

DETOXIFICATION

(Collated by Michelle Wilkinson www.movingnaturally.co.uk)

The liver is the largest organ in the body weighing on average 1.5kg.

Like the spleen, it is a dark-reddish colour due to the rich flow of blood through these organs.

In the liver most of the blood comes from the digestive tract. The digested nutrients are delivered here for further processing and storage.

Every minute 1.5 litres of blood flows through the liver.

Of the liver's 500 functions some are to absorb toxic substances from the blood. It is a major organ of detoxification.

The liver detoxifies by filtering the blood to remove large toxins. Additionally, bile which contains cholesterol and other fat-soluble toxins are synthesised and secreted.

The liver enzymatically disassembles unwanted chemicals in two phases. In Phase 1 the enzymes from the cytochrome P450 family neutralise substances like alcohol and caffeine which converts them into less harmful toxins. In Phase 2 the by-products of Phase 1 are made water-soluble to be excreted from the body in a process called conjugation. Glutathione, sulphate and glycine are the primary molecules responsible for this process. Under normal conditions, Phase 2 liver detoxification enzymes produce low levels of glutathione while under high periods of toxic stress the body increases its production of glutathione.