

EFFECTS OF ALCOHOL ON WOMEN

Every woman is different. No amount of drinking is 100 percent safe, 100 percent of the time, for every individual woman.¹

—National Institute on Alcohol Abuse and Alcoholism



WOMEN AND INTOXICATION

Alcohol affects women differently than men due to their body makeup and chemistry:

- A woman's body has more fat and less water than a man's. When a woman drinks, the alcohol is less diluted. It becomes more highly concentrated in her blood.²

- Women process less alcohol in the stomach than men. That leaves more alcohol to reach the bloodstream. The higher concentration and amount of alcohol in the blood cause women to become intoxicated faster than men.
- Women may become more easily intoxicated during their menstrual cycle.³

HEALTH RISKS AMONG WOMEN WHO DRINK

Women who drink heavily face greater health risks than men who drink heavily. They are more prone to liver disease, heart damage,⁴ and brain damage.⁵ Studies show that women with alcoholism are up to twice as likely as men to die from alcohol-related causes such as suicide, accidents, and illnesses.¹

Alcohol can cause other problems for women. Chronic heavy drinking can lead to menstrual problems, infertility, and early menopause. Drinking during adolescence can interfere with puberty, growth, and bone health.⁶ Heavy drinking can make a woman more vulnerable to violence, including sexual assault.¹ Women who drink are also more likely to have unprotected sex and contract a sexually transmitted disease.

ALCOHOL, PREGNANCY, AND NURSING

Alcohol is a teratogen, a substance that can harm a fetus. When a pregnant woman drinks alcohol, the alcohol crosses the placental barrier and enters the bloodstream of the fetus. The alcohol content in the blood of the fetus then equals or exceeds that of the mother.

Pregnant women and women planning to get pregnant should not drink. Pregnant women who are drinking should stop at once to reduce the risk of harming their fetus. Alcohol can harm a fetus at any time, even before a woman knows she's pregnant.

The National Institute on Alcohol Abuse and Alcoholism defines binge drinking for women as drinking 4 or more drinks in about 2 hours. Binge drinking is harmful for anyone, but it can be especially harmful to the health of a pregnant woman and her baby.⁷ Currently, 1 in 25 pregnant women engages in binge drinking.⁸

Women who are nursing also should not drink. Alcohol can pass through breast milk to the baby. No amount of alcohol is safe during pregnancy or nursing.

FETAL ALCOHOL SPECTRUM DISORDERS

"Fetal alcohol spectrum disorders" (FASD) is an umbrella term describing the range of effects that can occur in an individual who was prenatally exposed to alcohol. These effects may include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications.

The term FASD is not intended for use as a clinical diagnosis. It includes conditions such as fetal alcohol syndrome (FAS), alcohol-related neurodevelopmental disorder (ARND), and alcohol-related birth defects (ARBD). Each year, at least 40,000 babies are born with an FASD,⁹ costing the Nation up to \$6 billion.¹⁰

In the United States:

- 2 in 5 women drink alcohol.⁸
- 4 million women are heavy drinkers.¹
- 2.5 million women are alcohol-dependent.¹¹
- 1 in 10 pregnant women drinks alcohol.¹²

MODERATE DRINKING

Women who choose to drink should do so in moderation. That means no more than one drink per day. Drinking more than that can harm a woman's health.¹³

A standard drink equals:

- 12 ounces of beer

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

- 5 ounces of wine
- 1.5 ounces of liquor

Standard drinks also include wine coolers, aperitifs, and fortified wines.

Women should not drink any alcohol if they:

- Cannot control their drinking
-



Have a history of drug problems

- Take certain medications
- Plan to drive or use machinery
- Are pregnant or plan to get pregnant

Women should carefully consider the risks when deciding whether or not to drink and how much. Some women share alcohol with their spouse or partner and drink the same amount. This is a problem because alcohol affects women in more harmful ways than it affects men.

CONCLUSION

There are a lot of reasons women should control their drinking.

Protecting their children from FASD is at the top of the list. For many women, it's difficult to do alone. Help is available. With appropriate prevention, treatment, and other support services, a woman can have an opportunity for a fulfilling life that includes a healthy pregnancy, healthy children, a job, a home, and meaningful relationships with family and friends.

RESOURCES

For more information on alcohol and women, see these resources:

- Substance Abuse and Mental Health Services Administration (SAMHSA). **Substance Abuse Treatment Facility Locator**, findtreatment.samhsa.gov, and Toll-Free Referral Helpline, 1-800-662-HELP (1-800-662-4357).
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). **Alcohol: A Women's Health Issue** (video); 301-496-8176.
- National Clearinghouse for Alcohol and Drug Information, 800-729-6686, ncadi.samhsa.gov.
- www.stopalcoholabuse.gov.
- Centers for Disease Control and Prevention (CDC). **Questions and Answers on Alcohol Consumption**, www.cdc.gov/alcohol/faqs.htm.
- Alcoholics Anonymous, www.aa.org, 212-870-3400.

REFERENCES

1. National Institute on Alcohol Abuse and Alcoholism. 2003. *Alcohol: A Women's Health Issue*. NIH Publication No. 03-4956. Rockville, MD: National Institutes of Health. pubs.niaaa.nih.gov/publications/brochurewomen/women.htm
2. Frezza, M.; DiPadova, C.; Pozzato, et al. 1990. High blood alcohol levels in women: The role of decreased gastric alcohol dehydrogenase and first-pass metabolism. *New England Journal of Medicine* 322(2):95-99.
3. Sutker, P.B.; Goist, K.C., Jr.; and King, A.R. 1987. Acute alcohol intoxication in women: Relationship to dose and menstrual cycle phase. *Alcoholism: Clinical and Experimental Research* 11(1):74-79.
4. Urbano-Márquez, A.; Estruch, R.; Fernández-Solá, J.; et al. 1995. The greater risk of alcoholic cardiomyopathy and myopathy in women compared with men. *JAMA* 274(2):149-154.
5. Mann, K.; Ackermann, K.; Croissant, B.; et al. 2005. Neuroimaging of gender differences in alcohol dependence: Are women more vulnerable? *Alcoholism: Clinical and Epidemiological Research* 29(5): 896-901.
6. Emanuele, M.; Wezeman, F.; and Emanuele, N.V. 2002. Alcohol's effects on female reproductive function. *Alcohol Research & Health* 26(4):274-281. pubs.niaaa.nih.gov/publications/arh26-4/274-281.htm
7. Maier, S.E., and West, J.R. 2001. Drinking patterns and alcohol-related birth defects. *Alcohol Research & Health* 25(3):168-174. pubs.niaaa.nih.gov/publications/arh25-3/168-174.htm
8. Office of Applied Studies. 2004. *Results From the 2003 National Survey on Drug Use and Health: Detailed Tables*. NSDUH Series H-24, DHHS Publication No. SMA 04-3963. Rockville, MD: Substance Abuse and Mental Health Services Administration. oas.samhsa.gov/nhsda.htm
9. May, P.A., and Gossage, J.P. 2001. Estimating the prevalence of fetal alcohol syndrome: A summary. *Alcohol Research & Health* 25(3):159-167. pubs.niaaa.nih.gov/publications/arh25-3/159-167.htm
10. Lupton, C.; Burd, L.; and Harwood R. 2004. Cost of fetal alcohol spectrum disorders. *American Journal of Medical Genetics* 127C:42-50.
11. Grant, B.F.; Dawson, D.A.; Stinson, F.S.; et al. 2004. The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991-1992 and 2001-2002. *Drug and Alcohol Dependence* 74:223-234.
12. Centers for Disease Control and Prevention. 2004. Alcohol consumption among women who are pregnant or who might become pregnant—United States, 2002. *MMWR* 53(50):1178-1181. www.cdc.gov/mmwr/preview/mmwrhtml/mm5350a4.htm
13. U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2005. *Dietary Guidelines for Americans, 2005*. HHS Publication number HHS-ODPHP-2005-01-DGA-A. USDA Pub. No. Home and Garden Bulletin No. 232. Washington, DC: Government Printing Office.

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



SAMHSA
 Fetal Alcohol Spectrum Disorders
 Center for Excellence