UNDERSTANDING AND TREATING
LIVER DETOXIFICATION
Combining Functional Medicine
with Traditional Chinese Medicine

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Modern environmental toxins put an unnatural burden on liver detoxification, further affecting the kidney, lymphatics, digestive tract, and connective tissue. Restoring these organs and systems to a healthy state is best achieved through a combination of Chinese herbal formulas and nutritional supplements. This class will first detail how environmental poisons impact healthy liver detoxification pathways, and offer therapeutic ideas using nutritional supplements. The class will then detail the relationship of environmental toxic burden with traditional TCM liver diseases and their differentiations.

TCM herbal therapies are very effective for restoring the liver to health, ultimately regulating and aiding successful detoxification. The TCM model focuses on pattern differentiation and diagnosis. Important herbal formulas, both classical and modern, will be discussed, as well as original TCM formulas from American herbal companies.

BIOGRAPHY

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A. SYSTEMIC DETOXIFICATION
1. Organs for detoxification and elimination
   a. Liver
   b. Kidneys
   c. Skin
   d. Lungs
   e. Colon

B. ENVIRONMENTAL TOXINS
[For more details, see Environmental Toxins - Cause of Modern Illness, Parts 1 and 2, Acupuncture Today]
1. Herbicides and pesticides
   a. Glyphosate, an herbicide
   b. Neonicotinoid insecticides
2. Plastics
   a. Polychlorinated biphenyls (PCBs)
   b. Bisphenol A (BPA)
   c. Phthalates
   d. Polyvinyl Chloride (PVC)
   e. POPS (Persistent Organic Pollutants) - “microplastics”
   f. Polystyrene
3. Detergents
   a. Nonylphenol
4. Preservatives
   a. Parabens
   b. Formaldehyde and Formic acid
5. Cosmetics
   a. Phthalate plasticizers
   b. Paraben preservatives
   c. Triclosan (a pesticide)
   d. Synthetic musk
   e. Sunscreens
6. Gasoline Additives, Solvents, Glues
   a. Benzene
   b. Toluene
   c. Xylene
7. Glues
   a. Synthetic resin
   b. Formaldehyde-based resins
   c. Melamine resin (melamine formaldehyde)

8. Heavy Metals
   a. Mercury (Hg)
   b. Lead
   c. Arsenic
   d. Cadmium

9. Pharmaceuticals
   a. Antibiotics
   b. Mood regulators
   c. Anticonvulsants
   d. Statins
   e. Antacids
C. LIVER DETOXIFICATION

1. Goal of detoxification is to transform fat-soluble chemicals into water-soluble compounds, to be eliminated in urine, stool, or sweat
   a. Endogenous toxins and debris
      1. Byproducts of cellular activity
      2. Residual hormones
      3. Intercellular mediators
      4. Neurotransmitters
      5. Intestinal bacterial endotoxins
      6. Antigen-antibody complexes
   b. Exogenous Drugs and Toxins
      1. Pharmaceuticals
         a. Hormones such as birth control
         b. Antibiotics
         c. Neurotransmitter regulators
            1. Esp. anticonvulsants
         d. Acetaminophen
         e. Niacin
         f. Statins
         g. Accutane
      2. Recreational drugs
      3. Alcohol
      4. Environmental toxins
         a. Plastics
         b. Pesticides
         c. PCBs
         d. Solvents
         e. Heavy metals
         f. Etc.
   c. Liver detoxification happens in every liver cell
   d. Gut-Liver connection
      1. Everything absorbed by gut must be processed in the liver before entering blood circulation
2. In cases of Leaky Gut syndrome, there is an over-absorption of things meant for excretion
   a. Cellular debris
   b. Bacterial and fungal endotoxins
      1. Mycotoxins reduce glutathione
   c. Pharmaceuticals
   d. Hormones
   e. Cholesterol
   f. Bile
3. These contribute to and burden the liver, accumulating as toxic load
4. Normalizing gut health is very important

2. Symptoms and conditions related to excess toxic burden
   a. Symptoms of poor detoxification
      1. Chronic headaches
      2. Fatigue
      3. Generalized muscle aching or fibromyalgia
      4. Sensitivity to chemicals or foods
      5. Chronic allergies
      6. Skin conditions
   b. Conditions
      1. Acne
      2. Anemia
      3. Autoimmune diseases
      4. Eczema, psoriasis, urticaria
      5. Gallstones
      6. Toxemia during pregnancy
      7. Elevated liver enzymes
3. Metabolic factors affecting how one clears waste
   a. Diet (85%), genetics 15%
   b. Access to sufficient amount of quality nutrients
      1. Vitamins
      2. Minerals
      3. Amino acids
      4. Fatty acids
   c. Dietary impairment of detox ability
      1. Low fiber diet
      2. High protein diet
      3. Poor quality fats
      4. High refined carbohydrate diet
   d. Exercise level
      1. Cardiovascular
      2. Muscle tone
   e. Mechanisms of Detoxification

D. DETOXIFICATION PATHWAYS
   First described as Phase I and Phase II by Dr. R.T. Williams, 1947

1. PHASE I
   a. Breaks primary toxins into secondary toxins
      1. Known as toxic intermediates
      2. These are further metabolized in Phase II detoxification
   b. “Functionalization”: Uses oxygen to form a reactive site
      1. Ten families of Phase I enzymes, using 35 different genes.
      2. Uses Cytochrome 450 enzymes
         a. [Characteristics]
            1. Large family of enzymes found in most life forms
            2. In human body, they are hemoproteins found on inner membrane of mitochondria or the endoplasmic reticulum
3. Found in most tissues, involved in production and breakdown of numerous substances
   a. Hormones, cholesterol, Vitamin D metabolism, etc.

4. In liver, metabolizes toxins through:
   a. Oxidation
   b. Reduction
   c. Hydrolysis
   d. Hydration
   e. Dehalogenation

   b. In liver, converts all toxins to an intermediate form that can then be metabolized in Phase II detoxification
      1. Phase I either completely neutralizes chemical or toxin, or converts to a form that a Phase II enzyme can neutralize

   c. Consequences of Phase I detoxification
      1. Phase I intermediates are very toxic
         a. These toxic intermediaries are further detoxified in Phase II
         b. For example, Phase I converts acetaminophen to a potent liver toxin (NAPQI)
            1. This is neutralized if glutathione levels are good
         c. Produces free radicals
            1. For each molecule of toxin that is metabolized, one molecule of free radical is produced

2. Treating Phase I problem
   a. Reduce toxin exposure
   b. Increase antioxidant support
   c. Supplement Phase II conjugating agents
3. Nutrients needed for optimal Phase I detox
   a. Glutathione
      1. Dependent on glutamine, glycine and cysteine
      2. Glutathione difficult to absorb orally
         a. Liposomal forms are better
      3. Best to supplement cysteine, which converts to glutathione
   b. Vitamins B2, B3, B6, B12
      1. Can use a mixed B complex
   c. Folic acid
   d. Alpha Lipoic Acid (ALA)

2. PHASE 2 DETOXIFICATION
   a. Metabolizes secondary toxins
   b. Uses conjugation reactions
      1. “Conjugation”: adds water-soluble group to the reactive site
      2. Mostly conjugates Phase I intermediates
         a. Some toxins are acted on directly by Phase II enzymes
         b. Either neutralizes the toxin, or facilitates its excretion
            1. Urine, sweat, bile
      3. If efficient Phase I detox, but poor Phase II detox, patient will have severe reactions to toxin overload
         a. Contributes to chronic illness and chronic fatigue
         b. Explains “chemical sensitivities”
            1. Detergents, perfumes, smoke, etc

4. Phase II conjugation pathways
   a. Glutathione Conjugation
   b. Methylation
   c. Sulfation
   d. Glucuronidation
   e. Acetylation
f. Bile Excretion

c. **Glutathione Conjugation**
   1. Glutathione conjugates both Phase I and Phase II substrates to produce water soluble substances
      a. Conjugates toxic intermediates
      b. Excreted in urine
   2. Glutathione quenches free radicals
      a. Prevents damage to cellular components due to reactive oxygen species
         a. Conjugates H$_2$O$_2$ (hydrogen peroxide) and superoxide
         b. Reduces oxidized Vitamin E and Vitamin C
      b. Glutathione itself becomes oxidized, but can convert to reduced glutathione within cells
         1. Toxicity occurs when this conversion cannot or does not take place
   3. Glutathione production dependent on 3 amino acids
      a. Glycine, cysteine and glutamic acid
   4. Chemistry and Cofactors
      a. Cysteine and glutamic acid $\rightarrow$ gamma-glutamyl cysteine + glycine $\rightarrow$ glutathione
      b. *Glutathione* requires magnesium, potassium, B6, folic acid
         1. In cortisol excess, potassium levels drop
      c. *Cysteine* production depends on B12, folic acid, B6, choline, magnesium
      d. *Glutamic acid* is derived from Citric Acid Cycle
         1. Toxic metals and inflammatory mediators block this
      e. *Glycine* requires folic acid, B2, B6, manganese
      f. Other necessary nutrients: vitamin C, copper, zinc, selenium
   5. Source of nutrients to create is found in foods
      a. Fruits, vegetables, fish, meats
6. Glutathione conjugation disorders due to:
   a. Lack of essential nutrients in diet
   b. Inability to utilize component enzymes for glutathione production
      1. Called down-regulation
   c. Exogenous toxic loads depleting glutathione
      1. Smoking
   d. Endogenous sources of free radicals and oxidative stress
      1. Infections, cancer, GI or respiratory inflammation

d. Methylation
   1. Conjugates methyl groups from Phase I end products
   2. This is a major pathway for exogenous toxins
   3. Dependent non B6, B12 folic acid, and sulfur amino acids
      a. It metabolizes exogenous toxins in Phase I and Phase II
      b. Sulfur amino acids:
         1. Glutathione
            a. Most important
         2. Methionine
         3. Cysteine
         4. SAMe (S-Adenosyl methionine)
            a. Dependent on Trimethylglycine (Betaine)
         5. Homocysteine
            a. Created from methionine and can convert back to methionine
            b. Converts to cysteine with aid of B vitamins
            c. Elevations are because it cannot convert
e. **Sulfation**
   1. Conjugates end-products of Phase I with sulfur-containing compounds
   2. This is the main detox pathway for *endogenous* neurotransmitters, toxins, steroids, connective tissue, and protein based hormones
   3. Obtains sulfur from dietary sulfates
      a. Eggs, cheese, meat, poultry, nuts and legumes
      b. Pure vegetarians (vegan) are at risk of poor liver detoxification without supplements
   4. Obtains sulfur via sulfoxidation from sulfur-amino acids
      a. Oxidation of sulfur amino acids is best source of sulfur
         1. Cysteine, taurine, methionine
      b. Cofactors require methyl donors, B6 and magnesium
      c. Requires molybdenum to make sulfite oxidase
   5. Defects in sulfoxidation
      a. Patients are sensitive to sulfite foods like garlic and sulfites
      b. Have strong urine odor after eating asparagus
      c. Patients respond poorly to sulfur amino acid supplements
      d. Solution: give molybdenum, or magnesium sulfate

f. **Glucuronidation**
   1. Conjugation of toxins by attaching a glucuronic acid molecule
      a. Drugs
      b. Pollutants
      c. Bilirubin and bile acid
      d. Hormones
   2. Helps makes toxins more water soluble
   3. Excretes through bile and urine
   4. In stool test, glucuronic acid may be elevated
      a. Use Calcium-D Glucarate
5. Required cofactors: B vitamins, magnesium, glycine
6. 5% of population lack enzyme to process
   a. Called Gilbert’s Syndrome > elevated serum bilirubin

g. **Acetylation**
   1. Substitutes an acetyl group for a hydrogen atom
   2. Conjugates toxins with acetyl-Coenzyme A (CoA)
   3. Depend on pantothenic acid (B5), thiamin (B1) and Vitamin C

h. **Bile Excretion**
   1. All detoxified chemicals are delivered to bile for secretion into small intestines, and stool, for elimination
   2. Compromised bile synthesis or secretion diminishes detox capability of liver
   3. Manifestations:
      a. Gallstones or gallbladder congestion
      b. GB inflammation
      c. Reaction to fried or greasy foods
      d. Belching
      e. Flatulence
   4. After GB surgery, the GB’s cystic duct takes over, and must be kept functional
      a. Needs bile regulating medicines
   5. Improved bile synthesis and elimination helps in hormone disorders, by clearing excess hormones

3. **OTHER CONSIDERATIONS**
   a. **Genetic Defects**
      1. Can be responsible for inhibited detoxification
      2. Can be tested in Genome profile
      3. Phase I Defects
         a. Cytochrome P450; 8 known defects
         b. Oxidative protection; 3 known defects
4. Phase II Defects
   a. Methylation, 1 known defect
   b. Acetylation, 7 known defects
   c. Glutathione conjugation, 4 known defects
   d. The MTHFR defect is commonly reported
      1. 60% of population has the defect
         a. Many people can handle the defect
      2. Some cannot adequately convert folic acid (folate) to 5-MTHF, the active form
      3. Benefit from
         a. Methylated B12
         b. Methylated folic acid
         c. SAMe & TMG
   4. Treat if symptomatic or lab confirmed
      a. Elevated homocysteine, low folate
      b. Methyl-MTHFR DNA analysis blood test (most labs)

4. LAB TESTING
   a. Doctor’s Data (www.doctorsdata.com)
      1. All reports give interpretations of abnormal values with suggested supplementation
      2. Hepatic Detox Profile Urine
         a. $116 ($218)
         b. First morning void urine
         c. Compares Phase I and Phase II detox capabilities
            1. Measures urine D-glucaric acid for Phase I
            2. Measures Mercapturic acids for Phase II
      3. Methylation Profile (plasma)
         a. $155 ($205)
         b. Assesses status of amino acid methionine in relationship to cysteine and SAMe
         c. Central to both methylation and sulfation
      4. Glutathione, Erythrocytes
         a. $85 ($135), blood draw
         b. Measures level of glutathione in RBC
5. DNA Oxidative Damage, Urine
   a. $100 ($150)
   b. Shows degree of ongoing oxidative stress

6. DNA Methylation (whole blood or blood spot)
   a. $425 ($600)
   b. Evaluates 30 possible genetic defects in methylation pathway
   c. Indicates -, +/-, ++
   d. If there is a defect, will explain significance on report

7. Comprehensive Drinking Water Analysis
   a. $129
   b. Measures levels of 17 heavy metals as well as fluoride and pH

b. Genova/Metamatrix
   1. DNA/Oxidative Stress Marker – Urine
   2. Oxidative Stress Analysis - Blood
   3. Oxidative Stress Analysis – Urine

c. Blood Values
   1. Homocysteine
      a. Elevation means poor utilization due to deficiencies of B6 and folic acid
      b. Found in poor liver detoxification, and cardiovascular inflammation
      c. Normal values are 5.4-11.4 μmol/L
      d. Should be < 7.2
   2. ALT (SGPT)
      a. Enzyme produced primarily inside liver cells
      b. Elevations indicate liver cell inflammation and apoptosis
         1. In liver problems, this is more elevated than AST
      c. Normal values are 0-45 units/L
      d. Symptoms usually after >80
3. AST (SGOT)
   a. Enzyme produced inside liver cells as well as skeletal, heart, kidney and lung
   b. Elevations indicate cell inflammation and apoptosis
      1. In liver problems, not as elevated as ALT
      2. Will elevate in heart, liver or skeletal damage
      3. Returns to normal much more quickly than ALT
   c. Normal values are 0-40 units/L
   d. Symptoms usually after >80

4. Alkaline Phosphatase
   a. Normal: 25-120 U/L
   b. Elevates with liver dysfunction causing obstruction in biliary tract
   c. Degree of elevation reflects degree of problem
   d. Elevates in viral hepatitis, cirrhosis, liver cancer, fatty liver, drug-induced liver damage

5. Albumin
   a. Normal: 3.5-5.5 g/dL
   b. Blood protein produced in liver
      1. Regulates intracellular fluid
   c. Decrease indicates excess free radical/oxidative stress
      1. <4 may be early indication of liver dysfunction
         a. Shows prior to inflammatory markers such as ALT
         b. Especially over-toxicity issues

6. Bilirubin
   a. Normal: 0.1-1.2 mg/dL
   b. Measures normal breakdown of hemoglobin from RBC
   c. Conjugated in liver (water soluble) and excreted
   d. Excesses (>1.2)
      1. Liver unable to process
1. Infection
2. Alcohol or drug induced injury
3. Oxidative stress
4. Bile duct obstruction
5. Gilbert’s Syndrome (genetic)

D. Methylation defect
   1. Homocysteine elevated, folate low
   2. Methyl-MTHFR DNA analysis blood test (most labs)
   3. DNA Methylation (whole blood); Doctor’s Data ($425)
   4. Methylation Profile (plasma); Doctor’s Data ($155)

E. If able to get labs due to license restrictions, the following will facilitate this for you:
   1. www.labinterpretation.com

5. TREATMENTS
   a. Glutathione conjugation
      1. Required for Phase I and Phase II detoxification
      2. Required for methylation detoxification
      3. Glutathione production
         a. Dependent on glutamine, glycine and cysteine
         b. Glutathione difficult to absorb orally
            1. Liposomal forms are better
            2. Best to supplement cysteine, which converts to glutathione
         c. Vitamins B2, B3, B6, B12
            1. Can use a mixed B complex
   d. Folic acid
   e. Cysteine
      1. N-acetyl cysteine
         a. Most common form available in nutrient supplements
      2. L-cysteine
         a. Crosses brain-blood barrier
         b. Better for metal detox for brain neurons
f. Alpha-Lipoic Acid  
g. Sulforaphane glucosinolate  
h. Vitamin C  
i. Selenium  
j. B vitamins  
k. Folate, Zn, Cu, Mg  

b. **Methylation conjugation**  
   1. Methylation is dependent on 4 major components:  
      a. Vitamin B6  
      b. Vitamin B12  
      c. Folic acid  
      d. Sulfur amino acids: methionine, SAMe, cysteine, homocysteine, glutathione  
         1. Deficiencies of these are major cause of methylation problems, especially glutathione  
         2. Elevated homocysteine is because body can’t convert homocysteine to methionine  
   2. Lab interpretation  
      a. If homocysteine normal (not elevated), then levels of B12, B6 and folic acid are probably adequate  
      b. If homocysteine is elevated, supplement with B6 and folic acid  
         1. B12 is probably not needed unless megaloblastic processes exist  
         2. If homocysteine does not normalize, then they probably need 5-MTHF (methylated folic acid)  
      c. If methylation problems exist, and homocysteine is normal, then problem is deficiency of sulfur-amino acids, especially glutathione  
         1. This is the most common reason for methylation problem
3. Other supportive supplements
   a. Vitamin C
   b. Vitamin E
   c. Choline (phosphatidyl-choline)
   d. Pyridoxal-5-phosphate (active form of B6)
   e. Vitamin B12
   f. Alpha Lipoic Acid (ALA)
   g. Magnesium
   h. Folic acid (methylated)
   i. Coenzyme Q10

4. Combination products
   a. Methylated folate, B5, B6, B12
      1. Methyl Protect (Xymogen)
      2. Methyl Guard (Thorne)
      3. Methyl Guard Plus (Thorne)
   b. SAMe & TMG (Xymogen)
      1. SAMe (S-adenosyl-L-methionine) and TMG (trimethylglycine) act as methyl donors to
         enhance methylation
         a. SAMe is a methyl doner in 43 major reactions
      2. TMG is methyl donor involved in the metabolism of homocysteine and the formation of SAMe

C. Sulfation Conjugation
   1. Supplements
      a. Cysteine, taurine, methionine
      b. B6 and magnesium
      c. Molybdenum to make sulfite oxidase
      d. Sulforaphane glucosinolate
d. **Glucuronidation Conjugation**
   1. Occurs if sulfation and glycination are diminished or saturated
   2. Best supplement is calcium d-glucarate
   3. Acts slowly

e. **Acetylation**
   1. Requires conversion of CoA
   2. Dependent on B vitamins, carnitine, folic acid
   3. Supplements
      a. Corticare B (Xymogen)

f. **Bile Conjugation**
   1. Requires choline, taurine, and methionine
   2. Supplements:
      a. LipotropiX (Xymogen)
      b. Lipotropic Detox (Designs for Health)

**E. THERAPEUTIC NUTRIENTS - DETAILS**

1. **Sulfur amino Acids**
   a. General
      1. Sulfur amino acid metabolism require proper amounts of B6, B12, folic acid
      2. The body will get sulfur from the combination of any and all of the sulfur amino acids
         a. As long as B6, B12 and folic acid are adequate
      3. Daily supplementation in polluted environment may require
         4.5 g day of sulfur amino acids
         a. Least expensive is l-cysteine
         b. Most expensive: SAMe
      4. Sulfur amino acids deplete serotonin and dopamine, which need to be supported
         a. See: neurosciencemyths.com
b. **Glutathione**
   1. Main liver detoxifier
   2. Difficult to process orally
   3. Availability
      a. Glutathione SR (Thorne)
      b. S-Acetyl-Glutathione (Xymogen)
      c. Liposomal Glutathione (Quicksilver, ReadiSorb)
      d. Reduced Glutathione (Pure Encapsulations)
      e. Glutathione Powder, S-Acetyl Glutathione (Designs for Health)
      f. GlutaClear (Metagenics)
   4. Some feel best to support cysteine for conversion to glutathione

c. **Cysteine**
   1. Direct precursor to Glutathione
      a. Many feel this is cheapest way to produce useable glutathione
   2. Both L-cysteine and N-acetyl-cysteine can make glutathione
      a. L-cysteine preferred when synthesizing serotonin and dopamine for neurotransmitter communication
   3. 4-5 g/day idea
      a. May cause nausea and stomach pain, anxiety
         1. Take with food
   4. Availability
      a. N-Acetyl-Cysteine
         1. Cysteplus (Thorne)
         2. NAC (Xymogen) (Pure Encapsulations)
         3. N-Acetal Cysteine (Designs for Health)
      b. L-Cysteine
         1. CysReplete (CHK)
d. **Taurine**
   1. Bile acid formation for fat digestion
      a. The liver combines bile acids with taurine to increase cholesterol solubility and excretion
   2. Detoxification of environmental toxins
      a. Aldehydes, chlorine, and amines
      b. Take 1.5-3 g. after swimming
      c. Amino-D-Tox (Designs for Health)

2. **Other Important Nutrients**
   a. **Folic Acid (Folate)**
      1. Technically, folic acid is synthetic form
         a. Folate is plant based, and is always preferred
      2. Required for glutathione production
      3. Activates as 5-MTHF in the body
      4. Used during pregnancy to prevent spina bifida
      5. Use if homocysteine is elevated
      6. Availability
         a. Folacal (Thorne)
         b. Folic Acid (Pure Encapsulations)
      7. **5-MTHF (5-methyltetrahydrofolate)**
         a. Preferred for MTHF genetic defect
            1. Cannot adequately convert folic acid to active form, 5-MTHF
            2. Many have the defect, but a defect causing real problems is rare
            3. In defect with consequences, B6 and folic acid do not adequately bring down homocysteine
               a. They need 5-MTHF, 800 mcg/day
            4. Not needed if homocysteine is normal
         b. Availability as methylfolate
            1. 5-MTHF (Thorne)
            2. 5-MTHF ES (Xymogen)
            3. Nature Folate (Designs for Health)
b. **Lipoic Acid (ALA or RLA)**
   1. Increases glutathione by helping to recycle it
   2. Strong antioxidant
   3. Very useful after strong toxic exposure to liver
   4. Helps detox heavy metals
   5. Also a cofactor for mitochondrial function
      a. Supports energy production in the cells
   6. Types
      a. **Alpha Lipoic Acid (ALA)**
         1. Regular ALA has short half life in blood and multiple daily dosing is required
            a. Thioct-300 (Thorne)
         2. Time released, requiring two doses a day
            a. Alamax CR (Xymogen)
      b. **R-lipoic Acid (RLA)**
         1. Supposedly stronger
         2. Availability
            a. R-Lipoic Acid (Thorne)
            b. Liposomal R-Lipoic Acid (Quicksilver)

c. **Sulforaphane Glucosinolate**
   1. Discovered in 1992, found in cruciferous (brassica) vegetables, including broccoli and watercress
   2. Activates Phase 2 enzymes
      a. Chemoprotective
         1. Activates antioxidants to protect against free radicals
         b. Induces Phase II detoxification for several days
   3. Studies indicating benefits on health
      a. Positive effect of cruciferous vegetables against cancers (skin, breast, bladder)
      b. Neutralizes pollutants in air pollution, esp. benzene
      c. Neutralizes arsenic poisoning
      d. Reduces DNA damage due to pesticides
4. Availability
   a. Crucera-SGS (Thorne)
   b. Oncoplex SGS (Xymogen)
   c. Mediclear SGS (Thorne)

d. **Phosphatidyl choline**
   1. Primary phospholipid in cell membranes
   2. Protects liver cells from damage from environmental toxins
      a. Ethanol, carbon tetrachloride, trichloroethylene (used in dry cleaning and as a degreasing solvent)
   3. Major source of Trimethylglycine (Betaine)
   4. Helps rebuild liver tissue
   5. Precursor for the neurotransmitter acetylcholine
   6. Major constituent of bile
   7. Decreases absorption of dietary cholesterol
   8. Availability
      a. Phosphatidyl Choline (Thorne)
      b. PhosphaLine (Xymogen)
      c. Choline (phosphatidyl-choline)

e. **Calcium-D Glucarate**
   1. Facilitates glucuronidation pathway
      a. Recycles and conjugates hormones
      b. Helps detox environmental toxins
      c. Helps metabolize cholesterol
   2. In stool, use if glucuronic acid is elevated
   3. Availability
      a. Calcium-D Glucarate (Thorne, Xymogen)

f. **Glycine**
   1. Conjugates most petrochemicals in Phase II of liver detoxification
   2. Precursor to glutathione along with cysteine and glutamic acid
3. Inhibitory neurotransmitter (like GABA)
   a. Caution in Parkinson’s
4. With arginine and methionine, synthesizes creatine
   a. Supplies energy to muscle and nerve cells
   b. 30% of collagen is supplied by glycine
5. .5-5 gram a day

g. Vitamins
1. B vitamins
   a. B vitamins work together in various biochemical functions
   b. Components
      1. Thiamine (vitamin B1)
      2. Riboflavin (vitamin B2)
      3. Niacin (vitamin B3)
      4. Pantothenic acid (vitamin B5)
      5. Pyridoxine (vitamin B6)
         a. If elevated homocysteine, give 75 mg/day
6. Cobalamin (vitamin B12, Hydroxy B12)
   a. Normally produced by gut bacteria
   b. In glutathione depletion, toxins deplete B12
   c. Vitamin B12, 2000 mcg sublingually or IM
   d. Methyl-cobalamin is often preferred, 300 mcg/day
   e. Too much can make people hyper
      a. This means that their oxidative load is too high
      b. Go back to antioxidants
      c. Switch to Hydroxy B12

c. Availability
   1. Basic B Complex (Thorne)
   2. B Activ (Xymogen)
   3. Riboflavin 5'-Phosphate (Thorne)
4. Pyridoxal 5’-Phosphate (Thorne)
5. Methylcobalamin (Thorne) (Xymogen)

2. **Vitamin C** (Ascorbic acid)
   a. Necessary for phase I liver detoxification
      1. Quenches free-radical intermediates
   b. In Phase II detoxification, raises levels of glutathione
      1. Increases rate of synthesis
      2. Helps protect against the toxic effects of heavy metals

3. **Vitamin D**
   a. Up-regulates pregnane x receptor, which signals and initiates phase 1 detoxification
   b. Vitamin D levels can fluctuate due to chemical exposures, including sunscreen
   c. Serum levels should be 60-90 ng/ml
      1. Some labs use different measurement
   d. Dosage 5000/day, minimum

4. **Vitamin E** (tocopherol)
   a. Tocopherols provide protection from free radicals
      1. Including lipid peroxides and single oxygen radicals
   b. Gamma-tocopherol is preferred as a supplement
      1. Strongest in anti-oxidant activity
   c. Alpha-tocopherol
      1. Found in olive oil and sunflower oil
   d. Y-tocopherol
      1. Found in soy and corn oil
      2. Competes negatively with g- tocopherol and a-tocopherol
h. **COMBINATION PRODUCTS**
   1. Basic Detox Nutrients (Thorne)
      a. Large shotgun approach
   2. Solvent Remover (Thorne)
      a. Glycine, L-Glutamine, Taurine, Alpha-Lipoic Acid, N-Acetyl-L-Cysteine
   3. MetaClear SGS (Thorne)
      a. Uses Sulforaphane glucosinolate (SGS)
   4. MedCaps DPO (Xymogen)
      a. “Dual Phase Optimizers”
      b. Balances Phase I and Phase II
   5. Corticare B (Xymogen)
      a. Enhances acetylation, Phase II
   6. Liver Protect (Xymogen)
      a. Milk thistle, ALA, N-A-Cysteine
   7. Detox Antiox (Designs for Health)
   8. LV-GB Complex (Designs for Health)
      a. Western herbs and nutrients
   9. Liver-G.I. Detox (Designs for Health)
   10. Core Restore (Orthomolecular Products)
       a. Four products in a 7 day program
   11. 14 Day Detox program (Designs for Health)
   12. UltraClear (Metagenics)
   13. Western Herbal Combinations
       a. Liver Cleanse (Thorne)
          1. Dandelion, burdock, indian barberry, milk thistle, stinging nettle, uva-ursi
       b. T.A.P.S. (Thorne)
          1. Western herbs: artichoke, curcumin, picrorhiza, silybin (milk thistle)
       c. S.A.T. (Thorne)
          1. Western herbs: artichoke, curcumin, silybin (milk thistle)
       d. Silkiphos (Thorne)
          1. Phosphatidyl choline plus sylbin
       e. LVR Formula (Pure Encapsulations)
i. OTHER
  1. Coffee consumption improves levels of serum gamma glutamyltransferase (GGT), aspartate aminotransferase (AST) and alanine aminotransferase (ALT)
     a. In chronic liver disease patients who consume coffee, a decreased risk of progression to cirrhosis, a lowered mortality rate in cirrhosis patients

F. RECOMMENDED LABS AND MANUFACTURERS FOR LIVER DETOXIFICATION

  1. Labs
     a. doctorsdata.com
     b. gdx.net (Genova)
     c. metametrix.com (Metametrix, merging with Genova)
     d. quicksilverscientific.com
     e. usbiotek.com

  2. Recommended manufacturers of supplements
     a. allergyresearchgroup.com
     b. bioticsresearch.com
     c. chknutrition.com
     d. designsforhealth.com
     e. metagenics.com
     f. mhpvitamins.com
     g. pureencapsulations.com
     h. thorne.com
     i. vitalnutrients.net
     j. xymogen.com

  3. Other resources
     a. bloodchemistryanalysis.com
     b. functionalmedicine.org
     c. functionalmedicineuniversity.com
     d. mthfr.net
     e. neurosciencemyths.com
     f. neurosupport.com
LIVER DETOXIFICATION IN TRADITIONAL CHINESE MEDICINE

Resource Texts


A. FUNCTIONS OF THE LIVER
1. Stores blood
   a. Regulates blood volume in relation to rest and activity
   b. Regulates menstruation
   c. Moistens eyes and sinews
2. Enables the smooth flow of qi
   a. Affects emotional state
   b. Affects digestion
   c. Affects secretion of bile
3. Controls the sinews
   a. Keeps tendons moist and supple
   b. Deficiency leads to cramps, rigidity, numbness and tingling
4. Manifests in the nails
5. Opens to the eye
   a. Affects vision, redness, dryness
6. Controls tears
7. Houses the “ethereal” soul
   a. Hún (魂), the yang soul; leaves the body at death
   b. The yin soul is pò (魄); remains with the body at death
8. Affected by anger
B. TRADITIONAL TCM CATEGORIES:

1. Liver Qi Stagnation
2. Liver Blood Stagnation
3. Flaring Up of Liver Fire
4. Liver Damp–Heat
5. Liver Blood Deficiency
6. Liver Yin Deficiency
7. Hyperactivity of Liver Yang
8. Stagnation of Cold in Liver Channel
9. Liver Wind
10. Gallbladder Stasis with Disturbance by Phlegm

Other (Maciocia):

- Stagnant Liver Qi Transforms to Heat
- Rebellious Liver Qi
- Rebellious Liver Qi Invading Spleen
- Rebellious Liver Qi Invading Stomach
- Liver Fire Insulting Lungs
- Heart and Liver Blood Deficiency

Root:

1. Liver Qi Stagnation
2. Liver Yin Deficiency
3. Liver Blood Deficiency

Branch:

4. Liver Blood Stagnation
5. Liver stagnation overacts on Spleen and Stomach
6. Flaring Up of Liver Fire
7. Hyperactivity of Liver Yang
8. Internal Stirring of Liver Wind
9. GB Stasis with Disturbance of Phlegm
LIVER SYNDROMES APPEAR IN THE FOLLOWING 40 TCM DISORDERS

*Italics for modern, non-traditional TCM diseases*

1. Liver Qi Stagnation
   - Chemotherapy Support
   - Costal Pain
   - Depression-Anxiety
   - Dysmenorrhea
   - Esophageal Constriction
   - Goiter
   - Infertility
   - Irregular Menstruation
   - Loss of Voice
   - Premenstrual syndrome
   - Retention Of Urine
   - Uterine Masses

2. Liver Blood Stagnation
   - Amenorrhea
   - Ascites
   - Cirrhosis
   - Costal Pain
   - Dysmenorrhea
   - Headache
   - Uterine Masses

3. Liver Fire
   - Cough
   - Depression-Anxiety
   - Headache
   - Herpes Simplex
   - Herpes Zoster
   - Insomnia
   - Nosebleed
   - Red Eyes
   - Tinnitus
4. Liver Damp–Heat
   Costal Pain
   Enuresis

5. Liver Blood Deficiency
   Amenorrhea
   Depression-Anxiety
   Dizziness and Vertigo
   Dysmenorrhea
   Infertility
   Irregular Menstruation
   Vaginal Itching
   Wind Rash (Hives)

6. Liver Yin Deficiency
   Ascites
   Costal Pain
   Depression-Anxiety
   Epilepsy
   Hepatitis C
   Irregular Menstruation
   Nosebleed
   Vaginal Itching
   Wei Syndromes

7. Liver Yang Rising
   Convulsions
   Dizziness and Vertigo
   Headache
   Hypertension
   Insomnia
   Irregular Menstruation
   Stroke
   Esophageal Constriction
   Goiter
Loss of Voice

8. Liver Attacking Stomach and Spleen
   Cancer Support
   Diarrhea
   Epigastric Pain
   Esophageal Constriction
   Esophageal Reflux
   Irritable Bowel Syndrome
   Morning Sickness
   Vomiting
   Vomiting Blood

9. Stagnation of Cold in Liver Channel
   Testicular swelling
   Hydrocele

10. Liver Wind
    Convulsions
    Epilepsy
    Stroke

11. Gallbladder Stasis with Disturbance of Phlegm
    Depression-Anxiety
    Dizziness-Vertigo
    Gallbladder Congestion
    Gallstones
    Goiter
    Morning Sickness
    Nodules
    Stroke
    Uterine Masses
LIVER DETOXIFICATION INVOLVES REGULATION OF:

Root:
1. Liver Qi Stagnation
2. Liver Yin Deficiency
3. Liver Blood Deficiency

Branch:
4. Other Liver Qi Stagnation Patterns
   a. Liver Stagnation Invades Spleen
   b. Liver Stagnation Invades Stomach
   c. Liver Blood Stagnation
   d. Stagnant Liver Qi Transforms to Heat
5. Flaring Up of Liver Fire
6. Hyperactivity of Liver Yang
7. Internal Stirring of Liver Wind
   a. Liver Yang Turning into Wind
      b. Wind-Phlegm Harassing Upper Body
8. GB Stasis with Disturbance of Phlegm
9. Other Useful Formulas for Liver Detoxification
1. LIVER QI STAGNATION

1. LIVER QI STAGNATION

A. **Clinical Signs**
   1. Distending and wandering pain in chest, hypochondrium or lower abdomen
   2. Suffocating feeling in chest
   3. Sighing
   4. Emotional depression
   5. Emotional irritability
   6. Masses: goiter, lower abdomen (uterine fibroids)
   7. Breast distension or pain
   8. Irregular menses or amenorrhea
   9. Tongue: thin white coat
   10. Pulse: wiry

B. **Analysis:**
   1. Main Signs
      a. Distension or pain along course of liver channel
      b. Mental depression or irritability
      c. Abnormal menses
   2. Traditional etiology is emotional factors
      a. Modern etiology includes environmental toxic burden
   3. Stagnation of liver qi retards smooth circulation of qi
      a. Leads to distension in chest, costal area, breast or lower abdomen
   4. Stagnation of liver qi and blood retards smooth circulation of qi and blood
      a. Poor regulation of emotions leading to depression
      b. Long term stasis of qi leads to hardness in liver, bringing about irritability
   5. Stasis of liver qi leads to accumulation of phlegm
      a. This can rise with the liver channel, leading to globus hystericus or thyroid goiter
   6. Stasis of liver qi leads to stagnation of liver blood
      a. Impairs Chong and Ren channels causing irregular periods, dysmenorrhea, and abdominal masses (fibroids)
C. **Treatment Principle**: Dredge (smooth) liver qi

D. **Important herbs for moving liver qi**

- **chai hú** (柴胡), Radix Bupleuri
- **chén pí** (陈皮), Pericarpium Citri Reticulatae
- **chuān liàn zi** (川楝子), Fructus Meliae Toosendan
- **mù xiāng** (木香), Radix Aucklandiae
- **qīng pí** (青皮), Pericarpium Citri Reticulatae Viride
- **xiāng fù** (香附), Rhizoma Cyperi
- **zhī kē** (枳壳), Fructus Aurantii

E. **Formulas for moving liver qi**

1. **Chai Hu Shu Gan Wan**
2. **Xiao Yao San**
CHAI HU SHU GAN WAN

Formula: chái hú shù gān sǎn (柴胡疏肝散), “Bupleurum Soothe Liver Powder”

Author: Zhāng Jiè-Bīn (张介宾) aka Zhāng Jīng-Yùè (张景岳)

Source: Jing Yuè Quán Shū (景岳全书), 1624
Literal: “Jing-Yue’s Complete Writings”

Availability:
- BUPLEURUM & CYPERUS COMBINATION (EG)
- BUPLEURUM SHU GAN TEAPILLS (PF)
- BUPLEURUM SOOTHE THE LIVER FORMULA (HS)
- BUPLEURUM SOOTHING LIVER FORMULA (K)
- CHAI HU SHU GAN SAN (BP)
- CHAI HU SHU GAN WAN (GC, HT, PM, TL)

Ingredients: (from standardized “Bupleurum & Cyperus Combination”)
- chái hú (柴胡), Radix Bupleuri 19.0 % BB
- chén pí (陈皮), Pericarpium Citri Reticulatae 19.0 G
- chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong 14.3 K
- bái sháo (白芍), Radix Paeoniae Alba 14.3 AB
- zhī kē (枳壳), Fructus Aurantii 14.3 G
- xiāng fù (香附), Rhizoma Cyperi 14.3 G
- gān cǎo (甘草), Radix Glycyrrhizae 4.8 AA

Modifications:
Depression
- yù jīn (郁金), Radix Curcumae K
- fó shōu (佛手), Fructus Citri Sarcodactylis G
- xiāng yuán (香橼), Fructus Citri G

With blood stasis add from:
- dān shēn (丹参), Radix/Rhiz. Salviae Miltiorrhizae K
- hóng huā (红花), Flos Carthami K
- jǐ xuè téng (鸡血藤), Caulis Spatholobi/Milletiae K
- yù jīn (郁金), Radix Curcumae K
XIAO YAO SAN

Formula:  xiao yao san (逍遥散), “Free Wanderer Powder”

Author:  Imperial Medical Bureau (tài yī jú, 太医局); revised by Chén Shī-Wēn (陈师文)

Source:  Tài Píng Huì Mín Hé Jì Jú Fāng (太平惠民和剂局方), 1078

Literal: “(Era of) Heavenly Peace, Benefit People (with) Harmonious Medicines, Office (of) Formulas”

Availability:
- BUPLEURUM & TANG KUEI FORMULA (GF)
- BUPLEURUM & DONG QUAI FORMULA (CC)
- DR.SHEN'S FREE & EASY PILL (DS)
- FREE & EASY WANDERER TEAPILLS (PF)
- FREE AND EASY WANDERER (K)
- TANGKUEI & BUPLEURUM FORMULA (EG)
- XIAO YAO SAN (BP)
- XIAO YAO WAN (GC, HT, JD, MS, PiM, PM, TL)
- * FREEING THE MOON (TT)
- * JADE FLUID (JW)

Ingredients: (from the standardized “Tangkuei and Bupleurum Formula”)

chái hú (柴胡), Radix Bupleuri 14.3 % BB
bái zhú (白术), Rhizoma Atractylodis Macrocephalae 14.3 AA
bái sháo (白芍), Radix Paeoniae Alba 14.3 AB
fú líng (茯苓), Poria 14.3 FC
dāng guī (当归), Radix Angelicae Sinensis 14.3 AB
gàn jiāng (干姜), Rhizoma Zingiberis 14.3 E
bò hé (薄荷), Herba Menthae 7.1 BB
zhì gàn cǎo (炙甘草), Radix Glycyrrhizae Praep. 7.1 AA
2. LIVER BLOOD DEFICIENCY

*gn̄ xuè xu zhèng* (肝血虚证), “Liver Blood Deficiency Pattern”

A. **Clinical signs**
   1. Dizziness and vertigo
   2. Tinnitus
   3. Pale complexion, lusterless
   4. Withered or pocked nails
   5. Excessive dreaming
   6. Poor day or night vision
   7. Numbness in body
   8. Contracture of tendons
   9. Limb tremor
   10. Muscular twitching
   11. Hypomenorrhea or amenorrhea
   12. Pale or light menstrual flow
   13. Tongue: pale with white coat
   14. Pulse: wiry or thready

B. **Analysis**
   1. Main symptoms are undernourishment of tendons, nails, eyes, muscles, and skin
   2. Usually due to underlying weakness of spleen and kidney
      a. Or due to chronic illness injuring liver
      b. Or due to excessive bleeding
   3. Failure of blood to reach head causes dizziness or lightheadedness, and pale complexion
   4. Liver blood nourishes the nails, deficiency leads to withered or pocked nails
   5. Blood deficiency fails to nourish heart, leading to disturbed mind/shen and dreams
   6. Liver blood failing to nourish eyes cause poor day or night vision and
   7. Blood deficiency affects tendons causing tendon contraction, numbness of the limbs, tremors, and muscular twitching
   8. Lack of liver blood affects Chong and Ren leading to hypomenorrhea, pale menses or amenorrhea

C. **Treatment principle:** Nourish liver blood
Important Herbs for liver blood tonification

- bái sháo (白芍), Radix Paeoniae Alba AB
- dāng guì (当归), Radix Angelicae Sinensis AB
- gǒu qī zi (枸杞子), Fructus Lycii AB
- hé shǒu wū (何首乌), Radix Polygoni Multiflori AB
- mài mén dōng (麦门冬), Radix Ophiopogonis AD
- nǚ zhēn zǐ (女贞子), Fructus Ligustri Lucidi AD
- shū dì huáng (熟地黄), Radix Rehmanniae Praep. AB

Important Formulas for liver blood tonification

- Bu Gan Tang
- Tao Hong Si Wu Tang
- Ren Shen Yang Ying Tang

**BU GAN TANG**

*Formula:* bù gàn tāng (补肝汤), “Tonify Liver Decoction”

*Author:* Wú Qiān (吴谦)

*Source:* Yī Zōng Jīn Jiàn (医宗金鉴), 1742

Literal: “Medical Tradition Golden Mirror”

*Ingredients:*

- Angelica Dang Gui AB
- Paeonia Bai Shao AB
- Ligusticum Chuan Xiong K
- Rehmannia Shu Di Huang AB
- Zizyphus Chao Suan Zao Ren N
- Chaenomeles Mu Gua FA
- Glycyrrhiza Gan Cao AA

plus:

- Astragalus Huang Qi AA
- Polygonum He Shou Wu AB
- Cornus Shan Zhu Yu L
- Millettia Ji Xue Teng K
- Asinum E Jiao AB
TAO HONG SI WU TANG

**Formula:**  táo hóng sì wù tāng (桃红四物汤)  
“Persica, Carthamus Four Substance Decoction”

**Author:**  Wú Qiān (吴谦)

**Source:**  Yī Zōng Jīn Jiàn (医宗金鉴), 1742
Literal: “Medical Tradition Golden Mirror”

**Also Attributed to:**

**Author:**  Wáng Hào-Gù (王好古)

**Source:**  Yī Lèi Yuán Róng (医垒元戎), 1291
Literal: “Medical Ramparts Supreme Commanders”

**Availability:**

AUGMENTED FOUR SUBSTANCES (KA)  
TANGKUEI FOUR, PERSICA, & CARTHAMUS COMBINATION (EG)  
TAO HONG SI WU TANG (BP, TZ)  
TAO HONG SI WU TANG TEAPILLS (PF)  
TAO HONG SI WU TANG WAN (TL)  
* INVIGORATE BLOOD & STEM FLOW (TT)  
* JADE MOON FLOW (JW)  
* JADE MOON PHASE 1 (JW)

**Ingredients:**  (from the standardized “Tangkuei Four, Persica, & Carthamus Combination” and from Plum Flower “Tao Hong Si Wu Teapills”)  

dāng guī (当归), Radix Angelicae Sinensis  20 %  AB  
táo rén (桃仁), Semen Persicae  20  K  
bái sháo (白芍), Radix Paeoniae Alba  20  AB  
shú dì huáng (熟地黄), Radix Rehmanniae Praep.  20  AB  
hóng huā (红花), Flos Carthami  10  K  
chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong  10  K
REN SHEN YANG RONG TANG / YANG YING WAN

**Formula:**  rén shēn yǎng róng tāng (人参养荣汤)  
“Ginseng Nourish Luxuriant-Growth Decoction”  
*aka*  yǎng yīng wán (养营丸), “Nourish Ying-Qi Pills”  
**Author:** Imperial Medical Bureau (*tài yī jú, 太医局*); revised by Chén Shī-Wēn (陈师文)  
**Source:**  *Tài Píng Huì Mín Hé Jí Jú Fāng* (太平惠民和剂局方), 1078  
Literal: “(Era of) Great Peace, Benefit People Harmonious Medicines, Office (of) Formulas”  
**Availability:**  
Using the *Ren Shen Yang Rong Wan* formula:  
GINSENG & REHMANNIA COMBINATION (EG)  
GINSENG NOURISHING FORMULA (GF)  
REN SHEN YANG RONG TANG (BP, TZ)  
Using the *Yang Ying Wan* formula:  
FU KE YANG RONG WAN (PM)  
RENSHEN YANG YING WAN (PM)  
YANG YING TEAPILLS (PF)  
YANG YING WAN (MS, PM)  

The *Ren Shen Yang Rong Wan* formula (1):  
**Ingredients:** (from Blue Poppy “Ren Shen Yang Rong Tang”)  

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
<th>Unit</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>bái sháo (白芍), Radix Paeoniae Alba</td>
<td>23.7 %</td>
<td>AB</td>
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<td>dāng guī (当归), Radix Angelicae Sinensis</td>
<td>7.8</td>
<td>AB</td>
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<tr>
<td>chén pí (陈皮), Pericarpium Citri Reticulatae</td>
<td>7.8</td>
<td>G</td>
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<td>huáng qí (黄芪), Radix Astragali</td>
<td>7.8</td>
<td>AA</td>
<td></td>
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<tr>
<td>ròu guì (肉桂), Cortex Cinnamomi</td>
<td>7.8</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>rén shēn (人参), Radix Ginseng</td>
<td>7.8</td>
<td>AA</td>
<td></td>
</tr>
<tr>
<td>bái zhú (白术), Rhizoma Atractylodis Macrocephalae</td>
<td>7.8</td>
<td>AA</td>
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<td>zhì gān cǎo (炙甘草), Radix Glycyrrhizae Praep.</td>
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<td>AA</td>
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<tr>
<td>shū dì huáng (熟地黄), Radix Rehmanniae Praep.</td>
<td>5.9</td>
<td>AB</td>
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<tr>
<td>wǔ wèi zǐ (五味子), Fructus Schisandrae</td>
<td>5.9</td>
<td>L</td>
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</tr>
<tr>
<td>fú líng (茯苓), Poria</td>
<td>5.9</td>
<td>FC</td>
<td></td>
</tr>
<tr>
<td>yuàn zhī (远志), Radix Arillus Longanlae</td>
<td>4.0</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>
The *Ren Shen Yang Rong Wan* formula (2):

**Ingredients:** (from the standardized “Ginseng & Rehmannia Combination”)

- bái sháo (白芍), Radix Paeoniae Alba 12.0 % AB
- shěng jiāng (生姜), Rhizoma Zingiberis Recens 9.0 BA
- bái zhú (白术), Rhizoma Atractylodis Macrocephalae 7.6 AA
- huáng qì (芪), Radix Astragali 7.6 AA
- zhì gān cǎo (炙甘草), Radix Glycyrrhiza Praep. 7.6 AA
- chēn pí (陈皮), Pericarpium Citri Reticulatae 7.6 G
- guì zhī (桂枝), Ramulus Cinnamomi 7.6 E
- dāng guī (当归), Radix Angelicae Sinensis 7.6 AB
- rén shēn (人参), Radix Ginseng 7.6 AA
- wǔ wèi zǐ (五味子), Fructus Schisandrae 6.1 L
- fú líng (茯苓), Poria 6.1 FC
- shú dì huáng (熟地黄), Radix Rehmanniae Praep. 6.1 AB
- yuǎn zhī (远志), Radix Polygalae 4.5 N
- dà zǎo (大枣), Fructus Jujubae 3.0 AA

The *Yang Ying Wan* formula:

**Ingredients:** (From Minshan “Yang Ying Wan” and Plum Flower “Yang Ying Teapills”)

- dāng shēn (党参), Radix Codonopsis 15.1 % AA
- bái zhú (白术), Rhizoma Atractylodis Macrocephalae 7.6 AA
- huáng qì (芪), Radix Astragali 7.6 AA
- gān cǎo (甘草), Radix Glycyrrhiza 7.5 AA
- ròu guì (肉桂), Cortex Cinnamomi 7.5 E
- chēn pí (陈皮), Pericarpium Citri Reticulatae 7.5 G
- dāng guī (当归), Radix Angelicae Sinensis 7.5 AB
- dà zǎo (大枣), Fructus Jujubae 7.5 AA
- bái sháo (白芍), Radix Paeoniae Alba 7.5 AB
- shú dì huáng (熟地黄), Radix Rehmanniae Praep. 5.7 AB
- wǔ wèi zǐ (五味子), Fructus Schisandrae 5.7 L
- fú líng (茯苓), Poria 5.7 FC
- yuǎn zhī (远志), Radix Polygalae 3.8 N
- shěng jiāng (生姜), Rhizoma Zingiberis Recens 3.8 BA
3. LIVER YIN DEFICIENCY

*gàn yín xū zhèng* (肝阴虚证), “Liver Yin Deficiency Pattern”

A. **Clinical signs**
   1. Dizziness and vertigo
   2. Dry eyes
   3. Heat in face
   4. Burning pain in costal and hypochondriac region
   5. Burning sensation in sternum, palms and soles of feet
   6. Tidal fever
   7. Night sweating
   8. Dry mouth and throat
   9. Involuntary movement of limbs
   10. Tongue: red with dry coat
   11. Pulse: Thin, wiry

B. **Analysis**
   1. Deficiency of liver *yín* is diagnosed by having liver disease or problems, with coexisting signs of *yín* deficiency
   2. (stagnation) of liver *qi* which turns into fire and consumes *yín*
      a. Or, liver disease with fire, or febrile disease which injure and consume liver *yín*
   3. Deficiency of liver *yín* causes failure to nourish head and eyes causing dizziness, tinnitus, and dryness of the eyes
   4. Flaring up of deficiency-fire results in heat on the face
   5. Deficiency-fire injures the liver collaterals, causing burning pain along liver channel in costal and hypochondrium
   6. Steaming of deficiency-heat in the interior leads to burning in sternum, palms and soles (“five heart fire”)
   7. Deficiency fire injures the *yīng* causing night sweating
   8. Deficiency of *yín* fluid fails to nourish upper part of body, leading to dry mouth
   9. Deficiency of *yín* fails to nourish tendons, resulting in involuntary movement so the limbs

C. **Treatment principle:** Nourish liver *yín*
Important herbs for tonifying liver yin

Liver Yin Deficiency

dâng guî (当归), Radix Angelicae Sinensis  
è jiăo (阿胶), Colla Corii Asini  
gōu qǐ zi (枸杞子), Fructus Lycii  
hàn lián cǎo (旱莲草), Herba Ecliptae  
hé shōu wū (何首乌), Radix Polygoni Multiflori

Astringe Liver Yin

wū méi (乌梅), Fructus Mume  
wū wèi zǐ (五味子), Fructus Schisandrae

Important Formulas for tonifying liver yin

Yang Gan Yin Fang
Yì Guān Jīn

**YANG GAN YIN FANG**

*Formula:*  yâng gân yìn fâng (养肝阴方), “Nourish Liver Yin Important Formula”
*Author:*  Ye Gui (叶桂) aka Ye Tian-shi (叶天士)
*Source:*  Lín Zhèng Zhī Nán Yí Ān (临证指南医案), 1746

*Ingredients:*

- Rehmannia  *Sheng Di Huang*  DC
- Asparagus  *Tian Men Dong*  AD
- Asinum  *E Jiao*  AB
- Ligustrum  *Nu Zhen Zi*  AD
- Eclipta  *Han Lian Cao*  AD
- Paeonia  *Bai Shao*  AB
- Poria  *Fu Shen*  N
- Egg Yolk  *Ji Zi Huang*
YI GUAN JIN

**Formula:**  yī guàn jiān (一贯煎), “Single Linking Water-Decoction”  
**Author:**  Wèi Zhī-Xiù (魏之琇)  
**Source:**  Xù Míng Yī Lèi Àn (续名医类案), 1770  
  Literal: “Continuation (of) Famous Doctors’ Categorized Cases”  
**Availability:**  
LINKING DECOCTION (EG)  
LINKING DECOCTION TEAPILLS (PF)  
LINKING FORMULA (GF)  
YI GUAN JIAN (BP, TZ)  
YI GUAN JIAN WAN (HT, TL)  
* FERTILE GARDEN (HC)  
* GRACIOUS POWER (K)  
* LINKING DECOCTION (AL)  

**Ingredients:** (from the standardized “Linking Decoction”)  
- **shēng dì huáng (生地黄), Radix Rehmanniae**  30.8 %  DC  
- **gǒu qǐ zǐ (枸杞子), Fructus Lycii**  15.4  AB  
- **běi shā shēn (北沙参), Radix Glehniae**  15.4  AD  
- **mài mén dōng (麦门冬), Radix Ophiopogonis**  15.4  AD  
- **dāng guī (当归), Radix Angelicae Sinensis**  15.4  AB  
- **chuān liàn zǐ (川楝子), Fructus Meliae Toosendan**  7.6  G
4. OTHER LIVER QI STAGNATION PATTERNS

4A. LIVER STAGNATION INVADES SPLEEN

gān qì fàn pí zhèn (肝气犯脾证), “Liver Qi Invades Spleen Pattern”
gān yù pí xū zhèn (肝郁脾虚证), “Liver Stasis Spleen Deficiency Pattern”

A. Clinical Signs
1. Abdominal distension or fullness
2. Alternating hard or soft stools
3. Poor appetite
4. Flatulence
5. Fatigue
6. Pale complexion
7. Menstrual irregularity with diminished flow
8. Irritability or depression
9. Tongue: normal or red on sides
10. Pulse: wiry in GB position, weak or empty in spleen position, normal or weak in stomach position

B. Analysis
1. Often rooted in emotional stress, including anger, frustration or resentment
2. Also, irregular eating habits, eating in a hurry, eating when worried or angry
3. Diet high in calories or cold foods
4. When liver qi stagnates, horizontal over-control of spleen takes place, interfering with ascending function of spleen
   a. Causes abdominal distension or fullness (main symptom)
5. If liver excess is dominant, stools are less frequent, more difficult and smaller/drier with more painful distension
6. If spleen deficiency is dominant, stools are loose, with flatulence, and less painful distension
7. Often involves deficiency of qi and blood
8. Frequent cause of Irritable Bowel Syndrome

C. Treatment Principle: Harmonize liver and spleen, soothe liver, boost spleen qi
**Important herbs:**

- Citrus *Chen Pi*  
- Aucklandia *Mu Xiang*  
- Aurantium *Zhi Ke*  
- Aurantium *Zhi Shi*  
- Amomum *Sha Ren*  
- Magnolia *Hou Po*  
- Atractylodes *Bai Zhu*  
- Glycyrrhiza *Gan Cao*  
- Zizyphus Jujube *Da Zao*  
- Codonopsis *Dang Shen*  

**Important Formulas for Liver Stasis Invading Spleen:**

- *Chai Hu Shu Gan Tang (jia wei)*  
- *Xiao Yao San (jia wei)*  
- *Xiao Chai Hu Tang*

*Chai Hu Shu Gan Tang*  
add:  
- Atractylodes *Cang Zhu*  

*Xiao Yao San*  
add:  
- Citrus *Fo Shou*
XIAO CHAI HU TANG

Formula: xiao chái hú tāng (小柴胡汤), “Minor Bupleurum Decoction”

Author: Zhāng Zhòng-Jǐng (张仲景)

Source: Shāng Hán Lùn (伤寒论), “Injury (by) Cold, Discussion”, 220

Availability:

MINOR BUPLEURUM COMBINATION (EG, PiM)
MINOR BUPLEURUM FORMULA (CC, GF, HS)
MINOR BUPLEURUM (K)
XIAO CHAI HU TANG (BP, TZ)
XIAO CHAI HU TANG WAN (GC, MS, TL)
XIAO CHAI HU WAN (HT, PM)
* CALM (EV)

Ingredients: (from the standardized “Minor Bupleurum Combination”)

chái hú (柴胡), Radix Bupleuri 25.8 % BB
bàn xià (半夏), Rhizoma Pinelliae 25.8 CA
huáng qín (黄芩), Radix Scutellariae 9.7 DB
rén shēn (人参), Radix Ginseng 9.7 AA
zhì gàn cǎo (炙甘草), Radix Glycyrrhizae Praep. 9.7 AA
shēng jiāng (生姜), Rhizoma Zingiberis Recens 9.7 BA
dà zǎo (大枣), Fructus Jujubae 9.6 AA
4B. LIVER QI STASIS WITH DAMPNESS

A. Clinical Signs
   1. Abdominal distension or fullness
   2. Painful distension in chest or costal region
   3. Heaviness of four limbs
   4. Poor appetite
   5. Loose stools
   6. Slimy sensation in mouth
   7. Absence of thirst
   8. Nausea
   9. Abdominal distension
  10. Tongue: slimy white coat
  11. Pulse: soggy, moderate

B. Formulas

   Chai Ping Tang

CHAI PING TANG

Formula: chái píng tāng (柴平汤), “Bupleurum Calming Formula”
Author: Zhāng Jiè-Bīn (张介宾) aka Zhāng Jīng-Yùè (张景岳)
Source: Jīng Yuè Quán Shū (景岳全书), 1624
   Literal: “Jing-Yue’s Complete Writings”

Ingredients:

- Bupleurum Chai Hu BB
- Codonopsis Dang Shen AA
- Pinellia Ban Xia CA
- Scutellaria Huang Qin DB
- Magnolia Hou Po FB
- Citrus Chen Pi G
- Atractylodes Cang Zhu AA
- Glycyrrhiza Gan Cao AA

plus
4C. LIVER QI STASIS ENGENDERING PHLEGM

A. Clinical Signs
   1. Dizziness
   2. Blurry vision
   3. Belching, hiccup
   4. Esophageal glomus
   5. Low appetite
   6. Abdominal distension
   7. Loose or pasty stool
   8. Tongue: greasy coat
   9. Pulse: Slippery, wiry

B. Formula:

Combine Chai Hu Shu Gan Tang and Er Chen Tang

- chái hú (柴胡), Radix Bupleuri 19.0 % BB
- chén pí (陈皮), Pericarpium Citri Reticulatae 19.0 G
- chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong 14.3 K
- bái sháo (白芍), Radix Paeoniae Alba 14.3 AB
- zhǐ kē (枳壳), Fructus Aurantii 14.3 G
- xiāng fǔ (香附), Rhizoma Cyperi 14.3 G
- gān cǎo (甘草), Radix Glycyrrhizae 4.8 AA
- bàn xià (半夏), Rhizoma Pinelliae 32.2 CA
- fú líng (茯苓), Poria 19.5 FC
- shēng jiāng (生姜), Rhizoma Zingiberis Recens 6.0 BA

plus:

- Cyperus Xiang Fu G
- Atractylodes Bai Zhu AA
- Citrus Qing Pi G
CHAI HU SHU GAN WAN

*Formula information, see p. ???*

plus:

ER CHEN TANG

**Formula:** érchēntāng (二陈汤), “Two Aged Decoction”  
**Author:** Imperial Medical Bureau (tài yī jú, 太医局);  
   revised by Chén Shī-Wén (陈师文)  
**Source:** Tāi Píng Huì Mín Hé Jiǔ Jiǔ Fang (太平惠民和剂局方), 1078  
   Literal: “(Era of) Great Peace, Benefit People Harmonious Medicines,  
   Office (of) Formulas”  
**Availability:**  
   CITRUS & PINELLIA COMBINATION (EG)  
   CITRUS AND PINELLIA FORMULA (GF)  
   ER CHEN TEAPILLS (PF)  
   ER CHEN WAN (HT, MS, PiM, TL)  
   GASTROQUELL (BP)  
   TWO CURED FORMULA (HS)  
   * CITRUS & PINELLIA PLUS FORMULA (CC)  
   * LUCID CHANNEL (K)  

**Ingredients:** (from Herbal Times’ “Er Chen Wan”)  
   chén pí (陈皮), Pericarpium Citri Reticulatae  
   32.3 %  
   G  
   bàn xià (半夏), Rhizoma Pinelliae  
   32.2  
   CA  
   fú líng (茯苓), Poria  
   19.5  
   FC  
   gān cǎo (甘草), Radix Glycyrrhizae  
   10.0  
   AA  
   shēng jiāng (生姜), Rhizoma Zingiberis Recens  
   6.0  
   BA
4D. LIVER STAGNATION INVADES STOMACH

gān qì fàn wèi zhèng (肝气犯胃证), “Liver Qi Invades Stomach Pattern”

A. **Clinical Signs**
   1. Epigastric sensation or distension
   2. Abdominal distension
   3. Regurgitation of sour acid
   4. Hiccup or belching
   5. Nausea, vomiting
   6. No appetite
   7. Sighing
   8. Irritability
   9. Tongue: normal
   10. Pulse: GB or liver position wiry, stomach wiry

B. **Analysis**
   1. Liver qi stasis overacts on stomach, affecting downward descent
   2. Rebellious stomach qi results in abdominal or epigastric distension, belching, nausea
   3. Usually follows a chronic liver qi stasis pattern
   4. Found in excess pattern GERDS
   5. Common in men, whose internalized stress allows liver to overact on stomach

C. **Treatment principle:** Soothe liver qi, facilitate downward descent of stomach qi

D. **Important herbs for facilitating downward descent of stomach qi**

   - chén pí (陈皮), Pericarpium Citri Reticulatae
   - mù xiāng (木香), Radix Aucklandiae
   - zhī kē (枳壳), Fructus Aurantii
   - zhī shí (枳实), Fructus Aurantii Immaturus
   - shā rèn (砂仁), Fructus Amomi
   - hòu pò (厚朴), Cortex Magnoliae
E. *Formulas*

*Xiang Sha Ping Wei San*

Combine *Chai Hu Shu Gan Tang* with *Ping Wei San* (above, p. ) ??

*Shu Gan Wan*

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**XIANG SHA PING WEI SAN**

**Author:** Zhāng Jiè-Bīn (张介宾) aka Zhāng Jīng-Yùè (张景岳)

**Source:** *Jīng Yuè Quán Shū* (景岳全书), 1624

Literal: “Jing-Yue’s Complete Writings”

**Ingredients:** (the recommend formula)

- *chái hú* (柴胡), Radix Bupleuri  
- *bái sháo* (白芍), Radix Paeoniae Alba  
- *zhī kē* (枳壳), Fructus Aurantii  
- *mù xiāng* (木香), Radix Aucklandiae  
- *shà rén* (砂仁), Fructus Amomi  
- *hòu pò* (厚朴), Cortex Magnoliae Officinalis  
- *chén pí* (陈皮), Pericarpium Citri Reticulatae  
- *cāng zhú* (苍术), Rhizoma Atractylodis  
- *gān cǎo* (甘草), Radix Glycyrrhizae  
- *shān zhā* (山楂), Fructus Crataegi  
- *shèn qū* (神曲), Massa Medicata Fermentata  
- *mài yá* (麦芽), Fructus Hordei Germinatus

Jake Paul Fratkin, OMD, L.Ac.  ●  www.drjakefratkin.com
XIANG SHA PING WEI SAN

**Ingredients:** (from standardized “Cyperus, Cardamon & Atractylodes Formula”)

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<td>gàn jiāng (干姜), Rhizoma Zingiberis</td>
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<td>E</td>
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<td>mài yá (麦芽), Fructus Hordei Germinatus</td>
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<td>gān cǎo (甘草), Radix Glycyrrhizae</td>
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CHAI HU SHU GAN TANG (See p.) plus PING WEI SAN

**Formula:** ping wèi sān (平胃散), “Calm the Stomach Powder”

**Author:** Imperial Medical Bureau (tài yī jú, 太医局); revised by Chén Shī-Wēn (陈师文)

**Source:** Tài Píng Huì Mín Hé Jì Jú Fāng (太平惠民和剂局方), 1078

Literal: “(Era of) Great Peace, Benefit People Harmonious Medicines, Office (of) Formulas”

*also attributed to:*

**Author:** Zhōu Yìng (周应)

**Source:** jiǎn yào jī zhòng fāng (简要济众方), 1051

Literal: “Simple Important Aid Multitude Formulas”

**Availability:**

- CALM STOMACH TEAPILLS (PF)
- CALM THE STOMACH FORMULA (HS)
- MAGNOLIA & GINGER FORMULA (EG)
- PING WEI SAN (BP, HT, PM)
- PING WEI SAN WAN (TL)

**Ingredients:** (from Minshan “Ping Wei San”)

- cāng zhú (苍术), Rhizoma Atractylodis 33.3 % FB
- hòu pò (厚朴), Cortex Magnoliae Officinalis 25.0 % FB
- chén pí (陈皮), Pericarpium Citri Reticulatae 25.0 % G
- gān cǎo (甘草), Radix Glycyrrhizae 16.7 % AA

**Ingredients:** (from the standardized “Magnolia & Ginger Formula”)

- cāng zhú (苍术), Rhizoma Atractylodis 28.5 % FB
- hòu pò (厚朴), Cortex Magnoliae Officinalis 14.3 % FB
- chén pí (陈皮), Pericarpium Citri Reticulatae 14.3 % G
- gān cǎo (甘草), Radix Glycyrrhizae 14.3 % AA
- dà zǎo (大枣), Fructus Jujubae 14.3 % AA
- shēng jiāng (生姜), Rhizoma Zingiberis Recens 14.3 % BA
SHU GAN WAN

**Formula:**  shū gān wán (舒肝丸), “Relax (the) Liver Pill”

**Source:**  Modern patent medicine

**Availability:**
- LIVER FLOW (K)
- SHU GAN (HC)
- SHU GAN FORMULA (GF)
- SHU GAN WAN (GC, HT, MS, PiM, TL)
- SHU KAN FORMULA (CC)
- SOOTHE LIVER TEAPILLS (PF)

**Ingredients:**  (from Plum Flower “Soothe Liver Teapills”; also Minshan “Shu Gan Wan”)

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<td>shā rèn  (砂仁), Fructus Amomi</td>
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<td>hòu pò  (厚朴), Cortex Magnoliae</td>
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<td>yán hú suǒ  (延胡索), Rhizoma Corydalis</td>
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<tr>
<td>tán xiāng  (檀香), Lignum Santali Albi</td>
<td>1.8</td>
<td>G</td>
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</tbody>
</table>
**4C. LIVER BLOOD STAGNATION**

_ɡān xuè yǔ zhèn_ (肝血瘀证), “Liver Blood Stasis Pattern”

A. _Clinical Signs_
   1. Hypochondrial pain, sometimes stabbing
   2. Abdominal pain
   3. Hiccup
   4. Disturbed _shen_ with insomnia, profuse dreaming
   5. Epistaxis
   6. Dysmenorrhea, irregular menses or infertility
   7. Menstrual blood dark and clotted
   8. Abdominal masses
   9. Purple nails, lips
   10. Dark complexion
   11. Dry skin
   12. Tongue: dark or purple spots
   13. Pulse: wiry

B. _Analysis_
   1. Usually follows liver _qi_ stagnation
   2. _Qi_ can also stagnate due to disturbed _shen_
   3. Chronic stasis of liver _qi_ develops into stasis of liver blood
   4. Can be aggravated by heat or cold, deficiency of _qi_ and/or blood, or presence of phlegm
      a. _Qi_ stasis is most common factor
         1. Stasis of liver _qi_ usually includes stasis of blood
      b. Exogenous cold can cause blood stasis in uterus
      c. Heat can congeal blood
      d. _Qi_ deficiency fails to move blood
      e. Blood deficiency often accompanies blood stasis
      f. Phlegm combined with blood stasis leads to tumors and masses, as well as heart problems
   5. The liver stores blood, and is particularly affected by stasis of blood
   6. Liver blood stasis affects Ren and Chong channels, affecting menstrual function
   7. This includes dysmenorrhea, clots, irregular periods and infertility
8. Chronic stasis leads to fibroid tumor
9. Fixed pain in the lower abdomen can be either men or women
   a. Stabbing pain
10. Liver qi and blood stasis affects the liver channel, causing epistaxis or even vomiting of blood
11. Stagnant blood obstructs the circulation of fluids, leading to dark skin, or even dry skin
12. Blood stasis can lead to serious conditions, whereas liver qi stasis, by itself does not

C. Treatment principle: Dredge liver qi, move liver blood

Important Herbs In Liver Blood Stagnation

Herbs that Move Blood

bái sháo (白芍), Radix Paeoniae Alba  AB
chì sháo (赤芍), Radix Paeoniae Rubra  K
chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong  K
dān shēn (丹参), Radix/Rhiz. Salviae Miltiorrhizae  K
hóng huā (红花), Flos Carthami  K
jī xuè téng (鸡血藤), Caulis Spatholobi/Milletiae  K
yù jīn (郁金), Radix Curcumae  K

Herbs that Break Stasis

e é zhú (莪术), Rhizoma Curcumae  K
mò yào (没药), Myrrha  K
rǔ xiāng (乳香), Olibanum/Boswelliae  K
táo rén (桃仁), Semen Persicae  K
xuè jié (血竭), Sanguis Draconis  K

Formulas

Ge Xia Zhu Yu Tang
Shao Fu Zhu Yu Tang
**GE XIA ZHU YU TANG**

**Formula:** gé xià zhú yǔ tāng (膈下逐瘀汤)  
“Diaphragm, Below, Drive-Out Stasis Decoction”

**Author:** Wáng Qīng-Rèn (王清任)

**Source:** Yī Lín Gāi Cuò (医林改错), 1830  
Literal: “Physicians’ Circle, Correction (of) Errors”

**Availability:**  
GE XIA ZHU YU TANG (BP, PM)  
STASIS IN THE LOWER CHAMBER TEAPILLS (PF)  
TANGKUEI & CORYDALIS COMBINATION (EG)  
* JADE DISPERSE 2 (JW)

**Ingredients:** (from Plum Flower’s “Stasis in the Lower Chamber Teapills”)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>dāng guī (当归), Radix Angelicae Sinensis</td>
<td>11.5 %</td>
<td>AB</td>
</tr>
<tr>
<td>táo rèn (桃仁), Semen Persicae</td>
<td>11.5</td>
<td>K</td>
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<td>hóng huā (红花), Flos Carthami</td>
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<td>wū yào (乌药), Radix Linderae</td>
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<td>chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong</td>
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<td>K</td>
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<td>mǔ dān pí (牡丹皮), Cortex Moutan</td>
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<td>chì sháo (赤芍), Radix Paeoniae Rubra</td>
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<td>xiāng fù (香附), Rhizoma Cyperi</td>
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<td>zhī kē (枳壳), Fructus Aurantii</td>
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<td>rǔ xiāng (乳香), Olibanum/Boswelliae</td>
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<td>mò yào (没药), Myrrha</td>
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<td>gān cǎo (甘草), Radix Glycyrrhiza</td>
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SHAO FU ZHU YU TANG

**Formula:**  shào fǔ zhú yù tāng  (少腹逐瘀汤)
“Lower Abdomen Drive-Out Stasis Decoction”

**Author:**  Wáng Qīng-Rèn  (王清任)

**Source:**  Yi Lín Gǎi Cuò  (医林改错), 1830
Literal: “Physicians’ Circle, Correction (of) Errors”

**Availability:**
- FENNEL SEED & CORYDALIS COMBINATION (EG)
- CNIDIUM & BULRUSH COMBINATION (EG)
- SHAO FU ZHU YU TANG/WAN (BP, HT, TZ)
- STASIS IN THE LOWER PALACE TEAPILLS (PF)
- * LOWER PALACE TABLETS (SF)

**Ingredients:** (from the standardized “Fennel Seed & Corydalis Combination”)

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<tr>
<th>Ingredient</th>
<th>Quantity</th>
<th>Unit</th>
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<tr>
<td>dàng guì (当归), Radix Angelicae Sinensis</td>
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<tr>
<td>pú huáng (蒲黄), Pollen Typhae</td>
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<tr>
<td>chì sháo (赤芍), Radix Paeoniae Rubra</td>
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<tr>
<td>wǔ líng zhī (五灵脂), Faeces Trogopterori</td>
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<td>yán hú suō (延胡索), Rhizoma Corydalis</td>
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<td>K</td>
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<td>chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong</td>
<td>7.0</td>
<td>K</td>
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<tr>
<td>mò yào (没药), Myrrha</td>
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<td>K</td>
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<td>ròu guì (肉桂), Cortex Cinnamomi</td>
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**Ingredients:** (from Herbal Times “Shao Fu Zhu Yu Wan”)

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<td>dàng guì (当归), Radix Angelicae Sinensis</td>
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<td>pú huáng (蒲黄), Pollen Typhae</td>
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<td>yán hú suō (延胡索), Rhizoma Corydalis</td>
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<td>gān jiāng (干姜), Rhizoma Zingiberis</td>
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</tbody>
</table>

*continued*
4D. STAGNANT LIVER QI TRANSFORMS TO HEAT


A. Clinical Signs

1. Hypochondrial or epigastric distension
2. Chest oppression
3. Irritability, anger or depression, moodiness
4. Insomnia or frightful dreams
5. Red face
6. Red eyes or eye pain, blurred vision
7. Headache
8. Dizziness
9. Visual disturbance
10. Feeling hot
11. Premenstrual tension
12. Breast distension or pain
13. Irregular period, especially early period or heavy period
14.
15. Pulse: wiry

B. Analysis

1. Key symptoms are irritability, and feelings of heat
2. Qi stasis easily transforms into heat
   a. This goes on to consume liver yin and/or blood
3. Can be aggravated by heating foods, e.g. spices and alcohol
   a. Liver heat can block the descent of stomach qi
4. Evident as PMS
C. **Treatment principle:** Sooth liver, move qi, clear heat

**Important herbs to clear liver heat**

- *huáng qín* (黄芩), Radix Scutellariae  
- *jué míng zǐ* (决明子), Semen Cassiae  
- *kǔ shēn* (苦参), Radix Sophorae Flavescentis  
- *mù dān pí* (牡丹皮), Cortex Moutan  
- *xià kū cǎo* (夏枯草), Spica Prunellae  
- *zhī zǐ* (栀子), Fructus Gardeniae

**Formulas**

- *Qing Gan Da Yu Tang*
- *Jia Wei Xiao Yao San*

**QING GAN DA YU TANG**

**Formula:** *qìng gān dà yù tāng* (清肝达郁汤), “Clear Liver Stasis Decoction”

**Author:** Fèi Bó-Xióng (费伯雄)

**Source:** *Yī Chūn Shèng Yì* (医醇賸义), “Medicine Pure, Remnant Righteous”, 1863

<table>
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<td>Stellaria <em>Yin Chai Hu</em></td>
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<tr>
<td>Angelica <em>Dang Gui</em></td>
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<tr>
<td>Paeonia <em>Chi Shao</em></td>
<td>K</td>
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<tr>
<td>Poria <em>Fu Ling</em></td>
<td>FC</td>
</tr>
<tr>
<td>Moutan <em>Mu Dan Pi</em></td>
<td>DC</td>
</tr>
<tr>
<td>Gardenia <em>Zhi Zi</em></td>
<td>DA</td>
</tr>
<tr>
<td>Citrus <em>Ju Ye</em></td>
<td>G</td>
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<tr>
<td>Chrysanthemum <em>Ju Hua</em></td>
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<tr>
<td>Mentha <em>Bo He</em></td>
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<tr>
<td>Glycyrrhiza <em>Zhi Gan Cao</em></td>
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</tbody>
</table>
JIA WEI XIAO YAO SAN

**Formula:**  jiā wèi xiāo yáo sān (加味逍遥散)
“Added Ingredients Free Wanderer Powder”

**Author:**  Xuē Jǐ (薛己) aka Xuē Xīn-Fǔ (薛新甫) aka Xuē Lì-Zhāi (薛立斋)

**Source:**  Nèi Kē Zhāi Yào (内科摘要), circa 1530
Literal: “Internal (Medicine) Department Selected Essentials”

**Availability:**
- AUGMENTED RAMBLING FORMULA (HS)
- BUPLEURUM & PEONY FORMULA (CC, EG)
- DAN ZHI XIAO YAO SAN (BP)
- EASY WANDERER PLUS FORMULA (JD)
- FREE & EASY WANDERER PLUS TEAPLLS (PF)
- FREE AND EASY WANDERER PLUS FORMULA (GF)
- JIA WEI XIAO YAO WAN (HT, PM, TL)
- RELAXED WANDERER (PM)
- WOMAN’S BALANCE (HC)
- * FREEING THE SUN (TT)
- * JADE CALM (JW)
- * RELAXED WANDERER (K)

**Ingredients:**  (from the standardized “Bupleurum & Peony Formula”)

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<th>Quantity</th>
<th>Source</th>
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<td>bái sháo (白芍), Radix Paeoniae Alba</td>
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<td>AB</td>
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<tr>
<td>fú líng (茯苓), Poria</td>
<td>12.1</td>
<td>FC</td>
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<td>bái zhú (白术), Rhizoma Atractylodis Macrocephalae</td>
<td>12.1</td>
<td>AA</td>
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<tr>
<td>chāi hú (柴胡), Radix Bupleuri</td>
<td>12.1</td>
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<tr>
<td>gān jiāng (干姜), Rhizoma Zingiberis</td>
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<tr>
<td>mù dān pí (牡丹皮), Cortex Moutan</td>
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<tr>
<td>zhī zǐ (栀子), Fructus Gardeniae</td>
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<tr>
<td>zhī gàn cǎo (炙甘草), Radix Glycyrrhizae Praep</td>
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<td>bò hé (薄荷), Herba Menthae</td>
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</table>
5. FLARING UP OF LIVER FIRE

*gān huǒ shàng yán zhèng* (肝火上炎证), “Liver Fire Upwards Flaming Pattern”

A. *Clinical Signs*

1. Distending pain in head
2. Dizziness or vertigo
3. Flushed face
4. Red eyes
5. Bitter taste in mouth, dry mouth
6. Irritability
7. Insomnia or dream-disturbed sleep
8. Burning pain in costal, hypochondriac or epigastrium regions
9. Constipation
10. Dark or yellow urine
11. Tinnitus like the sound of waves
12. Swelling pain with discharge in ear
13. Hematemesis
14. Epistaxis
15. Tongue: red with yellow coat
16. Pulse: Wiry and rapid

B. *Analysis:*

1. Excess fire affects head, eyes, ears and hypochondrium via the liver and gallbladder channels
2. Traditional etiology is emotional frustration or anger
   a. This depresses liver *qi* leading to development of fire
   b. Fire is upwards and dispersing
3. *Qi* and blood accumulates in the channel, leading to headache, dizziness, flushed face, red eyes
4. Liver heat can transfer to gallbladder, causing *qi* to ascend along the gallbladder channel, causing bitter taste in mouth
5. Dryness of the mouth is due to steaming of fluid by fire-heat
6. When liver impedes free flow of *qi*, it leads to irritability and anger
7. Fire-heat disturbs mind and *shen*, leading to insomnia and dream-disturbed sleep
8. Excessive liver fire injures and burns the liver channel, allowing stasis and accumulation of qi and blood, causing burning in hypochondriac region

9. Consumption of fluid by excess heat results in constipation and yellow urine

10. Because GB meridian goes to the ear, fire in the channel leads to tinnitus or hearing loss
   a. Heat can also block the channel, leading to pain, swelling, ulceration of the ear

11. In excess heat, the blood can become affected, leading to hematemesis or epistaxis

C. **Treatment Principle:** Reduce liver fire

**Important herbs for draining liver fire**

- huáng qín (黄芩), Radix Scutellariae
- jú huā (菊花), Flos Chrysanthemi
- jué míng zǐ (決明子), Semen Cassiae
- kǔ shēn (苦參), Radix Sophorae Flavescentis
- lóng dān cǎo (龍膽草), Radix/Rhizoma Gentianae
- mǔ dān pí (牡丹皮), Cortex Moutan
- xià kū cǎo (夏枯草), Spica Prunellae
- yīn chén hào (茵陈蒿), Herba Artemisiae Scopariae
- zhī zǐ (栀子), Fructus Gardeniae

**Formulas**

- Long Dan Xie Gan Tang
- Ming Mu Shang Qing Pian
- Chai Hu Shu Gan Tang with Jia Wei Xiao Yao San
LONG DAN XIE GAN TANG

**Formula:** lóng dăn xiè găn tâng (龙胆泻肝汤), “Gentiana Drain Liver Decoction”

**Author:** Wâng Âng (汪昂)

**Source:** Yi Fang Ji Jiê (医方集解), 1682
Literal: “Medical Formulas Collected, Explained”

**Antecedents found in:**

**Author:** Qián Yî (钱乙)

**Source:** Qián Shì Xiăo Ėr Yào Zhèng Zhí Jué (钱氏小儿药证直), 1119
Literal: “Qian’s Children’s Medical Patterns, Straight Secrets”

and

**Author:** Luó Tiān-Yì (羅天益)

**Source:** Wèi Shēng Bào Jiàn (卫生宝鉴), 1281
Literal: “Protect Life Precious Mirror”

**Availability:**

LONG DAN XIE GAN TANG/WAN (BP, GC, HT, MS, PîM, PM, TL, TZ)
COOL LIVER FIRE FORMULA (JD)   THE SNAKE & THE DRAGON (PF)
GENTIANA COMBINATION (EG)       * COPTIS PURGE FIRE (HC)
GENTIANA DRAIN FIRE FORMULA (GF)  * GENTIANA 12 (SF)
GENTIANA FORMULA (CC)          * GENTIANA COMPLEX (EV)
QUELL FIRE (K)

**Ingredients:** (from the standardized “Gentiana Combination”)

lóng dăn cào (龙胆草), Radix/Rhizoma Gentianae   15.4 %   DA
chái hú (柴胡), Radix Bupleuri                   15.4 %   BB
zé xiè (泽泻), Rhizoma Alismatis                  15.3 %   FC
ché qían cào (车前草), Herba Plantaginis          7.7 %   FC
chuán mù tông (川木通), Caulis Clematidis Armandii 7.7 %   FC
shěng dì huáng (生地黄), Radix Rehmanniae         7.7 %   DC
dâng gui (当归), Radix Angelicae SinensisWei      7.7 %   AB
zhí zí (栀子), Fructus Gardeniae                  7.7 %   DA
huáng qín (黄芩), Radix Scutellariae              7.7 %   DB
gân cào (甘草), Radix Glycyrrhizae               7.7 %   AA
MING MU SHANG QING PIAN

Formula: ming mù shàng qīng piān (明目上清片), “Brighten Eyes Upper Clearing Tablet”
Source: Modern patent medicine
Availability:
MING MU SHANG CHING PIEN (PM)
MING MU SHANG QING PIAN (PM)

Ingredients: (from Great Wall Brand, Tianjin Drug Manufactory, “Ming Mu Shang Ching Pien”)

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<th>Ingredient (Chinese)</th>
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Combined CHAI HU SHU GAN TANG with JIA WEI XIAO YAO SAN

Chai Hu Shu Gan Tang, see p. ??
Jia Wei Xiao Yao San, see p. ??

Ingredients:
- chái hú (柴胡), Radix Bupleuri
- chén pí (陈皮), Pericarpium Citri Reticulatae
- chuān xiōng (川芎), Rhizoma Ligustici Chuanxiong
- bái sháo (白芍), Radix Paeoniae Alba
- zhī ké (枳壳), Fructus Aurantii
- xiàng fù (香附), Rhizoma Cyperi
- dāng guī (当归), Radix Angelicae Sinensis
- fú líng (茯苓), Poria
- bái zhú (白术), Rhizoma Atractylodis Macrocephalae
- mǔ dān pí (牡丹皮), Cortex Moutan
- zhī zǐ (栀子), Fructus Gardeniae
- bò hé (薄荷), Herba Menthae
- gān cǎo (甘草), Radix Glycyrrhizae

6. HYPERACTIVITY OF LIVER YANG

gān yáng shàng kàng zhèng (肝阴上亢证), “Liver Yang Upwards Exuberance Pattern”

A. Clinical Signs

1. Dizziness and headache
2. Distending pain in head and eyes
3. Flushed face
4. Red eyes
5. Irritability or easily angered
6. Tinnitus
7. Palpitations
8. Poor memory
9. Insomnia
10. Excessive dreaming
11. Soreness or weakness of lumbar area and knees
12. Head feels heavier than legs
13. Sudden falling
14. Tongue: red
15. Pulse: wiry and forceful or wiry and thin; rapid
**B. Analysis**

1. The main point in differentiation is excess of liver *yang* in upper part of the body and deficiency of kidney *yin* in lower part.

2. Causes:
   
   a. Deficiency of *yin* of both liver and kidney fails to restrain rising liver *yang*.
   
   b. Anger and anxiety cause liver *qi* stasis (depression of liver *qi*) which turns to fire.
      
      1. Fire consumes *yin* fluid, failing to restrain liver *yang*.

3. Hyperactive liver *yang* allows *qi* and blood to rush upwards, causing dizziness, tinnitus, pain in eyes and head, flushed face, red eyes.

4. Loss of liver’s softness leads to irritability and easy to anger.

5. If *yin* deficiency affects heart/shen, it leads to disturbed mind, palpitations, poor memory, insomnia, and excessive dreaming.

6. Deficiency of liver and kidney *yin* deprives tendons of nourishment, causing soreness and weakness of back and knees.

7. Excess of *yang* above with deficiency of *yin* below causes heaviness of the head with a floating feeling in the legs or feet.

8. Hyperactivity of liver *yang* allows or co-exists with stagnation of liver *qi*, flaring up of liver fire and/or deficiency of liver *yin*.
   
   a. These patterns are constantly changing.
   
   b. Stagnation of liver *qi* may transform into fire.
   
   c. Excessive fire (flaring up of liver fire) can burn or consume liver *yin*.
   
   d. Deficiency of liver *yin* can cause hyperactivity of liver *yang*.
   
   e. Hyperactivity of liver *yang* can turn into wind.

**C. Treatment principle:** Calm the liver and suppress hyperactivity of liver *yang*.

**Important Herbs for Subduing Liver Yang**

- *bái jí lí* (白蒺藜), Fructus Tribuli
- *gōu téng* (钩藤), Ramulus Uncariae cum Uncis
- *jiāng cán* (僵蚕), Bombyx Batryticatus
- *jú huā* (菊花), Flos Chrysanthemi
- *lǒng gǔ* (龙骨), Os Draconis
- *mǔ lì* (牡蛎), Concha Ostreae
- *shí jué míng* (石决明), Concha Haliotidis
- *tiān má* (天麻), Rhizoma Gastrodiae
Formulas

Jian Ling Tang
Tian Ma Gou Teng Yin

JIAN LING TANG

*Formula:* jian ling tang (建瓴汤), “Construct a Tile-Channel Decoction”, (“Down Sweeping Decoction”)

*Author:* Zhāng Xī-Chún (张锡纯)

*Source:* Yī Xué Zhōng Zhōng Cān Xī Lǜ (医学衷中参西录), 1918-1934

Literal: “Medical Studies Heartfelt (towards) Chinese, Respecting Western, Records”

<table>
<thead>
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<tr>
<td>Ostrea Mu Li</td>
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<tr>
<td>Achyranthes Niu Xī</td>
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</tr>
<tr>
<td>Hematite Dai Zhe Shi</td>
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<tr>
<td>Paeonia Bai Shao</td>
<td>AB</td>
</tr>
<tr>
<td>Rehmannia Sheng Di Huang</td>
<td>DC</td>
</tr>
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<td>Biota Bai Zi Ren</td>
<td>N</td>
</tr>
</tbody>
</table>

plus

<table>
<thead>
<tr>
<th>Uncaria Gou Teng</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribulus Bai Ji Li</td>
<td>O</td>
</tr>
</tbody>
</table>
TIAN MA GOU TENG YIN

**Formula:**  tiān mǎ gòu téng yín (天麻钩藤饮), “Gastrodia, Uncaria Cool-Decoction”  

**Author:**  Hú Guāng-Cí (胡光慈)  

**Source:**  Zá Bìng Zhēng Zhì Xīn Yì (杂病证治新义), 1958  
Literal: “Miscellaneous Disorders Patterns (and) Treatment New Significance”

**Availability:**  
- CALM LIVER WIND FORMULA (JD)  
- GASTRODIA & GAMBIR COMBINATION (EG)  
- GASTRODIA AND UNCARIA EXTRACT/FORMULA (CC, GF, PM)  
- GASTRODIA AND UNCARIA WIND RELIEF (K)  
- TIAN MA GOU TENG YIN PIAN/TEAPILLS/WAN (BP, GC, HT, PF, PM, TL, TZ)  
  - * GASTRODIA 9 (SF)  
  - * GASTRODIA RELIEVE WIND (HC)

**Ingredients:**  
(from the standardized “Gastrodia and Gambir Combination”)  

- yè jiāo téng (夜交藤), Caulis Polygoni Multiflori  16.8 %  N  
- shí jué míng (石决明), Concha Haliotidis  16.8  O  
- sāng ji shēng (桑寄生), Herba Taxilli/Loranthi  13.6  AD  
- gòu téng (钩藤), Ramulus Uncariae Cum Uncis  8.4  O  
- fú shén (茯神), Sclerotium Poriae Pararadicis  8.4  N  
- yì mǔ cǎo (益母草), Herba Leonuri  8.4  K  
- chuān niú xī (川牛膝), Radix Cyathulacae  6.8  K  
- dū zhòng (杜仲), Cortex Eucommiae  5.2  AC  
- tiān mǎ (天麻), Rhizoma Gastrodiae  5.2  O  
- zhī zǐ (栀子), Fructus Gardeniae  5.2  DA  
- huáng qín (黄芩), Radix Scutellariae  5.2  DB  

plus  
- Tribulus Bai Ji Li  O  
- Paeonia Bai Shao  AB  
- Margaritafera Zhen Zhu Mu  N
6A. HYPERACTIVITY OF LIVER YANG WITH YIN DEFICIENCY

A. Clinical Signs

1. Dizziness and headache
2. Blurry vision
3. Ringing in the ears (like sound of cicadas)
4. Dry eyes
5. Dry mouth
6. Insomnia
7. Weak lower back or knees

B. Prescription:

**QI JU DI HUANG WAN**

**Formula:** qǐ jù dì huáng wán (杞菊地黄丸), “Lycium, Chrysanthemum, Rehmannia Pill”

**Author:** Huá Shòu (滑寿)

**Source:** Má Zhēn Quán Shū (麻疹全书), circa 1350

Literal: “Measles Complete Treatise”

*also attributed to:*

**Author:** Wēi Yì-Lín (危亦林)

**Source:** Shì Yī Dé Xiào Fāng (世医得效方), 1345

Literal: “Generations (of) Physicians Obtained Effective Formulas”

**Availability:**
- LYCII CHRYSANTHEMUM TEAPILLS (PF)
- LYCIUM & REHMANNIA (CC, MS)
- LYCIUM, CHRYSANTHEMUM & REHMANNIA FORMULA (EG)
- QI JU DI HUANG WAN (BP, GC, HT, PM, TL, TZ)

**Ingredients:** (from the standardized “Lycium, Chrysanthemum & Rehmannia Formula”)

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<th>Ingredient</th>
<th>Percentage</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>shú dì huáng (熟地黄), Radix Rehmanniae Praep.</td>
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<tr>
<td>shān zhū yú (山茱萸), Fructus Corni</td>
<td>13.8</td>
<td>L</td>
</tr>
<tr>
<td>shān yào (山药), Rhizoma Dioscoreae</td>
<td>13.8</td>
<td>AA</td>
</tr>
<tr>
<td>fú líng (茯苓), Poria</td>
<td>10.3</td>
<td>FC</td>
</tr>
<tr>
<td>mǔ dàn pí (牡丹皮), Cortex Moutan</td>
<td>10.3</td>
<td>DC</td>
</tr>
<tr>
<td>zé xiè (泽泻), Rhizoma Alismatis</td>
<td>10.3</td>
<td>FC</td>
</tr>
<tr>
<td>gōu qī zǐ (枸杞子), Fructus Lycii</td>
<td>6.9</td>
<td>AB</td>
</tr>
</tbody>
</table>
MING MU DI HUANG WAN

**Formula:** ming mù di huáng wán (明目地黄丸), “Brighten Eyes Rehmannia Pill”

**Source:** Modern patent medicine. Cited in:
Zhōng Huā Rén Mín Gòng Hé Guó Yào Dìǎn (中华人民共和国药典), 2005
Literal: “People’s Republic of China (Herbal) Medicine Compendium”

**Availability:**
- BRIGHT EYE REHMANNIA (K)
- MING MU DI HUANG TEAPILLS (PF)
- MING MU DI HUANG WAN (BP, GC, HT, MS, PİM, PM, TL)
- MING MU FORMULA (GF)

**Ingredients:** (from Herbal Times “Ming Mu Di Huang Wan”)

- shù di huáng (熟地黄), Radix Rehmanniae Praep. 18.3 % AB
- shān yào (山药), Rhizoma Dioscoreae 9.1 AA
- shān zhū yú (山茱萸), Fructus Corni 9.1 L
- shí jué míng (石决明), Concha Haliotidis 9.1 O
- bái jí lí (白蒺藜), Fructus Tribuli 6.8 O
- bái sháo (白芍), Radix Paeoniae Alba 6.8 AB
- dāng guí (当归), Radix Angelicae Sinensis 6.8 AB
- fú líng (茯苓), Poria 6.8 FC
- gŏu qí zǐ (枸杞子), Fructus Lycii 6.8 AB
- jú huā (菊花), Flos Chrysanthemi 6.8 BB
- mǔ dān pí (牡丹皮), Cortex Moutan 6.8 DC
- zé xiè (泽泻), Rhizoma Alismatis 6.8 FC
7. INTERNAL STIRRING OF LIVER WIND

_ɡān fēnɡ nèi dònɡ zhènɡ_ (肝风内动证), “Liver Wind Internal Movement Pattern”

A. **Clinical Signs**
   1. Dizziness and vertigo with a feeling of falling
   2. Convulsions and tremors
   3. Four patterns:

7-A. **Liver Yang Turning into Wind**

_ɡān yánɡ huà fēnɡ zhènɡ_ (肝阳化风证), “Liver Yang Transforms (to) Wind Pattern”

A. **Clinical Signs**
   1. Dizziness and vertigo with feeling of falling
   2. Headache with shaking of head
   3. Stiff neck
   4. Shaking and numbness in limbs
   5. Dysphagia (difficulty swallowing)
   6. Clumsy walking (staggering gait)
   7. Stroke
      a. Sudden collapse or loss of consciousness
      b. Deviation of mouth and eyes
      c. Hemiplegia
      d. Stiff tongue
   8. Tongue: red with white sticky coat
   9. Pulse: Wiry and forceful, floating

B. **Analysis**
   1. This is a combination of hyperactivity of liver _yang_ with stirring of liver wind in the interior
   2. Results from prolonged deficiency of liver and kidney _yin_ with failure to control liver _yang_
   3. Liver _yang_ turns to wind, disturbing head and eyes, dizziness and vertigo or shaking of head
   4. Rising _yang_ pushes _qi_ and blood upwards, causing headache
5. Wind, *yang* excess and *yin* deficiency leads to spasm in muscles and tendons, causing shaking limbs and stiff neck
6. The liver channel connects to the root of the tongue, leading to difficulty speaking or slurred speech
7. Deficiency of *yin* produces numbness
8. Clumsy walking (staggering gait) is due to wind in the upper part of the body and deficiency of *yin* in the lower part
9. Sudden rise of wind and *yang* disturbs *qi* and blood leading to disturbance of the mind
   a. If combined with phlegm, it leads to signs and symptoms of stroke

C. **Treatment principle:** Calm the liver to subdue *yang*, calm wind and remove phlegm

**Important herbs for Subduing Wind**

- *bái jì lí* (白蒺藜), Fructus Tribuli
- *gòu tèng* (钩藤), Ramulus Uncariae cum Uncis
- *hū pò* (琥珀), Succinum
- *jiàng cán* (僵蚕), Bombyx Batryticatus
- *shí jué míng* (石决明), Concha Haliotidis
- *tiān má* (天麻), Rhizoma Gastrodiae
ZHEN GAN XI FENG TANG

Formula: zhèn gān xī fēng tāng (镇肝息⾻汤)
“Pacify Liver, Extinguish Wind Decoction”

Author: Zhāng Xí-Chún (张锡纯)

Source: Yī Xué Zhōng Zhōng Cān Xī Lù (医学衷中参西录), 1918-1934
Literal: “Medical Studies Heartfelt (towards) Chinese, Respecting Western, Records”

Availability:
- HEMATITE & SCROPHULARIA COMBINATION (EG)
- ZHEN GAN XI FENG TANG (BP)
- ZHEN GAN XI FENG TEAPILLS (PF)
- ZHEN GAN XI FENG WAN (HT)

Ingredients: (from the standardized “Hematite & Scrophularia Combination”)

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<tr>
<th>Ingredient</th>
<th>Quantity</th>
<th>Basis</th>
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<tbody>
<tr>
<td>dài zhē shí (代赭石), Haematitum</td>
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<td>tiān mén dòng (天门冬), Radix Asparagi</td>
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<td>lóng gǔ (龙⾻), Os Draconis</td>
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<td>mǔ li (牡蛎), Concha Ostreae</td>
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<td>N</td>
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<td>AB</td>
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<td>chuān liàn zǐ (川楝⼦), Fructus Meliae Toosendan</td>
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<td>mài yá (麦芽), Fructus Hordei Germinatus</td>
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<td>H</td>
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<tr>
<td>yín chén hào (茵陈蒿), Herba Artemisiae Scopariae</td>
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<td>FC</td>
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<tr>
<td>gàn cǎo (甘草), Radix Glycyrrhizae</td>
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</table>

plus
- Rehmannia Sheng Di Huang DC
- Magnetite Ci Shi N
- Lumbricus Di Long O
- Uncaria Gou Teng O
- Scutellaria Huang Qin DB
7-B. WIND-PHLEGM HARASSING UPPER BODY

*fēng tān shàng rǎo zhèng* (风痰上扰证), “Wind Phlegm Upper Harassing Pattern”

A. *Clinical Signs*
1. Qi stasis leads to phlegm accumulation and phlegm-turbidity
2. Dizziness and vertigo
3. Tinnitus
4. Chest oppression
5. Nausea or vomiting
6. Tongue: slimy white coat
7. Pulse: wiry and slippery

B. *Prescription*

**BAN XIA BAI ZHU TIAN MA TANG**

*Formula:* *bàn xià bái zhú tiān mā táng* (半夏白术天麻汤)

“Pinellia, Atractylodes, Gastrodia Decoction”

*First version:*

*Author:* Lǐ Gǎo (李杲) aka Lǐ Dōng-Yuán (李东垣)

*Source:* *Pí Wèi Lùn* (脾胃论), 1249

Literal: “Spleen, Stomach Discussion”

*Availability:*

BAN XIA BAI ZHU TIAN MA WAN (GC, PM)
HEAD CLEAR TABLET (BE)
PINELLIA & GASTRODIA COMBINATION (EG)
* CLEAR YANG (TT)
BAN XIA BAI ZHU TIAN MA TANG

**Ingredients:** (from the standardized “Pinellia & Gastrodia Combination”)

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<td>mài yá (Malted)</td>
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<tr>
<td>bái zhú (White)</td>
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<tr>
<td>shén qū (Sundry)</td>
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<tr>
<td>tiān má (Soy)</td>
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<tr>
<td>rén shēn (干细胞)</td>
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<td>AA</td>
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<td>cāng zhú (Cang)</td>
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<tr>
<td>huáng qí (Huang)</td>
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<td>chén pí (Chen)</td>
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<tr>
<td>fú líng (Fuling)</td>
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<td>gān jiāng (Ganjiang)</td>
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<tr>
<td>huáng bǎi (Huang)</td>
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*plus:*

<table>
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<td>Paeonia Bai Shao</td>
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<tr>
<td>Uncaria Gou Teng</td>
<td>O</td>
</tr>
<tr>
<td>Tribulus Bai Ji Li</td>
<td>O</td>
</tr>
<tr>
<td>Margaritifera Zhen Zhu Ma</td>
<td>O</td>
</tr>
</tbody>
</table>
8. GALLBLADDER STASIS WITH DISTURBANCE OF PHLEGM-HEAT

*dàn yù tàn rǎo zhèng* (胆郁痰扰证), “Gallbladder Stasis Phlegm Disturbance Pattern”

A. *Clinical Signs*
   1. Palpitation
   2. Insomnia
   3. Irritability
   4. Bitter taste in mouth
   5. Nausea
   6. Fullness in chest
   7. Hypochondrial distension
   8. Dizziness, vertigo
   9. Tinnitus or hearing loss
   10. Tongue: yellow sticky coat
   11. Pulse: Wiry, slippery

B. *Analysis*
   1. Pattern shows the failure of the gallbladder in promoting the free flow of *qi* and disturbance by phlegm or phlegm-heat
   2. Relates to chronic gallbladder congestion, a possible precursor to gallstones
      a. Bile excretion is an important component in flushing out environmental toxins
   3. Main symptoms are palpitation, dizziness, vertigo, tinnitus, and a yellow sticky tongue coat
   4. Traditionally due to emotional frustration, which impairs the GB in promoting the free flow of *qi*
   5. This inhibits all *qi* circulation and produces phlegm
   6. Prolonged phlegm can turn to phlegm-heat, which further impairs GB activity
   7. Leads to palpitations, insomnia and irritability
   8. If it attacks stomach, stomach *qi* will rise, causing nausea or vomiting
   9. Accompanying stagnation of liver *qi* results in fullness of the chest and distension of the hypochondrium
   10. Upward disturbance of phlegm-heat along the liver or gallbladder channel cause dizziness, vertigo, and tinnitus or hearing loss
C. **Treatment principle:** Reduce heat, dispel phlegm, clear liver fire, harmonize the stomach

D. **Important Herbs for clearing Gallbladder heat and phlegm**

- Pinellia *Ban Xia*  
- Arisaema *Dan Nan Xing*  
- Coptis *Huang Lian*  
- Scutellaria *Huang Qin*  
- Sophora *Ku Shen*  
- Gentiana *Long Dan Cao*  
- Bambusa *Tian Zhu Huang*  
- Fritillaria *Zhe Bei Mu*  
- Bambusa *Zhu Ru*

E. **Formulas**

*Wen Dan Tang*

*Li Dan Wan*

Lysimachia GB Formula (GF)

---

**WEN DAN TANG**

*Formula:* แนว ด่าน 탕 *(暖胆汤)*, “Warm (the) Gallbladder Decoction”

*Author:* 陈言 *(陈言)* aka 陈无择 *(陈无择)*

*Source:* 三因极一病证方论 *(三因极一病证方论)*, 1174

Literal: “Three Etiologies Unification (of) Illness, Patterns (and) Formulas Discussion”

*Antecedent found in:*  
*Formula:* แนว ด่าน 탕 *(暖胆汤)*, “Warm (the) Gallbladder Decoction”

*Author:* 孙思邈 *(孙思邈)*

*Source:* 千金要方 *(千金要方)*, 652

Literal: “Thousand Gold (Pieces) Important Formulas”
**Availability:**

- HOELEN & BAMBOO COMBINATION (EG)
- PORIA & BAMBOO FORMULA (GF, KP)
- RISING COURAGE TEAPILLS (PF)
- WEN DAN TANG/WAN (BP, GC, HT, TL)
  - * CLEAR PHLEGM (HC)
  - * PEACEFUL SHEN (KA)

**Ingredients:** (from the standardized “Poria/Hoelen & Bamboo Formula”)

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<th>Quantity</th>
<th>Unit</th>
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<tbody>
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<td>G</td>
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<td>bàn xià (半夏), Rhizoma Pinelliae</td>
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<td>CA</td>
</tr>
<tr>
<td>zhī shí (枳实), Fructus Aurantii Immaturus</td>
<td>15.9</td>
<td>G</td>
</tr>
<tr>
<td>zhú rú (竹茹), Caulis Bambusae in Taenia</td>
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<td>CB</td>
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<tr>
<td>fú líng (茯苓), Poria</td>
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<td>FC</td>
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<tr>
<td>gān cǎo (甘草), Radix Glycyrrhizae</td>
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<tr>
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<td>dà zǎo (大枣), Fructus Jujubae</td>
<td>4.8</td>
<td>AA</td>
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</table>

**Ingredients:** (from Herbal Times “Wen Dan Wan”)

<table>
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<tr>
<th>Ingredient</th>
<th>Quantity</th>
<th>Unit</th>
</tr>
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<tbody>
<tr>
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<td>20 %</td>
<td>FC</td>
</tr>
<tr>
<td>jiāng bàn xià (姜半夏), Rhizoma Pinelliae Praep</td>
<td>15</td>
<td>CA</td>
</tr>
<tr>
<td>chén pí (陈皮), Pericarpium Citri Reticulatae</td>
<td>15</td>
<td>G</td>
</tr>
<tr>
<td>chǎo zhī shí (炒枳实), Fructus Aurantii Immaturus</td>
<td>15</td>
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<tr>
<td>zhù rú (竹茹), Caulis Bambusae in Taenia</td>
<td>15</td>
<td>CB</td>
</tr>
<tr>
<td>dà zǎo (大枣), Fructus Jujubae</td>
<td>10</td>
<td>AA</td>
</tr>
<tr>
<td>gān cǎo (甘草), Radix Glycyrrhizae</td>
<td>5</td>
<td>AA</td>
</tr>
<tr>
<td>shēng jiāng (生姜), Rhizoma Zingiberis Recens</td>
<td>5</td>
<td>BA</td>
</tr>
</tbody>
</table>
LI DAN PIAN

Formula: lǐ dān piān (理胆片), “Benefit Gallbladder Tablets”

Source: Modern patent medicine

Availability:
- LI DAN PIAN (PF)
- LI DAN SUPPORT (K)
- LI DAN TABLETS (PM)
- LI DAN WAN (HT)

Ingredients: (from Plum Flower “Li Dan Pian”)

- huáng qín (黄芩), Radix Scutellariae: 30 % DB
- tǔ mù xiàng (土木香), Radix Inulae: 16 G
- jīn qián cǎo (金钱草), Herba Lysimachiae: 10 FC
- jīn yín huā (金银花), Flos Lonicerae Japonicae: 10 DD
- yīn chén hǎo (茵陈蒿), Herba Artemisiae Scopariae: 10 FC
- chái hú (柴胡), Radix Bupleuri: 10 BB
- dà qìng yè (大青叶), Folium Isatidis: 10 DD
- dà huáng (大黄), Radix/Rhizoma Rhei: 4 PA

Ingredients: (from Herbal Times “Li Dan Wan”)

- mǔ xiāng (木香), Radix Aucklandiae: 16.0 % G
- bái sháo (白芍), Radix Paeoniae Alba: 9.5 AB
- jīn yín huā (金银花), Flos Lonicerae Japonicae: 9.5 DD
- zhī mǔ (知母), Rhizoma Anemarrhenae: 9.5 DA
- dà qìng yè (大青叶), Folium Isatidis: 9.5 DD
- chái hú (柴胡), Radix Bupleuri: 9.5 BB
- yīn chén hǎo (茵陈蒿), Herba Artemisiae Scopariae: 9.5 FC
- jīn qián cǎo (金钱草), Herba Lysimachiae: 9.5 FC
- dà huáng (大黄), Radix/Rhizoma Rhei: 9.5 PA
- huáng qín (黄芩), Radix Scutellariae: 5.0 DB
- máng xiāo (芒硝), Natrii Sulphas/Mirabilis: 3.0 PA
LYSIMACHIA GB FORMULA
Golden Flower

<table>
<thead>
<tr>
<th>Combination</th>
<th>Amount</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>₆jin qián cāo (金钱草), Herba Lysimachiae</td>
<td>15 %</td>
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</tr>
<tr>
<td>₆yù jǐn (郁金), Radix Curcumae</td>
<td>10</td>
<td>K</td>
</tr>
<tr>
<td>₆chái hú (柴胡), Radix Bupleuri</td>
<td>9</td>
<td>BB</td>
</tr>
<tr>
<td>₆huáng qīn (黄芩), Radix Scutellariae</td>
<td>9</td>
<td>DB</td>
</tr>
<tr>
<td>₆dāng shēn (党参), Radix Codonopsis</td>
<td>8</td>
<td>AA</td>
</tr>
<tr>
<td>₆yīn chén hāo (茵陈蒿), Herba Artemisiae Scopariae</td>
<td>8</td>
<td>FC</td>
</tr>
<tr>
<td>₆zhú rú (竹茹), Caulis Bambusae in Taenia</td>
<td>8</td>
<td>CB</td>
</tr>
<tr>
<td>₆zhī zǐ (栀子), Fructus Gardeniae</td>
<td>8</td>
<td>DA</td>
</tr>
<tr>
<td>₆bái sháo (白芍), Radix Paeoniae Alba</td>
<td>8</td>
<td>AB</td>
</tr>
<tr>
<td>₆chuān liàn zǐ (川楝子), Fructus Meliae Toosendan</td>
<td>5</td>
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</tr>
<tr>
<td>₆dà zǎo (大枣), Fructus Jujubae</td>
<td>5</td>
<td>AA</td>
</tr>
<tr>
<td>₆zhì gān cāo (炙甘草), Radix Glycyrrhiza Praep.</td>
<td>4</td>
<td>AA</td>
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<tr>
<td>₆shēng jiāng (生姜), Rhizoma Zingiberis Recens</td>
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<td>BA</td>
</tr>
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9. OTHER USEFUL FORMULAS FOR LIVER DETOXIFICATION

1. Liver Detox Formula (DrJ)
2. Albizzia 9 (SF)
3. Ecliptex (HC)
4. Salvia/Ligustrum Tablets (SF)
5. Herbal DTX (EV)
6. Liver DTX (EV)
LIVER DETOX FORMULA
Jake Fratkin

bái sháo (白芍), Radix Paeoniae Alba 11.1 g. AB
bái zhú (白术), Rhizoma Atractylodis Macro. 13.3 AA
dāng guì (当归), Radix Angelicae Sinensis 13.3 AB
gōu qì zǐ (枸杞子), Fructus Lycii 8.9 AB
huáng qín (黄芩), Radix Scutellariae 13.3 DB
wǔ wèi zǐ (五味子), Fructus Schisandrae 9.0 L
xiāng fù (香附), Rhizoma Cyperi 11.1 G
yù jīn (郁金), Radix Curcumae 11.1 K
mài mén dōng (麦门冬), Radix Ophiopogonis 11.1 AD

ALBIZZIA 9
Seven Forest

Author: Subhuti Dharmananda

hé huān pí (合欢皮), Cortex Albiziae 16% N
yuān zhì (远志), Radix Polygalae 12 N
gōu téng (钩藤), Ramulus Uncariae cum Uncis 12 O
yù jīn (郁金), Radix Curcumae 12 K
dān shēn (丹参), Radix/Rhiz. Salviae Miltiorrhizae 12 K
bái sháo (白芍), Radix Paeoniae Alba 12 AB
yè jiāo téng (夜交藤), Caulis Polygoni Multiflori 8 N
bái jì lì (白蒺藜), Fructus Tribuli 8 O
bái zǐ rén (柏子仁), Semen Platycladi/Biotae 8 N
ECLIPTEX
Health Concerns

Author: Andrew Gaeddert

*hàn lián cǎo* (旱莲草), Herba Ecliptae
sylimum (Milk thistle)
*yù jīn* (郁金), Radix Curcumae
*dān shēn* (丹参), Radix/Rhiz. Salvieae Miltiorrhizae
gōu qǐ zǐ (枸杞子), Fructus Lycii
*nǚ zhēn zǐ* (女贞子), Fructus Ligustri Lucidi
chái hú (柴胡), Radix Bupleuri
*wǔ wèi zǐ* (五味子), Fructus Schisandrae
*tián qǐ* (田七), Radix/Rhizoma Notoginseng
dāng guī (当归), Radix Angelicae Sinensis
chè qián cǎo (车前草), Herba Plantaginis
*gān cǎo* (甘草), Radix Glycyrrhizae

SALVIA/LIGUSTRUM TABLETS
Seven Forest

Author: Subhuti Dharmananda

dān shēn (丹参), Radix/Rhiz. Salvieae Miltiorrhizae 21% K
nǚ zhēn zǐ (女贞子), Fructus Ligustri Lucidi 16 AD
gān cǎo (甘草), Radix Glycyrrhizae 16 AA
hǔ zhàng (虎杖), Rhizoma Polygoni Cuspidati 16 K
yù jīn (郁金), Radix Curcumae 11 K
bái zhú (白术), Rhizoma Atractylodis Macrocephalae 10 AA
wǔ wèi zǐ (五味子), Fructus Schisandrae 10 L
**HERBAL DTX**  
_Evergreen_

Author: John Chen

<table>
<thead>
<tr>
<th>Herbs</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>lù dòu</em> (绿豆), Semen Phaseoli Radiati</td>
<td>DF</td>
</tr>
<tr>
<td><em>gàn cǎo</em> (甘草), Radix Glycyrrhizae</td>
<td>AA</td>
</tr>
<tr>
<td><em>dān shēn</em> (丹参), Radix/Rhiz. Salviae Miltiorrhizae</td>
<td>K</td>
</tr>
<tr>
<td><em>liàn qiào</em> (连翘), Fructus Forsythiae</td>
<td>DD</td>
</tr>
<tr>
<td><em>shí hù</em> (石斛), Caulis Dendrobii</td>
<td>AD</td>
</tr>
<tr>
<td><em>bái máo gēn</em> (白茅根), Rhizoma Imperatae</td>
<td>J</td>
</tr>
<tr>
<td><em>dà huáng</em> (大黄), Radix/Rhizoma Rhei</td>
<td>PA</td>
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<tr>
<td><em>fáng fēng</em> (防风), Radix Saponosnikoviae/Ledebouriellae</td>
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</table>

**LIVER DTX (EV)**  
_Evergreen_

Author: John Chen

<table>
<thead>
<tr>
<th>Herbs</th>
<th>Codes</th>
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<tbody>
<tr>
<td><em>chái hú</em> (柴胡), Radix Bupleuri</td>
<td>BB</td>
</tr>
<tr>
<td><em>huáng qín</em> (黄芩), Radix Scutellariae</td>
<td>DB</td>
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<tr>
<td>silybum (80% Silymarin, Milk thistle)</td>
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<tr>
<td><em>pú táo zǐ</em> (葡萄子), Semen Vitis Viniferae (grape seed)</td>
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<td><em>hǔ zhàng</em> (虎杖), Rhizoma Polygoni Cuspidati</td>
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<tr>
<td><em>gé huā</em> (葛花), Flos Puerariae lobatae</td>
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<td><em>bái sháo</em> (白芍), Radix Paeoniae Alba</td>
<td>AB</td>
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<tr>
<td><em>yín chén hào</em> (茵陈蒿), Herba Artemisiae Scopariae</td>
<td>FC</td>
</tr>
<tr>
<td><em>zhī zǐ</em> (栀子), Fructus Gardeniae</td>
<td>DA</td>
</tr>
<tr>
<td><em>dà huáng</em> (大黄), Radix/Rhizoma Rhei</td>
<td>PA</td>
</tr>
<tr>
<td><em>wǔ wèi zǐ</em> (五味子), Fructus Schisandrace</td>
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<td><em>mǎ biǎn cǎo</em> (马鞭草), Herba Verbenae</td>
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<td><em>fú líng</em> (茯苓), Poria</td>
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<tr>
<td><em>yù jīn</em> (郁金), Radix Curcumae</td>
<td>K</td>
</tr>
<tr>
<td><em>qīng pì</em> (青皮), Pericarpium Citri Reticulatae Viride</td>
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</table>
FURTHER RESOURCES

For a complete listing of herbal products by therapeutic category, see:

“WHO’S GOT WHAT”
For free download, go to: www.drjakefratkin.com/whos-got-what

ESSENTIAL CHINESE FORMULAS
See: www.drjakefratkin.com/Essential-Chinese-Formulas
The presenter:


Books by Jake Paul Fratkin:


*A Calligrapher’s Yi Jing*, Xinshi Harrison Tu (calligraphy) and Jake Fratkin (translations), Shya Publications, 2004.


A collection of various articles on TCM can be found at:
http://drjakefratkin.com/articles
<table>
<thead>
<tr>
<th>Code</th>
<th>Company Name</th>
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<tr>
<td>BP</td>
<td>Blue Poppy</td>
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<tr>
<td>CC</td>
<td>Chinese Classics</td>
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<tr>
<td>CMS</td>
<td>Chinese Modular Solutions (Kan)</td>
</tr>
<tr>
<td>CS</td>
<td>Cardioshen (TCM Zone)</td>
</tr>
<tr>
<td>CP</td>
<td>Classical Pearls</td>
</tr>
<tr>
<td>DrJ</td>
<td>Dr. Jake Fratkin’s Herbal Formulas</td>
</tr>
<tr>
<td>DS</td>
<td>Dr. Shen’s</td>
</tr>
<tr>
<td>EG</td>
<td>“Standardized” extract granules or capsules from Taiwan and China: Acuherb, E-Fong, Evergreen, Guang Ci Tang, Herbal Times, KPC, Legendary, Mintong, Nong’s, Qualiherb, Sunten, etc.</td>
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<tr>
<td>EV</td>
<td>Evergreen</td>
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<td>GC</td>
<td>Guang Ci Tang (Active Herb)</td>
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<td>GF</td>
<td>Golden Flower</td>
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<td>GN</td>
<td>Great Nature (People’s Herbs)</td>
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<tr>
<td>GW</td>
<td>Gentle Warrior (Kan)</td>
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<tr>
<td>HC</td>
<td>Health Concerns</td>
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<td>HS</td>
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<td>HT</td>
<td>Herbal Times (Nuherbs)</td>
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<td>K</td>
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<td>Kanion (TCMZone)</td>
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<td>KPC</td>
<td>Kaiser Pharmaceutical (Taiwan)</td>
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<td>MS</td>
<td>Minshan (China)</td>
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<td>PF</td>
<td>Plum Flower (Mayway)</td>
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<td>PH</td>
<td>People’s Herbs</td>
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<td>PiM</td>
<td>Pine Mountain (Institute of Traditional Medicine)</td>
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<td>PM</td>
<td>Patent Medicine (various manufacturers, China)</td>
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<td>SF</td>
<td>Seven Forest (Institute of Traditional Medicine)</td>
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<td>Tanglong (China)</td>
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<td>TT</td>
<td>Three Treasures</td>
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## CODE LETTERS AND INDEX FOR THE HERBAL CATEGORIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Property/Action</th>
<th>Chinese Description</th>
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<tbody>
<tr>
<td>AA</td>
<td>Tonify Qi</td>
<td>补气 (bù qì)</td>
</tr>
<tr>
<td>AB</td>
<td>Tonify Blood</td>
<td>补血 (bù xuè)</td>
</tr>
<tr>
<td>AC</td>
<td>Tonify Yang</td>
<td>补阳 (bù yáng)</td>
</tr>
<tr>
<td>AD</td>
<td>Tonify Yin</td>
<td>补阴 (bù yīn)</td>
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<tr>
<td>BA</td>
<td>Acrid-Warm Release Exterior</td>
<td>辛温解表 (xīn wēn jiě biǎo)</td>
</tr>
<tr>
<td>BB</td>
<td>Acrid–Cool Release Exterior</td>
<td>辛凉解表 (xīn liáng jiě biǎo)</td>
</tr>
<tr>
<td>CA</td>
<td>Dry Dampness, Dissolve Phlegm</td>
<td>燥湿化痰 (zào shī huà tán)</td>
</tr>
<tr>
<td>CB</td>
<td>Clear Heat, Dissolve Phlegm</td>
<td>清热化痰 (qīng rè huà tán)</td>
</tr>
<tr>
<td>CC</td>
<td>Relieve Cough, Panting</td>
<td>止咳平喘 (zhǐ ké píng chuǎn)</td>
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<tr>
<td>DA</td>
<td>Clear Heat, Drain Fire</td>
<td>清热泻火 (qīng rè xiè huǒ)</td>
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<td>DB</td>
<td>Clear Heat, Drain Dampness</td>
<td>清热利湿 (qīng rè lì shī)</td>
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<tr>
<td>DC</td>
<td>Clear Heat, Cool Blood</td>
<td>清热凉血 (qīng rè liáng xuè)</td>
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<td>DD</td>
<td>Clear Heat, Resolve Toxins</td>
<td>清热解毒 (qīng rè jiě dú)</td>
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<td>DE</td>
<td>Clear Heat, Nourish Yin</td>
<td>清热养阴 (qīng rè yǎng yīn)</td>
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<td>DF</td>
<td>Clear Heat, Resolve Summer-Heat</td>
<td>清热解暑 (qīng rè jiě shǔ)</td>
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<td>E</td>
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<td>Dispel Wind, Overcome Dampness</td>
<td>祛风胜湿 (qū fēng shèng shī)</td>
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<td>FB</td>
<td>Dispel Dampness</td>
<td>祛湿 (qū shī)</td>
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<td>FC</td>
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<td>理气 (lǐ qì)</td>
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<td>H</td>
<td>Remove Food-Stasis</td>
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<td>J</td>
<td>Stop Bleeding</td>
<td>止血 (zhǐ xuè)</td>
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<td>K</td>
<td>Invigorate Blood, Dissolve Stasis</td>
<td>活血化瘀 (huó xuè huà yù)</td>
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<td>L</td>
<td>Consolidate, Astringe</td>
<td>固涩 (gù sè)</td>
</tr>
<tr>
<td>M</td>
<td>Open Orifices</td>
<td>开窍 (kāi qiào)</td>
</tr>
<tr>
<td>N</td>
<td>Tranquilize Heart, Calm Shen</td>
<td>镇心安神 (zhèn xīn ān shén)</td>
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<td>O</td>
<td>Extinguish Wind, Stop Tremors</td>
<td>熄风止抽 (xī fēng zhǐ chōu)</td>
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<td>PA</td>
<td>Purgatives</td>
<td>下法 (xià fǎ)</td>
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<td>PC</td>
<td>Purgation by Expelling Water</td>
<td>攻下逐水 (gōng xià zhú shuǐ)</td>
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<td>Kill Worms</td>
<td>杀虫 (shā chóng)</td>
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<tr>
<td>R</td>
<td>External Application</td>
<td>外治法 (wài zhì fǎ)</td>
</tr>
</tbody>
</table>

Jake Paul Fratkin, OMD, L.Ac.  •  www.drJakeFratkin.com