

Liver (Gan)

The Liver is the Yin Organ of the Wood Element.

The Liver Rules Flowing and Spreading

The Liver is responsible for the smooth movement of Fundamental Substances and for regularity of body functions. Qi and Blood are moved in all directions, to every part of the body.

Nei Jing image is that of the "general of an army". It maintains evenness and harmony of movement throughout the body.

Its image is conveyed by the words soft, subtle, light, gentle, and sprinkle. These words describe the desirable state of its normal activity. A herbal treatment to benefit the Liver is called 'Free and Easy Wanderer' (Kaptchuk, 1983). Creating these circumstances is a basic role of Liver energy, and may be thought of as the function of the Liver.

Liver disharmonies involve variations from this normal pattern of activity. Stagnation of Qi, inappropriate flow or impaired circulation of Qi and Blood, and congealed Blood, are all indications of Liver disharmony.

Functional aspects of Flowing and Spreading

A Adjusts and makes smooth.

Smooth movement of Qi throughout the body depends upon the Liver. All activity which depends upon Qi (ie. everything), must therefore also depend upon the Liver - such as the movement of Qi itself, of Blood, of Meridian Qi, and the functions of the Zang Fu.

Liver Qi may become stagnant in its own pathways with symptoms such as pain, swelling and distention eg. lateral costal, genitals, breasts, lower abdominal, and frontal headaches.

Adjusting and making smooth is very important to digestion. In disharmony, Liver Qi may invade the Earth Element, with digestive disharmonies such as abdominal pain, nausea, belching, intestinal rumbling or diarrhoea.

B Controls bile secretion

Bile in TCM is necessary for the digestion of food and fluids. If the Liver's spreading and flowing activities are unable to function adequately, bile production may be disrupted. Signs and symptoms include a bitter taste in the mouth, vomiting of a yellow fluid, jaundice, distention of the flanks, and loss of appetite.

C The Liver harmonises the emotions

The Liver creates a relaxed and easy going internal environment through its sprinkling activity. This creates an even emotional disposition. Marked changes in emotional circumstances will directly effect the flowing and spreading function of the Liver. Conversely, Liver disharmonies may be expected to effect an individual's emotional status. Irritability, anger, wrath, and frustration are particularly associated with the Liver, especially if these are habitual modes of emotional expression.

All three aspects of flowing and spreading are interrelated. They are commonly present together, though not necessarily all three.

The Liver Stores the Blood

This involves both the storage and regulation of Blood. When an individual moves, the Blood moves to the Meridians. When a person rests the Blood returns to the Liver. In physical activity, when more Blood is needed to nourish the body, the Liver ensures it moves freely outward. At rest or with inactivity, the Blood returns to the Liver to be stored.

Storage disharmonies may occur. These include insufficient Blood for nourishing and moistening, such as when the eyes are dry or rough, and loss of proper storage ability. This latter may occur with an unusually heavy menstrual flow.

The Liver Rules Tendons and Manifests in the Nails

All Tendons of the body are closely related to the Liver. The word "Tendons" here not only refers to the tendons of WMB, but includes ligaments and to a certain extent muscles. Excess Liver Qi may lead to tension and taughtness in muscles and tendons, while deficient Liver Blood may mean the nourishment of tendons and muscles is insufficient, with spasms, difficulty in bending and stretching, and numbness of the limbs possibly resulting.

Also occurring in Liver disharmonies are significant variations in the nails of fingers and toes. They might normally be expected to be supple, strong, pink and moist. But with Liver Blood deficiency they may become cracked, thin, brittle and pale.

The Liver Opens into the Eyes

The Liver has a special relationship with the function of the eyes.

"When the Liver is harmonized the eyes can distinguish the five colours".

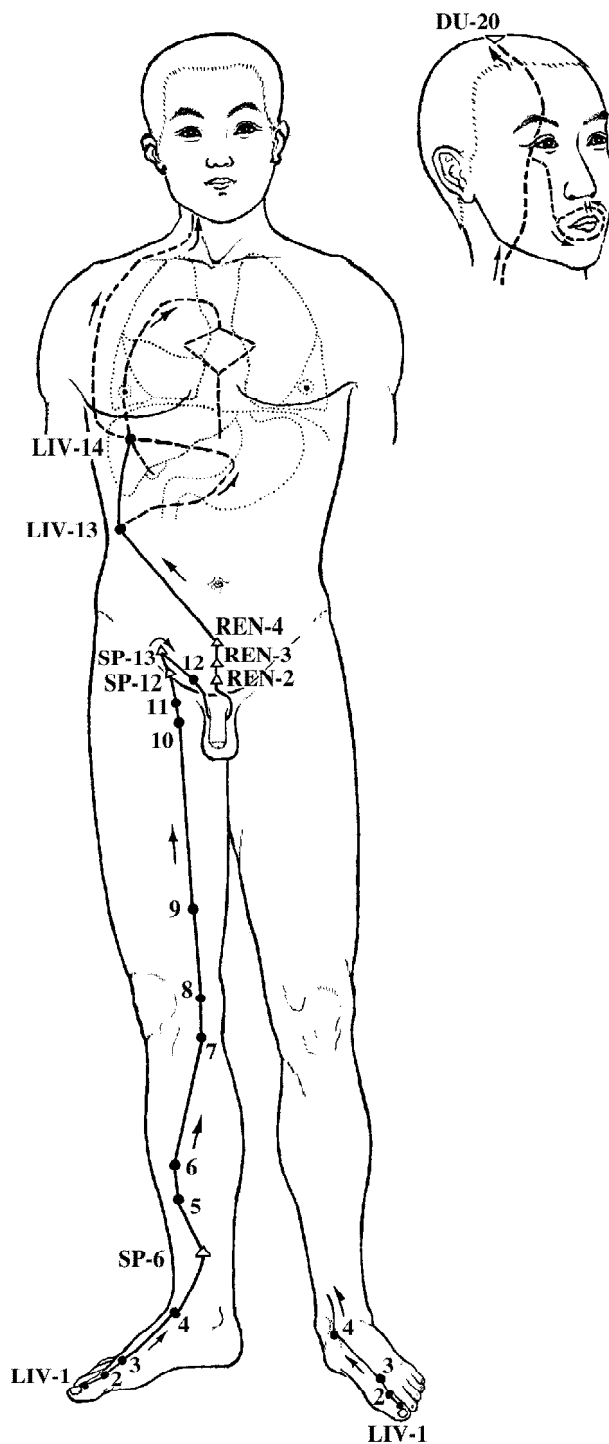
"When the Liver receives Blood the eyes can see".

Many disorders of the eyes and of vision may have Liver involvement.

‘The Liver holds the office of general of the armed forces. Assessment of circumstances and conception of plans stem from it.’ (Su Wen, chpt 8. Larre & Rochat, 1994b, 1992b).

Zu Jue Yin Gan Jing Liver Channel of foot Jue Yin

PRIMARY LIVER MERIDIAN



Primary Liver Meridian

(modified from Shandong, 1982, p. 54)

The primary Liver Channel of foot Jue Yin begins in the 'hairy' dorsum of the big toe (lateral aspect) behind the nail (LIV-1, Da Dun), and ascends the dorsum of the foot between the first and second metatarsal bones (LIV-3, Tai Chong) to a point 1 cun in front of the medial malleolus (LIV-4, Zhong Feng). It travels up to SP-6 (San Yin Jiao), where it intersects the Spleen Channel of foot Tai Yin. It continues up the medial aspect of the leg immediately anterior (5 fen) to the Spleen Meridian, to a point about 8 cun above the medial malleolus. It then crosses over, and ascends posterior and medial to the Spleen Meridian over the knee (LIV-8, Qu Quan) and continues up the thigh. It meets the Spleen Channel again at SP-12 (Chong Men) and SP-13 (Fu She) in the inguinal region, then encircles the external genitalia and penetrates the lower abdomen where it meets Ren Mai at REN-2 (Qu Gu), REN-3 (Zhong Ji), and REN-4 (Guan Yuan).

It then ascends the lateral aspect of the trunk, curves past (skirts) the Stomach Organ, homes to its pertaining Organ, the Liver, connects with its Yang partner the Gall Bladder Organ, and disperses over (through) the lower costal region and hypochondrium (LIV-14, Qi Men).

From the Liver Organ a branch passes upward through the diaphragm, enters the Lung Organ and connects with the Lung Channel of hand Tai Yin. This is where the flow of Qi in the Meridian system begins anew.

The main pathway (now Internal) continues from the lateral costal region (LIV-14, Qi Men) runs over the chest and up the neck. It passes up the posterior aspect of the pharynx, enters the nasopharynx, and links with the tissues surrounding and connecting to the eyes (the "eye system"[Cheng, 1987]).

The Channel finally ascends and spreads over the forehead. It meets Du Mai at the vertex, at DU-20 (Bai Hui). A branch separates below the eye (from the "eye system" [Cheng, 1987]), runs through the cheek and encircles the inner surface of the lips.

There are 14 points on the Liver Meridian, and 7 intersecting points on other Meridians.

This Meridian pertains to the Liver Organ and connects with the Gall Bladder Organ. It also connects directly with the Organs of Lungs, Stomach, Kidneys and Brain as well as other Organs.

FLOW OF QI/ DISTRIBUTION OF POINTS:

Lower Limb: LIV-1 (Da Dun), LIV-2 (Xing Jian), LIV-3 (Tai Chong), LIV-4 (Zhong Feng), SP-6 (San Yin Jiao), LIV-5 (Li Gou), LIV-6 (Zhong Du), LIV-7 (Xi Guan), LIV-8 (Qu Quan), LIV-9 (Yin Bao)

Inguinal Region, Lower Abdomen: LIV-10 (Zu Wu Li), LIV-11 (Yin Lian), SP-12 (Chong men), SP-13 (Fu She), LIV-12 (Ji Mai), REN-2 (Qu Gu), REN-3 (Zhong Ji), REN-4 (Guan Yuan)

Chest: LIV-13 (Zhang Men), LIV-14 (Qi Men)

Head: DU-20 (Bai Hui).

MERIDIANS INTERSECTED BY THE LIVER CHANNEL:

Spleen Channel of foot Tai Yin: SP-6 (San Yin Jiao), SP-12 (Chong Men), SP-13 (Fu She).

Du Mai (Governing Vessel): DU-20 (Bai Hui).

Ren Mai (Conception Vessel): REN-2 (Qu Gu), REN-3 (Zhong Ji), REN-4 (Guan Yuan).

MERIDIANS INTERSECTING ON THE LIVER CHANNEL:

Gall Bladder Channel of foot Shao Yang: LIV-1 (Da Dun), LIV-13 (Zhang Men).

Spleen Channel of foot Tai Yin: LIV-14 (Qi Men).

Dai Mai (Girdle Vessel): [LIV-13 (Zhang Men)].

Yin Wei Mai (Yin linking Vessel): LIV-14 (Qi Men).

LIVER SPECIAL POINTS/ COMMAND POINTS:

LIV-1 (Da Dun):	Wood, Well-Jing. Horary point.
LIV-2 (Xing Jian):	Fire, Spring, Gushing-Ying.
LIV-3 (Tai Chong):	i) Earth, Stream, Transporting-Shu. ii) Yuan-Source.
LIV-4 (Zhong Feng):	Metal, River, Traversing-Jing.
LIV-5 (Li Gou):	Luo-Connecting
LIV-6 (Zhong Du):	Xi-Cleft, Accumulation.
LIV-8 (Qu Quan):	Water, Sea, Uniting-He.
LIV-13 (Zhang Men):	i) front Alarm-Mu, Collecting point of the Spleen Zang. ii) Meeting point of the Zang Organs.
LIV-14 (Qi Men):	front Alarm-Mu, Collecting point of the Liver Zang.
BL-18 (Gan Shu):	back Associated-Shu, Transporting point.

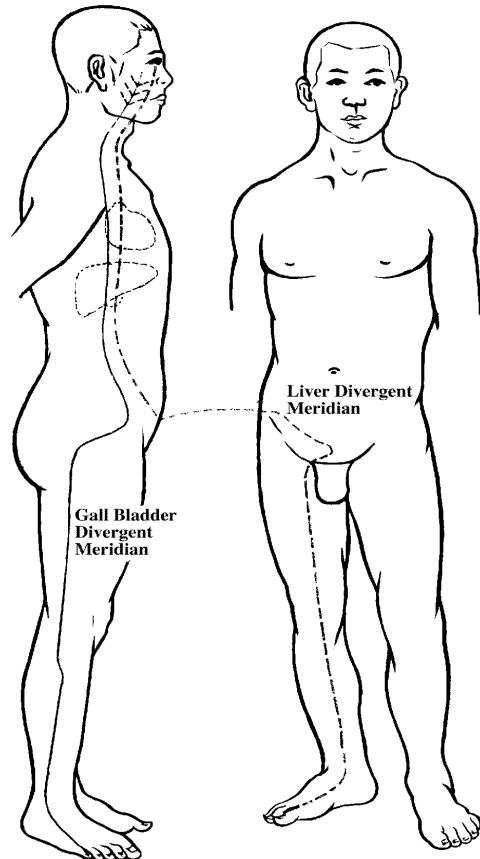
LIVER PRIMARY MERIDIAN SIGNS/SYMPTOMS:

Headache, dizziness, blurred vision, tinnitus, fever, muscle spasms in the limbs in severe cases. (mainly from Ellis et al., 1988; O'Connor & Bensky, 1981)

LIVER ORGAN SIGNS/SYMPTOMS:

Fullness, distension or pain in the costal region with the sensation of an abdomino-thoracic lump, fullness in the stomach region with thoracic oppression, abdominal pain, vomiting, jaundice, watery diarrhoea, lower abdominal pain, hernia, enuresis, urinary retention, dark or yellow urine. (mainly from Ellis et al., 1988; O'Connor & Bensky, 1981)

LIVER DIVERGENT MERIDIAN



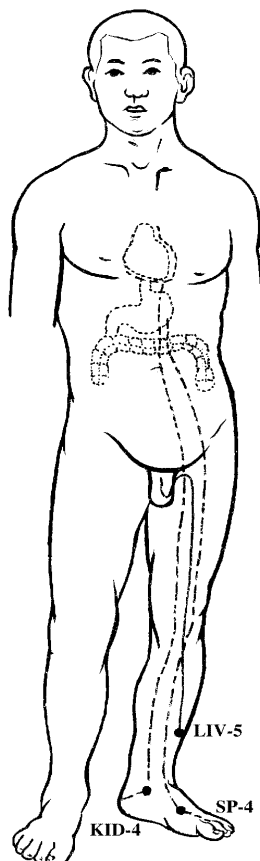
The Liver Divergent Meridian separates from the primary Liver Channel on the medial, dorsal aspect of the foot. It ascends to the pubic region where it unites with the Gall Bladder Channel of foot Shao Yang, near REN-2 (Qu Gu).

(mainly from Ellis et al., 1988; O'Connor & Bensky, 1981)

Wood Divergent Meridians

(from Cheng 1987, p. 87)

LIVER LUO (CONNECTING) MERIDIAN



The Liver Luo Meridian separates from the primary Liver Channel at LIV-5 (Li Gou) on the medial aspect of the leg, and connects to the Gall Bladder Channel of foot Shao Yang. A branch follows the primary Liver Meridian upward and binds at the genitals.

Signs/ Symptoms:

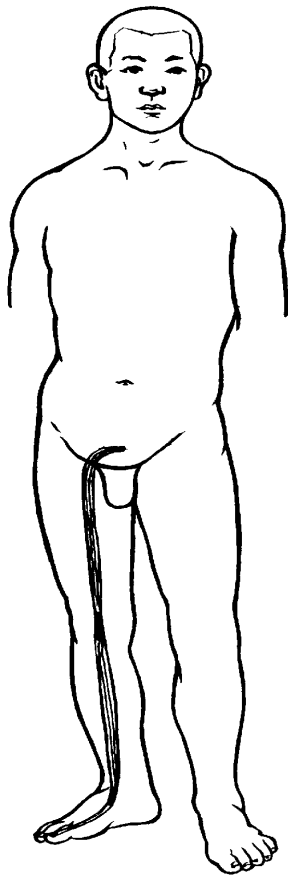
Qi counterflow:	colic, testicular swelling
Shi:	frequent erection
Xu:	severe/ violent itching in the genital region

(mainly from Ellis et al., 1988; O'Connor & Bensky, 1981)

Yin Luo Meridians, Lower Limb

(modified from Cheng 1987, p. 93)

LIVER MUSCLE-TENDINO (SINEW) MERIDIAN



The Liver Muscle-Tendino Meridian (MTM) commences on the dorsum of the big toe and binds in front of the medial malleolus. It runs up the medial leg and binds at the medial aspect of the knee. It proceeds up the medial aspect of the thigh and binds at the genitals, where it connects with other MTM's.

Signs/ Symptoms:

strained muscles of the big toe (inability to support), pain in the foot anterior to the medial malleolus, pain at the medial aspect of the knee, pain or muscle spasms along the medial aspect of the thigh, dysfunction of the genitals (impotence from excessive sexual indulgence or Internal damage, contraction/ retraction of the genitals if injured by Cold, flaccidness or frequent erection if injured by Heat).

(mainly from Ellis et al., 1988; O'Connor & Bensky, 1981)

Liver Muscle-Tendino Meridian

(from Cheng 1987, p. 102)