There are many factors that affect the rate of intoxication and the metabolism of alcohol. No two people process alcohol at the same rate.

References:
http://www.tabc.state.tx.us/liccom/seller/blood.htm
http://www.radford.edu/~kcastleb/bac.html
**Introduction:**

There are many factors that affect the rate of intoxication and the metabolism of alcohol. No two people process alcohol at the same rate. The presence of food in the stomach decreases the rate of absorption. Fasting (not eating) increases stomach emptying, thus increasing the rate of absorption. Alcohol mixed with water or fruit juice is absorbed slower, while alcohol mixed with a carbonated beverage is absorbed faster.

**Factors in BAC:**

Body weight and composition are two other factors that affect these rates. Men tend to handle alcohol better than women do. This is because men are generally larger, thus have a larger blood volume, and carry less body fat. Body fat contains little water for the body to use in diluting alcohol. Men also have more of the alcohol metabolizing enzyme, **alcohol dehydrogenase**.

The situation, your mood, and why you have chosen to drink on a particular occasion affect how alcohol affects you. The body does develop a physical and psychological dependence to alcohol over time.

The following is a generalized alcohol affect chart based on a 150 pound person, metabolizing 0.5 ounces of alcohol per hour that has eaten. Please note that 50% of the persons who attain a blood alcohol level of 0.4 will die!

**BAC Effect on Body**

- **0.02** Slight mood changes
- **0.06** Lowered inhibition, impaired judgment, decreased rational decision-making abilities.
- **0.08** Legally drunk, deterioration of reaction time and control.
- **0.15** Impaired balance, movement, and coordination. Difficulty standing, walking, talking.
- **0.20** Decreased pain and sensation. Erratic emotions.
- **0.30** Diminished reflexes. Semi-consciousness.
- **0.40** Loss of consciousness. Very limited reflexes. Anesthetic effects.
- **0.50** Death.

**CAUTION**

Death has been documented to occur at levels as low as 0.35. Remember, each person is different. Also, the absence of symptoms does not guarantee safe or low blood alcohol levels. With regular drinking a person develops a tolerance to alcohol that will reduce the outward appearance of high blood alcohol levels.

**Texas State Law**

Know your legal limit -- In Texas that means .08% of Blood Alcohol Content or any amount which results in loss of normal use of mental or physical faculties. This is only a guide and NOT sufficiently accurate to be considered legal evidence. The figures you calculate are averages. Individuals may vary somewhat in their personal alcohol tolerance. Food in the stomach affects the rate of absorption. Medications, health, and psychological condition are also influential factors.

BAC charts are based only on body weight, number of drinks per hour, and a metabolism rate of 0.5 ounces per hour. The charts do not take into account gender differences, body composition differences, use of medication, mood changes, or your personal metabolism rate. Be very careful when utilizing these references and remember to take all of these factors into account.