

Liver Disease in Traditional Chinese Medicine

Prepared for:

Dr. Mary Wu

Prepared by:

Cindy Cheng

Toronto School of Traditional Chinese Medicine

This paper will attempt to address the issues surrounding the health of the liver as well as the treatment and prevention of various liver diseases

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1. Overview

It seems in today's society that one's health and wellbeing are not the foremost concern. The individuals of today's society busy themselves with other priorities, making poor lifestyle choices, developing bad habits and neglecting many aspects of their health. In turn, they cause injury to their body and eventually, their overall health. The liver, being one of the vital organs of the body, is essential to one's health and wellbeing. One cannot hope to survive without the liver performing its everyday physiological functions. As such, an individual concerned with one's health and wellbeing should do all in one's power to protect and nurture the liver. However, due to its lack of inner nerve endings, the liver is a very tolerant organ and much too forgiving. It can still function properly with only 30% of its full capacity. Hence one may have a chronic liver condition for many years without realizing it. Even patients with cirrhosis often have no symptoms. For this reason, it is often called the "silent organ".

Anatomically speaking, the liver is part of the digestive system. The liver performs over 500 different functions and plays a part in almost all the bodily functions. The liver is also responsible for such complicated and important biochemical reactions as synthesis, division, transformation and storage of protein, sugars (carbohydrates), fatty acids, vitamins, and hormones. It can also degrade various toxins that enter the body that may otherwise be harmful. For this reason, it is often nicknamed the body's "chemical factory". The liver is essential since it is responsible for many of the processes that the body needs to survive. There is currently no way to compensate for the long term absence of liver function, although liver dialysis can be used on a short term basis. As previously mentioned, poor lifestyle choices are commonly seen in the individuals of modern society. As such, liver diseases are equally common and not only pose a very significant health risk but also represent a large part of those who are ill. There are over 100 known forms of liver disease that affect individuals of all ages. In Canada, 1 in every 10 people suffers from some form of liver or biliary tract disease. (Cirrhosis of the Liver, 2007)¹ Any liver disease left untreated has the potential to result in cirrhosis (scarring of the liver). Each year, over 1000 Canadians die from liver cirrhosis. (Cirrhosis of the Liver, 2007)¹ Hepatitis viruses A, B, C, D and E can cause acute and chronic infection and inflammation of the liver leading to cirrhosis and liver cancer. These viruses constitute a major global health risk. About 2 billion people around the world have been infected with the Hepatitis B virus. Among those that have been infected, approximately 350 million people have become chronically infected. Around 170 million people have become chronically infected with hepatitis C. An estimated 600,000 people die each year due to acute and chronic hepatitis B infection and more than 350 000 people die from hepatitis C-related liver diseases each year.²

In order to overcome the continued spread of liver diseases, prevention of the disease beforehand is a better, more effective course of action than treatment after the fact. In addition to a proactive approach such as an annual blood test to assess the condition of the liver, a liver-supportive and chemical-free diet is essential to keep this vital organ strong and healthy. Traditional Chinese Medicine (TCM) has had significant success in the treatment as

¹ http://www.liver.ca/files/Information_Sheets/CIRRHOSISoftheLiver2007.doc

² <http://www.who.int/whosis/whostat/en/index.html>

well as prevention of liver diseases through various treatment modalities such as acupuncture, herbal formulae as well as Chinese medicated diet in which certain foods and herbs are incorporated into one's daily diet.

This paper will attempt to address the issues surrounding the health of the liver as well as the treatment and prevention of various liver diseases.

2. Anatomy of the Liver

The liver is located in the right upper quadrant of the abdominal cavity, in contact with the right rib cage just below the diaphragm. It is the largest internal organ as well as the largest gland in the body. The liver is a soft, reddish brown, pyramidal organ and weighs about 1.5 kg. A sickle-shaped ligament divides the liver into two main lobes (right and left), the right lobe being about 3 times larger than the left. There are two small lobes that lie behind the right lobe. The downward-facing surface of the liver, also known as the visceral surface, is more irregular in appearance than the domed convex upward-facing surface. This irregularity is caused by the fact that the inferior surface is in contact with the lower esophagus, the stomach, the right kidney and adrenal gland.

Each lobe is made up of multi-sided units called lobules. Most livers have between 50,000 and 100,000 lobules. Each lobule consists of a central vein surrounded by tiny liver cells grouped in sheets or bundles. These cells perform the work of the liver. Cavities known as sinusoids separate the groups of cells within a lobule. The sinusoids give the liver a spongy texture and enable it to hold large amounts of blood.

The liver has an unusual blood supply system. Like other organs, the liver receives blood containing oxygen from the heart. This blood enters the liver through the hepatic artery. The liver also receives blood filled with nutrients, or digested food particles, from the small intestine. This blood enters the liver through the portal vein. In the liver, the hepatic artery and the portal vein branch into a network of tiny blood vessels that empty into the sinusoids.

The liver cells absorb nutrients and oxygen from the blood as it flows through the sinusoids. They also filter out wastes and poisons. At the same time, they secrete sugar, vitamins, minerals, and other substances into the blood. The sinusoids drain into the central veins, which join to form the hepatic vein. Blood leaves the liver through the hepatic vein.

Each lobule also contains bile capillaries; tiny tubes that carry the bile secreted by the liver cells. The bile capillaries join to form bile ducts, which carry bile out of the liver. Soon after leaving the liver, the bile ducts join together, forming the hepatic duct. The liver manufactures bile continuously, even if the small intestine is not digesting food. Excess bile flows into the gall bladder, where it is stored for later use. Bile from the liver and gall bladder flows into the small intestine through the common bile duct.

The liver is the only internal human organ capable of natural regeneration of lost tissue after injury and is able to adjust its size to match its host; as little as 25% of a liver can regenerate into a whole liver. However, this is not true regeneration but rather compensatory growth. The parts that are removed do not re-grow and the growth of the liver is a restoration of function

and not original form. This contrasts with true regeneration where both original function and form are restored.

3. Main Functions of Liver

The liver regulates most chemical levels in the blood and excretes a product called bile. Bile is a chemical that helps to break down fats, preparing them for further digestion and absorption. All of the blood leaving the stomach and intestines passes through the liver. The liver processes this blood and breaks down the nutrients and drugs in the blood into forms that are easier for the rest of the body to use. The liver is like a chemical factory performing more than 500 different kinds of chemical reactions at any given moment. It is the largest organ of our digestive system and its functions can be roughly categorized into the following major categories:

➤ Digestion and processing of nutrients

The secretion of bile ranks as one of the most important digestive functions of liver. Bile consists of bile salts and other substances which aid in the digestion and absorption of fats. It also assists in the absorption of substances such as vitamins A, D, E and K.

The liver also regulates the amount of certain nutrients that cells in the body receive. Digestive enzymes in the intestines break down proteins into amino acids, carbohydrates into simple sugars (glucose – the chief fuel for the body cells), and fat to fatty acids and glycerol. The blood carries these nutrients as well as other substances such as vitamins and minerals to the liver. The liver transforms and stores excess glucose from the blood to a starch-like compound known as glycogen. When the body needs energy, the liver converts the glycogen back into glucose and releases it into the blood. When the glycogen reserve is low, the liver will use fatty acids and amino acids instead and convert them into glucose. In this way, the liver ensures the body receives a constant supply of energy.

The liver also plays an important role in the storage of certain vitamins such as vitamin A, D, E, K and B complex. It also stores iron and other minerals.

➤ Blood detoxification and purification

The liver helps to resist diseases by producing immune factors and removing harmful substances from the bloodstream. All of the blood in the body will eventually pass through the liver. This is important because liver cells filter out harmful substances in the blood.

The liver filters waste substances produced from natural wearing out of cells and tissues. Substances such as bilirubin from the breakdown of old red blood cells are excreted in the bile. The liver also transforms ammonia from amino acids to urea, which is eventually discharged through the urine. Exogenous toxins that enter the body such as alcohol, drugs, insecticides, food additives, and industrial chemicals are also filtered by liver cells and excreted through the urine or feces.

In addition, the liver also filters out many bacteria, viruses and other micro-organisms that may be in the blood. Specialized liver cells surround these micro-organisms and chemically digested them.

➤ Other functions

- Coagulation of blood – substances essential for proper clotting of blood are manufactured by the liver. Normal blood clotting depends on the presence of proper amounts of different coagulating proteins in the blood. Most of these proteins, which include albumin, fibrinogen and prothrombin, are manufactured by the liver cells and released in proper amounts into the blood.
- Secretion of cholesterol – a fatty substance uses to build cell membranes and manufacture bile salt and certain hormones

4. What is the Liver in TCM?

When talking about the liver in terms of traditional Chinese medicine (TCM), not only the physical organ is taken into account. It also refers to its participation in the physiological and pathological manifestations of the CNS, PNS, and circulatory system. According to TCM, the liver has 5 major physiological functions as listed below.

➤ Ensuring Free flow of Qi

The metabolism of various kinds of material is accomplished through the process of “ascending, descending, entering and exiting” of the liver qi. When it is functioning normally, the qi mechanism is smooth and regular, the qi and blood harmonious, the meridians unobstructed, the activities of organs coordinated, and consequently, all types of nutrients will be transformed.

The liver function in dominating the conducting and dispersing of qi can be summed up as:

- Regulating Emotional Activities

TCM believes that an emotional activity is very much related to the free flow of liver qi. When the functional activity of liver qi is obstructed (stagnation of liver qi), symptoms such as emotional depression, unhappiness, moodiness, excessive worrying, belching or sentimental sighing may occur. On the other hand, hyperactivity of the liver’s function in conducting and dispersing (hyperactivity of liver fire) causes emotional excitement and such symptoms as distending headaches, flushed face, anger, frustration, agitation or difficulty in falling asleep.

- Aiding Digestion and Absorption

This function is mainly manifested in the liver’s production and excretion of bile, along with the liver maintaining the ascending and descending function of spleen and stomach qi through the free flow of liver qi.

- Promoting the Normal Flow of Qi, Blood and Body Fluid

The qi, blood and body fluid are in a constantly flowing state, which is closely related to the physiological function of the liver, in addition to its relation to the physiological activities of the heart, lung, spleen and kidneys.

- Storing Blood

In controlling the storage of blood, the liver is capable of retaining blood and regulating its volume in circulation according to the requirements of various tissues and organs. When a person is at rest or asleep, the amount of blood needed by the body decreases and the surplus is stored in the liver. Blood is released from the liver to increase the volume of blood in circulation when the body is performing physical labour.

Malfunctioning of the liver in storing blood is manifested in two pathological changes:

- Insufficient storage of liver blood – causing symptoms such as numbness of the limbs, scanty menstruation or even amenorrhea
- Liver fails to store blood – causing hemorrhage syndromes with symptoms such as hematemesis (vomiting of fresh blood), hemoptysis (coughing up blood), epistaxis (acute hemorrhage from the nose), metrorrhagia and metrostaxis.

- Housing the Hun (Ethereal Soul)

The hun is born of the shen (mind). In order for a healthy balance of the mind and emotions, the shen and hun must be coordinated with one another. Both hun and shen take the blood as their material basis. If the blood storing function of liver is normal, the hun can be housed. Otherwise, the hun cannot be housed and there will be fright, dream disturbed sleep, sleep walking, sleep-talking and hallucination.

- Dominating the tendons and manifesting in the nails

Tendons refer to fascia, including muscle tendons and ligaments. It implies that the relaxation and contraction of the tendons of the entire body are related to the liver. Malfunction of the liver causes numbness of limbs, sluggishness of joint movement, impaired extension or flexibility, contraction and spasm of tendons, and tremors of hands and feet.

The nails include both the fingernails and toenails. TCM consider the nails as the external manifestation of the tendons. When the liver blood is sufficient, the tendons are rich in nourishment, and the nails are strong with a bright and lustrous finish. When the liver blood is deficient, the nails lack nourishment and become pale, soft, thin, withered, deformed and fragile.

- Opening into the eyes

The liver meridian links to the ocular system and normal eyesight depends heavily on the nourishment of liver blood. The physio-pathological conditions of the liver are usually reflected in the eyes. Many disorders of the eyes can be cured by treating the liver. Deficiency of liver

blood may cause blurred vision or night blindness. Insufficiency of liver yin may lead to dry eyes or dim vision. Flaming up of liver fire may cause congestion, itching, or painful and swollen eyes. Damp-heat in the liver and gallbladder may give rise to yellow sclera.

5. Diseases of the Liver

Conventional belief is that liver diseases are linked to excessive ingestion of alcohol or exposure to drugs or toxic compounds when in fact there are many other factors that may cause liver disease. These factors affect everyone from infants to the elderly. According to conventional medicine, the most common liver diseases are generally caused by viruses, parasites, physical injury, alcohol abuse, drugs or toxic compounds, an autoimmune disorder, or a genetic defect that leads to the deposition and build-up of damaging substances such as iron or copper.

Effects of liver disease may include inflammation, scarring, obstructions, clotting abnormalities, and liver failure. The following table lists some common types of liver diseases:

Type of Liver Disease	Description	Possible Causes
Hepatitis	Acute or chronic liver inflammation	Viruses, alcohol abuse, drugs, toxins, autoimmune, non-alcoholic fatty liver disease (NAFLD)
Cirrhosis	Scarring of liver tissue leads to decreased liver function	Can be caused by a variety of conditions but usually a result of chronic hepatitis, alcoholism, or chronic bile duct obstruction
Acute Liver Failure	Sudden decrease in liver function	Drugs, toxins, a diversity of liver diseases
Fatty Liver	Excessive accumulation of triglyceride fat in liver cells	Alcohol abuse, obesity, malnutrition, diabetes, drugs, toxins
Liver cancer	A cancer that originates in the liver	Increased risk with cirrhosis and chronic hepatitis; hepatocellular carcinoma (HCC) is most common primary liver tumor
Obstruction of bile ducts	Complete or partial blockage of bile ducts	Tumors, gallstones, inflammation, trauma

5.1 Early Manifestations of Liver Diseases

Most liver diseases are asymptomatic in their early stages and therefore are difficult to detect. The following are possible early manifestations of liver diseases:

- General fatigue that gets worse over time
- Loss of appetite with nausea
- Persistent low grade fever with possible aversion to cold
- Difficulty focusing/reduced mental clarity
- Lowered tolerance to alcohol
- Dull, lusterless complexion
- Yellowish discoloration or itchiness of the skin
- Dark, yellow urine
- Constipation or grayish, white stool
- Chest and hypochondriac distention
- Dull pain in the right upper quadrant of the abdomen
- Increase of black spots on the skin
- Numbness of the limbs
- Halitosis (foul breath)

If one has a few of the aforementioned symptoms at once, and further, if they persist even after improving one's diet and lifestyle habits, there is a possibility of a liver disease.

5.2 Late Manifestations of Liver Diseases

The major clinical features of liver cell failure at the late stages of liver diseases include jaundice, retention of fluid, and bleeding tendency.

- Jaundice

Jaundice occurs when the blood contains an excessive amount of bilirubin. This excess bilirubin causes a yellowish discoloration of skin and sclera (whites of the eyes). Jaundice may result if diseased liver cells fail to remove bilirubin from the blood.

- Retention of Fluid

Edema and ascites are well recognized manifestations of liver cells failure. The etiology of the fluid retention involves reduced synthesis of albumin by the liver, portal hypertension and a failure of the kidney to handle the excessive renal tubular absorption of sodium.

- Bleeding Tendency

Disturbances of blood coagulation are common features of liver cell failure. It is due to a lack of the coagulant factors which are synthesized in the liver. Portal hypertension and platelet dysfunction are other important causes of a coagulation disturbance in liver disease.

5.3 Conventional Treatment of Liver Diseases

Depending upon what form of liver disease one has and what stage it's at, a physician may recommend treatment with drugs, special diet and lifestyle changes. However, most liver treatments are symptomatically managed and not cured.

The only real treatment for chronic liver disease at present is a liver transplant. However, a group of English researchers have made a promising discovery that drugs such as sulfasalazine³ have the potential to aid partial or total regeneration of liver by blocking special proteins that stop liver regeneration. They may have changed the future treatment goals for liver disease and provide a safer and less expensive alternative to liver transplant surgery.

6. Traditional Chinese Medicine (TCM) and Liver diseases

Many people with liver disease, especially hepatitis and cirrhosis, turn to TCM for treatment. TCM uses a number of therapies including acupuncture, moxibustion, Chinese herbs, qi gong, and dietary therapy to treat a variety of diseases. TCM diagnoses are based on symptom differentiation, not on laboratory reports. Further TCM recognizes that each person has a unique constitution. Hence, the best form of treatment is to modify, alter, or supplement base therapies to create an individualized treatment that meets each patient's unique characteristics and needs.

6.1 TCM Treatment for Hepatitis

According to TCM, the organ systems primarily disturbed in hepatitis are the liver and spleen. These disturbed organ systems affect digestion and energy. According to TCM acute hepatitis is generally associated with excess damp heat or damp cold conditions while chronic hepatitis is more related to qi and yin deficiency, blood deficiency, or blood stasis patterns.

The main causes of Hepatitis according to TCM are:

- External contraction of pestilences called "Li qi" or "Yi qi"
- Unregulated eating and drinking
- Internal damage by the seven emotions
- Aging

³ <http://www.liversupport.com/wordpress/2008/03/sulfasalazine%E2%80%99s-potential-for-reversing-fibrosi/>

In TCM, hepatitis is categorized as “Huang Dan” (Jaundice) or Xie Tong (Hypochondriac Pain). Hepatitis is classified into the following patterns according to the main symptoms and signs, the cause of the disease as well as whether it is chronic or acute.

1. Damp Heat In Liver-gallbladder (Acute Hepatitis With Jaundice)

Main Symptoms: Hypochondriac (rib-side) pain, low grade fever or alternating fever and chills, red eyes, headache, a bitter taste in mouth, loss of appetite, aversion to greasy, fatty food, nausea, vomiting, scanty dark yellow urine, possible jaundice, red tongue with greasy yellow coating and a wiry, slippery, rapid pulse.

Treatment Principles: Soothe liver, benefit gallbladder, clear heat, eliminate dampness

Acupuncture:

- SJ-6 Jing-River and Fire point of the San Jiao channel
Regulates qi and clears heat in the three jiao
Benefits the chest and lateral costal region

- GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region
Clears Liver and Gall Bladder damp-heat

- LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi
Clears the head and eyes

- LV-14 Front-Mu point of the Liver
Spreads the Liver and regulates qi

- Ren-12 Front-Mu point of the Stomach
Influential point of the Fu
Harmonises the middle jiao and descends rebellion
Tonifies the Stomach and fortifies the Spleen
Regulates qi and alleviates pain

Modification: Nausea, vomiting + PC-6
 Jaundice + DU-9

Herbal Medicine:

Long Dan Xie Gan Tang (龍膽瀉肝湯)

Ingredients:

Long Dan Cao (6g)	Huang Qin (9g)	Zhi Zi (9g)	Ze Xie (12g)
Mu Tong (6g)	Che Qian Zi (9g)	Sheng Di (9g)	Dang Gui (3g)
Chai Hu (6g)	Gan Cao (6g)		

Modification:

Condition	Herbs Removed	Herbs Added
Heat more than damp	Mu Tong, Che Qian Zi	Huang Lian
Damp more than heat	Huang Lian, Sheng Di	Hua Shi, Yi Yi Ren
Jaundice	-----	Yin Chen Hao
Nausea, vomiting	-----	Zhu Yu, Chen Pi
Aversion to greasy food or undigested food in stool	-----	Shan Zha, Mai Ya, Shen Qu

2. Liver Qi Stagnation (Hepatitis With No Jaundice)

Main Symptoms: Distension, unfix pain in the hypochondriac region, pain aggravated or alleviated by emotional change, fullness in chest, a tendency to sign, irritability, continuous burping and belching, poor appetite, normal or dark tongue with thin, white coating and a wiry pulse.

Treatment Principles: Soothe liver qi

Acupuncture:

- LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi
- LV-14 Front-Mu point of the Liver
Spreads the Liver and regulates qi
- SJ-6 Jing-River and Fire point of the San Jiao channel
Regulates qi and clears heat in the three jiao
Benefits the chest and lateral costal region
- GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region
Clears Liver and Gall Bladder damp-heat

Modification: Fullness of chest + PC-6
Burping & belching + Ren-17

Herbal Medicine:

Chai Hu Shu Gan San (柴胡舒肝散)

Ingredients:

Chai Hu (6g) Xiang Fu (4.5g) Chuan Xiong (4.5g) Chen Pi (6g)
 Zhi Ke (4.5g) Bai Shao (4.5) Gan Cao (1.5g)

Modification:

Condition	Herbs Removed	Herbs Added
Severe pain	-----	Yu Jin, Chuan Lian Zi
Transform to fire	-----	Zhi Zi, Chuan Lian Zi
Dry mouth, dry tongue with little or no coating	-----	Gou Qi Zi, Di Huang, Chuan Lian Zi
Low appetite	-----	Shen Qu, Mai Ya

3. Hyperactive of Heat-toxin (Acute Hepatitis With Severe Jaundice)

Main Symptoms: Sudden attack of jaundice which aggravated quickly, dark-yellow eyes, high fever, thirst, dark yellow-dark urine, distension in the abdomen, hypochondriac pain, irritability, loss of consciousness, mania, delirium, nose bleeding, teeth bleeding, vomiting blood, blood in the stools or skin rash, ascites, insomnia, coma, dark red tongue with dark yellow dry coating, and rapid wiry or rapid surging pulse.

Treatment Principles: Clear heat, eliminate toxin, cool blood

Acupuncture:

- DU-9 Treat jaundice
- SI-4 Yuan-Prime point of the Small Intestine channel
Clears heat and reduces swelling
Clears damp-heat and treats jaundice
- GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region
Clears Liver and Gall Bladder damp-heat
- LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi
- LI-4 Yuan-Prime of the Large Intestine channel
Regulates the face, eyes, nose, mouth and ears
- LI-11 He-Sea and Earth point of the Large Intestine channel
Clears heat
Cools the blood, eliminates wind, drains damp and alleviates itching
Regulates qi and blood
- DU-14 Front-Mu point of the Stomach
Influential point of the Fu

Harmonises the middle jiao and descends rebellion
 Tonifies the Stomach and fortifies the Spleen
 Regulates qi and alleviates pain

DU-26 Restores consciousness and calms the spirit

Ying-Spring points Clears heat

Modification: Loss of consciousness, mania, delirium HT-8, PC-8

Herbal Medicine:

Xi Jiao San (犀角散)

Ingredients:

Xi Jiao (-g) Huang Lian (-g) Zhi Zi (9g) Yin Chen (-g)

Modification:

Condition	Herbs Removed	Herbs Added
Loss of consciousness, delirium	-----	Shi Chang Pu, Yu Jin Shen Xi Dan (神犀丹) or On Gong Niu Huang Wan (安宮牛黃丸)
Convulsion	-----	Shi Jue Ming, Gou Teng or Zi Xue Dan (紫血丹)
Ascites, scanty urine	-----	Mu Tong, Che Qian Zi

4. Disharmony Between Liver And Spleen (Recovery-stage of Acute Hepatitis)

Main Symptoms: Distension and pain of the chest and hypochondriac region, belching, poor appetite, fatigue, abdominal pain and diarrhea often occurring after emotional change, swollen dark or pale tongue with thick greasy coating and a wiry, slippery or wiry thin pulse.

Treatment Principles: Soothe liver, strengthen spleen

Acupuncture:

UB-18 Back-Shu point of the Liver
Spreads Liver qi

GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region

LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi

- LV-13 Front-Mu point of the Spleen
Harmonize liver and spleen
Strengthens spleen
Spreads liver and regulates qi
- ST-36 He-Sea and Earth point of the Stomach channel
Harmonises the Stomach
Fortifies the Spleen and resolves dampness
Supports the correct qi and fosters the original qi

Modification: Nausea, vomiting, belching + PC-6
More spleen deficiency with fatigue + UB-20, UB-21
Diarrhea + ST25, ST-37

Herbal Medicine:

Xiao Yao San (逍遙散)

Ingredients:

Chai Hu (9g)	Bai Shao (9g)	Dang Gui (9g)	Bai Zhu (9g)
Fu Ling (9g)	Zhi Gan Cao (6g)	Bo He (6g)	Wei Jiang (2 slices)

Modification:

Condition	Herbs Removed	Herbs Added
Qi deficiency causing fatigue	-----	Huang Qi, Dang Shen
Pronounced qi stagnation	-----	Xiang Mu, Mu Xiang, Chuan Lian Zi
Phlegm-damp	-----	Ban Xia, Chen Pi

5. Qi Stagnation and Blood Stasis (Chronic Hepatitis)

Main Symptoms: Hepatomegaly, splenomegaly, stabbing fixed pain that aggravated at night, or hard and fixed mass in the hypochondriac region, abdominal distension or fullness, retching, dark complexion, spider nevi, dark purple tongue and a wiry, choppy pulse.

Treatment Principles: Move qi and blood, dispels blood stasis, unblock collaterals

Acupuncture:

- LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi
Clears the head and eyes

- LV-14 Front-Mu point of the Liver
Spreads the Liver and regulates qi
Invigorates blood and disperses masses
- GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region
Clears Liver and Gall Bladder damp-heat
- SP-10 Invigorates the blood and dispels stasis
- SP-6 Invigorate blood

Modification: Severe hypochondriac pain + PC-6
Qi deficiency + ST-36
Severe blood stasis + LI-4

Herbal Medicine:

Jin Ling Zi San (金鈴子散) + Ge Xia Zhu Yu Tang (膈下逐瘀湯)

Ingredients:

Chuan Lian Zi (6g)	Yan Hu Suo (6g)	Wu Ling Zi (6g)	Dang Gui (9g)
Chuan Xiong (6g)	Tao Hong (9g)	Hong Hua (9g)	Dan Pi (6g)
Chi Shao (6g)	Xiang Fu (4.5g)	Zhi Ke (4.5g)	Wu Yao (6g)
Gan Cao (9g)			

Modification:

Condition	Herbs Removed	Herbs Added
Lumps below hypochondriac (only if Zheng qi not weak)	-----	E Zhu, San Lang
With heat	-----	Zhi Zi, Huang Qin
Qi deficiency	-----	Huang Qi, Dang Shen
Chest oppression & fullness	-----	Xuan Fu Hua, Yu Jin

6. Liver Yin Deficiency (Chronic Hepatitis)

Main Symptoms: Dull continuous pain in the hypochondriac region, dry sensation in mouth and throat, irritability, dizziness, blurred vision, red tongue with little coating, thready, wiry, rapid pulse.

Treatment Principles: Nourish liver yin

Acupuncture:

UB-18 Back-Shu point of the Liver

- Regulates and nourishes Liver blood
- UB-23 Back-Shu point of the Kidney
Tonifies Kidney yin (source of yin)
- SP-6 Meeting point of three yin channels of the leg
Harmonizes the Liver and tonifies the Kidneys
Tonifies the Spleen and Stomach
Invigorates blood
- LV-14 Front-Mu point of the Liver
Spreads the Liver and regulates qi
Invigorates blood and disperses masses
Harmonises the Liver and Stomach

Modification: Dry mouth and throat+ KD-6
Weak constitution + ST-36

Herbal Medicine:

Yi Guan Jian (一貫煎)

Ingredients:

Sheng Di (18g) Sha Shen (9g) Mai Dong (9g) Dang Gui (9g)
Gou Qi Zi (9g) Chuan Lian Zi (4.5g)

Modification:

Condition	Herbs Removed	Herbs Added
With deficiency heat and night sweating	-----	Di Gu Pi
Severe yin deficiency	-----	Shi Hu
Irritable, thirst	-----	Zhi Mu, Shi Gao
Insomnia	-----	Suan Zao Ren
Mass in hypochondriac region	-----	Bie Jia

6.2 TCM Treatment for Hepatic Cirrhosis

Cirrhosis is a prognosis of various liver diseases and it is the final stage of liver fibrosis. However, not all chronic liver diseases will advance to cirrhosis. For example, only about 20 to 25% of chronic hepatitis C patients will advance to the cirrhosis stage and it usually takes many years to do so.

Cirrhosis results in liver cell necrosis and fiber (scar) tissue overgrowth. As liver cirrhosis progresses, the liver itself becomes hardened and it will shrink in size while the surface

becomes uneven. Liver function deterioration and portal vein hypertension are the main causes of pathogenesis. Clinically, there are two stages in liver cirrhosis:

- Compensated Stage – disease progression is stealthy and shows very few noticeable symptoms. Liver function tests may show normal enzyme readings and without a biopsy, it is difficult to identify clinically. During this stage, the most common symptoms could be fatigue, anorexia, over-frequent thirst, thick coating on the tongue, nausea, stomach broadness, and dull pains in the liver area.
- De-compensated Stage – the late stage of the chronic liver diseases and many complications may arise. The most serious complications are ascites, gastric bleeding, spontaneous peritonitis, hepatic-renal dysfunction etc.

Liver Cirrhosis in TCM

For patients with cirrhosis, the purpose of Chinese medicinal treatment is to sustain the stability of the compensated condition and prevent progression into the de-compensated stage. For those already in the de-compensated condition, Chinese medicinal treatment can deal with the various complications and try to reverse the de-compensated stage back to the compensated stage. Many patients with cirrhosis are also candidates for a liver transplant. The waiting period can be long and Chinese herbal treatment can ensure that the patient is in the best condition possible before undergoing this major surgical procedure. Patients who are not suitable for a transplant can maximize their quality of life with Chinese medicinal treatment.

According to TCM, hepatic cirrhosis is categorized as “Ji Ju” (Aggregation) or “Gu Zhang” (Drum Distension). The organ systems primarily disturbed in hepatic cirrhosis are the liver, spleen and kidney. The main pathogeneses of Hepatic Cirrhosis according to TCM are:

- Accumulation of damp-heat toxin
- Blood stasis accumulated in the Liver channel
- Spleen and Kidney qi deficiency causing body fluid retention
- Liver and Kidney yin and blood deficiency

According to the differentiation of excess or deficient, the main treatment principles are regulating qi, transform blood stasis, promote water metabolism or drastic purgation, warm and tonify spleen and kidney or nourish liver and kidney.

According to the main signs and symptoms, Hepatic Cirrhosis is classified into the following five patterns.

1. Depression of Liver and Deficiency of Spleen

Main Symptoms: Loss of appetite, distension and bulge of chest and abdomen, distension and fullness or pain of hypochondria, belching, fatigue, agitation, easily to get anger, nausea, vomiting, loose stools, pale tongue with white coating, wiry pulse.

Treatment Principles: Soothe liver, strengthen spleen

Acupuncture:

- UB-18 Back-Shu point of the Liver
Spreads Liver qi
- GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region
- LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi
- LV-13 Front-Mu point of the Spleen
Harmonize liver and spleen
Strengthens spleen
Spreads liver and regulates qi
- ST-36 He-Sea and Earth point of the Stomach channel
Harmonises the Stomach
Fortifies the Spleen and resolves dampness
Supports the correct qi and fosters the original qi

Modification: Nausea, vomiting, belching + PC-6
More spleen deficiency with fatigue + UB-20, UB-21
Diarrhea + ST25, ST-37

Herbal Medicine:

Xiao Yao San (逍遙散)

Ingredients:

Chai Hu (9g)	Bai Shao (9g)	Dang Gui (9g)	Bai Zhu (9g)
Fu Ling (9g)	Zhi Gan Cao (6g)	Bo He (6g)	Wei Jiang (2 slices)

Modification:

Condition	Herbs Removed	Herbs Added
Qi deficiency causing fatigue	-----	Huang Qi, Dang Shen
Pronounced qi stagnation	-----	Xiang Mu, Mu Xiang, Chuan Lian Zi
Ascites	-----	Hu Lu, Chuan Jiao

Modification:

Condition	Herbs Removed	Herbs Added
Larger masses below hypochondriac (only if Zheng qi is not weak)	Dang Gui, Chi Shao, Dan Pi	Zhe Chong, Chuan Shan Jia, San Lang, E Zhu
Severe hypochondriac pain	-----	San Qi
Splenomegaly	-----	Bie Jia Jian Wan

3. Accumulation of Damp Heat

Main Symptoms: Ascites, irritability, fever, bitter taste in the mouth, thirst with no desire to drink, dark urine, difficult to urinate, constipation or loose sticky stools, Jaundice in some cases, tongue with redder sides and tip, yellow greasy or greyish-back coating, and rapid, wiry pulse.

Treatment Principles: Clear heat, transform dampness, promote bowel movement and dispel water

Acupuncture:

- GB-34 He-Sea and Earth point of the Gallbladder channel
Spreads Liver qi and benefits the lateral costal region
Clears Liver and Gall Bladder damp-heat
- SP-9 He-Sea and Water point of the Spleen channel
Regulates the Spleen and resolves dampness
Opens and moves the water passages
- Ren-9 Regulates the water passages and treats oedema
Harmonises the intestines and dispels accumulation
- ST-28 Regulates the lower jiao and dispels stagnation
Benefits the Bladder and the uterus
- LI-11 He-Sea and Earth point of the Large Intestine channel
Clears heat
Cools the blood, drains dampness
- LV-3 Shu-Stream, Yuan-Prime and Earth point of the Liver channel
Spreads Liver qi

Modification: Nausea, vomiting + PC-6
Jaundice + DU-9

Herbal Medicine:

Zhong ManFen Xiao Wan (中滿分消丸) + Yin Chen Hao Tang (茵陳蒿湯)

Ingredients:

Huang Qin	Huang Lian	Zhi Mu	Hou Pu
Zhi Ke	Ban Xia	Chen Pi	Fu Ling
Zhu Ling	Ze Xie	Sha Ren	Da Huang
Zhi Zi	Gan Jiang	Jiang Huang	Ren Shen
Bai Zhu	Zhi Gan Cao	Yin Chen Hao	Da Huang
Zhi Zi			

Modification:

Condition	Herbs Removed	Herbs Added
More heat with jaundice	Ren shen, Gan jiang	-----
Sudden vomiting of blood or bloody stools	-----	Use Xi Jiao Di Huang + Xian He Cao, Di Yu Tan
Dark yellow urine, difficult to urinate	-----	Hu Lu, Hua Shi

4. Deficiency of Spleen and Kidney Yang

Main Symptoms: Enlargement, distension and fullness of abdomen, symptoms are milder in the morning and more severe at night, greenish-yellow complexion, epigastric fullness, poor appetite, fatigue, aversion to cold, cold extremities, edema in lower limbs, difficult urination, pale or light purple swollen tongue, deep, thin and weak pulse.

Treatment Principles: Warm and strengthen Spleen and Kidney yang, move qi, drain dampness

Acupuncture:

Ren-4	Fortifies the original qi and benefits essence Tonifies and nourishes the Kidneys Warms and fortifies the Spleen Regulates the lower jiao and benefits the Bladder
Ren-6	Fosters original qi Tonifies qi Tonifies the Kidneys and fortifies yang
UB-20	Back-Shu point of the Spleen Tonifies Spleen qi and yang Raises Spleen qi and holds the blood Regulates and harmonizes the qi of the middle jiao

- UB-23 Back-Shu point of Kidney
Tonifies the Kidneys and fortifies yang
Regulates the water passages and benefits urination
- LV-13 Front-Mu point of the Spleen
Harmonises the Liver and Spleen
Regulates the middle and lower jiao
Fortifies the Spleen
Spreads the Liver and regulates qi

Modification: Difficult to urinate + Ren-3

Herbal Medicine:

For more Spleen Yang deficiency: Fu Zi Li Zhong Wan (附子理中丸) +
Wu Ling San (五苓散)

For More Kidney Yang Deficiency: Ji Sheng Shen Qi Wan (濟生腎氣丸) +
Wu Ling San (五苓散)

Ingredients:

<i>Fu Zi Li Zhong Wan:</i>	Zhi Fu Zi Bai Zhu	Ren Shen	Gan Jiang	Zhi Gan Cao
<i>Ji Sheng Shen Qi Wan:</i>	Shu Di Fu Ling Niu Xi	Shan Yao Dan Pi Che Qian Zi	Shan Zhu Yu Fu Zi	Ze Xie Gui Zhi
<i>Wu Ling San</i>	Zhu Ling Gui Zhi	Ze Xie	Bai Zhu	Fu Ling

Modification:

Condition	Herbs Removed	Herbs Added
Ascites	-----	Hu Lu, Chuan Jiao
Severe Kidney yang deficiency	-----	Lu Rong, Ba Ji Tian

5. Deficiency of Liver and Kidney Yin

Main Symptoms: Enlargement, distension and fullness of abdomen, protrusion of superficial abdominal blood vessels in severe cases, dull complexion, purplish lips, dry mouth, irritability, nose bleeding, gum bleeding, dark scanty urine, dark red tongue with little dry coating, rapid thin wiry pulse.

Treatment Principles: Nourish Liver and Kidney yin, move qi and blood, dispel blood stasis

Acupuncture:

- KD-3 Shu-Stream, Yuan-Prime and Earth point of the Kidney channel
Nourishes Kidney yin and clears deficiency heat
- KD-6 Nourishes the Kidneys and clears deficiency heat
- UB-17 Influential point of blood
Invigorates blood and dispels stasis
Cools blood heat and stops bleeding
Nourishes and harmonizes the blood
- UB-18 back-Shu point of the Liver
Spreads Liver qi
Regulates and nourishes Liver blood
- UB-23 Back-Shu point of the Kidney
Tonifies Kidney yin
- SP-6 Meeting point of three yin channels of the leg
Harmonizes the Liver and tonifies the Kidneys
Invigorates blood

Modification: Irritability + LV-3

Herbal Medicine:

Yi Guan Jian (一貫煎) + Ge Xia Zhu Yu Tang (膈下逐瘀湯)

Ingredients:

Sheng Di (18g)	Sha Shen (9g)	Mai Dong (9g)	Dang Gui (9g)
Gou Qi Zi (9g)	Chuan Lian Zi (4.5g)	Yan Hu Suo (6g)	Wu Ling Zi (6g)
Dang Gui (9g)	Chuan Xiong (6g)	Tao Hong (9g)	Hong Hua (9g)
Dan Pi (6g)	Chi Shao (6g)	Xiang Fu (4.5g)	Zhi Ke (4.5g)
Wu Yao (6g)	Gan Cao (9g)		

Modification:

Condition	Herbs Removed	Herbs Added
Internal heat with dry mouth, crimson dry tongue	-----	Xuan Shen, Shi Hu, Mai Dong
Ascites	-----	Lai Fu Zi, Da Fu Pi
Irritable, tidal fever, Insomnia	-----	Yin Chai Hu, Di Gu Pi, Zhi Zi, Ye Jiao Teng
Scanty urination	-----	Zhu Ling, Hua Shi, Bai Mai Gen

Tinnitus, red cheeks due to floating yang	-----	Gui Ban, Bie Jia, Mu Li
Nose or gum bleeding	-----	Xian He Cao, Fresh Mai Gen

7. Dietary Therapy for Liver Diseases

For patients with liver disease, a balanced nutritional diet is a very important supportive therapy. Malnutrition is commonly seen in patients with chronic liver diseases. It is described in all the stages of liver cirrhosis, its occurrence reaching as high as 65%–90% in patients with more advanced liver impairment. The main reasons are:

- Inadequate dietary intake due to multiple reasons such as poor appetite, nausea... etc
- In advanced stage, nutrients from food are poorly absorbed due to insufficient secretion of digestive enzyme and fluid retention in the gastrointestinal system
- Malfunction of the liver causing dysfunction of the metabolism of nutrients. Certain nutrients such as good quality proteins are vital for the regeneration and repair of the liver cells
- The use of diuretic medication and aspiration of the ascites can cause the loss of protein

Proper dietary therapy can improve the metabolism of the liver and also meet the nutritional needs of the other organ systems. It can promote the regeneration and repair of the liver structure and improve the detoxification functions of the liver. A good diet can also enhance the immune system thereby raising resistance to infections. In addition, proper dietary measures will promote good nutrient storage, transport, and regulation by the liver. The prevention of malnutrition related damage is very important and therefore, nutritional therapy is one of the most important treatment factors in liver diseases.

Furthermore, several studies have shown that a modified eating pattern with 4–7 small daily meals, including at least one late evening snack to avoid prolonged fasting periods, improves the metabolic profile of cirrhotic patients.

7.1 Proper Nutrients for Liver Disease Patients

Protein

Normally, proteins provide building blocks for the generation of new cells, tissue repair and the immune system. They also prevent buildup of fatty tissue and damage to the liver cells. However, in one with a severely damaged liver, proteins are not properly processed. Waste products may build up and cause hepatic encephalopathy (mental confusion). Restricting the amount of protein in the diet can reduce the chance of toxins building up in the body.

Protein intake must be adjusted in accordance with a one's body weight and the degree of liver damage present. U.S. National Institutes of Health (NIH) recommends 1 g of protein for each kilogram of body weight for a stable liver disease patient.

Patients with unstable liver diseases, such as decompensated stage of cirrhosis, need to lower the percentage of animal protein they consume and eat mostly vegetable sources of protein. This is because animal protein has a high ammonia content which is liable to cause a sudden episode of encephalopathy among these patients. When there are symptoms of encephalopathy, protein intake should be reduced to less than 20 g per day, until the episode resolves.

Proteins absorbed through natural foods such as fish, soy products, meat and eggs are the best. For patients that have difficulty eating solid foods, protein can be taken as amino acids, albumin or serum infusion.

Carbohydrate

Adequate amount of carbohydrates in the diet can help protect the liver, improve resistance to infections, and reduce protein catabolism. However, excess calories in the form of carbohydrates can add to liver dysfunction and can cause fat deposits to develop in the liver. Liver disease can also lead to alterations in carbohydrate metabolism. This may cause an increase in blood sugar levels. As such, it is often recommended to control one's blood sugar level by avoiding simple sugar foods such as candy and other sweets.

Fats and Oils

Dietary fat should not be unduly limited in liver disease patients, so as to not affect the body's energy supply and reduce appetite. However, one should avoid greasy foods, especially those whose jaundice has not receded. Hepatitis patients who ingest excessive amounts of fat may cause steatorrhea (excessive fat in the stool). On the other hand, insufficient ingestion of fat influences appetite and fat-soluble vitamin absorption. Therefore, the standard supply of fat should be about 40 - 50 g / day. Vegetable oil or emulsified fat is recommended.

Vitamins

Vitamin malabsorption in severe liver diseases can cause a deficiency of vitamin C, B1, and B2. Increasing the supply of vitamins will help repair liver cells, and enhance detoxification function, and improve immunity. Using Vitamin C, E and K for treatment of hepatitis, can alleviate symptoms and improve liver function. Therefore, the liver disease patients may choose vitamin-rich foods such as green leafy vegetables, dark-colored vegetables such as tomatoes, fruits such as apples, pears, grapes, bananas, oranges etc.

7.2 Chinese Medicated Diet

Chinese food therapy is a very effective way to control the liver disease, and even lead to recovery. In order to achieve the desire effect, one must have a good understanding of the disease differentiation, body constitution, nature and flavor of the ingredients used.

7.2.1 Principles of Chinese Medicated Diet

Chinese medicated diet is used for health care, treatment and prevention of disease. Ingredient selection is based on the following criteria:

1. In accordance with the syndrome differentiation

Treatment based on the syndrome differentiation is the corner stone of TCM therapeutics. The same disease may include several different syndromes. For example, based on main signs and syndromes, hepatic cirrhosis is classified into 5 different syndromes. Food/herb selection for patient with different syndromes will be different.

2. In accordance with the body constitution

TCM constitution theory is essential to the regulation of health. For example, people with yang deficiency body constitution should avoid food/herbs with cold nature such as watermelon and mung beans. Conversely, food with warm and dry nature such as chives and chili pepper should be avoided for people with yin deficiency body constitution.

3. In accordance with the seasons, geographical and climatic condition

In Chinese medicine, human and the nature make an organic whole. Holistic treatment requires the consideration of the external environmental factors. Cold nature diet, such as cold food and drinks, raw vegetables, should be avoided in the cold winter and warm nature diet, such as chili pepper, ginger, garlic, should be avoided in the hot summer.

7.2.2 Property of Food and Dietetic Chinese Herbs

In TCM, food and herbs are commonly classified according to:

- Nature (Temperature)

Cold – substances that produce yin energy (slow movement, feeling of chilled, low energy). Medicated diet for treating or preventing febrile diseases should contain cold natured ingredients.

Hot – substances that produce yang energy (fast, hot, aggressive). Ingredients with hot nature should be used in medicated diet for cold symptoms.

- Five Flavors (Taste)

Flavors	Organ/Nature	General Functions	Examples
Pungent	Lung Dispersing, Moving	Release exterior Promote qi and blood circulation	Ginger Tangerine peel Green onion
Sweet	Spleen	Used as nourishing tonic	Chinese dates

	Nourishing Harmonizing moistening	Regulate qi , blood and internal organs function Relieving muscle spasm Stop pain Neutralize poisons	Carrot Honey Caramel Gojiberry
Sour	Liver Astringing Consolidating	Stop sweating, coughing, diarrhea, leucorrhea, enuresis...etc	Black plum Pomegranate Vinegar
Bitter	Heart Clearing, purging Lowering	Clear heat Purge fire Lower rebellious qi Eliminate dampness	Bitter melon Apricot seed
Salty	Kidney Softening Lowering	Soften hardness Disperse masses	Seaweed Seafood

7.2.3 Recommended Medicated Diet for Hepatitis

1. **Tomato Fried Egg (番茄炒雞蛋)**

Function: Clear heat, nourish yin, eliminate vexation, and promote body fluid generation

Symptoms: Poor appetite, vexation, thirsty, insomnia

Ingredients:

Ingredients	Property	Function
Tomato (250g)	Sweet, sour Slightly cold	Clear heat, generate body fluid, nourish yin, stop thirst
Egg (3)	Sweet Neutral	Tonify yin, nourish blood, eliminate vexation, calm mind

Cooking Instruction:

1. Wash tomato and cut into wedges
2. Beat eggs until smooth
3. Heat 1 tablespoon of vegetable oil in a nonstick skillet over medium-high heat until hot
4. Add tomatoes and cook, stirring and turning occasionally, until juices are released and tomatoes are slightly wilted but still intact
5. Add appropriate amount of sugar and stir to mix
6. Add eggs to skillet and stir occasionally, until eggs are just cooked

Caution:

- Not suitable for patient with deficiency cold of spleen and stomach (cold pain of epigastria, bland taste in mouth, profuse saliva)

2. White Fungus Mushroom Tofu Stew (蘑菇銀耳燜豆腐)

Function: Tonify spleen and stomach, Nourish yin, and moisten dryness

Symptoms: Fatigue, poor appetite, dry mouth and throat, vexation heat, dry stools

Ingredients:

Ingredients	Property	Function
Mushroom (100g)	Sweet Neutral	Tonify spleen and stomach, benefit yin and nourish liver
White Fungus (60g)	Sweet Neutral	Nourish yin, moisten dryness, benefit stomach, generate body fluid
Tofu (3 pieces)	Sweet Neutral	Benefit qi, harmonize spleen and stomach, clear heat, moisten dryness

Cooking Instruction:

1. Wash mushroom
2. Wash white fungus, trim and soak in water for 30 minutes
3. Cut tofu into small cubes
4. Heat 1 tablespoon of vegetable oil in a nonstick skillet over medium-high heat until hot
5. Fry tofu until lightly brown, add mushroom and white fungus, stir-fry for 1 minute
6. Add ¼ cup of water, bring to a boil and then simmer, covered, for about 5 minutes
7. Add a pinch of salt and serve

Caution:

- Not suitable for patient with internal cold-damp symptoms (loose stools, excessive saliva)

3. Fu Shou (*Citrus Medica*) Yu Jin (*RADIX CURCUMAE*) Congee (佛手鬱金粥)

Function: Soothe liver, release stagnation, Regulate qi, and strengthen spleen

Symptoms: Hypochondriac pain, poor appetite, belching, abdominal bloating after meal, unsmooth bowel movement

Ingredients:

Ingredients	Property	Function
Dry Fu Shou (15g)	Pungent, Slightly Bitter; Warm	Smooth qi, stop pain, harmonize stomach, transform phlegm,
Yu Jin (12g)	Bitter Cold	Invigorate blood, move qi, stop pain, release stagnation, clear

		heart, benefit gallbladder, treat jaundice
Rice (60g)	Sweet Neutral	Benefit stomach, generate body fluid, neutralize the bitter taste of the other 2 ingredients

Cooking Instruction:

1. Wash all ingredients and put into a pot
2. Add appropriate amount of water, bring to boil and turn to medium heat
3. Cook until become thick porridge
4. Add a pinch of salt or sugar and serve

Caution:

- Not suitable for patient with deficiency cold of spleen and stomach (blend taste in the mouth, profuse saliva, cold pain in epigastria, loose or watery stools)

4. Yin Chen (*capillaries*) Congee (茵陳粥)

Function: Clear heat, eliminate dampness, benefit gallbladder and treat jaundice

Symptoms: Hypochondriac pain, poor appetite, belching, abdominal bloating after meal, unsmooth bowel movement

Ingredients:

Ingredients	Property	Function
Yin Chen Hao (60g)	Bitter Slightly cold	Release stagnation, clear heat-toxin, treat jaundice
Rice (30g)	Sweet Neutral	Benefit stomach, generate body fluid, neutralize the bitter taste of Yin Chen

Cooking Instruction:

1. Wash Yin Chen Hao and soak in water for 30 minutes
2. Boil Yin Chen Hao in 2 liter of water for 40 mins, filter and remove the dregs
3. Wash rice and add to the Yin Chen decoction, boil with low heat until become thick porridge
4. Add appropriate amount of sugar and serve

5. Wu Wei Zi (schisandra fruit) Red Date Syrup (五味子紅棗的蜜糖露)

Function: Nourish yin, generate body fluid, calm mind

Symptoms: Hypochondriac pain, dry mouth and throat, poor sleep, lots of dreams, dizziness

Ingredients:

Ingredients	Property	Function
Wu Wei Zi (60g)	Sour, Sweet Warm	Nourish liver and kidney, generate body fluid, stop thirst, calm mind
Chinese Red Date (30)	Sweet Neutral	Strengthen spleen, benefit qi, nourish blood, harmonize liver, moderate Wu Wei Zi's sour to protect stomach qi
Honey (200ml)	Sweet Neutral	Moisten dryness, tonify deficiency, moderate Wu Wei Zi's sour to protect stomach qi

Cooking Instruction:

1. Wash Wu Wei Zi and Red Dates and boil with 3 L of water with low heat until 1 ½ L of decoction left
2. Remove dregs and pour decoction into a jug with lid
3. Add honey and stir thoroughly, over lid and steam with low heat for an hour
4. Take 1 – 2 tablespoons, twice daily

Caution:

- Not suitable for patient with damp-heat accumulation (jaundice, scanty yellow urine, bitter taste in mouth)

7.2.4 Recommended Medicated Diet for Hepatic Cirrhosis

1. **Cucumber Fried Egg (黃瓜炒牛奶)**

Function: Clear heat, detoxification, promote urination, eliminate swelling

Symptoms: Ascites, dysuria, loss of appetite, vexation heat, thirsty

Ingredients:

Ingredients	Property	Function
Cucumber (500g)	Sweet Cold	Clear heat, generate body fluid, promote urination, eliminate swelling
Egg White (10)	Sweet Neutral	Tonify yin, nourish blood, eliminate vexation, calm mind
Milk (250ml)	Sweet Neutral	Benefit stomach, moisten dryness, nourish yin

Cooking Instruction:

1. Clean cucumber and cut into thin slices
2. Beat egg white until smooth and mixed with milk

3. Heat 1 tablespoon of vegetable oil in a nonstick skillet over medium-high heat until hot
4. Fry cucumber until just cooked, add appropriate amount of salt and mix well, remove and set aside
5. Heat a tablespoon of vegetable oil in the skillet, add milk and egg white mixture slowly; stirring in one direction until half cooked, add cucumber and stir-fry until cooked

Caution:

- Not suitable for patient with qi stagnation in the spleen and stomach (distension of abdomen, epigastric pain, belching)

2. Winter Melon Corn Silk Small Red Bean Soup (冬瓜玉米鬚赤豆湯)

Function: Promote urination, eliminate swelling

Symptoms: Early stage of ascites, swelling in legs, epigastric distension, lassitude, loss of appetite, scanty urination, loose stools

Ingredients:

Ingredients	Property	Function
Winter Melon Peel (60g)	Sweet Slightly Cold	Promote urination, eliminate swelling, expel water-dampness
Corn Silk (30g)	Sweet, Slightly Sour Neutral	Promote urination
Small Red Bean (30g)	Sweet, Sour Neutral	Unblock water passage, promote urinate, tonify deficiency, strengthen spleen

Cooking Instruction:

1. Clean all ingredients and soak in water for 30 minutes
2. Boil all ingredients in ½ liter of water for 1 hour

Caution:

- Only suitable for patient with mild ascites and swelling.

3. Tian Qi (*Panax Pseudoginseng*) Turtle Shell Pork Soup (田七鱉甲燉瘦肉)

Function: Invigorate blood, dissipate blood stasis, soften hardness, and disperse nodules

Symptoms: Hypochondriac pain, enlargement of liver and spleen, emaciate, poor appetite, fatigue, unsmooth bowel movement, dysuria

Ingredients:

Ingredients	Property	Function
Tian Qi (6g)	Sweet, Slightly Bitter Warm	Invigorate blood, dissipate blood stasis, eliminate swelling, stop pain
Turtle Shell (30g)	Salty Neutral	Calm liver, clear heat, soften hardness, and disperse nodules
Lean Pork (100g)	Sweet Neutral	Strengthen spleen qi, nourish liver blood, prevent over-dispersing from Tian Qi and Turtle Shell
Chinese Red Date (4)	Sweet Warm	Assist lean pork to harmonize stomach, tonify deficiency, harmonize all ingredients

Cooking Instruction:

1. Wash Tian Qi, Turtle Shell and soak in water for 30 minutes
2. Wash and core the red dates
3. Wash pork and cut into small pieces
4. Put all ingredients in a double layer steamer, add appropriate amount of water, cover with lid and steam for 3 hours with low heat
5. Add a pinch of salt and serve

Caution:

- Not suitable for patient with deficiency cold of spleen and stomach (poor appetite with loose stools)

4. Frog and Enoki Mushroom Rice (田雞金針菇飯)

Function: Strengthen spleen, benefit stomach, promote urination, and eliminate swelling

Symptoms: Hypochondriac pain, abdominal distension, fatigue, loss of appetite, shortness of breath, spontaneous sweating, sallow complexion, emaciate, yellow scanty urination or dysuria

Ingredients:

Ingredients	Property	Function
Frog Leg (60g)	Sweet Cold	Strengthen spleen, benefit stomach, detoxification, promote urination
Enoki Mushroom (30g)	Sweet, Slightly Sour Neutral	Strengthen spleen, nourish yin, promote urination, reduce swelling

Rice (150g)	Sweet Neutral	Strengthen spleen, nourish stomach
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Cooking Instruction:

1. Wash Enoki mushroom and frog legs and season with sugar, salt, soya sauce, ginger, corn starch
2. Wash and cook rice until half cooked
3. Put frog legs and Enoki mushroom on top of rice, cover with lid and cook on low heat until fully cooked

Notes:

- This dish is very suitable for liver disease patient and is recommended to eat regularly in order to treat the disease and strengthen the body.

5. He Shou Wu (*Fallopia multiflora*) Sea Cucumber Soup(首烏燉海參)

Function: Replenish blood, benefit essence, nourish yin, and tonify liver

Symptoms: Emaciate, pale or white complexion, dizziness, palpitation, insomnia, dry stools

Ingredients:

Ingredients	Property	Function
He Shou Wu (25g)	Sweet Neutral	Tonify liver blood, benefit liver yin
Sea Cucumber (60g)	Sweet, Slightly Salty Warm	Benefit qi, nourish yin, tonify kidney, strengthen yang, moisten intestine, unblock bowel, promote urination, treat jaundice
Chinese Red date (4)	Sweet Warm	Tonify qi and blood, harmonize spleen and stomach

Cooking Instruction:

1. Wash all ingredients and cut sea cucumber into pieces
2. Blanch sea cucumber in boiling water for a few minutes; drain, rinse with cold water
3. Put all ingredients in a double layer steamer, add appropriate amount of water, cover with lid and steam for 2 hours over low heat
4. Add a pinch of salt and serve

Caution:

- Not suitable for patient with damp-heat (diarrhea, fever, abdominal pain, jaundice, bitter taste in mouth, scanty and yellow urination) or exterior syndrome with fever, headache or sore throat.

8. Other Important Factors for Treating Liver Disease

- Regulating Emotions – negative emotions easily impair liver function
- Have enough rest
- Obtain adequate nutrients through a balanced diet
- Avoid alcohol and spicy, pungent food
- Avoid excessive use of drugs
- Avoid environmental pollutants such as fumes from paint thinner, insect sprays etc.
- Reduce sodium and fluid intake to avoid retention of fluids in the body (ascites, edema)

9. Conclusion

Many people with liver disease are using Traditional Chinese Medicine as a complementary or alternative treatment. TCM uses a number of treatment modalities including acupuncture, moxibustion, Chinese herbs, qi gong, and medicated diet. While these therapies have not undergone major clinical trials in the west, many of them have been used for centuries in China for hepatitis and other liver conditions. The results of modern Chinese research on herbs and other modalities are used in the development of current Chinese medicine treatment for Hepatitis.

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