

## Blood Alcohol Concentration

Blood alcohol concentration is a measure of the amount of alcohol present in a certain amount of blood. It is usually described as amount of alcohol per 100ml of blood, for example the legal limit for drink driving in the UK is 80mg/100ml or 0.08%.

Blood alcohol concentration affects how we feel and behave, the level of blood alcohol concentration is affected by several factors including:

- **Speed at which alcohol is consumed** - The faster you drink the quicker alcohol is absorbed into the blood stream and the higher the blood alcohol concentration.
- **Gender** - Alcohol is water soluble and this directly affects blood alcohol concentration. Females tend to have less water in their bodies than men and therefore blood alcohol concentration can be higher even though the same drinks have been consumed.
- **Persons weight** - This again relates to the water content in the body and therefore the blood alcohol concentration is affected. The more a person weighs the more water they have and therefore the lower the blood alcohol concentration will be.
- **Fat/muscle content** - Fatty tissue does not absorb alcohol very well due to low water content. Muscle tissue absorbs alcohol more easily, therefore the build of a person will affect the blood alcohol concentration.
- **Metabolism** - The rate at which alcohol is processed by the body varies from person to person, the average person will eliminate 15mg of alcohol per hour.
- **Last meal** - The amount of food in your stomach will affect the speed at which alcohol is absorbed into the blood stream.
- **Medication** - Medication you are taking may affect the rate at which alcohol is absorbed into the blood stream and therefore the blood alcohol concentration.

Blood alcohol concentration affects how we feel and behave, the higher the alcohol blood concentration the greater the effects on behaviour. Below are the more common symptoms that will be exhibited at different levels of blood alcohol concentration levels.

### **BAC - 50mg (0.05%)**

- Pleasant feeling without feeling intoxicated.
- Judgement may be impaired and there is risk of accidents and behaving slightly less controlled.

### **BAC - 80mg (0.08%)**

- Feeling quite relaxed.
- Lose a little self control, make more errors of judgement.
- Muscle co-ordination becomes poor (slurred speech, poor balance)
- Slower reactions.

### **BAC - 120mg (0.12%)**

- Quite merry.
- Likely to become clumsy, do things without thinking.
- Slurred speech, poor co-ordination.
- May do things out of character.

### **BAC - Over 120mg (Over 0.12%)**

- Control over body decreases.
- Signs of being unable to control behaviour.
- Possible memory loss, loss of bodily function.
- Possible loss of consciousness, sometimes coma and death will occur.