

# Dietary Guideline #9:

## Alcoholic Beverages

### Goals:

- 1) Drink in moderation.
  - = 1 drink per day for women
  - = 2 drinks per day for men
- 2) Alcohol should not be consumed by these individuals:
  - those who cannot restrict their intake
  - pregnant and lactating women
  - children and adolescents
  - those taking medications that interact with alcohol
  - those with specific medical conditions
- 3) Do not drink alcohol when engaging in activities that require attention, skill, or coordination, such as driving or operating machinery.

## Factors Affecting Alcohol in the Body

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**OTHER DRUGS** Prescription, over-the-counter, illicit and unrecognized drugs all have potential reactions with alcohol.

**GENERAL STATE OF EMOTIONAL AND PHYSICAL HEALTH** Many people seem more susceptible to the effects of alcohol when they are extremely fatigued, have recently been ill, or are under emotional stress and strain.

**THE DRINKER'S EXPECTATIONS** Many people become intoxicated on less alcohol merely because they have that expectation before they begin drinking.

**DRINKING HISTORY/TOLERANCE** Increasing amounts of alcohol are needed to result in reactions formerly produced at lesser concentrations.

**PRESENCE OF FOOD IN THE STOMACH** Eating while drinking slows down the absorption rate. Blood alcohol content may be reduced by 50%.

*Speed of Drinking*  
The liver metabolizes about 1/2 ounce of alcohol per hour.

**BODY WEIGHT** The larger you are, the more blood volume you have so it takes more alcohol to have an effect.

**ENVIRONMENT**  
There may be differences in alcohol's effects, depending upon where one drinks (e.g., local bar, with family, hostile environment, etc.).

**SEX DIFFERENCES** Given the same amount of alcohol and proportional body weight, females will generally have a higher blood alcohol content than their male counterparts, due to less body fluids to dilute the alcohol and to more body fat. Females are generally more affected by alcohol just prior to menstruation. Females taking birth control pills or medications containing estrogen may remain intoxicated longer than those who do not, due to the liver's function of metabolizing both.



## Binge Drinking

Binge drinking is defined as consuming five or more drinks in a row for men and four or more in a row for women.

### DID YOU KNOW?

- \* Frequent binge drinkers were eight times more likely than non-binge drinkers to miss a class, fall behind in schoolwork, get hurt or injured, and damage property.
- \* Nearly one out of every five teenagers (16 percent) has experienced “black out” spells where they could not remember what happened the previous evening because of heavy binge drinking.
- \* More than 60 percent of college men and almost 50 percent of college women who are frequent binge drinkers report that they drink and drive.
- \* Binge drinking during high school, especially among males, is strongly predictive of binge drinking in college.
- \* Binge drinking during college may be associated with mental health disorders such as compulsiveness, depression or anxiety, or early deviant behavior.
- \* In a national study, 91 percent of women and 78 percent of the men who were frequent binge drinkers considered themselves to be moderate or light drinkers.



## Pregnancy & Breastfeeding



When a pregnant woman drinks, alcohol passes swiftly through the placenta to her baby. In the unborn baby's immature body, alcohol is broken down much more slowly than in an adult's body. As a result, the alcohol level of the baby's blood can be even higher and can remain elevated longer than the level in the mother's blood. This sometimes causes the baby to suffer lifelong damage.

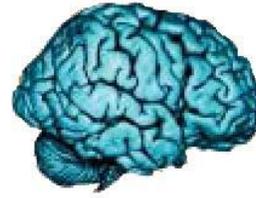
***NO amount of alcohol is safe!***

Breastfeeding mothers should avoid the use of alcoholic beverages:

- \* 2% of the alcohol a mother consumes will enter the breast milk.
- \* Alcohol can inhibit milk production and interfere with the let-down reflex, making it harder for the baby to get the milk flowing.
- \* Babies sleep less after consumption of breast milk containing alcohol.
- \* Daily consumption of one or more drinks is found to harm a baby's motor development.
- \* If consuming an occasional celebratory single, small alcoholic drink, refrain from breastfeeding two to three hours after the drink; alcohol peaks in a mother's blood stream at about 30-60 minutes.

## Alcohol's Effect on Children & Adolescents

The average age of a child's first drink is 12 years old!



### How alcohol affects the developing brain:

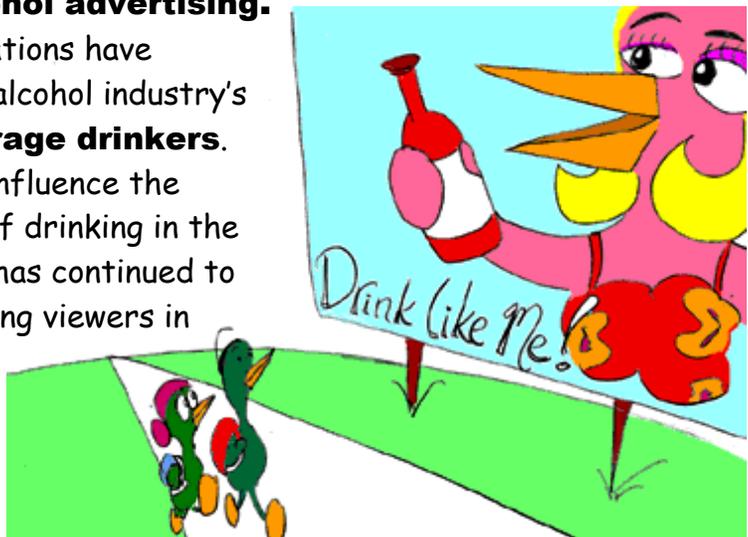
Frontal lobe development and the refinement of pathways and connections continue until age 16. **Damage from alcohol at this time can be long-term and irreversible.** In addition, moderate drinking impairs learning and memory far more in youth than adults. Adolescents only need to drink half as much to suffer the same negative effects.

### Drinkers vs. non-drinkers

- Verbal and nonverbal information recall was most heavily affected, with a **10% performance decrease** in alcohol users.
- Adolescent drinkers **perform worse** in school, are more likely to fall behind and have an **increased risk** of social problems, depression, suicidal thoughts and violence.
- Alcohol affects the sleep cycle, resulting in **impaired learning** and memory as well as **disrupted release of hormones** necessary for growth and maturation.
- Alcohol use **increases risk of stroke** among young drinkers.

A major source of the normalization of alcohol use by children and youth is **alcohol advertising**. Television networks and cable stations have profited tremendously from the alcohol industry's aggressive **marketing to underage drinkers**. These ads are proven to heavily influence the normalization and glamorization of drinking in the minds of children, and television has continued to endanger the health of these young viewers in spite of such findings.

“American Medical Association”





1 standard drink = 12 oz of beer  
 = 5 oz of wine  
 = 1.5 oz of hard liquor

Alcoholic beverages contribute to malnutrition by replacing foods needed for essential nutrients and by interfering with absorption, storage and metabolism of the essential nutrients.

### Nutritional Risks of Alcohol Abuse

- Water loss/Dehydration
- Electrolyte Depletion: Magnesium, calcium, and phosphate
- Vitamin Deficiencies:
  - Folate
  - Vitamin B<sub>12</sub>
  - Thiamine
  - Vitamin B<sub>6</sub>
  - Niacin
  - Vitamin A
  - Micronutrients: Zinc and iron
- Pancreatitis
- Liver damage



Normal Liver



Fatty Liver

### Moderate Alcohol Use

Those who choose to drink alcoholic beverages should do so sensibly, and in moderation.

Possible benefits of moderate alcohol use:

- Promotes cardiovascular health by boosting concentrations of good cholesterol and inhibiting the formation of dangerous blood clots. Additional compounds in red wine seem to benefit the heart and blood vessels.
- Alcohol may guard against macular degeneration, an incurable eye disease.
- Psychological benefits of moderate drinking: reduce stress; promotes pleasant and carefree feelings; and decrease tension, anxiety, and self-consciousness.
- In the elderly, moderate drinking has been reported to stimulate appetite, promote regular bowel function, and improve mood.

### **Medications that Interact with Alcohol**

Anesthetics	Antipsychotic medications	
Antibiotics	Antiulcer medications	Antiseizure medications
Anticoagulants	Antidepressants	Cardiovascular medications
Antidiabetic medications	Narcotic pain relievers	
Antihistamines	Nonnarcotic pain relievers	Sedatives/hypnotics