

# Put some think behind your drink.\*

In light of all the recent media coverage regarding two commonly found caffeinated alcoholic beverages, we are providing a little information for you to consider prior to putting any of these substances in your body. There is a danger that comes when one mixes alcohol and caffeine, as the stimulant effect of the caffeine masks the depressant effect of the alcohol. In many cases people who consume these beverages often have no memory of what they have done while drunk.

## BAC Chart

BAC (Blood Alcohol Content) is a measure of how much alcohol is in your blood. BAC has nothing to do with tolerance, which is the effect of your body adapting to alcohol exposure.

The table below offers an estimated BAC level if one were to consume one of the more popular caffeinated alcoholic drinks within one hour. While a number of conditions affect BAC, this table only considers two, sex & weight.

BAC After Consumption of a 23.5 oz. Caffinated Alcoholic Beverage in One Hour				
Weight (in lbs.)	12% alc./vol		9.9% alc./vol	
	Female	Male	Female	Male
100	0.24	0.19	0.19	0.16
110	0.22	0.18	0.18	0.14
120	0.20	0.16	0.16	0.13
130	0.18	0.15	0.15	0.12
140	0.17	0.14	0.14	0.11
150	0.16	0.13	0.13	0.10
160	0.15	0.12	0.12	0.09
170	0.14	0.11	0.11	0.09
180	0.13	0.10	0.10	0.08
190	0.12	0.10	0.10	0.08
200	0.12	0.09	0.09	0.07
210	0.11	0.09	0.09	0.07
220	0.10	0.08	0.08	0.07
230	0.10	0.08	0.08	0.06
240	0.09	0.07	0.08	0.06
250	0.09	0.07	0.07	0.06

you can access the online BAC calculator at [www.dui-usa.drinking.org/BAC\\_bloodalcoholcontentcalculator.php](http://www.dui-usa.drinking.org/BAC_bloodalcoholcontentcalculator.php)

Progressive Effects of Alcohol		
Blood Alcohol Concentration	Changes in Feelings and Personality	Impaired Activities (continuum)
0.01–0.05	Relaxation Sense of well being Loss of inhibition	Alertness Judgment Coordination
0.06–0.10	Pleasure Numbness of feelings Nausea, Sleepiness Emotional arousal	(especially fine motor skills) Visual tracking
0.11–0.20	Mood swings Anger Sadness Mania	Reasoning and depth perception Inappropriate social behavior
0.21–0.30	Aggression Reduced sensations Depression Stupor	(e.g., obnoxiousness) Slurred speech Lack of balance
0.31–0.40	Unconsciousness Death possible Coma	Loss of temperature regulation Loss of bladder control
0.41 and greater	Death	Difficulty breathing Slowed heart rate

source: <http://science.education.nih.gov/supplements/nih3/alcohol/guide/info-alcohol.htm>

\*Note: The majority of college students are making healthy choices about alcohol consumption. However, they do not like it when the ones who are not making healthy choices about alcohol consumption puke in their vicinity. Realize too, that avoidance of these drinks decreases the odds of finding interesting things scrawled in Sharpie on your body.

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## So Just What Are You Putting in Your Body?

### Alcohol

The two most popular caffeinated alcoholic beverages list “malt liquor” as an ingredient. What is “malt liquor”? There aren’t any really great resources, but it seems as though “malt liquor” has several definitions.

- It can mean a beer with higher alcohol content (something more than 5%), this varies from state to state.
- It can indicate an inferior beer
- A beer sold in a larger size container, for example a 40oz.
- An alcohol that has added sugar or corn which can increase the alcohol content.
- True malt is made from barley only.

Based on the cheap prices of these beverages it seems likely that the malt liquor used is one from cheaper sources.

Note: Many companies that offer cheap alcoholic beverages specifically target populations of lower socio-economic status. They also utilize convenience stores as their primary distributors for this reason. Another example of business where a few people become rich by exploiting the under-privileged.

### Caffeine

Caffeine is a plant product that acts as a stimulant on the central nervous system. According to the Mayo Clinic ([www.mayoclinic.com](http://www.mayoclinic.com)) adults should limit their consumption to about 500 mg per day. Comparing to coffee consumption is difficult because caffeine amounts vary widely by brand. A typical 8 oz home brew can range from 95-200 mg of caffeine. A 16oz Dunking Donuts brewed coffee can vary from 140-200 mg. An 8.3oz of Red Bull contains 76 mg of caffeine.

In a recent New York Times article (pub. 10/26/2010) the reported quantities of caffeine in a “Four Lokos” beverage is 148 mg of caffeine (equivalent to 2 Red Bulls) and the caffeine in a “Joose” beverage is 54 mg of caffeine.

### Guarana

Guarana is a red berry that grows in Venezuela and Brazil where it is used as a popular soft drink flavoring. Guarana contains high amounts of guaranine which is chemically similar to caffeine, causing it to act on the body as a stimulant. Like many other plant supplements guarana has been marketed in a variety of ways none of which have been proven by research. ([www.guarana.com](http://www.guarana.com))

### Taurine

Taurine is a non-essential amino acid. Its function in the body is to regulate the level of water and mineral salts in the blood. Food sources include meat and fish. There are some studies that have suggested that taurine increases athletic performance and that combined with caffeine can improve mental performances. These findings are controversial. Excess taurine is excreted by the kidneys. There is little known about the effects of heavy or long term use ([www.mayoclinic.com](http://www.mayoclinic.com)).

There is an urban legend that taurine is extracted from bull testicles or comes from bull sperm. Taurine available to consumers in energy drinks is actually synthetically made.

### Ginseng

Ginseng is a plant, the part most commonly consumed is the root. As a supplement, ginseng has been used for over 5000 years. It is most widely used as a mental stimulant. Research has shown that combining ginseng with caffeine and/or guarana can lead to added stimulation. (Professional Handbook of Complementary & Alternative Medicines 3rd Ed., Mosby’s Handbook of Herbs & Natural Supplements 3rd Ed.).

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## Alcohol Math

The term "standard drink equivalent" is used to compare drinks. Not all alcoholic beverages contain the same percentage of alcohol so you have to do a little math to figure it all out.

If you multiply the volume of the beverage by the percentage of alcohol you can obtain the total amount of pure alcohol. You then divide by .6fl oz (A standard drink is 14 grams or .6 fl oz).



23.5 oz x 12% alcohol=2.82 oz  
2.82 oz/.6 oz=  
**4.7 drinks/can**

25.36 oz x 13% alcohol=3.3 oz  
3.3 oz/.6 oz=  
**5.5 drinks/bottle**

12 oz x 5% alcohol=.6 oz  
.6 oz/.6 oz=  
**1 drink/bottle**

1.5 oz x 40% alcohol=.6 oz  
.6 oz/.6 oz=  
**1 drink/shot**