## The Infrastructure of the Liver

Think of the liver as a large city with thousands of houses and streets. There are underground pipes for delivering water, oil, and gas. Sewage systems and garbage trucks remove the city's waste products. Power lines deliver energy to the homes and businesses. Factories, transport systems, communication networks, and stores meet the daily requirements of the residents.

The organization of city life is such that it can provide all that it needs for the continued existence of the population. But if a major strike, a power outage, a devastating earthquake, or a major act of terrorism suddenly paralyzes city life, the population will begin to suffer serious shortcomings in all these vital sectors.

Like a city's infrastructure, the liver has hundreds of different functions and is connected with every part of the body. Every moment of the day, it is involved in manufacturing, processing, and supplying vast amounts of nutrients. These nutrients feed the 60 to 100 trillion inhabitants (cells) of the body. Each cell is, in itself, a microscopic city of immense complexity, with billions of chemical reactions per second. To sustain the incredibly diverse activities of all the cells of the body without disruption, the liver must supply them with a constant stream of nutrients, enzymes, and hormones. With its intricate labyrinth of veins, ducts, and specialized cells, the liver needs to be completely unobstructed in order to maintain a problem-free production line and frictionless distribution system throughout the body.

The liver is the main organ responsible for distributing and maintaining the body's "fuel" supply. Furthermore, its activities include the breaking down of complex chemicals and the synthesis of protein molecules. The liver acts as a cleansing device; it also deactivates hormones, alcohol, and medicinal drugs. Its task is to modify these biologically active substances so that they lose their potentially harmful effects—a process known as detoxification. Specialized cells in the liver's blood vessels (Kupffer cells) mop up harmful elements and infectious organisms reaching the liver from the gut. The liver excretes the waste materials resulting from these actions via its bile duct network.

A healthy liver receives and filters 3 pints of blood per minute and produces 1 to 1.5 quarts of bile every day. This ensures that all the activities in the liver and in the rest of the body run smoothly and efficiently.

Obstructive gallstones greatly undermine the liver's ability to detoxify any externally supplied and internally generated harmful substances in the blood. These stones also prevent the liver from delivering the proper amounts of nutrients and energy to the right places in the body at the right time. This upsets the delicate balance in the body, known as "homeostasis," thus leading to disruption of its systems and undue stress on its organs.

(This is an excerpt from the book 'The Amazing Liver and Gallbladder flush', by Andreas Moritz