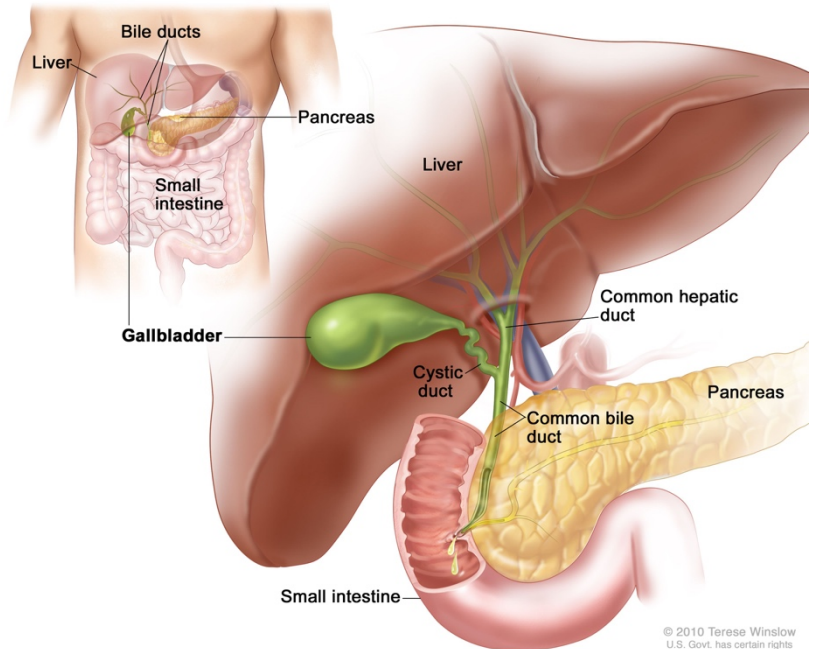


The liver produces bile which breaks up fat in the small intestine and aids in food digestion. The liquid bile is composed of water, cholesterol, fats, bile salts, proteins, and bilirubin. The bile secretion process originates from hepatocytes and is modified distally by absorptive and secretory transport systems in the bile duct epithelium. Bile is then either delivered directly to the intestinal lumen through the common bile duct and pancreatic duct or enters the gallbladder. The gallbladder is a small pear-shaped sac located below the liver that stores bile produced by the liver.



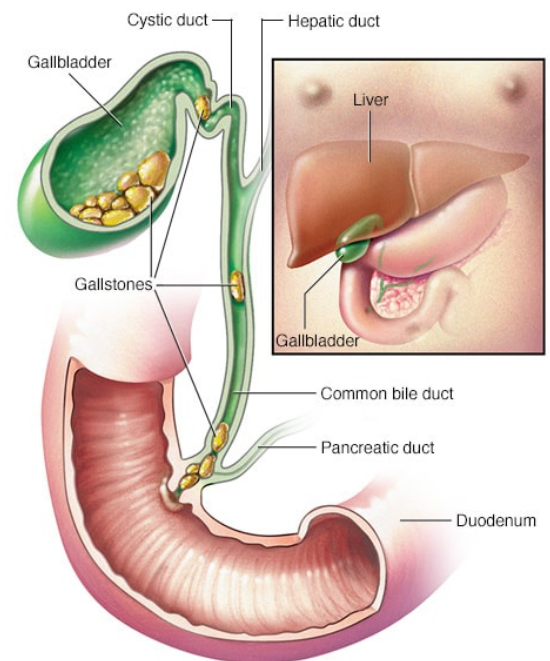
### Gallbladder Stones and Inflammation

Gallbladder stones can form within the gallbladder, cystic duct, hepatic duct or bile duct (common bile duct). Formation of a gallstone is caused by poor liver function when the bile produced by the liver contains too much cholesterol, too much bilirubin, or not enough bile salts, or when the gallbladder does not empty completely or often enough. Gallstones can cause an obstruction of the cystic duct resulting in cholecystitis, inflammation of the gallbladder. Symptoms include bloating, indigestion and sharp colic in the upper abdomen extending toward the back.

### Bile Duct Inflammation and Obstruction

The cholesterol, fats and bilirubin in the bile are hydrophobic. If the bile has less protein and bile salts, these hydrophobic materials can be precipitated out and get stuck on the epithelial surface of the biliary duct. Overtime, they become oxidized and form a tar-like material which partially or completely blocks the bile ducts causing biliary obstruction. Bacteria and parasites from the digestive tract can make their way through the pancreatic duct into the hepatic duct causing biliary infection and inflammation. The obstruction can also affect the pancreatic duct and the gallbladder causing blockage of the flow of pancreatic juice to the small intestine. Symptoms include constipation, dull ache or a pressure feeling in the upper right quadrant, insomnia, bloating, poor digestion and nutrient absorption as well as unstable emotion and brain fog.

The inflammation, infection and erosive tar like material in the liver bile duct can cause damage to the bile duct and the bile can leak into the liver tissue causing liver inflammation. The bile can also enter into the blood stream and irritate the peripheral nerve causing symptoms of insomnia, formication, a sensation of small insects crawling on or under the skin, or tingling sensations like “pins and needles”.



### Wellness Recommendation

The wellness recommendation for gallstones and gallbladder inflammation starts with 2-4 weeks of Brown and LC Balancer to improve liver function so that the liver can produce bile with the correct composition of cholesterol and bilirubin. This helps to dissolve the edges of the gallstone and prevent gallstone reformation. If the patient is over 50

or has poor kidney function, Xcel is also recommended to improve kidney filtration function for effective waste removal.

After 2-4 weeks of Brown and LC Balancer, Gallbladder formula is recommended to be added to the treatment. Gallbladder formula helps clear gallbladder damp and heat to reduce gallbladder inflammation and infection and resolve cholecystitis. Gallbladder formula also increases the contraction of the liver/gallbladder and relaxes the ducts to help push the stones into the digestive tract. Herba Lysimachiae, an herbal ingredient in Gallbladder formula, has been shown to induce the excretion of gallstones, promotes bile secretion, reduces cholesterol levels in either cystic or hepatic bile, decreases serum cholesterol levels and exerts antioxidant effects and endothelial protection.<sup>1</sup> Patients can experience pain reduction in 2 weeks with Gallbladder Formula.

If the patient's stone is too big or the edge is not totally dissolved, a longer period of liver treatment may be required before adding the Gallbladder formula. 2-4 weeks of Gallbladder Formula is required to empty the stones depending on the severity of the condition. After the stones have been removed, it is recommended to continue with Brown and LC Balancer for an additional 4-6 weeks to further improve liver health to achieve sustained results.

The wellness recommendation for bile duct inflammation and obstruction starts with 4 weeks of Brown, LC Balancer and Gallbladder formula to reduce the inflammation of the gallbladder and bile duct. This also improves liver function so ensure the liver can produce bile with the correct composition of cholesterol and bilirubin. To clear the tar like precipitate from the hepatic duct, 4-6 weeks of Levera-R, Paramin-R, Bilegen, Levera, Brown, LC Balancer and Silver is recommended to be added to the treatment. Levera-R helps clear hepatic duct infections and inflammation. Fructus Gardeniae, an herbal ingredient in Levera-R, has been shown to reduce degeneration and necrosis of hepatocytes and contains a very strong inhibitory action on lipidosis and inflammatory injury.<sup>2,3</sup> Paramin-R helps dissolve and remove the greasy precipitates of the hepatic duct and any parasite and microbial attachment to resolve biliary obstructions. Bilegen helps repair hepatic duct damage. Levera helps reduce liver inflammation caused by irritation of the dissolved tar like materials. As the dissolved tar like material, parasite and germs pass through the intestine, they can cause severe gut irritation and patients experience diarrhea and feeling of weak and/or sickness. Silver is required to help reduce irritation of the intestine. The toxins may also irritate the kidney causing symptoms of neck tightness, hot flash and headache. KS and Xcel are required to reduce kidney inflammation and improve kidney's secretion of wastes molecules. During the initial 3 weeks of treatment, patients may pass black foul-smelling stools or tar like stools with diarrhea as those toxic material are removed from the hepatic duct. 4-6 weeks of treatment is required to clear the toxins from the bile duct.

#### Protocol Summary

Condition	Product Recommendation
Gallstones & Inflammation	8 weeks of Brown & LC Balancer 4 weeks of Gall Bladder Formula (start 2 weeks after beginning Brown & LC Balancer)
Bile Duct Stones & Obstruction	4 weeks of Gallbladder Formula 8-10 weeks of Brown and LC Balancer 4-6 weeks of Levera-R, Paramin-R, Bilegen, Levera, and Silver (to be added after 2-4 weeks of Brown, LC Balancer and Gallbladder Formula)

#### Selected Case Studies

##### Case 1: Successful Treatment of Liver/Bile Duct Blockage

*Julia Gu, Lac, CA*

A 69-year-old female patient was diagnosed with liver biliary blockage with bile duct stone formation. She experienced constant bloating. Her physician had recommended a liver transplant. Her abdominal ultrasound exam revealed 1) Gallbladder atrophy, with a size of 5.7x2.6cm while the normal length is 7-10 cm; 2) Cholestasis in the

gallbladder; 3) Enlarged intrahepatic bile duct and intrahepatic bile duct stones; 4) Common bile duct stones and enlarged common bile duct.

The practitioner recommended Wei Laboratories herbal formulas for her liver bile duct and gallbladder stones, the initial treatment included: LC Balancer, Brown, Xcel and Gallbladder Capsule.

After 1 month of the protocol, the patient had seen significantly less bloating. Ultrasound exam revealed more exciting improvement: 1) Gallbladder is no longer atrophic, it shows a normal size and shape; 2) No more cholestasis in the gallbladder; 3) No more enlargement in intrahepatic bile duct; intrahepatic bile duct stone in the left lobe of liver disappeared; 4) No more enlargement in the common bile duct; common bile duct stone is not seen. Based on the improvement, the practitioner recommended adding Levera-R and Paramin-R and stopped Gallbladder capsules. The patient was continuing with the new protocol for further improvement.

## **Case 2: Successful Treatment for Gallbladder Pain**

*Gregory Lind, DC, CA*

A 52-year-old female came into the office complaining of hip pain, acid reflux, headaches, a chronic cough, and allergies with upper right quadrant (gallbladder) pain that she had been suffering with for more than 8 years.

After 2 years of treatment using homeopathic drainage remedies and enzymes and 2 months of Xcel, Spring Capsules and Brown as well as 2 weeks Gallbladder formula, the patient reports that 70-95% of her symptoms have disappeared. She is pleased that after many years of western drug therapies without resolution, she has finally seen results.

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