CONSEQUENCES OF ALCOHOL USE FOR WOMEN  
*See source (http://www.niaaa.nih.gov/publications/aa46.htm) for references cited throughout text.

Research suggests that women are more vulnerable than men to alcohol-related organ damage, trauma, and legal and interpersonal difficulties.

**Violent Victimization**
- A survey of female college students found a significant relationship between the amount of alcohol the women reported drinking each week and their experiences of sexual victimization (20)*.
- Another study found that female high school students who used alcohol in the past year were more likely than non-drinking students to be the victims of dating violence (e.g., shoving, kicking, or punching) (21)*.
- A history of heavy premarital drinking by both partners has been found to predict first-year aggression among newlyweds (22)*.
- In some studies, problem drinking by wives has been linked to husband-to-wife aggression regardless of the husbands' drinking levels (23)*.

**Liver Damage**
- Compared with men, women develop alcohol-induced liver disease over a shorter period of time and after consuming less alcohol (10,11)*.
- Women are also more likely than men to develop alcoholic hepatitis and to die from cirrhosis (12)*.
- Animal research suggests that women's increased risk for liver damage may be linked to physiological effects of the female reproductive hormone estrogen (13)*.

**Brain Damage**
Views of the brain obtained by magnetic resonance imaging (MRI) suggest that women may be more vulnerable than men to alcohol-induced brain damage.
- Using MRI, researchers found that a brain region involved in coordinating multiple brain functions was significantly smaller among alcoholic women compared with both nonalcoholic women and alcoholic men. These differences remained significant after measurements were adjusted for head size (14)*.
- Conversely, a study measuring metabolic energy utilization in selected brain regions found a significant difference between alcoholic and nonalcoholic men but no significant difference between alcoholic and nonalcoholic women. These results are not consistent with a greater vulnerability to alcoholic brain damage in women. However, the female alcoholics reported less severe alcohol use compared with the male alcoholics studied (15)*.
Heart Disease

- Among heavier drinkers, research shows similar rates of alcohol-associated heart muscle disease (i.e., cardiomyopathy) for both men and women, despite women's 60 percent lower lifetime alcohol use (17)*.

Breast Cancer

- Many studies report that moderate to heavy alcohol consumption increases the risk for breast cancer (18)*.
- One recent study found no increased breast cancer risk associated with moderate consumption (up to one drink per day—the maximum drinking level reported by most women (19)*.

Traffic Crashes

- Although women are less likely than men to drive after drinking (1,24)* and to be involved in fatal alcohol-related crashes (25)*, women have a higher relative risk of driver fatality than men at similar blood alcohol concentrations (26)*. The proportion of female drivers involved in fatal crashes is increasing. In 1996, 16 percent of all drivers involved in alcohol-related fatal crashes were women, compared with 13 percent in 1986 and 12 percent in 1980 (25)*.
- Laboratory studies of the effects of alcohol on responding to visual cues and other tasks suggest that there may be gender differences in how alcohol affects the performance of driving tasks (27)*.
- Women's lower rates of drinking and driving may be attributed to their lower tendency toward risk taking compared with men (28,29)*.
- Women are also less likely to view drinking and driving as acceptable behavior. In a 1990 national household survey, 17 percent of women, compared with 27 percent of men, agreed that it was acceptable for a person to drink one or two drinks before driving (30)*.