

## Alcohol - the Female Effect

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Many adults assume that underage drinking mostly involves boys. That assumption however, is false.

In fact, girls have not only caught up to boys when it comes to drinking, but in many cases have surpassed them.

According to results from the 2012 National Survey on Drug Use and Health, among youth aged 12 to 17, the percentage of females who were current drinkers (13.2 percent) was higher than their male counterparts (12.6 percent).

Research also shows that while alcohol use among boys and girls is just about equal, alcohol's impact on their bodies and brains are not.

Females are more vulnerable to alcohol's effects than males, and here's why:

- Females have less water in their bodies to help dilute the alcohol in the bloodstream;
- Females absorb alcohol at a slower rate;
- Females naturally produce less alcohol dehydrogenase (a gastric enzyme that breaks down ethanol in the stomach – that otherwise is toxic).

What this means is that a female and male of the same size and weight can drink the same amount of alcohol and yet the female will have a higher concentration of alcohol in her blood. It also means that females who go "drink-for-drink" with males are likely to become intoxicated more quickly and are more susceptible to alcohol poisoning.

Alcohol can be damaging to the developing adolescent brain, regardless of gender. However, females are more sensitive to alcohol-induced brain damage than males. Research has found that females who drink heavily for long periods of time may experience a reduction in their corpus callosum (a band of nerves deep within the brain that connect the left and right hemispheres of the brain to communicate and coordinate one's activities), whereas males do not.

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As females age, the differences remain.

As adults, women struggle more than men to break down fatty acids in the body, therefore resulting in a higher number of women who develop liver diseases after comparatively shorter periods of heavy drinking than men. But even younger women in their late teens and early 20s who chronically abuse alcohol are at increased risk for ulcers and other gastrointestinal problems.

Underage drinking is damaging and dangerous.

Parents are encouraged to talk early and often, sharing clear anti-use messages with daughters and sons alike. It is important to include in your talks, especially with our daughters, the fact that that drinking impacts females more intensely, so that she is better armed to make informed, healthy decisions surrounding alcohol, as a teen and into her adult years.

*Sources: 2012 National Survey on Drug Use and Health: Summary of National Findings. Girls, Women and Alcohol: Making Informed Choices resource from Healthy Child Manitoba. NYU Langone Medical Center – The Child Study Center: Girls and Alcohol.*