Critical Thinking in Real Life

It is important not to take what you experience, read, or hear at face value, but to look behind the obvious for presuppositions, evidence, and arguments. Your goal in the pages ahead will be to strengthen your ability to read more knowledgeably, understand more clearly, analyze more carefully, and assess more accurately. Remember that the critical thinker wants to read carefully, to be aware of possible difficulties, to explore reasonable explanations, and when appropriate, to think about the credibility of his or her sources on information.

Blood Alcohol Content

Have you ever wondered why you feel the way that you do after drinking alcohol? Many people will admit that they drink to get that feeling, but not many know exactly what is going on to cause it. The effects that alcohol has on your health start with how it's metabolized. Once alcohol is in your system, your body makes metabolizing it a priority. That means that it will stop metabolizing anything else in order to first get the alcohol metabolized. The reason for this is because unlike protein, carbohydrates, and fat, there is nowhere for alcohol to be stored in our body so it has be metabolized first.

Once alcohol enters your stomach, up to 20% of it can be absorbed there and go directly into your bloodstream. Within minutes, alcohol will reach your brain and give the feeling of being a stimulant. No other nutrient is able to do this. The remaining alcohol goes to your intestines and is absorbed there with the rest of the nutrients. A small amount of alcohol is excreted through sweat, saliva, urine, and your breath, which is how it is detected by a Breathalyzer.

Your liver is the primary site for alcohol metabolism; this is why you can have liver problems from consuming too much alcohol. Alcohol is detoxified and removed from the blood through a process called oxidation. Oxidation prevents the alcohol from accumulating and destroying cells and organs. A healthy liver oxidizes pure ethanol at the rate of about ¼ to ⅓ of an ounce per hour, which is less than 1 ounce of hard liquor.

When you drink alcohol, your blood alcohol concentration (BAC) will rise rapidly. Within five minutes of having a drink, there's enough alcohol in your blood to measure. The BAC is determined by how quickly alcohol is absorbed, distributed, metabolized, and excreted. The following factors can influence the BAC:

- Gender
- Race
- Food consumed with the alcohol
• Chronic alcohol consumption
• Drinking pattern
• Medications

The consumption of one standard drink will result in a peak in BAC within 35 to 45 minutes. A 150-pound person with normal liver function metabolizes about 7 to 14 grams of alcohol per hour, which is approximately 100 to 200 mg/kg of body weight per hour. This is comparable to 8 to 12 ounces of beer or half of an alcoholic drink. Controlling the rate of consumption will give your liver time to metabolize the alcohol and limit your BAC. **Once you stop drinking, your blood alcohol level decreases by about 1.5% per hour.** You are legally intoxicated with a blood alcohol concentration of 0.08. Time is the only way to eliminate alcohol from your system, so cold showers and coffee will not sober you up. Trying to get someone who is drunk to feel and appear more alert can cause a false sense of sobriety to the person drinking and everyone around them.

Source: [http://www.medicinenet.com/alcohol_and_nutrition/page2.htm](http://www.medicinenet.com/alcohol_and_nutrition/page2.htm)

Directions: Go to the BAC calculator website and then answer the following questions:
BAC Calculator:  

1. Explain the purpose of the article from the point of view of the author.
2. Explain the purpose of the article from the point of view of me the instructor.
3. Explain the purpose of the article from the point of view of you the student.
4. Jeff celebrates his 21st birthday by drinking three cans (12 ounce) of beer in one hour. Jeff weighs 120 pounds. Assume that once you stop drinking, your blood alcohol level decreases by about 1.5% per hour. How long will it take before Jeff’s BAC is zero?
5. Repeat exercise 4 with Sandra instead of Jeff (you will have to calculate Sandra’s BAC after 3 drinks).
6. Now discuss the use of BAC and its accuracy. In other words, evaluate the significance of the BAC.
7. Explain the issue involved in the article.
8. What can you conclude from this exercise?

*Contributed by Professor Joe Castillo*