

P612: Appendix 3

HOW THE BODY METABOLISES ALCOHOL

- 1.1** The alcohol in your drink is absorbed into your body through the stomach and small intestine. Food slows down the rate of absorption - that's why alcohol affects you more quickly on an empty stomach. From here, it's distributed via the bloodstream throughout the body, reaching your heart, brain, muscles and other tissues. This happens very quickly - within a few minutes. Usually, though not always, this has a pleasant effect. Your body can't store alcohol, so it has to get rid of it - mostly via your liver. First, the liver changes alcohol into acetaldehyde - a highly toxic substance. This turns into acetate, a harmless substance, which is passed out in the urine. Some alcohol is also excreted through the breath and sweat. Your body's ability to process alcohol depends on various things, like your age, weight and sex. Your body breaks down alcohol at a rate of about one unit per hour - and no, there's no way you can speed this up!
- 1.2** The amount of alcohol in the blood is known as the blood alcohol concentration or BAC. Your BAC depends on how much you've drunk and how quickly you drank it.
- 1.3** Other important factors affecting BAC are:
- **Your size and weight:** If you're small, your blood alcohol volume is obviously less than that of someone who is larger. So the same amount of alcohol will probably affect you more.
 - **Your sex:** Women can't drink as much as men. Women are generally smaller. They also have proportionately less body water and more body fat - and alcohol doesn't dissolve easily in fat. That's why, drink for drink, women end up with more alcohol in their blood than men.
 - **Your water level:** If you're dehydrated, alcohol will have a greater effect than if your body's water concentration is normal. That's why drinking alcohol in summer or after exercise affects you more.
- 1.4** **The amount you've eaten:** If you drink a unit of alcohol on an empty stomach, almost all of it will be absorbed in an hour. But if there's food in your stomach, the process will be slower and the alcohol reaches your brain and the rest of your body more slowly.