Should you give up drinking? Only your liver can tell you.

The Liver is an organ in the body which functions to store fat, vitamins, and carbohydrates (as glycogen) which we use to make energy, in digestion , to make bile for digestion and to make key components of the blood such as plasma (which carries all the other components of the blood). It also produces wound healing clotting factors and is needed to neutralise micro-organisms and detoxify the blood. When the liver malfunctions, due to age, liver diseases such as hepatitis, obesity, anorexia, diabetes, liver cancer, or due to lifestyle choices such as chronic alcohol use or drug overdoses, there are widespread complications which can affect quality of life, physical and mental healthspan and lifespan. Testing for liver function can be the early intervention that can help you prevent liver disease and comorbid conditions. Even slightly raised biomarkers (markers of health status) for impaired liver function can also help assess your liver health and functionality and tell you whether or not you should have a dry January or go teetotal for a bit and cut back on the booze.

How testing your blood can tell you how healthy your liver is currently.

Our liver is essential. We use it as an energy storage site, turning to it when our blood sugar is low. We also need it for regulating red blood cells, and as these carry the oxygen (red blood cells contain iron) we need to combine with the glucose from carbohydrates, fats and proteins in our diet to make energy, they play a vital role in our metabolism, weight and vitality. It also functions to store iron and vitamins such as B12 and Folate, which are associated with making red blood cells and increasing metabolism (our ability to turn carbohydrates, fats and proteins into energy). Disorders of the liver can cause fatigue, depression, diabetes, weight gain and cardiovascular diseases associated with slowed metabolism and inability to properly use dietary fat (associated with fatty deposits in our blood vessels which can cause heart disease and heart attacks).



The liver also helps in digestion, helping to make key dietary enzymes (chemicals that break down big molecules into smaller ones and speed up reactions in cells) which help breakdown components of our food which we can then absorb and use for health. It also helps make key vitamins and minerals and bile, which neutralises excessive stomach acid and so a poorly functioning liver can result in malnutrition and mineral and vitamin deficiencies.

The liver also plays a vital role in neutralising and destroying all drugs and toxins. It helps clear the blood of foreign (non-human) particles and infections, including bacteria and efficiently breakdown drugs from paracetamol to food additives to alcohol. An inflamed liver is usually a sign that the liver is not able to neutralise and detoxify key chemicals, and so is working sub-optimally.

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We can test liver function by using liver function tests. The liver function tests typically include alanine transaminase (ALT) and aspartate transaminase (AST), alkaline phosphatase (ALP), gamma-glutamyl transferase (GGT), serum bilirubin, prothrombin time (PT), the international normalized ratio (INR), total protein and albumin. These tests can help determine an area of the liver which may be damaged. High ALT and AST are associated with liver disease.

Though high in calories and with negative effects on sleep and brain chemicals, alcohol in moderation is not bad or good, however it does categorically impair the liver function. When we drink, the liver prioritises on detoxification of the alcohol over other key biochemical processes such as digestion, which can result in poor health. Testing your liver function with tests such as ALT, AST, ALP and albumin tests, can help you determine the detoxification capacity of your liver and determine how much you should be drinking based on clinical evidence to best optimise for your personal physical and mental health.



How can NPH Group help?

Want to improve your mental and physical health based on your own personal biochemical evidence and ensure you reach your optimum health capacity?

For more information, please get in touch **info@nph-group.co.uk.**

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