

Alcohol and Nutrition: 101

Alcohol and nutrition are closely linked. Over consumption of alcohol can lead to nutrient deficiencies, weight gain, and chronic diseases such as liver disease, high blood pressure, stroke, and coronary heart disease. Over consumption of alcohol with over consumption of other high calorie foods can quickly lead to the “freshman fifteen”.

What is over consumption?

The Dietary Guidelines for Americans serve as the basis for nutrition policy in the U.S. These recommendations have included the following alcohol guideline for the last 25 years, “If you drink alcoholic beverages do so in moderation.” Moderation, as defined by this Dietary Guideline is:

- No more than one drink a day for women.
- No more than two drinks a day for men.

This limit is based on both weight and metabolism differences between the sexes. One drink or one serving of alcohol is defined as having ½ ounce (about 14 grams) of pure ethanol. Some examples of one drink include:

- 12 ounces of regular beer
- 5 ounces of wine
- 1.5 ounces of 80 proof distilled sprits
- 10 ounce wine cooler

The Dietary Guidelines clearly state limits to alcohol intake daily. It is not recommended to “save up” your drink allowance during the week and have seven drinks on the weekend. Just 500 extra calories per day will add up to one pound per week weight gain. The National Council on Alcoholism and Drug Dependence defines regular “over-consumption” as more than 3 drinks per day.

The chart below details that number of calories in some common alcoholic beverages.

Type of drink	Ounces	Calories
Budweiser® beer	12	140
Bud Light® beer	12	110
Miller light® beer	12	96
Merlot, red wine	4	95
Chardonnay, white wine	4	100
Champagne	4	105
Margarita	5	550
Mudslide	4.5	417
Long Island Iced Tea	8	380
Pina Colada	6	293
Rum and Diet Coke	6	65
Mike's Hard Lemonade®	12	240
Jager Bomb (1 can Red Bull®, 1 oz Jagermeister®)	9	213
Bacardi Silver® drinks	12	225
Bacardi Silver low carb® black cherry or green apple	12	94

HOW DOES ALCOHOL LEAD TO WEIGHT?

Alcohol contains 7 calories per gram. Since one drink contains about 14 grams of ethanol and alcohol contributes 7 calories per gram, it is easy to see why one serving of wine contains about 98 calories (14g x 7cal/g = 98cal). Other drinks that mix alcoholic beverages like wine or distilled spirits with other beverages, like juice, will have even more calories.

One and ½ ounces of vodka for instance, contains 100 calories, but 1 cup cranberry juice and 1.5 ounces of vodka will contain about 230 calories. Moderate consumption of alcohol as part of a well balanced diet does not necessarily lead to weight gain. However, over consumption of alcohol, in addition to a weight maintenance diet can easily lead to weight gain.

How can alcohol lead to nutrient deficiencies?

Although many have heard that alcohol can lead to weight gain, over consumption can also lead to malnutrition and weight loss. This occurs when alcohol slowly replaces other foods in the diet. Malnutrition and other diseases stemming from the regular consumption of large amounts of alcohol can easily be seen in long term alcoholics. The detrimental effects of alcohol coupled with the malabsorption of nutrients, vitamins, and minerals can lead to:

- Liver disease (alcoholic hepatitis and cirrhosis)
- Cardiovascular diseases such as congestive heart failure, hypertension, arrhythmias and stroke
- Pancreatitis, gastroesophageal reflux disease, and stomach ulcers
- Increased risk for cancer, especially of the liver and the upper gastrointestinal tract
- Neurological disorders
- Sexual dysfunction

Can alcohol be good for you in moderation?

Some studies have shown that moderate consumption of alcohol (1 -2 drinks per day) may have some health benefits. Relaxation and anxiety relief have long been cited as potential benefits of judicious alcohol consumption. These benefits, however, can easily turn into harmful side-effects if driving is attempted under the influence of alcohol. Other studies (on those over the age of 30) suggest that some alcoholic beverages, red wine in particular, may lower one's blood pressure and/or LDL "bad" cholesterol levels thereby reducing one's risk for cardiovascular disease. These beneficial effects, however, may also be gained from a healthy lifestyle including a diet in low in fat and regular physical activity. It is also important to remember that the antioxidants and phytochemicals that red wine contains may also be found in red grapes and red grape juice.

Alcohol and metabolism

Several factors affect the rate of alcohol absorption. Gender is one factor. Women absorb and metabolize alcohol differently than men. Women tend to absorb alcohol more quickly than men. Therefore, women are at higher risk for alcohol-related diseases and impairment compared to men. Another important factor is the presence of food in the stomach when alcohol is consumed. Alcoholic beverages should be consumed with meals to decrease the rate of absorption and decrease the likelihood of impairment. The type of alcohol is a third factor. Carbonated beverages are absorbed more quickly than non-carbonated beverages. Beverages that have been fermented such as beer or wine or mixed drinks mixed with fruit, vegetable juice or milk are absorbed more slowly than straight alcohol like shots or hard liquor mixed with carbonated beverages. However, all alcoholic beverages can cause impairment and increased risk for alcohol related diseases.

Additional information

The National Institute on Alcohol Abuse and Alcoholism at: www.niaaa.nih.gov

The American Dietetic Association at: www.eatright.org

University of Georgia, alcohol and weight gain at: www.arches.uga.edu/~ejeter/emilyjeter.html

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.uiuc.edu>