

THE LIVER

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

The liver is a large triangular organ found in the upper part of the abdominal cavity on the right-hand side. It is mostly protected by the ribcage.

The liver has approximately 500 functions and supports almost every other bodily organ.

Nutrients (proteins/carbohydrates/fats & oils) are absorbed from the small intestine into the bloodstream and enter the liver via the portal vein.

It is the liver's job to sort out all the inflowing nutrients and in Traditional Chinese Medicine (TCM) it ensures the smooth flow of bodily Qi and Blood.

Proteins composed of amino acids are either joined up to make required new proteins or if unnecessary broken down to form urea. The kidneys will eliminate urea in the urine.

The molecules of carbohydrate known as glucose the liver joins together to create larger molecules called glycogen (the animal equivalent to the starch made by plants).

Glycogen is stored in the liver until the body requires energy and then the glycogen is broken back down into glucose. It can also make brand new glucose.

The liver stores blood, it regulates the volume of bodily blood and as such regulates menstruation.

Blood moistens the sinews and therefore more blood is required at times of activity and less when at rest.

A smooth strong flow of blood and energy is important otherwise agitation, shaking and lack of coordination can be experienced.

Restless legs, shaking, nervous habits such as nail-biting or hair-pulling can be the result of built-up repressed energy which has not been channelled into movement and action.

Lipids (fats & oils) are also broken down and built up in the liver.

Fat and oils are formed into globules to enable it to be broken down further to enable absorption into the blood and its transportation there.

The blood flowing from the small intestine may contain bacteria that has entered the gut.

The liver contains cells from the immune system which identifies foreign bodies and ingests them.

The portal vein carries toxins to the liver which then breaks these toxins down into safer chemicals or makes them into non-toxic substances. These chemicals and non-toxic substances can then re-enter the blood to be excreted in the urine. For example, alcohol and drugs are inactivated and released in this way.

We feel drunk if we drink alcohol too quickly for the liver to break it down and send it away to be eliminated.

Hormones such as adrenaline can be deactivated in the liver. It would be harmful for adrenaline to circulate the bloodstream indefinitely.

Old red blood cells are broken down in the liver. The haemoglobin becomes bilirubin and is released into the bile.

The bile created in the liver is more than a collection of waste products. It contains substances which are supportive to the intestines such as bile acids made from cholesterol. This is a form of detergent which noted earlier breaks down large fat and oil globules into smaller ones.

In TCM the liver is the yin organ connected with the wood element of spring. It is responsible for having an overview, seeing the big picture. It controls the sinews and houses the *hun* or the ethereal soul. It opens into the eyes manifests in the nails, controls tears and is affected by anger.

The liver meridian begins on the lateral side of the large toe to travel between the first and second metatarsal bones. It follows the medial side of the ankle travelling up the inside of each leg until it meets the groin. From here it continues up the lateral abdomen to finish at the sixth intercostal space with the acupressure point LV14.

Supreme Rushing is a liver acupressure point (LV3) which lies on the top of the foot in a hollow between the first and second metatarsal bones. A great tonic point it calms and supports the liver in its array of functions.

Order Gate is a liver acupressure point (LV13) that is anterior to the end of each eleventh rib. It smooths liver Qi and supports digestive conditions.