Women are different than men and alcohol is no exception. Women absorb and metabolize alcohol differently than men, and, while some health effects may be similar, women can suffer more alcohol-related health effects than men, even if they drink less or have been drinking for a shorter time. This issue of the CD Summary explores alcohol’s adverse effects on women’s health.

**HOW MUCH IS TOO MUCH?**

The terms heavy drinking, binge drinking and excessive drinking are often used interchangeably. All the terms mean “too much.” Because of the differences in metabolism and health effects, the Centers for Disease Control and Prevention (CDC) define alcohol consumption differently for women than men (see table). Excessive drinking includes heavy drinking, binge drinking or both. Drinking more than seven drinks per week or occasionally having four or more drinks per day increases a woman’s chance of becoming dependent on alcohol, thereby increasing her risk of alcohol-related diseases.

<table>
<thead>
<tr>
<th>CDC Alcohol Consumption Definitions</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heavy Drinking</strong></td>
<td>&gt;1 drink per day on average</td>
<td>&gt;2 drinks per day on average</td>
</tr>
<tr>
<td><strong>Binge Drinking</strong></td>
<td>&gt;3 drinks during a single occasion</td>
<td>&gt;4 drinks during a single occasion</td>
</tr>
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</table>

**HOW MANY WOMEN DRINK?**

Data from the 2006 Oregon Healthy Teens survey, an annual survey of 8th and 11th graders enrolled in Oregon public schools, show that over one-third of 8th grade girls had at least one alcoholic beverage in the past 30 days. Over two-thirds of 11th grade girls reported having their first drink by age 16. That 14% of 8th grade girls and 23% of 11th grade girls reported drinking five or more drinks of alcohol within a couple of hours in the past 30 days is especially concerning. Female 11th graders who reported drinking in the last 30 days were more than twice as likely to report having sex than those who did not drink (62% versus 30%). Of 11th grade females who have had sex, drinkers (56%) were more likely to have multiple sex partners than non-drinkers (40%).

Drinking alcohol is common among adult women. In 2006, 53% of adult women reported drinking some alcoholic beverages (Oregon Behavioral Risk Factor Surveillance System). Women younger than 35 were most likely to drink excessively: 19% of women 18-24 years old and 13% of women 25-34 years old reported drinking >4 drinks on one occasion in the past month.

Contrary to many of society’s assumptions, the higher a woman’s educational level, the more likely she is to drink. Nationally, those with at least a high school education were more likely to drink than those who did not complete high school (55% versus 34%). Among Oregon women ages 18-44 years, 65% of college graduates reported drinking compared to only 25% of those who had not completed high school (Oregon Behavioral Risk Factor Surveillance System).

The 2004 Oregon Pregnancy Risk Assessment Monitoring System, a survey of postpartum women, shows that mothers who graduated from college were almost twice as likely to use any alcohol (41%) than mothers who had not graduated from high school (23%) in the three months prior to becoming pregnant. Mothers who graduated from high school were also more likely to drink heavily (seven or more drinks per week) than those who had not graduated from high school (6% versus 3%) in the three months prior to becoming pregnant.

**WHAT DO WOMEN RISK?**

**Reproductive health:** Heavy drinking in women is associated with increased rates of sexual dysfunction, amenorrhea, anovulatory cycles, luteal phase dysfunction, and early menopause. Disruptions in normal menstrual cycling can have long-term effects, including infertility and increased risk for spontaneous abortion.

Women who drink alcohol while pregnant increase their risk of having a baby with Fetal Alcohol Spectrum Disorders (FASDs). FASDs is an umbrella term for a series of conditions that include physical, mental, behavioral, and/or learning disabilities. Fetal Alcohol Syndrome, the most severe of FASDs, is a life-long neurocognitive condition characterized by abnormal facial features, growth deficiencies, central nervous system problems, and mental disabilities. The U.S. Surgeon General recommends that women abstain from drinking any alcohol during pregnancy. Though the message of abstinence from alcohol during pregnancy is widely known and accepted, most women who drink will continue to do so until their pregnancy is confirmed, four to eight weeks after conception.

**Liver disease:** Although men are twice as likely to die of alcoholic cirrhosis, women progress to cirrhosis and other alcohol-related liver diseases more quickly and at lower levels of alcohol intake than men. In Oregon, the rate of chronic alcoholic liver disease doubled for females in five years (2.9 per 100,000 in 1999; 6.3 per 100,000 in 2004).

**Brain function:** Women are more vulnerable than men to memory loss and brain shrinkage attributed to alcohol. Heavy alcohol consumption may increase the risk of Alzheimer’s disease in women more than in men.
Heart health: The level of alcohol intake at which people move from cardiac benefit to cardiac harm is considerably lower for women than men. Women who drink excessively, though they may consume less than men, are at increased risk for damage to the heart muscle.

Osteoporosis: Heavy alcohol use compromises bone health and increases the risk of osteoporosis. The negative effects on bone health are especially striking in young women whose bones are still developing.

Breast cancer: Several studies show a relationship between alcohol use and risk of breast cancer in women.

Mortality rates: Compared with light drinking, heavy drinking increases the risk of death in women by 160% compared to 40% in men.

Violence: Women are more likely than men to suffer physical harm and sexual assault when drinking. In Oregon, women who had experienced intimate partner violence (IPV) were more likely to report the use of alcohol in the past 30 days than those who had not experienced IPV (64% versus 55%).

WHAT CAN A PROVIDER DO?

Many women drink, and moderate drinking is known to confer some benefits against heart disease for both women and men. However, women need to know that alcohol consumption poses health risks, especially if they are pregnant or drinking excessively. To prevent FASD, providers can remind their female patients that there is no known safe level of alcohol during any stage of pregnancy. If you see a patient who is planning to become pregnant, encourage her to abstain from alcohol. If she is sexually active, not using contraception and drinking, talk to her about alcohol-exposed pregnancies and encourage contraceptive use or abstinence from alcohol.

In general, patients don’t object to being screened for alcohol use and are open to advice post-screening.

Women are more likely than men to obtain help and achieve remission.

RESOURCES

- The T-ACE tool is an alcohol screening tool specifically designed for use in women of reproductive age. It is endorsed by the American College of Gynecologists and Obstetricians and is available at www.acog.org/departments/healthissues/StandardDrinkCard.pdf.
- Oregon Partnership’s Alcohol and Drug HelpLine (800-923-Help or 800-923-4357) is a free, confidential referral service that provides information about substance abuse and refers clients to professional treatment providers.
- Oregon SafeNet can also assist women in finding local resources and identifying support for alcohol-related issues and many other health needs (800-SafeNet or 800-722-3638).

REFERENCES