- Not caused by biologic father's alcohol use
- Not a new disorder



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### Cause of FASD

- The sole cause of FASD is women drinking alcoholic beverages during pregnancy.
- Alcohol is a teratogen.

"Of all the substances of abuse (including cocaine, heroin, and marijuana), alcohol produces by far the most serious neurobehavioral effects in the fetus."  
*—IOM Report to Congress, 1996*

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### FASD and Alcohol

- All alcoholic beverages are harmful.
- Binge drinking is especially harmful.
- There is no proven safe amount of alcohol use during pregnancy.




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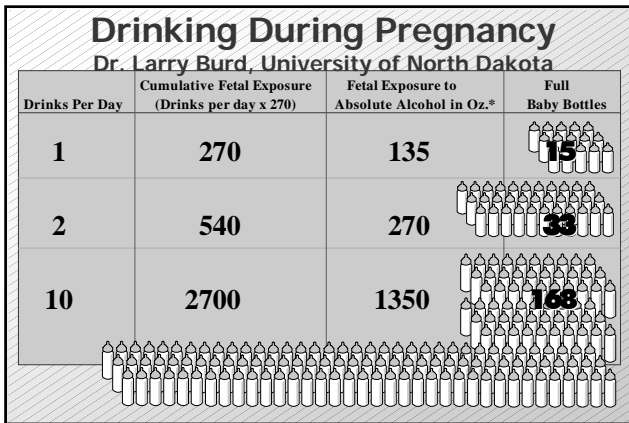
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## Alcohol and Women

- If a woman is pregnant, it does not matter what form the alcohol comes in.
  - Wine spritzers, alcohol pops
  - Beer
  - Wine coolers
  - Light beer, nonalcoholic beer

Check labels for alcohol content.

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## What is one standard drink?

Each one of these is one standard drink.



One standard drink is **12 ounces of regular beer or light beer** (5% pure alcohol)



One standard drink is **5 ounces of wine cooler** (5% pure alcohol)



One standard drink is **5 ounces of table wine** (12% pure alcohol)



One standard drink is **1 1/2 ounces of hard liquor** (gin, rum, vodka, whiskey) (40% pure alcohol)



One standard drink is **3 ounces of fortified wine** (18-20% pure alcohol)

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## Example

- 12 ounces of beer (.05% alcohol) =  $.60 / .60 = 1$  drink
- 5 ounces of wine (.12% alcohol) =  $.60 / .60 = 1$  drink
- 1.5 ounces of liquor (.40% alcohol) =  $.60 / .60 = 1$  drink

\*Formula:  
(Ounces x % alcohol) / .60

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**These are more than one standard drink.**

7.5% or 6%  
pure alcohol

8% pure alcohol

6% pure alcohol  
40 ounces

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**ACTIVITY #1**

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**Number of People With an FASD**

- No one knows for certain how many individuals are born each year with an FASD.
- No one knows how many individuals are living with an FASD.

Photo property of SAMHSA.

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### Economic Costs of FAS

- FAS alone cost the United States more than \$4 billion in 1998.
- The average lifetime cost for each child with FAS is \$2 million.
- \$1.6 million for medical care services
- \$0.4 million for loss of productivity



*Lupton, Burd, and Harwood (2004)*

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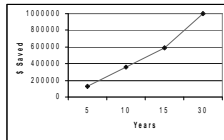
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### Economic Costs of FAS

- One prevented case of FAS saves:
  - \$130,000 in the first 5 years
  - \$360,000 in 10 years
  - \$587,000 in 15 years
  - More than \$1 million in 30 years



Increased savings through prevention

*Lupton, Burd, and Harwood (2004)*

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### FASD and the Brain

- Prenatal alcohol exposure causes brain damage.
- Effects of FASD last a lifetime.
- People with an FASD can grow, improve, and function well in life with proper support.

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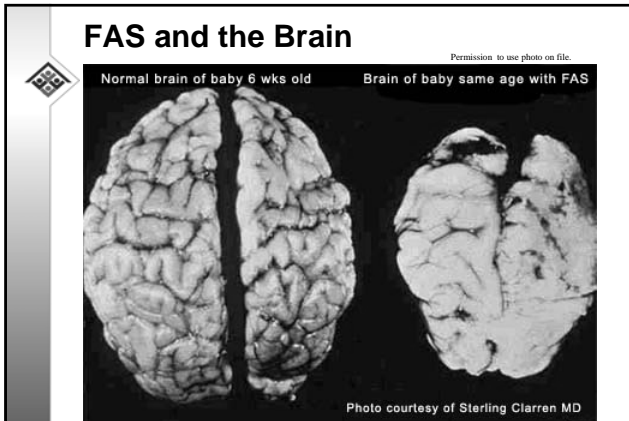
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### Who Needs To Know

- Women of childbearing age?
- Women who have a history of alcohol or other drug use?
- Women who are at risk?
- Teenagers?
- Men?
- EVERYONE!

A group photograph of diverse people of various ages and ethnicities standing together.

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### Overall Difficulties for Persons With an FASD

- Taking in information
- Storing information
- Recalling information when necessary
- Using information appropriately in a specific situation

A diagram showing a brain with arrows labeled "Information" pointing to it, a book icon, and a stick figure with a question mark above its head.

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### Primary Disabilities of Persons With an FASD

- Lower IQ
- Impaired ability in reading, spelling, and arithmetic
- Lower level of adaptive functioning; more significantly impaired than IQ

Permission to use photo on file.

*Streissguth, et al. (1996)*

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### Typical Difficulties for Persons With an FASD

- Sensory Integration Issues
- Memory Problems
- Information Processing Problems
- Executive Function Deficits
- Self-Esteem and Personal Issues
- Multiple Issues
  - > Cannot entertain themselves
  - > Have trouble changing tasks
  - > Do not accurately pick up



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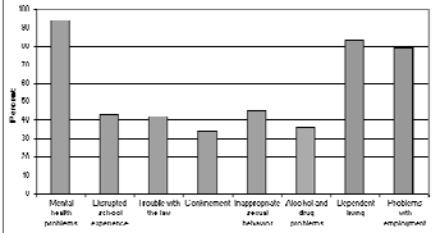
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### Secondary Disabilities of Persons With an FASD

Percent of Persons With FAS or FAE Who Had Secondary Disabilities



Secondary Disability	Age 6+	Age 12+	Age 21+
Mental health problems	~95%	~95%	~95%
Unrupted school attendance	~55%	~55%	~55%
Trouble with the law	~45%	~45%	~45%
Confinement	~40%	~40%	~40%
Inappropriate sexual behavior	~55%	~55%	~55%
Alcohol and drug problems	~45%	~45%	~45%
Dependent living	~95%	~95%	~95%
Problems with employment	~95%	~95%	~95%

◆ = Age 6+      ◆ = Age 12+      ◆ = Age 21+

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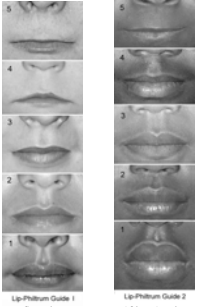
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### Diagnosing Fetal Alcohol Syndrome

- Prenatal maternal alcohol use
- Growth deficiency
- Central nervous system abnormalities
- Dysmorphic features
  - Short palpebral fissures
  - Indistinct philtrum
  - Thin upper lip

Source: Astley, S.J. 2004. *Diagnostic Guide for Fetal Alcohol Spectrum Disorders: The 4-Digit Diagnostic Code, Third Edition*. Seattle: University of Washington Publication Services, p. 114.



Lip-Philtrum Guide 1  
Caucasian

Lip-Philtrum Guide 2  
African American

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### Differential Diagnosis of Features of FAS

- Differential diagnosis is very important because:
  - Many syndromes can cause features that look like FAS.
  - Facial features alone cannot be used to diagnose FAS.

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### FASD and Mental Health Disorders

- Prenatal alcohol exposure may lead to severe behavioral, cognitive, and psychiatric problems.
- FASD is not a psychiatric disorder.
- FASD can co-occur with a mental health or substance abuse disorder.



DSM-IV

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### Benefits of Identification and Treatment

- Helps decrease anger and frustration for individuals, families, providers, and communities by helping them understand that negative behavior results from the disability and is not willful
- Helps people with an FASD succeed by focusing on why they have trouble in certain programs
- Helps improve outcomes
- Helps prevent future births of children with an FASD



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### General Issues With FASD

- Often undiagnosed among persons without FAS facial features
- More difficulties seen in those without FAS facial features and with higher IQs
- Adaptive functioning more impaired than intelligence

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### ACTIVITY #2

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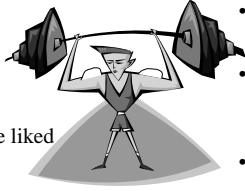
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### Strengths of Persons With an FASD



- Friendly
- Likable
- Desire to be liked
- Helpful
- Determined
- Have points of insight
- Not malicious

Dubovsky, Drexel University College of Medicine (1999)

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### Resources

- SAMHSA FASD Center for Excellence: [fasdcenter.samhsa.gov](http://fasdcenter.samhsa.gov)
- Prevention First: [www.prevention.org](http://www.prevention.org)
- Centers for Disease Control and Prevention FAS Prevention Team: [www.cdc.gov/ncbddd/fas](http://www.cdc.gov/ncbddd/fas)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA): [www.niaaa.nih.gov/](http://www.niaaa.nih.gov/)
- National Organization on Fetal Alcohol Syndrome (NOFAS): [www.nofas.org](http://www.nofas.org)
- National Clearinghouse for Alcohol and Drug Information: [ncadi.samhsa.gov](http://ncadi.samhsa.gov)

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### Contact Information



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Prevention.org

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