

THE PHYSICAL EFFECTS OF FETAL ALCOHOL SPECTRUM DISORDERS

"Alcohol consumed during pregnancy increases the risk of alcohol related birth defects."

—Surgeon General's Advisory on Alcohol Use in Pregnancy, February 21, 2005



Alcohol is a teratogen, a substance that can harm a fetus. When a pregnant woman drinks alcohol, it passes through her blood and enters the fetus through the placenta. Its harmful effects may be seen in virtually every part of the fetus, including the brain, face, heart, liver, kidneys, eyes, ears, and bones. These effects can affect a person's health for a lifetime.

WHAT IS FASD?

"Fetal alcohol spectrum disorders" (FASD) is an umbrella term describing the range of effects that can occur in an individual whose mother drank alcohol during pregnancy. These effects may include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications.

The term FASD is not a clinical diagnosis. It refers to conditions such as fetal alcohol syndrome (FAS), alcohol-related neurodevelopmental disorder (ARND), and alcohol-related birth defects (ARBD). In the United States, FASD occurs in about 10 per 1,000 live births, or 40,000 babies per year.¹

HOW DOES FASD AFFECT A PERSON'S HEALTH?

The effects of FASD vary widely from person to person. Difficulties in an individual's ability to succeed at home, school, work, and in social situations may arise at different ages.

For many people with an FASD, brain damage is the most serious effect. It may result in cognitive and behavior problems. One obvious sign of brain damage in some babies born with FAS is a small head. We call this condition microcephaly.

Individuals with FAS may have facial anomalies such as small eye openings, a smooth philtrum (groove under the nose), and a thin upper lip. When a person has all three features, together they are a sign of FAS.

Other features, sometimes seen in persons with FAS, include a short nose, a flat mid-face, or a small upper jaw. However, people who do not have FAS can also have these features, so they are not by themselves a sign of FAS.

Due to damage by exposure to alcohol in the womb, babies with an FASD may be born small and underweight. Some have difficulty nursing or eating and their growth continues to lag, resulting in failure to thrive. Some infants with an FASD may also have tremors, seizures, excessive irritability, and sleep problems.

Physical effects of FASD may include heart defects, such as a hole in the wall of the heart that separates its chambers. Other effects are skeletal defects, such as fused bones in the arms, fingers, hands, and toes.

People with an FASD may also have vision and hearing problems, kidney and liver defects, and dental abnormalities. Alcohol can damage the developing fetus from the earliest weeks through the end of the pregnancy.

Other factors associated with women who drink during pregnancy are poor nutrition and lack of prenatal care. These factors may also affect organ and skeletal development. Researchers still have many questions about the impact of prenatal alcohol exposure.

POSSIBLE PHYSICAL EFFECTS OF FASD

- * Brain damage
- * Facial anomalies
- * Growth deficiencies
- * Defects of the heart, kidneys, and liver
- * Vision and hearing problems
- * Skeletal defects
- * Dental abnormalities

WHAT YOU NEED TO KNOW



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
www.samhsa.gov

HOW CAN THE HEALTH EFFECTS OF FASD BE ADDRESSED?

An early diagnosis, appropriate services, and a stable home can greatly improve the health outcomes of individuals with an FASD. It is best to involve a multiple service provider team to develop a treatment plan. The treatment plan must reflect the individual's specific symptoms and problems. Because persons with an FASD tend to have problems following multiple directions, providers should explain their treatment plan in steps or in a format that is easy to follow. The plan should also include frequent followup visits.

It is important that providers share information with a family member or a caregiver who can assist in the person's treatment. When a team of providers is involved, it is important that each of them receive all current and appropriate information about the person.

Medical providers who treat people with an FASD for other medical conditions, such as a heart defect, often treat them the same way as their patients without an FASD. Providers should be sensitive to the cognitive or behavioral differences in people with an FASD. They may need to use clear language, write down the information, and go over it several times so their patients with an FASD can understand their condition.

Persons with an FASD may need many health services. A family of a child with FAS reported using the following health resources in early childhood and elementary school. In all, they used more than 40 providers.²

- Pediatricians
- Neurologist
- Pediatric ophthalmologist
- Audiologist
- Otolaryngologist
- Medical supply providers

- Gastroenterologist
- Pharmacy
- Psychiatrist
- Allergist
- Nutritionist
- Feeding specialist
- High-risk infant and followup clinic
- FAS clinic
- Lab and x-ray services
- Surgeons
- Pulmonologist
- Respiratory therapist
- Occupational therapist
- Speech/language therapist
- Sensory integration therapist
- Mental health therapist/family support

In addition, the family used education, social, community, legal, and financial service providers.

CONCLUSION

The damage caused by prenatal alcohol exposure is permanent. The health effects cannot be reversed, but many of them can be treated with the appropriate combination of interventions and support.

Maintaining an alcohol-free pregnancy is the only way to prevent FASD. By abstaining from alcohol during pregnancy and nursing, a woman can ensure that her baby will be free from alcohol-related defects and have a chance for a healthy life.

ADDITIONAL RESOURCES

- www.stopalcoholabuse.gov

REFERENCES

1. May, P.A., and Gossage, J.P. 2001. Estimating the prevalence of fetal alcohol syndrome: A summary. *Alcohol Research & Health* 25(3):159-167.
2. Substance Abuse and Mental Health Services Administration. FASD Center for Excellence. Many Doors, No Master Key: FASD Service Needs. 2005. www.fasdcenter.samhsa.gov/gg/services.cfm

Stop and think. If you're pregnant, don't drink.
For more information, visit fasdcenter.samhsa.gov or call 866-STOPEAS.
www.stopalcoholabuse.gov



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