# Chinese Medicine Dietetic Remedies

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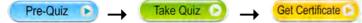


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## **Dietetic Treatments**

Chinese medicine dietetics was developed, in part, by Chinese medicine doctors working alongside the chefs of emperors and other dignitaries. As a medicinal approach, dietetics is a gentle form of medicine. Dietetics treatments are particularly useful in the treatment of children, the elderly and patients with chronic diseases. One benefit is that flavorful dietetics dishes encourage long-term compliance.

The focus of this text is on food treatments for specific ailments including headaches, respiratory disorders, digestive issues, urinary system disorders, diabetes, obesity, skin conditions and cardiovascular disorders. In addition, food monographs are added to enhance the learning process. In this way, both recipes used to treat specific ailments and the medicinal values of specific foods are presented.

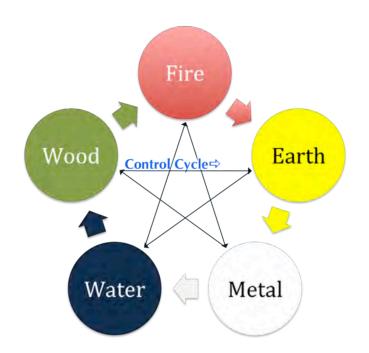
To learn more about a large variety of individual foods and recipes, see the course *Chinese Medicine Dietetics #1* and other dietetics courses available at healthcmi.com. Courses are in written and video format. HealthCMi dietetics courses contain additional food monographs, recipes and sections on Chinese medicine dietetics principles including five element theory in relation to the twelve types of dietetic preparations and more.

## Huangdi Neijing

According to the *Huangdi Neijing (The Yellow Emperor's Inner Classic)*, five element theory specifies that several flavors are contraindicated for specific differential diagnoses per the control cycle. If the liver is deficient, avoid spicy foods. If the lungs are weak, avoid bitter foods. If the spleen and stomach are weak, avoid sour foods. If the heart is sick, avoid salty foods. If the kidneys are deficient, avoid sweet foods. Following these guidelines prevents each of the five elements from overacting upon another and their associated internal organs.

#### Example

In the control cycle, water controls fire. Fire is the element associated with the heart and water is the element associated with the flavor of saltiness. When the heart is ill, salty foods no longer control the heart but instead pathologically overact upon the heart.



Element	Associated Organs	Flavor	Color
Wood	liver, gallbladder	sour	green
Fire	heart, small intestine	bitter	red
Earth	stomach, spleen	sweet	yellow
Metal	lung, large intestine	pungent	white
Water	urination bladder, kidneys	salty	black

Another *Huangdi Neijing* principle is that five element theory applies to the colors of food. Green foods benefit the liver and relate to liver cleansing. Red foods benefit the heart, yellow foods benefit the spleen and stomach, white foods benefit the lungs and black foods benefit the kidneys.



Huangdi Neijing Suwen

Chinese medicine dietetic principles also stipulate that there are five spicy vegetables essential to supplemental nourishment. Chives benefit the heart, bean leaves benefit the spleen, garlic benefits the lungs, onions benefit the kidneys and spinach benefits the liver. The five livestocks for beneficial nourishment are chicken for benefitting the liver, sheep and goat for benefitting the heart, beef for benefitting the spleen, horse for benefitting the lungs and pork for benefitting the kidneys. The five grains of major nourishment are rice for benefitting the lungs, wheat for the liver, sorghum for the heart, millet for the spleen and black beans for the kidneys.

### **Freshness and Simplicity**

Freshness is an important core value in Chinese medicine dietetics. According to Chinese medicine principles, many processing and refining techniques greatly diminish the medicinal potency of foods. Foods are considered the everyday medicine of our lives. Modern research concurs with findings such as this:

Consumption of individual vegetable and fruit groups such as dark green leafy vegetables, cruciferous vegetables, carrots and tomatoes, banana, watermelon/papaya/cantaloupe were all

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inversely and significantly related with breast cancer risk. An inverse association was also observed for vitamin A, carotene, vitamin C, vitamin E, and fiber intake. These data indicate that greater intake of vegetables and fruits is associated with a decreased risk of breast cancer among Chinese women residing in Guangdong.<sup>1</sup>

Simplicity is a key concept in dietetics. Processing of foods and excessive heating, including deep frying, often changes or destroys the nutritional and medicinal value of food. On the other hand, processing may preserve or create medicinal values. For example, pan roasting may change a cooling property to warming. This may be a welcomed change for patients wanting to eat fresh vegetables but suffer from stomach pain that is aggravated by raw, cooling foods.

Simplicity extends to the modern view that certified organic foods are preferable to foods that have been exposed to carcinogenic pesticides, additives, hydrogenation, industrial enzymatic processes, antibiotics, hormones, etc.... While not all industrial processes are deleterious to human health, there is a lack of historical evidence demonstrating that many of these changes are beneficial. However, there is an abundance of evidence demonstrating that many chemical additives pose serious health risks.

Major corporate interests often legally comply with government regulatory processes when introducing new substances into the food supply while failing to ensure public safety. A great example of how this occurs is in the GRAS (generally recognized as safe) determination process in the United States of America. The following excerpts are taken from a study published in the *Journal of the American Medical Association*:

Food and Drug Administration (FDA) guidance allows food manufacturers to determine whether additives to food are "generally recognized as safe" (GRAS). Manufacturers are not required to notify the FDA of a GRAS determination, although in

<sup>&</sup>lt;sup>1</sup> Zhang, Cai-Xia, Suzanne C. Ho, Yu-Ming Chen, Jian-Hua Fu, Shou-Zhen Cheng, and Fang-Yu Lin. "Greater vegetable and fruit intake is associated with a lower risk of breast cancer among Chinese women." International journal of cancer 125, no. 1 (2009): 181-188.

some instances they notify the agency. The individuals that companies select to make these determinations may have financial conflicts of interest.<sup>2</sup>

RESULTS For the 451 GRAS notifications, 22.4% of the safety assessments were made by an employee of an additive manufacturer, 13.3% by an employee of a consulting firm selected by the manufacturer, and 64.3% by an expert panel selected by either a consulting firm or the manufacturer. A standing expert panel selected by a third party made none of these safety assessments. The 290 panels that made GRAS determinations had an average of 3.5 members, with a maximum of 7. Ten individuals served on 27 or more panels; 1 individual served on 128 panels (44.1%). At least 1 of the 10 individuals with the most frequent service was a member of 225 panels (77.6%).

CONCLUSIONS AND RELEVANCE Between 1997 and 2012, financial conflicts of interest were ubiquitous in determinations that an additive to food was GRAS. The lack of independent review in GRAS determinations raises concerns about the integrity of the process and whether it ensures the safety of the food supply, particularly in instances where the manufacturer does not notify the FDA of the determination. The FDA should address these concerns.<sup>3</sup>

The USDA (United States Department of Agriculture) defines certified organic foods in compliance with the *Organic Foods Production Act*. General USDA principles for certified organics are:

Preserve natural resources and biodiversity

Support animal health and welfare

Provide access to the outdoors so that animals can exercise their natural behaviors

Only use approved materials

Do not use genetically modified ingredients

Receive annual onsite inspections

<sup>&</sup>lt;sup>2</sup> Neltner, Thomas G., Heather M. Alger, James T. O'Reilly, Sheldon Krimsky, Lisa A. Bero, and Maricel V. Maffini. "Conflicts of interest in approvals of additives to food determined to be generally recognized as safe: out of balance." JAMA internal medicine 173, no. 22 (2013): 2032-2036.

<sup>&</sup>lt;sup>3</sup> Neltner, Thomas G., Heather M. Alger, James T. O'Reilly, Sheldon Krimsky, Lisa A. Bero, and Maricel V. Maffini. "Conflicts of interest in approvals of additives to food determined to be generally recognized as safe: out of balance." JAMA internal medicine 173, no. 22 (2013): 2032-2036.

Separate organic food from non-organic food<sup>4</sup>

USDA organic agriculture oversight applies to farms, processors, soil and water quality, pest control, livestock practices and food additives. Our vision is that the entire food supply moves towards certified organic standards of practice.

We hope you enjoy this text. We'll get started with recipes for specific conditions.

<sup>&</sup>lt;sup>4</sup> www.usda.gov

## Headaches

## Wind-Cold Headaches

Wind-cold is characterized by headaches, aversion to cold, generalized pain, tightness of the muscles and joints, mild fever, stiff neck, sinus congestion, coughing with clear or white phlegm, sneezing and a floating and tight pulse. Wind-cold exacerbates asthma. Contraction caused by the cold closes the pores and therefore there is an absence of sweating. Consuming hot broth helps to warm the body and helps to release the wind and cold from the surface through diaphoresis.

Cook bighead carp with Bai Zhi, Chuan Xiong and Sheng Jiang (fresh ginger) and Cong Bai (green onion, scallion).

**Cooking Instructions** (Total cooking time: 1 hour)

- Sauté carp's head with a little oil, salt, garlic and ginger (optional).
- Next, place the carp into a boiling soup of containing:

Bai zhi, approximately 9 grams

Chuan Xiong, approximately 9 grams

ginger, 2 slices (optional)

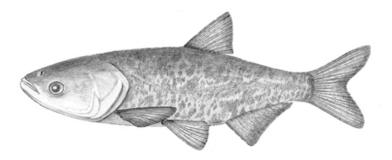
• Add green onions in the last 5 minutes of cooking time.

As a channel leading ingredient, the head of the fish leads the healing properties of the herbs to the head. According the Chinese medicine principle of similarities, this is the 'head to head' function. If bighead carp is unavailable, use catfish or another other quality fish and include the head.



Chuan Xiong

Bighead carp is an Asian variety of carp that is considered an invasive species in the USA. It has a large, scaleless head. Bighead carp can weight up to approximately 145 pounds and can be up to 60 inches in length. A 40 lb. bighead carp from the Mississippi River is considered very large but record weights for this region are over 90 pounds.



Bighead Carp

## Wind-Heat Headaches

Wind-heat is characterized by a headache, sore throat, redness of the eyes, sweating, swollen gums, tonsillitis, sinus congestion and coughing with yellow phlegm, a yellow tongue coating and a floating and rapid pulse.

#### Beverage

Combine green tea (Lu Cha) with Ju Hua (chrysanthemum flower) and Bo He (mint). Add hot water to make tea. Optionally, add lemon for flavor.

Green tea is cooling and flushes toxins from the body. Green tea functions to clear the head thereby alleviating headaches. Ju Hua dispels wind-heat, eliminates heat toxins, opens the liver qi, benefits the eyes, and settles the liver yang. Ju Hua releases the surface (induces mild sweating) to relieve headaches, sore throats and mild fevers. Bo He releases the surface to alleviate wind-heat. Bo He relieves sore throats, clears the head and is commonly used to eliminate rashes due to wind-heat.

## **Damp Headaches**

Damp type headaches are often characterized as feeling heavy or as if a heavy wet blanket is compressing the head. This can be precipitated by damp foods, damp weather conditions or internal dampness.

### Recipe

Prepare a soup or stew with Yi Yi Ren (Job's tears) and Bai Bian Dou (hyacinth bean) with lean pork. The treatment principle is to promote the water to drain the dampness. Optionally, use an alternate meat. Put all items together with enough water and cook for approximately one hour.

## **Phlegm Dampness Headaches**

Use this preparation for damp type headaches when excess mucus or coughing is present. Along with the head feeling heavy, patients may note dizziness or feeling foggy, unclear. Patients often note stuffiness of the chest. Make a decoction of Bai Zhi, Chen Pi (aged tangerine/citrus peel), Fu Ling and Yi Yi Ren. Add the decoction to a congee made from Yi Yi Ren or a combination of Yi Yi Ren with rice. Alternately, place the herbs in a cheesecloth and place them in the Yi Yi Ren or Yi Yi Ren with rice combination when cooking the congee or making a soup.



Chen Pi

## **Liver Yang Uprising Headaches**

This type of headache often presents with pain on the lateral aspects of the head, blurry vision, irritability, flushed face, a bitter taste in the mouth and a wiry pulse. The tongue is often red with a yellow coating.

#### Remedies

• Chop Xiao Ku Cao (prunella, spica prunellae vulgaris) into small pieces, add hot water and consume as a tea. Xia Ku Cao flourishes in Asia, Europe and North America. It grows in most temperate climates, is easily cultivated in home gardens and has a mild flavor making this herb an excellent dietetics choice. Fresh or dried Xia Ku Cao is appropriate for use.  Cook Xiao Ku Cao with lean pork meat or another type of meat. To strengthen the food treatment, add Tian Ma and Shi Jue Ming to the recipe. Put all items together with enough water for soup and cook for approximately one hour. Drink the soup and discard the herbs.



Xia Ku Cao (dried)



Xia Ku Cao

## **Qi Deficiency & Yin Deficiency Headaches**

Deficiency headaches tend to linger for long periods of time. There may be fatigue, a lusterless complexion, stress and dizziness. The pain is usually relieved by warmth and aggravated by coldness in cases of qi deficiency headaches.

#### **Traditional recipe**

Double boil Shan Yao (dioscorea rhizome, Chinese yam) and Gou Qi Zi (goji berries) with fresh water turtle meat or Gui Ban. Use fresh Shan Yao and Gou Qi Zi when available. Shan Yao tonifies qi and Gou Qi Zi nourishes the yin, blood and jing. To avoid using turtle products in an act of environmental conservation, choose another meat with yin properties. Wild water fowl is an adequate substitute.

## **Headaches Due To Trauma**

Make a soup with walnuts (Hu Tao Ren), red sugar (Hong Tang), yellow rice wine (Huang Jiu, sake) and saffron (Hong Hua). Drink the soup and eat the walnuts. Walnuts channel the ingredients to the brain. According to the TCM concept of similarities, walnuts visually resemble the brain and therefore act as a channel leading herb to the brain. The yellow rice wine invigorates the blood along with the Hong Hua to alleviate blood stasis. Use Tibetan or Spanish high grade saffron when possible.



Hong Hua

## **Food Stagnation Headaches**

Food stagnation related headaches usually accompany indigestion, bloating or gas. If the stomach meridian is affected, the forehead may be painful. Excess intake of damp foods may cause generalized pain throughout the entire head.

Recipe: Boil pu-erh tea with Fang Feng for one minute. Place Zi Su Ye in a teacup and add the pu-erh tea with the Fang Feng preparation.

#### Pu-erh Tea

Pu-erh tea is made from a large leaf variety of Camellia sinensis, primarily grown in the mountains of Yunnan province. It is often pressed into bricks but is also available in loose leaf form after completing a special process of pressing. The special preparations involved in pu-erh production allow the tea to mature and improve with age.

Pu-erh, like many types of tea, is known for its antioxidant properties. This is due in part to the presence of catechins and flavonoids in the tea.<sup>5</sup> Pu-erh has the special ability to raise the 'good' HDL cholesterol while lowering levels of the 'bad' LDL cholesterol.<sup>6</sup>

Research shows that pu-erh tea reduces obesity. A study conducted by the Yunnan Provincial Key Laboratory and the College of Food Science and Technology at the Yunnan Agricultural University notes that pu-erh significantly reduces total body weight, adipose pads, LDL cholesterol, and triglycerides.<sup>7</sup> The researchers postulate that fat reduction may be triggered by pu-erh's ability to boost enzymes such as lipoprotein lipase, hepatic lipase, and hormone sensitive

<sup>&</sup>lt;sup>5</sup> Pin-Der Duh, Gow-Chin Yen, Wen-Jye Yen, Bor-Sen Wang, and Lee-Wen Chang. Effects of Pu-erh Tea on Oxidative Damage and Nitric Oxide Scavenging. J. Agric. Food Chem., 2004, 52 (26), pp 8169–8176.

<sup>&</sup>lt;sup>6</sup> Kuan-Li Kuo, Meng-Shih Weng, Chun-Te Chiang, Yao-Jen Tsai, Shoei-Yn Lin-Shiau, and Jen-Kun Lin.

Comparative Studies on the Hypolipidemic and Growth Suppressive Effects of Oolong, Black, Pu-erh, and Green Tea Leaves in Rats. J. Agric. Food Chem., 2005, 53 (2), pp 480–489.

<sup>&</sup>lt;sup>7</sup> Zhen-Hui Cao, Da-Hai Gu, Qiu-Ye Lin, Zhi-Qiang Xu, Qi-Chao Huang, Hua Rao1, Er-Wei Liu, Jun-Jing Jia, Chang-Rong Ge. Effect of pu-erh tea on body fat and lipid profiles in rats with diet-induced obesity. Phytotherapy Research. Volume 25, Issue 2, pages 234–238, February 2011.

lipase. Pu-erh tea is a traditional compliment to mooncake during the Mooncake Festival (Mid-Autumn Festival). The properties of puerh make it well suited for improving digestion when eating oily, fatty, and sweet foods.

### Fang Feng

Fang Feng (siler, saposhnikovia root) is an herbal medicine used to disperse wind-cold and dampness. Fang Feng enters the urination bladder, liver and spleen channels and is warming, sweet and pungent.

### Zi Su Ye

Zi Su Ye (perilla leaf) is warming, aromatic, pungent and enters the lung and spleen channels. Zi Su Ye expels wind-cold, regulates the stomach and is indicated for the treatment of middle jiao qi stagnation and restless fetus syndrome.

## **Respiratory System**

## **Common Cold Recipes**

#### Wind-Cold, Wind-Cold with Dampness, Stomach 'Flu' and Damptype Common Cold with Abdominal Pain

Recipe: Sheng Jiang Hong Tang Pi is hot, spicy and sweet.

Slice a large amount of fresh ginger (Sheng Jiang) and boil it. Later, when the ginger has saturated the boiling water, add Zi Su Ye and red sugar (rapadura, unrefined evaporated sugarcane crystals) at the last stage of boiling. Drink the Sheng Jiang Hong Tang Pi while covered with blankets to ensure sweating to release the surface.

#### Wind-Heat

Boil Sang Ye (mulberry leaf) and Ju Hua (chrysanthemum) for 5-10 minutes. Add Dan Dou Chi (fermented soybean) if desired. Next, add Bo He (mint) to steep for 5 minutes and drink.

#### Wind-Heat or Wind-Cold

Recipe: The herbal formula Cong Chi Tang is spicy and enters the lung and stomach channels. The patient must break a sweat for this formula to be effective.

Decoct 6 grams of fermented soybean (Dan Dou Chi) with 3 stalks of green onion (Cong Bai) from three cups down to one cup. Strengthen the effect by adding either kudzu root (Ge Gen) for its cooling temperature, fresh ginger for its warming effects (Sheng Jiang) or both.

#### Dan Dou Chi

Dan Dou Chi is made by fermenting Hei Dou (black soybean). Herbal grade fermented soybean (Dan Dou Chi) is similar to kitchen grade fermented soybean except that the

kitchen variety is salted. To use kitchen grade fermented soybean, wash off the salt and then use it. Black bean sauce is made with the salted preparation of Dan Dou Chi and the unsalted variety is used for the treatment of wind-heat and wind-cold. Dan Dou Chi releases the surface, a diaphoretic, and enters the lung and stomach channels. It is pungent, slightly bitter and cold. Dou Dou Chi relieves stuffiness of the chest and the common cold with fever and headaches.



Cong Bai

#### Cong Bai (scallion, green onion)

Bai in Cong Bai means white and indicates the most medicinal part of the plant. The white part of the green onion stalk is the strongest medicinally and not the green part. Cong Bai disperses wind-cold and is warming and pungent. It is used in the early stages of wind-cold, invigorates the yang qi to expel coldness and expels toxicity. Cong Bai is indicated for treating the early stages of the common cold, boils, carbuncles, nasal congestion and cold related abdominal pain.

#### Wind-Damp, Summer Damp or Stomach 'Flu' in the Summertime

Use this food treatment for loose stool. Make a congee from pearl barley (Yi Yi Ren), Bai Bian Dou, rice (Geng Mi) and aged citrus peel (Chen Pi).

## **Bronchitis Recipes**

#### Cold-type Bronchitis Including Cold-type Asthma and Wheezing

Boil 6-9 grams of Ma Huang with either dried ginger (Gan Jiang) or fresh ginger (Sheng Jiang). Next, remove the herbs from the decoction and add 1 sliced daikon radish (Luo Bo, Qing Bo) and continue to boil. Remove from heat and add honey (Feng Mi, Mi Tang). Drink the soup and eat the daikon. The honey moderates the Ma Huang thereby preventing side effects. The honey also adds sweetness making this food treatment acceptable to children.

#### Chronic Coughing (especially chronic bronchitis)

- Crush Chuan Bei Mu and double boil it with Asian pear (with or without the skin), Bai He and water chestnut slices. Drink the soup and eat the Asian pear. Asian pear strengthens the function of the food treatment and makes the taste acceptable to children.
- Double boil Asian pear with Bai He and honey (Feng Mi, Mi Tang) or rock sugar (Bing Tang). Drink the soup and eat the Asian pear. Rock sugar is more cooling and moistening than brown sugar and is therefore the correct choice when opting for sugar.
- Recipe: Wu Zhi Yin (Five Juice Drink) moistens and tonifies yin. Use a juice machine and make a beverage from Asian pear, fresh lotus root, daikon, fresh water chestnut (replace with carrot, celery or watercress if unavailable) and add honey. Note: some preparations of Wu Zhi Yin are made from a combination of some or all of the following

ingredients: fresh lotus root, fresh water chestnut, fresh Lu Gen, Mai Men Dong, daikon and Asian pear.

• The following recipe is best suited for dry coughing with an underlying condition of lung qi deficiency. Soak Bai Mu Er (Yin Er) in water to soften it, rinse and place it aside. The Bai Mu Er is added to the soup once it has been cooked because overcooking it will make it hard to chew and will spoil the flavor. Double boil the following ingredients in a clay pot: black bone chicken (alternately, a certified organic chicken), abalone (alternately a dried seafood such as scallops), red date (Hong Zao), fresh ginger (Sheng Jiang). Some choose to add American ginseng (Xi Yang Shen). Once cooked, add young coconut juice and Bai Mu Er to the soup. Drink the soup and eat the Bai Mu Er.



Bai Mu Er

• Recipe: Lian Zi Yin Er Bing Tang Shui is sweet, moistens the lungs, tonifies qi and is appropriate for lung qi deficiency and yin deficiency patterns. Soak, clean and rinse Bai Mu Er (Yin Er, white fungus). Place it aside. Boil lotus seed (Lian Zi) until soft then add Bai Mu Er and rock sugar (Bing Tang) to the soup.

## **Digestive System**

## **Cold and Deficient Stomach Pain**

Stuff a whole black bone chicken with galangal (Gao Liang Jiang) or ginger (Sheng Jiang or Gan Jiang), cinnamon (Rou Gui) and crushed black pepper (Hu Jiao). Double boil the stuffed chicken in a ceramic double boiler.

Although originally stuffed, the chicken may also be double boiled alongside the ingredients. Alternately, use pork stomach instead of chicken. This is the Chinese medicine function of 'stomach to stomach'.

## **Cold Stomach Disorders**

The following recipe is very warming and is useful in the treatment of cold-type stomach ulcers and gastroenteritis. Double boil pork stomach with the following warming herbs: black pepper (Hu Jiao), dried ginger (Gan Jiang), cinnamon (Rou Gui), cardamom (Sha Ren). Originally, this combination was tied into the pork stomach, however, one can double boil or boil the pork stomach with the ingredients as an alternative method of preparation. Pork stomach can be substituted with black bone chicken. Rooster is preferable because it is more yang and therefore has significant warming properties.

## Bleeding Stomach Ulcer, Gastroenteritis, Ulcerative Colitis, or Nonspecific Bleeding in the GI System

Double boil 2 pieces of crushed San Qi with fresh lotus root juice. Optionally, add chicken or pork for taste. Remove the double boiler from the heat and add one raw egg to the soup and stir slightly. This makes an egg drop soup appearance.

The egg helps to heal the mucus lining of the GI tract. The fresh lotus juice is astringent and helps to stop bleeding. The San Qi stops bleeding but also tonifies. If San Qi is unavailable use Ou Jie (lotus rhizome node), both have stop bleeding therapeutic actions. If using San Qi powder instead of crushed San Qi, do not boil the powder. Add the powder after the double boiling process.

• Research demonstrates that San Qi (Radix notoginseng) "is a promising candidate in preventing and treating colitis and inflammation-associated colon carcinogenesis."<sup>8</sup>



San Qi

<sup>&</sup>lt;sup>8</sup> Wen, Xiao-Dong, Chong-Zhi Wang, Chunhao Yu, Lei Zhao, Zhiyu Zhang, Adiba Matin, Yunwei Wang et al. "Panax notoginseng Attenuates Experimental Colitis in the Azoxymethane/Dextran Sulfate Sodium Mouse Model." Phytotherapy Research (2013).



Ou Jie (lotus node)

## Chronic Loose Stool, Diarrhea, Chronic Dysentery, Colitis or IBS (Irritable Bowel Syndrome) with Underlying Spleen Qi Deficiency

#### Steamed Bun Recipe (Ba Zhen Gao)

Powder Shan Yao (the main ingredient), Fu Ling, Dang Shen, Yi Yi Ren, Qian Shi, Bai Bian Dou and Lian Zi. Mix the powder with rice or wheat flour and add water to make a dough. Optionally, add powdered Dang Shen and Fu Ling. Sugar may be added for flavor. Make a steamed bun, bread or pastry. Originally, this steamed bun was served to children suffering from malnutrition.



Shan Yao (dried)

#### Congee Recipe (Shan Yao Lian Zi Zhu)

Zhu, translated as congee, is nutritious and well tolerated by children. Make a powder with Shan Yao (Chinese yam), Lian Zi, Qian Shi, Bai Bian Dou and Yi Yi Ren. Combine the powder with rice (Geng Mi), oatmeal or wheat to make a congee. Optionally, add Dang Shen, Fu Ling or both.



Shan Yao (fresh)

## Constipation

#### **Heat Type Constipation**

Boil watercress and Vietnamese spinach and then add tea oil (not tea tree oil) or olive oil. Eat up to approximately a half-pound. This combination is cooling, has a quality fiber content and has a strong function to promote bowel movements.

#### Qi Deficiency constipation

Boil Huang Qi (Astragalus). Next, remove the Huang Qi and mix black sesame powder into the water to a creamy texture. Alternately, flax seed powder can replace black sesame powder. The Huang Qi tonifies qi while the black sesame lubricates the large intestine.

#### Yin or Blood Deficiency Constipation

Boil Sheng Di Huang with He Shou Wu. Remove the herbs from the soup and soak Bai Mu Er (Yin Er, Tremella, White Wood Ear Fungus) and add Bing Tang (Rock Sugar) or Feng Mi (Mi Tang, honey). Drink the soup and one can eat the Bai Mu Er.

Sheng Di Huang nourishes yin and cools the blood. He Shou Wu nourishes the blood. Both herbs have a laxative function.

Bing Tang is sweet and cooling. It enters the lung, spleen and stomach channels. It moistens and cools the lungs, is helpful in the treatment of chronic dry-heat coughs and mildly tonifies spleen and stomach qi. Bai Mu Er nourishes stomach yin, moistens lung yin and treats coughs due to lung yin deficiency. Bing Tang and Bai Mu Er comprise the formula Yin Er Bing Tang, which is used to tonify yin.



Sheng Di Huang

#### Yang Deficiency Constipation

Boil Rou Cong Rong. Next, remove Rou Cong Rong from the soup and add raw sesame and walnut powders to a creamy texture. Eat the porridge.

Rou Cong Rong (Cistanches herba) enters the large intestine and kidney channels. It tonifies kidney yang, warms a cold uterus and lubricates the large intestine. Hei Zhi Ma (black sesame seeds) tonifies jing and blood and lubricates the large intestine. White sesame seed can be used as a substitute but will not have the jing and blood tonic properties of black sesame seeds. Walnuts (Hu Tao Ren, He Tao Ren) enter the kidney, lung and large intestine channels. Walnuts tonify kidney yang and jing, warm the lung and lubricate the large intestine.

#### **Standard Constipation Relief**

Early in the morning on an empty stomach, drink a little honey (Mi Tang) with water. Alternately, drink a little rice vinegar or apple cider vinegar. These beverages stimulate a healthy response and relieve constipation. Local honey has the added advantage of protecting the body from local pollen related allergies.

## **Urinary System**

## Li Yu Chi Xiao Dou Tang

Li Yu Chi Xiao Dou Tang is a soup that promotes urination and treats dirty water stagnation. Indications include edema, chronic nephritis, leg qi disorder, obesity, water retention due to PMS and liver sclerosis with ascites. Two important ingredients are carp and adzuki beans.

### Carp (Li Yu)

Carp enters the lung and kidney channels and promotes urination. According to Chinese medicine theory, carp is a strong variety of fresh water fish much like shark is considered a strong saltwater fish. Carp appear to have a mustache, have golden-shiny scales, survive outside of water longer than many fish, jump high above the water at high speeds and can grow to approximately 140 lbs. and 56 inches in length. Carp are representative of the dragon. Bighead carp has a stronger medicinal function than other varieties, however, silver carp is often more widely available while continuing to provide similar medicinal benefits.

#### Adzuki Beans (Chi Xiao Dou)

Adzuki beans are sweet, sour, neutral and enter the heart and small intestine channels. Chi Xiao Dou promotes urination to drain dampness.

#### Recipe

Boil Bai Mao Gen, Sang Bai Pi and Huang Qi to make an herbal soup. Remove the herbs and cook Chi Xiao Dou (adzuki beans) in the herbal soup. Sauté carp in oil with Sheng Jiang (ginger), Da Suan (garlic) and a little Chen Pi (dried citrus peel) until both sides are brown. Add the fish to the soup and serve. Eat the beans and fish with the soup. For children, some prefer to put the fish in a cloth bag to avoid issues with bones.

#### **Postpartum Recipe**

A variation of this soup is well suited for the treatment of blood deficiency with dizziness and night sweating, particularly after delivering a baby. Add Hong Zao (red dates) and Da Suan (garlic) to the soup. Replace adzuki beans with black beans. In general, black beans can be used instead of adzuki beans.

Black beans emphasize tonifying the kidneys more than promoting urination to drain dampness as with adzuki beans. According to Chinese medicine principles, black is the five element color of the kidneys. The 'black to black' principle reminds us that black beans are beneficial for the kidneys. Hong Zao adds a gentle blood tonification therapeutic action to the soup. Overall, this variation tonifies qi, blood and kidneys.

## **Diabetes**

- Boil the bottom part, the vines, of Vietnamese spinach (malabar spinach). Add American Ginseng powder to the soup and drink. Both ingredients are cooling and help to relieve internal deficiency heat due to diabetes. Alternately, bitter melon (Ku Gua) can substitute for Vietnamese spinach.
- Boil Shan Yao (wild mountain yam, Chinese yam), Yu Mi Xu (corn silk), bitter melon and pork spare ribs. This combination strongly tonifies the pancreas. Originally, pork spleen was used instead of spare ribs.
- Five Juice Drink, without honey, is beneficial to diabetics. This drink moistens and tonifies yin. Regionally, there are several variations to the five fresh ingredients normally included in this beverage. Additional herbs are also commonly added. One standard version of this juice is a combination of fresh lotus root (Ou Zhi), daikon, water chestnut, Asian pear and carrot.

Asian pear is particularly beneficial for lung yin deficiency patients with a dry cough. Ma Ti (Chinese water chestnut) clears heat, promotes body fluids and dissolves phlegm. It is sweet, cold and enters the stomach, lung and liver channels. It is used for thirst due to heat and body fluid depletion. Variations include fresh Lu Gen juice, fresh Mai Men Dong juice or watercress. Xi Yang Cai (watercress) has a strong cooling function and is venerated for its powerful medicinal functions.

## **Overweight: Excess Body Fat**

## Weight Loss Beverage #1

Bojenmi tea, sold in bags and loose form, is commonly consumed to assist weight loss. Variations typically contain Shan Zha, Mai Ya, Chen Pi, Fu Ling, Ze Xie, Shen Qu, Qian Niu Zi, Chi Xiao Dou, Lai Fu Zi, Xia Ku Cao, Jue Ming Zi, Huo Xiang and Lu Cha. The focus of this and similar herbal tea combinations to:

- benefit digestion
- eliminate food stagnation and phlegm
- promote urination to eliminate dirty water
- move the stool

Homemade varieties often contain Jue Ming Zi (cassia seed) and He Ye (lotus leaf) combined with oolong or pu-erh tea. Fresh ingredients are preferable when available and increase the strength of the tea. Shan Zha (hawthorn berries), He Shou Wu (fleeceflower root), Gou Qi Zi (goji berries, lycium fruit) and Huang Qi (astragalus) can be added to strengthen the medicinal effects.

Da Huang (rhubarb root and rhizome) and Fan Xie Ye (senna leaf) are often included in weight loss tea formulas. However, they strongly purge the stool and may cause diarrhea and abdominal

discomfort. Alternately, milder herbs that lubricate the large intestine such as Huo Ma Ren (indica seed) and Hu Ma Ren (flax seed) can be used to move the stool. Herbs that lubricate the large intestine can be used for longer periods of time than purgatives without damage to the qi.

#### Jue Ming Zi (Cassia Seed)

Jue Ming Zi is one of the most common herbal medicines in Traditional Chinese Medicine dietetics used for weight loss. The function of Jue Ming Zi is enhanced by grinding it and adding it to the tea in powered form. Jue Ming Zi is often used to clear liver heat and benefit the eyes. Here, it is used to clear heat and to lubricate the large intestine to move the stool. Jue Ming Zi is used in the treatment of high cholesterol and is paired with Dan Shen in herbal formulas to treat atherosclerosis. Jue Ming Zi may be wok roasted to enhance the flavor. This herb is especially useful for weight loss when patients experience dry stool related constipation.

## Weight Loss Beverage #2

#### **RCM-104** Ingredients

Lu Cha Ye (camellia sinensis, green tea)	40%
Jue Ming Zi (cassia seeds)	40%
Huai Hua (sophora japonica)	20%

RCM-104 is an herbal formula that may be concentrated into herbal medicine capsules or prepared as a gentle tea. The advantage of concentrated capsules is potency and the advantage of the tea form is the ability to use the formula for long periods of time as part of a healthy dietary regime. To make the beverage, place the ingredients in a cup and add boiling water. Grinding Jue Ming Zi and Huai Hua into a powder enhances the potency of the tea. In one blinded randomized placebo controlled study of herbal formula RCM-104, participants consumed four capsules, three times per day for 12 weeks. Each capsule contained 500 mg of concentrated herbal granules. The placebo control group had an herbal starch in their capsules. All herbal ingredients were supplied by Sen Ten Pharmaceuticals Co. Ltd. in Taiwan. Researchers note, "The RCM-104 formula demonstrated effectiveness in the reduction of BW (excessive body weight), BMI and BFC (body fat composition) as well as improved quality of life compared to the placebo group."<sup>9</sup>

### Hawthorn and Citrus Peel Tea

A simple combination is Chen Pi (dried citrus peel), Shan Zha (hawthorn berry) and dragon well (Longjing) green tea. It is helpful to include this tea combination in the diet for the control of elevated cholesterol.

## **Additional Simple Beverage Combinations**

- Jue Ming Zi and Ju Hua (chrysanthemum) tea.
- Yi Yi Ren and Chen Pi (citrus peel) with Xi Gua (watermelon) tea.
- He Shou Wu with Huang Qi and Fu Ling tea.
- He Ye (lotus leaf) and Shan Zha (hawthorn) tea. This is also appropriate for the treatment of high cholesterol.

<sup>9</sup> Reference:

Li, Kang Xiao. "Efficacy and Safety of Chinese Herbal Medicine and Acupuncture in the Management of Obesity: Systematic Reviews and a Randomised Placebo-controlled Clinical Trial." PhD diss., RMIT University, 2014.

## Kun Bu (Kelp)

This variety of kelp assists with weight loss and is beneficial in the treatment of arteriosclerosis, hyperlipidemia and edema of the legs. Kun Bu enters the stomach, liver and kidney channels. Kun Bu dissolves phlegm, softens hardness and mildly promotes urination. Kun Bu is best used with restraint for those with spleen and stomach cold and deficiency.

### Winter Melon (Dong Gua)

Winter melon is great in soups. It contains no fat, has a pleasant sweet flavor, benefits diabetics and benefits patients with kidney disorders. Winter Melon has properties and functions similar to that of Fu Ling. It is sweet, bland and cooling. Dong Gua promotes urination, drains dampness, treats edema and is excellent for cooling in the summertime. Dong Gua can be regularly added to soups without causing weight gain. Winter melon with Yi Yi Ren is an excellent combination to promote urination and to detoxify the kidneys.



Winter Melon

## **Skin Conditions**

## **Gui Ling Gao**

Gui Ling Gao, a jelly-like herbal medicine combination, benefits the skin and is useful in the treatment of chronic skin disorders including eczema, psoriasis and acne. The principle ingredients are Gui Ban (turtle shell) and Tu Fu Ling (smilax). Commercially, additional cooling ingredients are often added including Da Qing Ye, Xiao Ku Cao, Pu Gong Ying and Jin Yin Hua.

Many companies exclude Gui Ban from the jelly due to scarcity and expense. Tu Fu Ling starch is the predominant traditional thickener although rice and corn flour are sometimes substituted or used in large quantities thereby reducing the medicinal benefits. The jelly is slightly bitter and people may add honey although this also reduces the medicinal strength of the jelly. The sweetened preparations are served as desserts.

## Acne (Fen Ci, White Thorns)

- Cooling melons and vegetables are often made into topical masks.
- Herbal powders that are prepared into facial masks include Qing Dai, Huang Bai, Zhen Zhu (pearl) and Huang Lian. Dian Dao San, translated as upside down powder, combines powdered Da Huang and Liu Huang with water to form a paste for topical application.



Huang Lian

- Yi Yi Ren and Chi Xiao Dou soup promotes urination, drains dampness and is a healthy addition to the diet for those with acne.
- Dan Zhu Ye and Zi Cao soup clears heat and treats acne.
- Hai Dai Lu Dou Tang, kelp and mung bean decoction, treats acne.
- Jin Yin Hua (honeysuckle) and Sheng Gan Cao (raw licorice) tea is a helpful daily beverage in the control of acne. Pick fresh honeysuckle instead of using the dried form when possible for greater potency.
- Consuming Ku Gua (bitter melon) juice alone or with cucumber juice treats acne and skin infections. Ku Gua also preserves the smoothness of skin and promotes weight loss. Although bitter melon is common in Chinese cuisine, it may be too bitter for those unaccustomed to bitter foods. To lessen the bitterness, remove the seeds and pith with a small spoon. Next, cut the bitter melon into slices and parboil until it is tender, approximately 2 - 3 minutes.

• A topical paste made from Qing Dai and fresh squeezed Ku Gua juice makes a powerful and effective topical face mask for the treatment of acne. If Ku Gua is unavailable, use fresh squeezed cucumber juice.



Bitter Melon (Ku Gua)

• Ripe green cucumbers, Qing Gua, are not as medicinally potent as yellow cucumbers, Huang Gua. Cucumbers turn yellow when left on the vine. Yellow cucumbers are tougher and are cool, sweet and enter the lung, stomach and large intestine channels. Cucumbers clear lung and stomach heat. External applications of cucumber soothe heat related skin conditions and acne. For a strong medicinal effect, boil yellow cucumbers with cooling herbs to make a soup.

# **Cardiovascular System**

#### 22258 Soup

22258 Soup benefits the heart and is a dietetics treatment for patients with high cholesterol, angina, high blood pressure and heart disease. Make a soup with the following ingredients. Drink the soup but eating the pork is typically not eaten due to toughness. Ingredients:

2 liang lean pork

2 liang Hei Mu Er (black fungus)

2 slices Sheng Jiang (fresh ginger)

5 pieces Hong Zao (red date)

8 cups water

Hei Mu Er, a chief herb in this dietetics treatment, invigorates the blood and benefits the heart. Hei Mu Er has been shown to reduce cholesterol and triglycerides including significant reductions of LDL cholesterol.<sup>10</sup> Hei Mu Er inhibits platelet aggregation and thins the blood.<sup>11</sup> Another study notes that, "Administration of black fungus polysaccharides had significantly enhanced myocardium and blood antioxidant enzyme activities and reduced lipid peroxidation level in high fat mice. Our results indicated that black fungus polysaccharides could be beneficial for protection against cardiovascular diseases and its complications."<sup>12</sup> Hei Mu Er has also been shown to have anti-tumor properties.<sup>13</sup> Do not substitute

<sup>&</sup>lt;sup>10</sup> Byung-Keun yang, Ji-Young Ha, Sang-Chul Jeong, Young-Jae Jeon, Kyung-Soo Ra, Surajit Das, Jong-Won Yun and Chi-Hyun Song. Hypolipidemic effect of an exo-biopolymer produced from submerged mycelial culture of Auricularia polytricha in rats. BIOTECHNOLOGY LETTERS. Volume 24, Number 16, 1319-1325.

<sup>&</sup>lt;sup>11</sup> Hokama Y, Hokama JL. In vitro inhibition of platelet aggregation with low dalton compounds from aqueous dialysates of edible fungi. Res Commun Chem Pathol Pharmacol. 1981 Jan;31(1):177-80.

<sup>&</sup>lt;sup>12</sup> Ma Jiangweia, qiao Zengyong, and Xiang Xia. Optimization of extraction procedure for black fungus polysaccharides and effect of the polysaccharides on blood lipid and myocardium antioxidant enzymes activities. Carbohydrate Polymers. Volume 84, Issue 3, 17 March 2011, Pages 1061-1068.

<sup>&</sup>lt;sup>13</sup> Mengyao Yu, Xiaoyan Xu, Yuan qing, Xia Luo, Zhirong yang and Linyong Zheng. Isolation of an anti-tumor

Hei Mu Er with white fungus, Bai Mu Er, which is used to benefit the lungs and not the heart.

The liang measurement for this recipe is 31.25 grams, which is a common standard for the mass of a liang.

• Note: The mass of a liang varies according to region. A liang is considered 37.5 grams in parts of Taiwan and 50 grams in some systems.

# Hai Dai Lu Dou Tang

This preparation treats liver and kidney yin deficiency with yang uprising and is used for calming hypertension and reducing hyperlipidemia. Indications also include the treatment of acne and skin infections. Combine Hai Dai (kelp) with Lu Dou (mung bean) and decoct into a tea. This tea is sometimes made with rock sugar, Bing Tang.

# **Simple Reduce Cholesterol Tea**

Combine Shan Zha (hawthorn berry) and Ju Hua (chrysanthemum) with tea. Use green tea, Longjing, pu-erh or tuo cha. Place a couple pieces of hawthorn berry and a small amount of chrysanthemum in a cup with tea and add hot water.

# **Strong Angina Pain & Arteriolar Sclerosis**

Decoct Hei Mu Er, Shan Zha and Dan Shen then mix the combination with Tian Qi powder. Alternately, decoct sliced or crushed Tian Qi with the other herbs. If the blood thinning properties of Hei Mu Er is not a drug interaction concern with medications such as warfarin, it is considered an important addition to the diet for those with coronary heart disease (CHD).

polysaccharide from Auricularia polytricha (jew's ear) and its effects on macrophage activation. EUROPEAN FOOD RESEARCH AND TECHNOLOGY. Volume 228, Number 3, 477-485.

This combination often provides significant clinical results when consumed regularly.



Dan Shen

### **Onions and Garlic**

Research confirms that many types of onions reduce hyperlipidemia. In a 2010 study of Welsh onions, "A significant lowering effect on cholesterol in the plasma and on total lipids, triacylglycerol, and cholesterol in the liver was observed in rats fed on the green, but not white, Welsh onion."<sup>14</sup> A 2001 study of garlic, onions and amla (Indian gooseberry) concludes that all three have hypolipidemic effects.<sup>15</sup> A 1987 study of cardiovascular disease from Manhattan College concludes that "use of certain formulations of garlic and/or onion is accompanied by favorable

<sup>&</sup>lt;sup>14</sup> Biosci Biotechnol Biochem. 2010;74(2):402-4. Epub 2010 Feb 7. Welsh onion attenuates hyperlipidemia in rats fed on high-fat high-sucrose diet. Yamamoto Y, Yasuoka A. Graduate School of Human Life Science, Osaka City University, Japan.

<sup>&</sup>lt;sup>15</sup> Indian J Exp Biol. 2001 Aug;39(8):760-6. A comparative study on the beneficial effects of garlic (Allium sativum Linn), amla (Emblica Officinalis Gaertn)and onion (Allium cepa Linn) on the hyperlipidemia induced by butter fat and beef fat in rats. Augusti KT, Arathy SL, Asha R, Ramakrishanan J, Zaira J, Lekha V, Smitha S, Vijayasree VM. Department of Medical Biochemistry, School of Medical Education, M.G. University, Kottayam, India.

effects on risk factors in normal subjects and in patients with a therosclerotic disease."  $^{\prime\prime}$ 

Xie Bai, Chinese long-stamen onion, treats atherosclerosis, lowers both cholesterol and triglycerides, inhibits platelet aggregation and lowers blood pressure.<sup>17,18</sup> Xie Bai regulates qi and treats painful obstruction of the chest, Xiong Bi, due to cold phlegm stagnation. Xie Bai is acrid, bitter, warm and enters the lung, large intestine and stomach channels. Gua Lou Xie Bai Bai Jiu Tang treats Xiong Bi related angina pain.<sup>19</sup> To prepare, decoct Gua Lou (trichosanthes fruit) and Xie Bai in a grain-based liquor or a mixture of liquor and water.

<sup>&</sup>lt;sup>16</sup> Preventive Medicine. Volume 16, Issue 5, September 1987, Pages 670–685. Garlic (Allium sativum) and onion (Allium cepa): A review of their relationship to cardiovascular disease. Barry S. Kendler, Ph.D. Department of Biology, Manhattan College, Riverdale, New York 10471 USA. dx.doi.org/ 10.1016/0091-7435(87)90050-8.

<sup>&</sup>lt;sup>17</sup> Planta medica. ISSN 1439-0221. 1986, vol. 52, no3, pp. 171-175. Effect of Oriental Plant Drugs on Platelet Aggregation; III1. Effect of Chines Drug "Xiebai" on Human Platelet Aggregation. Okuyama T. (1); Shibata S.; Hoson M.; Kawada T.; Osada H.; Noguchi T.; Department of Pharmacognosy and Phytochemistry, Meiji College of Pharmacy, Nozawa 1-35-23, Setagaya-ku, Tokyo, Japan.

<sup>&</sup>lt;sup>18</sup> European Journal of Pharmacology. Volume 599, Issues 1–3, 3 December 2008, Pages 159–165. Endocrine Pharmacology. Novel effects of macrostemonoside A, a compound from Allium macrostemon Bung, on hyperglycemia, hyperlipidemia, and visceral obesity in high-fat diet-fed C57BL/6 mice. Weidong Xie, Yaou Zhang, Naili Wang, Hua Zhou, Lijun Du, Xiaohui Ma, Xiaojun Shi, Guoping Cai.

<sup>&</sup>lt;sup>19</sup> Modern Journal of Integrated Traditional Chinese and Western Medicine. 2008-26. Experimental study of Gualou Xiebai kind prescriptions on pectoral stuffiness pain and precordial pain. Li Xiangyu, Wen Yuxia, Yuan Jinling. Cerebrovascular Disease Hospital of qinhuangdao, Hebei, China. CNKI:SUN:XDJH.0.2008-26-009.

# **FDA Industry Guides for Food Labeling**

The U.S. Food and Drug Administration (FDA) determines a DV (Daily Value) for healthy food intake for children and adults over four years of age with a total intake of 2,000 calories per day. The table below lists the current DV's issued by the FDA. To calculate the percentage of the DV a particular food or meal contains, divide the amount of the nutrient contained in the food or meal by the DV.

Food Component	DV
Total Fat	65 grams (g)
Saturated Fat	20 g
Cholesterol	300 milligrams (mg)
Sodium	2,400 mg
Potassium	3,500 mg
Total Carbohydrate	300 g
Dietary Fiber	25 g
Protein	50 g
Vitamin A	5,000 International Units (IU)
Vitamin C	60 mg
Calcium	1,000 mg
Iron	18 mg
Vitamin D	400 IU
Vitamin E	30 IU
Vitamin K	80 micrograms µg
Thiamin	1.5 mg
Riboflavin	1.7 mg
Niacin	20 mg
Vitamin B <sub>6</sub>	2 mg
Folate	400 µg
Vitamin B <sub>12</sub>	6 µg
Biotin	300 µg
Pantothenic acid	10 mg
Phosphorus	1,000 mg
Iodine	150 µg
Magnesium	400 mg
Zinc	15 mg
Selenium	70 µg
Copper	2 mg
Manganese	2 mg
Chromium	120 µg
Molybdenum	75 μg
Chloride	3,400 mg

# **Food Monographs**

### Daylily Flower (Jin Zhen Cai, Hemerocallis Fulva)

Jin is golden, zhen is translated as needle and cai means vegetable. Daylilies thrive in Taiwan and northern California. This flower is picked before it opens in the morning. It is similar in appearance to Jin Yin Hua (honeysuckle, golden silver flower) although it is longer. In markets, it is often purchased in a prepared dry form in which the toxicity has been removed. Fresh daylily is best blanched before consuming in order to remove toxicity. They are commonly used in hot and sour soup and many entrées, daylily has a strong medicinal value.

Daylily enters the heart and liver channels and is cold. The daylily flower calms the spirit and treats mental restlessness and depression. Daylily stops hemorrhoid bleeding. Daylily moves the blood and qi and treats PMS and stomach pain due to liver qi stagnation attacking the spleen and stomach.

 Daylily is often combined with either Hei Mu Er, Shitake mushrooms or both. These ingredients are soaked, cut into small pieces and placed atop chicken, with seasoning, and then steamed. Red sugar (Hong Tang) is added for its warming effect and helps for the treatment of deficient or cold related stomach cramps, PMS or hemorrhoids. For hemorrhoids due to heat, use rock sugar (Bing Tang) instead.

#### Hong Tang (red sugar)

Hong Tang (red sugar) is crystallized sugar made by boiling and evaporating squeezed sugarcane juice. Hong Tang is sweet, warming and tonifies qi. It is used in food treatments for patients with deficiency and cold. In stores, red sugar may be labeled as rapadura or whole cane sugar. Hong Tang is unrefined, unbleached sugarcane. Fresh cane juice is sweet and very cooling. The boiling of fresh cane juice into Hong Tang changes the medicinal temperature action from very cooling to warming.

#### Bing Tang (rock sugar, ice sugar)

Bing Tang (rock sugar, ice sugar) is a large, hardened crystal made from refined sugarcane juice. It is cooling, sweet and enters the lung, spleen and stomach channels. Rock sugar moistens and cools the lungs and is used to treat dry heat coughs. Rock sugar mildly tonifies spleen and stomach qi.

- Daylily is added to pig feet soup or with figs in tea to assist in promoting lactation.
- Daylily has beneficial antioxidant properties.<sup>20</sup>

# Eggplant

Eggplant is cooling, sweet and enters the stomach foot-yangming, spleen foot-taiyin and large intestine hand-yangming channels. Eggplant tonifies the kidneys, cools the blood, invigorates the blood and clears heat. Chinese eggplant differs from common varieties in the USA in that it is longer. Chinese eggplant is often steamed and seasoned with soy sauce, oil and green onion. Eggplant is beneficial to patients with bloody stools or hemorrhoids resulting from heat in the blood. Nasunin, contained in eggplant peels, has both antioxidant and antiangiogenic properties.<sup>21</sup>

<sup>&</sup>lt;sup>20</sup> Wang, ying-Chuan. "In vitro antioxidant capacity of daylily (Hemerocallis disticha) flowers cultivated in Taiwan." Life Science Journal 10, no. 3 (2013).

<sup>&</sup>lt;sup>21</sup> Matsubara, Kiminori, Takao Kaneyuki, Tsuyoshi Miyake, and Masaharu Mori. "Antiangiogenic activity of nasunin, an antioxidant anthocyanin, in eggplant peels." Journal of agricultural and food chemistry 53, no. 16 (2005): 6272-6275.

Eggplant (boiled, drained)	Unit	Value per 100g	1 cup (1" cubes), 99g
Calcium, Ca	mg	6	6
Iron, Fe	mg	0.25	0.25
Magnesium, Mg	mg	11	11
Phosphorus, P	mg	15	15
Potassium, K	mg	123	122
Sodium, Na	mg	1	1
Zinc, Zn	mg	0.12	0.12
Vitamin C, total ascorbic acid	mg	1.3	1.3
Thiamin	mg	0.076	0.075
Riboflavin	mg	0.02	0.02
Niacin	mg	0.6	0.594
Vitamin B-6	mg	0.086	0.085
Folate, DFE	μg	14	14
Vitamin A, RAE	μg	2	2
Vitamin A, IU	IU	37	37
Vitamin E (alpha- tocopherol)	mg	0.41	0.41
Vitamin K (phylloquinone)	μg	2.9	2.9

## **Tomatoes**

Tomatoes are cooling, sweet, sour and enter the stomach footyangming and liver foot-jueyin channels. Tomatoes promote digestion and remove food stagnation from the body. Tomatoes are cooling and are therefore not appropriate for the treatment of cold and deficient stomach related bloating, loose stool and diarrhea. The cooling action of tomatoes may worsen these conditions.

Tomatoes clear heat and nourish yin. In cases where heat is present, tomatoes combined with celery and watercress are beneficial for patients with yin deficiency with yang uprising and/ or diabetes. In the summertime, fresh juice made from these ingredients quenches thirst and provides a healthy cooling effect to the body.

In Chinese cuisine, tomatoes are often added when dishes are difficult to digest. This led to the emergence of using tomatoes in sweet and sour pork preparations. Prior to modern usage of lean pork, fatty pork was often used. This dish creates other digestion issues because it is oily and involves deep frying. To offset these digestion challenges several ingredients are added: vinegar, sugar, fresh pineapple and fresh tomatoes. The sour sauce helps to promote the digestion of fat and meat.

Studies link tomato intake with a reduced risk of cardiovascular disease and cancer. A recent study from the School of Public Health, University of North Carolina, Chapel Hill notes:

Considerable evidence suggests that lycopene, a carotenoid without provitamin A activity found in high concentrations in a small set of plant foods, has significant antioxidant potential in vitro and may play a role in preventing prostate cancer and cardiovascular disease in humans. Tomato products, including ketchup, tomato juice, and pizza sauce, are the richest sources of lycopene in the US diet, accounting for >80% of the total lycopene intake of Americans.<sup>22</sup>

<sup>&</sup>lt;sup>22</sup> L. Arab, S. Steck, "Lycopene and cardiovascular disease1,2,3," Am J Clin Nutr, June 2000 vol. 71 no. 6 1691S-1695S.

The Department of Nutritional Sciences, Faculty of Medicine, University of Toronto, published:

At present, the role of lycopene in the prevention of CHD (coronary heart disease) is strongly suggestive. Although the antioxidant property of lycopene may be one of the principal mechanisms for its effect, other mechanisms may also be responsible.<sup>23</sup>

The Journal of the National Cancer Institute published that tomatoes are linked to lowering the risk of cancer:

The epidemiologic literature in the English language regarding intake of tomatoes and tomato-based products and blood lycopene (a compound derived predominantly from tomatoes) level in relation to the risk of various cancers was reviewed. Among 72 studies identified, 57 reported inverse associations between tomato intake or blood lycopene level and the risk of cancer at a defined anatomic site; 35 of these inverse associations were statistically significant. No study indicated that higher tomato consumption or blood lycopene level statistically significantly increased the risk of cancer at any of the investigated sites. About half of the relative risks for comparisons of high with low intakes or levels for tomatoes or lycopene were approximately 0.6 or lower. The evidence for a benefit was strongest for cancers of the prostate, lung, and stomach. Data were also suggestive of a benefit for cancers of the pancreas, colon and rectum, esophagus, oral cavity, breast, and cervix <sup>24</sup>

Moderation is a key Chinese medicine dietetics principle. As a result, eating copious amounts of tomatoes because research suggests there is a phytochemical that is important to the diet is antithetical to a balanced diet. The same is true for related consumer products. For example, concentrated lycopene pills made from tomato extract are available. According to Chinese medicine principles, the human body will benefit from tomatoes and the lycopene therein when taken within the context of a balanced diet. Modern consumer trends often tend towards highly

<sup>&</sup>lt;sup>23</sup> A.V. Rao, "Lycopene, tomatoes, and the prevention of coronary heart disease," Exp Biol Med (Maywood) 2002 November; 227(10): 908–913.

<sup>&</sup>lt;sup>24</sup> E Giovannucci, "Tomatoes, tomato-based products, lycopene, and cancer: review of the epidemiologic literature," J Natl Cancer Inst. 1999 February 17; 91(4): 317–331.

concentrated vitamins and supplements in large quantities. High doses of dietary ingredients have the potential to tax the liver, kidneys and cause unwanted side effects. The TCM suggestion for tomatoes is to enjoy them as a wonderful, healthy and delicious fresh food and not to concentrate them into the diet based on the importance of a particular ingredient.

Tomatoes (red, raw)	Unit	Value per 100g	1 cup, chopped or sliced, 180g	1 medium, whole (2-3/5" dia), 123g	1 slice (1/4" thick), 20g
Calcium, Ca	mg	10	18	12	2
Iron, Fe	mg	0.27	0.49	0.33	0.05
Magnesium, Mg	mg	11	20	14	2
Phosphorus, P	mg	24	43	30	5
Potassium, K	mg	237	427	292	47
Sodium, Na	mg	5	9	6	1
Zinc, Zn	mg	0.17	0.31	0.21	0.03
Vitamin C, total ascorbic acid	mg	13.7	24.7	16.9	2.7
Thiamin	mg	0.037	0.067	0.046	0.007
Riboflavin	mg	0.019	0.034	0.023	0.004
Niacin	mg	0.594	1.069	0.731	0.119
Vitamin B-6	mg	0.08	0.144	0.098	0.016
Folate, DFE	μg	15	27	18	3
Vitamin A, RAE	μg	42	76	52	8
Vitamin A, IU	IU	833	1499	1025	167
Vitamin E (alpha- tocopherol)	mg	0.54	0.97	0.66	0.11
Vitamin D (D2 + D3)	μg	0	0	0	0
Vitamin D	IU	0	0	0	0
Vitamin K (phylloquinone)	μg	7.9	14.2	9.7	1.6

# Cabbage (Brassica oleracea)

Cabbage is sweet, neutral and enters the spleen foot-taiyin and stomach foot-yangming channels. This type of cabbage is the round variety and not Napa cabbage. Cabbage has a special property of benefitting both the kidneys and marrow. An advantage of using this plant in dietetics is that is it inexpensive and easy to grow. Cabbage is eaten in salads and is also consumed steamed, juiced or wok fried.

In TCM, cabbage is used as a dietetics treatment for epigastric pain and spasms due to disorders of the spleen and stomach. Cooked cabbage juice with either honey (Mi Tang) or maltose (Yi Tang, malt sugar) may be used for this purpose.

Cabbage contains vitamin U, which is the vernacular for S-Methylmethionine sulfonium (SMMS). Technically, it is not a vitamin but is a derivative of the amino acid methionine. Vitamin U is associated with healing gastrointestinal ulcerations.<sup>25</sup> Vitamin U has also been shown to heal peptic ulcers.<sup>26</sup> The "U" nickname refers SMMS's ability to heal ulcerations.

The TCM principle that cabbage benefits the kidneys and marrow is supported by modern research. A study concludes that cabbage juice stabilizes bone mass in menopausal women.<sup>27</sup> Several studies point to cabbage's calcium content as an important nutrient for preventing osteoporosis.<sup>28</sup>

Cabbage is also rich in vitamin K, phylloquinone, which is important in blot clotting and is associated with the prevention of osteoporosis. Patients taking anticoagulant medications such as coumadin must carefully regulate vitamin K intake from sources such as cabbage because it may counteract the blood thinning

<sup>&</sup>lt;sup>25</sup> Kim, W-S., You Jin yang, Hyung Geun Min, Min Gyu Song, J-S. Lee, K-Y. Park, J-J. Kim, J-H. Sung, J-S. Choi, and H-J. Cha. "Accelerated wound healing by S-methylmethionine sulfonium: evidence of dermal fibroblast activation via the ERK1/2 pathway." Pharmacology 85, no. 2 (2010): 68-76.

<sup>&</sup>lt;sup>26</sup> Cheney, Garnett. "Vitamin U therapy of peptic ulcer." California medicine 77, no. 4 (1952): 248.

<sup>&</sup>lt;sup>27</sup> Pereira, João V., Hosana B. Santos, Maria F. Agra, Diego N. Guedes, and João Modesto-Filho. "Use of cabbage leaves (Brassica oleracea var. acephala) in the stabilization of bone mass after menopause." Revista Brasileira de Farmacognosia 16, no. 3 (2006): 345-349.

<sup>&</sup>lt;sup>28</sup> Michaelsen, K. F., A. V. Astrup, L. Mosekilde, B. Richelsen, M. Schroll, and O. H. Sørensen. "[The importance of nutrition for the prevention of osteoporosis]." Ugeskrift for laeger 156, no. 7 (1994): 958-60.

properties of the medication. Vitamin K assists the body in producing proteins for healthy bones and tissues.<sup>29</sup> Vitamin K deficiency is linked to low bone density. Increased intake of vitamin K by eating leafy greens, lettuce, etc... reduces the risk of hip fracture.<sup>30 31</sup>

Cabbage (raw)	Unit	Value per 100g	1 cup, chopped, 89g	1 leaf, 15g
Calcium, Ca	mg	40	36	6
Iron, Fe	mg	0.47	0.42	0.07
Magnesium, Mg	mg	12	11	2
Phosphorus, P	mg	26	23	4
Potassium, K	mg	170	151	26
Sodium, Na	mg	18	16	3
Zinc, Zn	mg	0.18	0.16	0.03
Vitamin C, total ascorbic acid	mg	36.6	32.6	5.5
Thiamin	mg	0.061	0.054	0.009
Riboflavin	mg	0.04	0.036	0.006
Niacin	mg	0.234	0.208	0.035
Vitamin B-6	mg	0.124	0.11	0.019
Folate, DFE	μg	43	38	6
Vitamin A, RAE	μg	5	4	1
Vitamin A, IU	IU	98	87	15
Vitamin E (alpha- tocopherol)	mg	0.15	0.13	0.02
Vitamin K (phylloquinone)	μg	76	67.6	11.4

<sup>&</sup>lt;sup>29</sup> Weber P. Vitamin K and bone health. Nutrition. 2001; 17:880–7.

<sup>&</sup>lt;sup>30</sup> Booth SL, Tucker KL, Chen H, et al. Dietary vitamin K intakes are associated with hip fracture but not with bone mineral density in elderly men and women. Am J Clin Nutr. 2000; 71:1201–8.

<sup>&</sup>lt;sup>31</sup> Booth SL, Broe KE, Gagnon DR, et al. Vitamin K intake and bone mineral density in women and men. Am J Clin Nutr. 2003; 77:512–6.

#### **Beets (Beetroot)**

Beets are sweet, neutral to cooling and tonify blood. Gou Ji Zi, lycium berries, are also red. Similarly, these two foods are healthy dietary choices to tonify the blood. Several sources note that beetroot enters the heart hand-shaoyin and liver foot-jueyin channels. According to Chinese medicine five element principles, the red color of beets reflects its relationship to the heart. Research concludes that beetroot juice lowers blood pressure in individuals with high blood pressure.<sup>32</sup> In a study of individuals consuming bread containing a significant quantity of beetroot, researchers concluded that beets exert cardioprotective effects.<sup>33</sup>



 <sup>&</sup>lt;sup>32</sup> Coles, Leah T., and Peter M. Clifton. "Effect of beetroot juice on lowering blood pressure in free-living, disease-free adults: a randomized, placebo-controlled trial." PhD diss., BioMed Central Limited, 2012.
<sup>33</sup> Hobbs, Ditte A., Marie G. Goulding, Annie Nguyen, Thomas Malaver, Claire F. Walker, Trevor W. George, Lisa Methven, and Julie A. Lovegrove. "Acute ingestion of beetroot bread increases endothelium-independent vasodilation and lowers diastolic blood pressure in healthy men: a randomized controlled trial." The Journal of nutrition 143, no. 9 (2013): 1399-1405.

Beets, raw	Unit	100g	1 cup, 136g	2" dia., 82g
Calcium, Ca	mg	16	22	13
Iron, Fe	mg	0.8	1.09	0.66
Magnesium, Mg	mg	23	31	19
Phosphorus, P	mg	40	54	33
Potassium, K	mg	325	442	266
Sodium, Na	mg	78	106	64
Zinc, Zn	mg	0.35	0.48	0.29
Vitamin C, total ascorbic acid	mg	4.9	6.7	4
Thiamin	mg	0.031	0.042	0.025
Riboflavin	mg	0.04	0.054	0.033
Niacin	mg	0.334	0.454	0.274
Vitamin B-6	mg	0.067	0.091	0.055
Folate, DFE	μg	109	148	89
Vitamin A, RAE	μg	2	3	2
Vitamin A, IU	IU	33	45	27
Vitamin E (alpha-tocopherol)	mg	0.04	0.05	0.03
Vitamin K (phylloquinone)	μg	0.2	0.3	0.2

#### Asparagus

Asparagus is sweet, bitter, cold and enters the lung hand-taiyin and kidney foot-shaoyin channels. Asparagus tonifies yin and promotes urination. Modern research confirms that asparagus has natural diuretic properties.<sup>34</sup> Its ability to nourish lung yin makes asparagus a suitable dietary choice for the alleviation of yin deficiency coughing including coughs caused by tuberculosis.

Asparagus shares similar functions with the botanically related herb Tian Men Dong (Radix Asparagi, asparagus tuber), especially the ability to treat lung yin deficiency. Modern research confirms the Traditional Chinese Medicine indication of using asparagus for the treatment of coughing. Researchers note:

The methanol extract of Asparagus racemosus root (200 and 400 mg/kg, p.o.) showed significant antitussive activity on sulfur dioxide-induced cough in mice, the cough inhibition (40.0 and 58.5%, respectively) being comparable to that of 10–20 mg/kg of codeine phosphate (36.0 and 55.4%, respectively).<sup>35</sup>

The deep green color of asparagus indicates that it benefits the liver. Modern research documents that asparagus has a protective antioxidant effect on the liver.<sup>36</sup> Additional research indicates that asparagus has anticancer properties. <sup>37</sup> Saponins in asparagus "were found to have antitumor activity." Specifically, asparagus saponins "inhibited the growth of human leukemia HL-60 cells in culture and macromolecular synthesis in a dose and time dependent manner."<sup>38</sup> Asparagus is rich in vitamins A, C and iron.

<sup>&</sup>lt;sup>34</sup> Kumar, MC Satish, A. L. Udupa, K. Sammodavardhana, U. P. Rathnakar, Udapa Shvetha, and G. P. Kodancha. "Acute toxicity and diuretic studies of the roots of Asparagus racemosus willd in rats." West Indies medical journal 59, no. 1 (2010): 3-5.

<sup>&</sup>lt;sup>35</sup> Mandal, Subhash C., Ashok Kumar CK, S. Mohana Lakshmi, Sanghamitra Sinha, T. Murugesan, B. P. Saha, and M. Pal. "Antitussive effect of Asparagus racemosus root against sulfur dioxide-induced cough in mice." Fitoterapia 71, no. 6 (2000): 686-689.

<sup>&</sup>lt;sup>36</sup> Kamat, Jayashree P., Krutin K. Boloor, Thomas Devasagayam, and S. R. Venkatachalam. "Antioxidant properties of Asparagus racemosus against damage induced by γ-radiation in rat liver mitochondria." Journal of ethnopharmacology 71, no. 3 (2000): 425-435.

<sup>&</sup>lt;sup>37</sup> Shao, Yu, Chee-Kok Chin, Chi-Tang Ho, Wei Ma, Stephen A. Garrison, and Mou-Tuan Huang. "Anti-tumor activity of the crude saponins obtained from asparagus." Cancer letters 104, no. 1 (1996): 31-36.

<sup>&</sup>lt;sup>38</sup> Shao, Yu, Chee-Kok Chin, Chi-Tang Ho, Wei Ma, Stephen A. Garrison, and Mou-Tuan Huang. "Anti-tumor activity of the crude saponins obtained from asparagus." Cancer letters 104, no. 1 (1996): 31-36.

Asparagus (raw)	Unit	Value per 100g	1 cup, 134g	1 spear, small (5" or less), 12g	1 spear, (5¼" - 7"), 16g	1 spear, large (7¼" - 8¼"), 20g
Calcium	mg	24	32	3	4	5
Iron	mg	2.14	2.87	0.26	0.34	0.43
Magnesium	mg	14	19	2	2	3
Phosphorus	mg	52	70	6	8	10
Potassium	mg	202	271	24	32	40
Sodium	mg	2	3	0	0	0
Zinc	mg	0.54	0.72	0.06	0.09	0.11
Vitamin C, total ascorbic acid	mg	5.6	7.5	0.7	0.9	1.1
Thiamin	mg	0.143	0.192	0.017	0.023	0.029
Riboflavin	mg	0.141	0.189	0.017	0.023	0.028
Niacin	mg	0.978	1.311	0.117	0.156	0.196
Vitamin B-6	mg	0.091	0.122	0.011	0.015	0.018
Folate, DFE	μg	52	70	6	8	10
Vitamin A, RAE	μg	38	51	5	6	8
Vitamin A, IU	IU	756	1013	91	121	151
Vitamin E	mg	1.13	1.51	0.14	0.18	0.23
Vitamin K (phylloquinone)	μg	41.6	55.7	5	6.7	8.3

# **Pomelos (Chinese Grapefruit)**



Pomelos (citrus maxima, citrus grandis) are cooling, sweet and sour whereas the traditional American grapefruit is also bitter. Common names for the pomelo include pummelo, shaddock, citron and buntan. Pomelos enter the spleen, stomach and lung channels. Pomelos promote the production of bodily fluids, quench thirst and open the appetite. The flesh and peel may be sliced (remove the seeds), boiled in water and mixed with honey for the treatment of coughs with phlegm. A decoction of pomelo flesh and peel is effective in descending uprising rebellious qi for the treatment of nausea and vomiting. Pomelos are restorative after the excessive intake of alcohol and are also useful for restoring the appetite, particularly during pregnancy.

The peel of the pomelo is one variety of Ju Hong, which is pungent, bitter, warming and enters the lung and stomach channels. Ju Hong is more aromatic and drying than Chen Pi but has a weaker function for regulating and harmonizing the spleen and stomach. Ju Hong 'walks the qi', a function of promoting the flow of vital energy in the spleen and stomach. Ju Hong dissolves phlegm, disperses lumps and dries the dampness. Ju Hong is indicated for the treatment of belching, vomiting, food stagnation and phlegm-dampness related coughs.

Pomelo, raw	Unit	Value per 100g	1 cup, sections, 190g
Calcium, Ca	mg	4	8
Iron, Fe	mg	0.11	0.21
Magnesium, Mg	mg	6	11
Phosphorus, P	mg	17	32
Potassium, K	mg	216	410
Sodium, Na	mg	1	2
Zinc, Zn	mg	0.08	0.15
Vitamin C, total ascorbic acid	mg	61.0	115.9
Thiamin	mg	0.034	0.065
Riboflavin	mg	0.027	0.051
Niacin	mg	0.220	0.418
Vitamin B-6	mg	0.036	0.068
Vitamin B-12	μg	0.00	0.00
Vitamin A, IU	IU	8	15

Source: USDA National Nutrient Database for Standard Reference

# Oranges

Oranges are sweet, sour and slightly warming. Oranges enter the liver, stomach and urination bladder channels. Some varieties of orange and tangerine peels are dried to make the herb Chen Pi. Oranges regulate liver qi, promote bodily fluids, quench thirst, promote urination and promote bowel movements. Oranges are contraindicated for diabetics and patients with stomach ulcers. Citrus fruits including lemons, pomelos and oranges share similar functions and properties. Research indicates that oranges inhibit cancer. "Previous research has shown that hesperidin, a flavanone glycoside in orange juice, inhibits colon carcinogenesis and that feeding double-strength orange juice delays the onset of chemically induced mammary cancer in rats."<sup>39</sup> "Hesperidin, other flavonoids, limonin 17-b-D-glucopyranoside, and other limonoid glucosides are potential chemopreventive agents in orange juice that could account for the decreased colon tumorigenesis associated with feeding orange juice."<sup>40</sup>

Oranges, raw, California Valencia	Unit	Value per 100g	1 cup sections, without membranes, 180g	1 fruit (2-5/8" dia.) 121g
Calcium, Ca	mg	40	72	48
Iron, Fe	mg	0.09	0.16	0.11
Magnesium, Mg	mg	10	18	12
Phosphorus, P	mg	17	31	21
Potassium, K	mg	179	322	217
Zinc, Zn	mg	0.06	0.11	0.07
Vitamin C, total ascorbic acid	mg	48.5	87.3	58.7
Thiamin	mg	0.087	0.157	0.105
Riboflavin	mg	0.040	0.072	0.048
Niacin	mg	0.274	0.493	0.332
Vitamin B-6	mg	0.063	0.113	0.076
Folate, DFE	μg	39	70	47
Vitamin A, RAE	μg	12	22	15
Vitamin A, IU	IU	230	414	278

<sup>&</sup>lt;sup>39</sup> Miyagi, Y., A. S. Om, K. M. Chee, and M. R. Bennink. "Inhibition of azoxymethane-induced colon cancer by orange juice." Nutrition and cancer 36, no. 2 (2000): 224-229.

<sup>&</sup>lt;sup>40</sup> Miyagi, Y., A. S. Om, K. M. Chee, and M. R. Bennink. "Inhibition of azoxymethane-induced colon cancer by orange juice." Nutrition and cancer 36, no. 2 (2000): 224-229.

# Mulberry Fruit (Sang Shen Zi)

Sang Shen Zi enters the heart, liver and kidney channels and is sweet and cold. Both the fresh and dried fruits are used to tonify blood and nourish the yin. The dried fruit is used in herbal formulas whereas the fresh fruit is preferable for dietetics applications. Three major types of mulberry fruit are white, red and black. White mulberry ranges in color from white to pink and does not have the intense flavor of the red or black varieties. The Illinois Everbearing mulberry fruit is a hybrid of the red and white varieties and produces a quality leaf and fruit.

#### Mulberry Fruit Wine (Sang Shen Jiu)

Fresh mulberry fruit is soaked in rice wine with Bing Tang (rock sugar) to make mulberry fruit wine. Sang Shen Jiu made with at least 40 proof alcohol preserves well.

#### Sang Shen Jiu Medicinal Alcohol Recipe

4 parts fresh Sang Shen Zi

1 part Bing Tang

2 slices, lemon or lime

Directions: fill a bottle with rice wine of 40 proof or greater and steep the ingredients.

#### Mulberry Beverage and Jam

The fresh fruit can be cooked into a hot tea beverage in boiling water or made into a jam. Commercially, mulberry fruit is combined with sugar to help preserve the jam.

#### Mulberry Leaf (Sang Ye)

Sang Ye is sweet, bitter, cold and enters the liver and lung channels. In the springtime, tender young mulberry leaves are an excellent addition to salads. In this form, Sang Ye cools the blood, brightens the eyes and is a cool, acrid herb that releases the surface. The fresh leaves also help to prevent high blood pressure. Various parts of the mulberry tree are important herbal medicines including Sang Ye, Sang Shen Zi, Sang Bai Pi, Sang Zhi and Sang Ji Sheng.

# **Kumquats**



Kumquats are sweet and warming. They regulate qi and dissolve phlegm. Traditionally, the skin is eaten and the center is discarded. The skin has a sweet flavor and the interior fruit is very sour. Kumquat look like small oranges. They are high in vitamin C and vitamin A, contain a broad spectrum of bioflavonoids and are a valuable source of dietary fiber. In Traditional Chinese Medicine (TCM), kumquats are indicated for the treatment of laryngitis, chronic bronchitis and sinus congestion. Eating kumquat skins often helps to clear the sinuses when blocked by phlegm. Kumquats have a greater medicinal strength than other citrus fruits.

There are several additional common TCM uses for kumquats. For indigestion due to food stagnation, boil kumquats with Mai Ya (barley sprouts). Shan Zha (hawthorne berries) may be added to this combination. Mai Ya focuses on carbohydrate stagnation whereas Shan Zha focuses on meat stagnation.

For restless fetus syndrome or morning sickness due to deficiency, boil Dang Shen with kumquats. Adding Dang Shen provides a tonifying property to the combination. celebrations.

Kumquats have a cultural significance, especially relating to the Chinese New Year. The orange color and small round shape of kumquats is reminiscent of gold nuggets. Kumquats also retain their color for an extended period of time. For these reasons, kumquats symbolize good luck and happiness. Often, they are in flower arrangements and sold during the Chinese New Year

Fresh kumquats are the best most common form used in Chinese medicine dietetics. Either eat the skin or crush the kumquat and add boiling water to make tea. Kumquats are also preserved in either salt or Bing Tang (rock sugar, crystal sugar). To make salted kumquat preserves, boil the kumquats for 1 -2 minutes. Place in a jar with salt and store in a refrigerator. To consume, rinse off the salt, break open the kumquats and add boiling hot water to make tea. For a dry cough or irritated throat, consume 1 -2 kumquat salted preserves or the liquified juice.

# Figs

Cultivation of figs is considered to have first emerged in Egypt then spreading to ancient Crete. By the 16<sup>th</sup> century, figs were brought to the Western Hemisphere by the Spaniards. Today, figs are largely produced in California, Turkey, Greece, Portugal and Spain. Although sold in dehydrated form, fresh figs are better for bodily health. Freshness is a key principle to better health in Chinese medicine dietetics. Figs are rich in vitamin B6, dietary fiber, copper, manganese, potassium and pantothenic acid.

It is important to avoid dried figs that have been processed with sulfur dioxide gas. This changes the molecular structure of the fig and may lead to sulfite reactions. Approximately 5% of asthmatics suffer from sulfite reactions and approximately 1% of all people suffer from sulfite reactions. Certified organic dried figs are not processed with sulfur dioxide gas.

Figs are sweet, neutral and enter the stomach, lung and large intestine meridians. Figs moisten the lungs and are helpful in the

treatment of dry coughs and lung heat. Figs promote lactation and are beneficial in the treatment of large intestine heat related constipation and hemorrhoids.

#### Dry Cough and Lung Heat

For the treatment of dry coughs and lung heat, boil fresh figs with water and consume. Mi Zao (sugar dates) may be added. Lean pork may also be added to this combination to make a flavorful meal. These variations provide options for a hot beverage, soup, thick stew or hearty meal.

#### **Constipation and Hemorrhoids**

For the treatment of large intestine heat and dryness related constipation and hemorrhoids, eat figs or consume figs in hot tea.

#### **Insufficient Lactation**

To promote lactation, boil pig feet until soft, add figs and/or Jin Zhen Cai (daylily flowers). The white milk-like juice excreted when picking figs is particularly helpful in promoting lactation. This is part of the Chinese medicine principle of similarities, in this case, milk to milk.

Figs (raw)	Unit	Value per 100g	large (2.5" dia.) 64g
Calcium, Ca	mg	35	22
Iron, Fe	mg	0.37	0.24
Magnesium, Mg	mg	17	11
Phosphorus, P	mg	14	9
Potassium, K	mg	232	148
Sodium, Na	mg	1	1
Zinc, Zn	mg	0.15	0.10
Vitamin C, total ascorbic acid	mg	2.0	1.3
Thiamin	mg	0.060	0.038
Riboflavin	mg	0.050	0.032
Niacin	mg	0.400	0.256
Vitamin B-6	mg	0.113	0.072
Folate, DFE	μg	6	4
Vitamin A, RAE	μg	7	4
Vitamin A, IU	IU	142	91
Vitamin E (alpha-tocopherol)	mg	0.11	0.07
Vitamin K (phylloquinone)	μg	4.7	3.0

Source: USDA National Nutrient Database for Standard Reference

### **Bitter Melon (Ku Gua)**

This fruit, also known as bitter gourd or balsam-pear, grows throughout Asia. Ku Gua is extremely bitter. Its temperature is very cold. In Asia, it is juiced in the summertime for its cooling effects with watermelon, honey or cucumber. Ku Gua clears heat toxins similarly to the function of Pu Gong Ying (dandelion). Ku Gua is added to soups and is often cooked with meats.

#### Food Treatments and Research

- Drinking Ku Gua juice straight or combined with cucumber is recommended for the treatment of skin infections and acne.
- Ku Gua helps to preserve the smoothness of skin and prevents roughness.
- Juiced or eaten, Ku Gua assists in losing excess weight. A hot beverage is made with Ku Gua that is helpful for weight loss by adding boiling hot water to Ku Gua in a cup.
- According to Chinese medicine principles, diabetes is associated with pathological sweetness and the bitter flavor beneficially balances diabetics. Ku Gua is indicated for diabetics.
- Ku Gua has anti-HIV and anti-tumor functions. Researchers from the Department of Biochemistry (New York University School of Medicine), American BioSciences, National Institute of Child Health and Human Development, and the Laboratory of Biochemical Physiology (Biological Response Modifiers Program, DCT, National Cancer Institute-Frederick Cancer Research and Development Center) note that,

MAP30 is an anti-HIV plant protein that we have identified and purified to homogeneity from bitter melon (Momordica charantia). It is capable of acting against multiple stages of the viral life cycle, on acute infection as well as replication in chronically infected cells. In addition to antiviral action, MAP30 also possesses anti-tumor activity, topological inactivation of viral DNA, inhibition of viral integrase and cell-free ribosome-inactivation activities. <sup>41</sup>

#### **Preparation To Reduce Bitterness**

Ku Gua can be very bitter. Bitterness is lessened by removing the seeds and pith with a small spoon. Next, cut the bitter melon into slices and parboil until it is tender, approximately 2 - 3 minutes.

Balsam-pear (bitter gourd, Ku Gua), pods, cooked, boiled, drained	Units	Value per 100 grams	0.5 cup 62g
Calcium, Ca	mg	9	6
Iron, Fe	mg	0.38	0.24
Magnesium, Mg	mg	16	10
Phosphorus, P	mg	36	22
Potassium, K	mg	319	198
Sodium, Na	mg	6	4
Zinc, Zn	mg	0.77	0.48
Copper, Cu	mg	0.033	0.020
Manganese, Mn	mg	0.086	0.053
Selenium, Se	mcg	0.2	0.1
Vitamin C, total ascorbic acid	mg	33.0	20.5
Thiamin	mg	0.051	0.032
Riboflavin	mg	0.053	0.033
Niacin	mg	0.280	0.174
Pantothenic acid	mg	0.193	0.120
Vitamin B-6	mg	0.041	0.025
Folate, total	mcg	51	32
Folate, food	mcg	51	32
Folate, DFE	mcg_DFE	51	32
Choline, total	mg	10.8	6.7
Vitamin A, RAE	mcg_RAE	6	4
Carotene, beta	mcg	68	42
Vitamin A, IU	IU	113	70
Lutein + zeaxanthin	mcg	1323	820
Vitamin E (alpha-tocopherol)	mg	0.14	0.09
Vitamin K (phylloquinone)	mcg	4.8	3.0

<sup>&</sup>lt;sup>41</sup> Sylvia Lee-Huanga, , Paul L. Huangb, Hao-Chia Chenc, Philip L. Huangb, Aldar Bourinbaiara, Henry I. Huang and Hsiang-fu Kung. Anti-HIV and anti-tumor activities of recombinant MAP30 from bitter melon. Gene. Volume 161, Issue 2, 19 August 1995, Pages 151-156.

# Winter Melon (Dong Gua, Wax Gourd)

Winter Melon has properties and functions similar to that of Fu Ling. It is sweet, bland and cooling. Dong Gua promotes urination, drains dampness, treats edema and is excellent for cooling in the summertime. Winter melon is native to Southeast Asia and has a long shelf life due in part to its waxy coating. Winter Melon has an external appearance similar to that of a watermelon and it has white flesh. Dong Gua is an excellent ingredient choice for patients with diabetes or kidney disorders.

#### Food Treatments

- Dong Gua Zhong: Cut the Dong Gua in half lengthwise. Remove the seeds from the core and add dried scallops, chicken, and mushrooms to the center of one half. Double boil or steam the Dong Gua with the ingredients. The flesh becomes very soft when cooked. Serve and enjoy!
- Make a soup by adding Yi Yi Ren and Chen Pi. Shan Yao can also be added. This soup promotes urination and drains dampness.
- The winter melon seed (Dong Gua Ren, Dong Gua Zi, Wax Gourd Seed) is used in Chinese medicine herbal decoctions for the treatment of lung and intestinal abscesses due to damp-heat with phlegm. Winter melon seed is also used to treat damp-heat leukorrhea.

# Spinach

Spinach is sweet, cooling, astringent, enters the large intestine hand-yangming and liver foot-jueyin channels and nourishes the blood. Spinach helps to stabilize blood glucose levels in diabetics, treats ulcerations at the corners of the mouth, resolves liver spots and stops bleeding in conditions including epistaxis and ulcerative colitis. Modern research and Chinese medicine theory agree that spinach benefits the eyes and is helpful in the prevention of macular degeneration.

Research indicates that eating fruits and vegetables containing carotenoid pigments helps to prevent macular degeneration. Carotenoids often impart a yellow, orange or red color to foods. Spinach, although green, is high in the carotenoids lutein and zeaxanthin. These two carotenoids are normally concentrated in the fovea, a central part of the retina that is the area of maximum visual acuity.

- Researchers conclude, "Diets rich in lutein plus zeaxanthin may protect against intermediate AMD (age-related macular degeneration ) in healthy women younger than 75 years."<sup>42</sup>
- An AMD study notes that "visual function is improved with lutein alone or lutein together with other nutrients."<sup>43</sup>
- Researchers note, "Recent evidence introduces the possibility that lutein and zeaxanthin may protect against the development of the two common eye diseases of aging, cataract and macular degeneration."<sup>44</sup>
- Lutein and zeaxanthin are found in leafy green vegetables including spinach and kale. They are also abundant in broccoli, corn and squash.

According to TCM (Traditional Chinese Medicine) five element theory, the deep green color of spinach reflects its ability to tonify blood. In TCM, the wood element is associated with the color green, the eyes and the liver. Foods having a deep green color tend

<sup>&</sup>lt;sup>42</sup> Moeller, Suzen M., Niyati Parekh, Lesley Tinker, Cheryl Ritenbaugh, Barbara Blodi, Robert B. Wallace, and Julie A. Mares. "Associations between intermediate age-related macular degeneration and lutein and zeaxanthin in the Carotenoids in Age-related Eye Disease Study (CAREDS): ancillary study of the Women's Health Initiative." Archives of ophthalmology 124, no. 8 (2006): 1151-1162.

<sup>&</sup>lt;sup>43</sup> Richer, Stuart, William Stiles, Laisvyde Statkute, Jose Pulido, James Frankowski, David Rudy, Kevin Pei, Michael Tsipursky, and Jill Nyland. "Double-masked, placebo-controlled, randomized trial of lutein and antioxidant supplementation in the intervention of atrophic age-related macular degeneration: the Veterans LAST study (Lutein Antioxidant Supplementation Trial)." Optometry-Journal of the American Optometric Association 75, no. 4 (2004): 216-229.

<sup>&</sup>lt;sup>44</sup> Mares-Perlman, Julie A., Amy E. Millen, Tara L. Ficek, and Susan E. Hankinson. "The body of evidence to support a protective role for lutein and zeaxanthin in delaying chronic disease. Overview." The Journal of nutrition 132, no. 3 (2002): 518S-524S.

to benefit liver blood and nourish the eyes. Spinach benefits the eyes and retina especially when combined with Gou Qi Zi (lycium berry) or Gou Qi Ye (lycium leaf).<sup>45</sup> Spinach, rich in iron, is an excellent food choice after loss of blood.

In Chinese medicine, angular cheilitis is associated with stomach foot-yangming and liver foot-jueyin channel dysfunction. Angular cheilitis, inflammatory lesions at the corner of the mouth, may be caused by vitamin B2 (riboflavin), iron and zinc deficiency. Spinach is a rich source of these nutrients and, combined with its cooling properties, is a therapeutic food choice for this condition.

In China, raw spinach and raw salads are rarely consumed. Steamed and wok fried portions often contain a half-pound of spinach. The therapeutic value of spinach is relative to the quantity consumed and the freshness of the spinach.

Spinach is rich in carotenoids (beta-carotene, lutein, and zeaxanthin), flavonoids, vitamin K, iron, magnesium, manganese, calcium, folate, potassium, copper, zinc, niacin and vitamins B6, B2, B1, C and vitamin E.

#### Spinach and Eggplant

According to TCM theory, spinach helps to treat liver spots. Eggplant is also considered effective in the treatment and prevention of liver spots. Eggplant is considered more effective than spinach for liver spots because it has a stronger blood invigorating function.

<sup>&</sup>lt;sup>45</sup> Chan, Hiu-Chi, Raymond Chuen-Chung Chang, Angel Koon-Ching Ip, Kin Chiu, Wai-Hung Yuen, Sze-Yong Zee, and Kwok-Fai So. "Neuroprotective effects of Lycium barbarum Lynn on protecting retinal ganglion cells in an ocular hypertension model of glaucoma." Experimental neurology 203, no. 1 (2007): 269-273.

Spinach (raw)	Unit	Value per 100g	1 cup, 30g	1 bunch, 340g	1 leaf, 10g
Calcium, Ca	mg	99	30	337	10
Iron, Fe	mg	2.71	0.81	9.21	0.27
Magnesium, Mg	mg	79	24	269	8
Phosphorus, P	mg	49	15	167	5
Potassium, K	mg	558	167	1897	56
Sodium, Na	mg	79	24	269	8
Zinc, Zn	mg	0.53	0.16	1.8	0.05
Vitamin C, total ascorbic acid	mg	28.1	8.4	95.5	2.8
Thiamin	mg	0.078	0.023	0.265	0.008
Riboflavin	mg	0.189	0.057	0.643	0.019
Niacin	mg	0.724	0.217	2.462	0.072
Vitamin B-6	mg	0.195	0.058	0.663	0.02
Folate, DFE	μg	194	58	660	19
Vitamin A, RAE	μg	469	141	1595	47
Vitamin A, IU	IU	9377	2813	31882	938
Vitamin E (alpha-tocopherol)	mg	2.03	0.61	6.9	0.2
Vitamin K (phylloquinone)	μg	482.9	144.9	1,641.9	48.3

Source: USDA National Nutrient Database for Standard Reference

# Chard

Chard is sweet, cooling, clears heat and vents pathogenic factors from the skin and muscles. Venting is used for promoting the eruption of rashes as in the case of the incomplete expression of measles.

#### Chard, Bok Choy, Mustard Greens

Bok choy is similar in function to chard but has a greater function to benefit the skin. Chard and bok choy are cooling and are distinguished from mustard greens, which have a very different medicinal quality. Mustard greens are warming, pungent and enter the lung hand-taiyin and stomach foot-yangming channels. Mustard greens are useful in the treatment of cold type chronic coughs, bronchiectasis and laryngitis.

Chard (swiss, raw)	Unit	Value per 100g	1 cup, 36g	1 leaf, 48g
Calcium, Ca	mg	51	18	24
Iron, Fe	mg	1.8	0.65	0.86
Magnesium, Mg	mg	81	29	39
Phosphorus, P	mg	46	17	22
Potassium, K	mg	379	136	182
Sodium, Na	mg	213	77	102
Zinc, Zn	mg	0.36	0.13	0.17
Vitamin C, total ascorbic acid	mg	30	10.8	14.4
Thiamin	mg	0.04	0.014	0.019
Riboflavin	mg	0.09	0.032	0.043
Niacin	mg	0.4	0.144	0.192
Vitamin B-6	mg	0.099	0.036	0.048
Folate, DFE	μg	14	5	7
Vitamin B-12	μg	0	0	0
Vitamin A, RAE	μg	306	110	147
Vitamin A, IU	IU	6116	2202	2936
Vitamin E (alpha- tocopherol)	mg	1.89	0.68	0.91
Vitamin K (phylloquinone)	μg	830	298.8	398.4

# **Chinese Chives (Jiu Cai, Garlic Chives)**

Chinese Chives (Allium tuberosum) are stems and leaves that are similar in appearance to green onions and have a flavor similar to that of garlic. Jiu Cai has an invigorate blood function when consumed raw and has a tonify yang function, similar to that of Jiu Cai Zi (Chinese chive seed), when cooked. Jiu Cai is spicy, warm and enters the liver, stomach and kidney channels. Jiu Cai is usually chopped into small pieces and cooked. It is common in stews, soups and stir fried vegetables. Jiu Cai combines well with eggs and seafood.

#### **Chinese Chive Fiber Supplement Treatment For Constipation**

Boil uncut Chinese chives until soft and remove from the water. Eat the Chinese chives and add soy sauce for flavor. There is an old story about a child who ate a pocketknife that opened when ingested. The child was instructed to eat Chinese chives. The Chinese chives wrapped around the knife, closed it and the knife was eliminated in the stool while wrapped in the Chinese chives. To this day, Chinese chives are often chopped because the fiber is eliminated in the stool.

#### Minor Injuries And Chest Bi Pain

To invigorate the blood for the treatment of minor injuries or to relieve chest bi pain due to coronary arteriole sclerosis, juice a bunch of raw chives in a juicing machine and drink. The blood invigorating therapeutic action of chives helps to relieve pain.

#### **Tonify Yang Recipe**

This is the fertility recipe noted in the shrimp monograph. This recipe is an excellent dietary choice to tonify yang and jing. Soak shrimp in rice wine (Mi Jiu). Later, remove the shrimp and chop into small pieces. Chop chives into small pieces. Combine the shrimp and chives with eggs and stir. Add the ingredients to a pan to make an omelette. Eggs nourish jing, shrimp tonifies kidney jing

and yang, alcohol tonifies the kidneys and chives tonify kidney yang.

### Purslane (Ma Chi Xian)

Ma Chi Xian is sour, cold and enters the large intestine and liver channels. Ma Chi Xian clears heat and toxins and cools the blood. Ma Chi Xian treats damp heat in the large intestine including diarrhea conditions such as dysentery. Ma Chi Xian treats blood lin syndrome, blood in the urine. For patients with damp and cold in the stomach and spleen, Ma Chi Xian may cause loose stool. Ma Chi Xian is used in salads. For a stronger medicinal effect, boil the whole plant in a small amount of water. A small amount of water is used so that the entire soup can be consumed. Eat the plant and drink the soup. Modern research shows that purslane has detoxifying properties from bisphenol A exposure.

### Watercress (Xi Yang Cai)

Watercress has a strong cooling medicinal function and is an excellent choice for consumption in the summer. Watercress shares a similar name to that of American Ginseng (Xi Yang Shen) because of its venerable medicinal properties. Xi Yang Cai is cold, nourishes the Lungs, alleviates constipation and is valued for its significant nutritional and medicinal benefits. Xi Yang Cai is in the cabbage family and is a popular garnish in the USA. It is often served blanched, in soups or in fresh squeezed juice throughout China. Watercress may be cut and lightly sprinkled on salads. Cooking Xi Yang Cai in oil diminishes its therapeutic actions.

Xi Yang Cai is served freshly juiced with a little salt added. The juice is a helpful home remedy for the treatment of dry coughs or coughing with blood. Xi Yang Chai combines well with dry or fresh figs, Mi Zao (honey dates), Gou Qi Zi (lycium berries, goji berries), and Chen Pi (aged citrus peel). It is spicy in its raw form but is mild and sweet when cooked.

Watercress is considered a cancer preventative food. A recent study of tobacco smokers notes, "Watercress is a rich source of phenethyl isothiocyanate (PEITC), an effective chemopreventive agent for cancers of the lung and esophagus induced in rodents by nitrosamines, including the tobacco-specific carcinogen 4- (methylnitrosamino)-1-(3-pyridyl)-1-butanone."<sup>46</sup> PEITC that has been shown to inhibit the proliferation of prostate cancer and tumorigenesis.<sup>47</sup>



Watercress

<sup>&</sup>lt;sup>46</sup> Effects of Watercress Consumption on Urinary Metabolites of Nicotine in Smokers, Stephen S. Hecht2, Steven G. Carmella and Sharon E. Murphy, Cancer Epidemiology, Biomarkers & Prevention October 1999 8; 907.

<sup>&</sup>lt;sup>47</sup> Jen Wei Chiao, Hongyan Wu, Gita Ramaswamy, C. Clifford Conaway, Fung-Lung Chung, Longgui Wang and Delong Liu. Ingestion of an isothiocyanate metabolite from cruciferous vegetables inhibits growth of human prostate cancer cell xenografts by apoptosis and cell cycle arrest. Oxford Journals, Life Sciences & Medicine, Carcinogenesis Volume 25, Issue 8 p. 1403-1408.

Watercress, raw	Unit	100g	1 sprig, 2.5g	10 sprigs, 25g
Calcium, Ca	mg	120	3	30
Iron, Fe	mg	0.20	0.00	0.05
Magnesium, Mg	mg	21	1	5
Phosphorus, P	mg	60	2	15
Potassium, K	mg	330	8	82
Sodium, Na	mg	41	1	10
Zinc, Zn	mg	0.11	0.00	0.03
Vitamin C, total ascorbic acid	mg	43.0	1.1	10.8
Thiamin	mg	0.090	0.002	0.022
Riboflavin	mg	0.120	0.003	0.030
Niacin	mg	0.200	0.005	0.050
Vitamin B-6	mg	0.129	0.003	0.032
Folate, DFE	μg	9	0	2
Vitamin A, RAE	μg	160	4	40
Vitamin A, IU	IU	3191	80	798
Vitamin E (alpha-tocopherol)	mg	1.00	0.02	0.25
Vitamin K (phylloquinone)	μg	250.0	6.2	62.5

Source: USDA National Nutrient Database for Standard Reference

### Mustard Greens (Jie Cai, Brassica Juncea)

Jie Cai is spicy, warming and has a distinctly pungent odor. Jie Cai enters the lung and stomach channels. Similar to Bai Jie Zi (white mustard seed), Jie Cai is useful for the treatment of coughs due to wind-cold, bronchiectasis and laryngitis.

#### Treatment of Wind-Cold Cough

• For the treatment of beginning stage wind-cold coughs: boil a hard boiled egg with some sliced beef. Next, add two slices of Sheng Jiang (fresh ginger) and then add Jie Cai. Eat the mustard greens and drink the soup.

### Walnuts (Hu Tao Ren)

Walnuts are sweet, warming and tonify yang. They enter the kidney, large intestine and lung channels and tonify the kidneys for the treatment of back and knee pain due to deficiency. Walnuts lubricate the large intestine and treat intestinal fluid depletion related constipation. Walnuts warm the lungs and help the kidneys grasp the qi for the treatment of coughing, wheezing and asthma due to deficiency.

Walnuts are a channel leading herb to the brain. The Traditional Chinese Medicine concept of similarities applies. Walnuts visually resemble the brain and therefore benefit the brain in a 'brain to brain' relationship.

#### **Omega-3 Fatty Acids**

Walnuts are rich in omega-3 fatty acids. Researchers note,

Omega-3 fatty acids are known to play a role in nervous system activity, cognitive development, memory-related learning, neuroplasticity of nerve membranes, synaptogenesis and synaptic transmission. The brain is considered abnormally sensitive to oxidative damage, and aging is considered one of the most significant risk factors for degenerative neurological disorders. Recently, clinical trials of several neurodegenerative diseases have increasingly targeted the evaluation of the effectiveness of various antioxidants.<sup>48</sup>

<sup>&</sup>lt;sup>48</sup> Mazza, Marianna, Massimiliano Pomponi, Luigi Janiri, Pietro Bria, and Salvatore Mazza. "Omega-3 fatty acids and antioxidants in neurological and psychiatric diseases: an overview." Progress in Neuro-Psychopharmacology and Biological Psychiatry 31, no. 1 (2007): 12-26.

Omega-3 fatty acids could be useful in the prevention of different pathologies, such as cardiovascular, psychiatric, neurological, dermatological and rheumatological disorders. A number of studies suggest that antioxidants can prevent the oxidation of various macromolecules such as DNA, proteins, and lipids. The ideal use of antioxidants should be a prophylactic and continue treatment before aging.<sup>49</sup>

#### **Atherosclerosis Risk Reduction**

Walnuts decrease cholesterol and benefit the heart. Researchers note, "Incorporating moderate quantities of walnuts into the recommended cholesterol-lowering diet while maintaining the intake of total dietary fat and calories decreases serum levels of total cholesterol and favorably modifies the lipoprotein profile in normal men."<sup>50,51</sup> Additional research adds, "The findings showed that walnut administration in (the) diet clinically decreases atherosclerosis risk factors."<sup>52</sup>

#### **Preparation Issues**

Walnuts are a healthy choice but preparation is important. Raw walnuts are excellent choices and lightly toasted walnuts are also beneficial. Honey walnut prawn dishes usually involve deep frying walnuts and adding honey. This combination destroys the medicinal properties of walnuts and causes pathological damp heat and phlegm fire properties to emerge.

#### Alcoholic Beverage (Hu Tao Li Shen)

- walnuts
- Korean ginseng (Hong Shen, Gao Li Shen)

<sup>&</sup>lt;sup>49</sup> Mazza, Marianna, Massimiliano Pomponi, Luigi Janiri, Pietro Bria, and Salvatore Mazza. "Omega-3 fatty acids and antioxidants in neurological and psychiatric diseases: an overview." Progress in Neuro-Psychopharmacology and Biological Psychiatry 31, no. 1 (2007): 12-26.

<sup>&</sup>lt;sup>50</sup> N Engl J Med 1993;328:603:7.

<sup>&</sup>lt;sup>51</sup> Sabate, Joan, Gary E. Fraser, Kenneth Burke, Synnove F. Knutsen, Hannelore Bennett, and Kristian D. Lindsted. "Effects of walnuts on serum lipid levels and blood pressure in normal men." New England Journal of Medicine 328, no. 9 (1993): 603-607.

<sup>&</sup>lt;sup>52</sup> Ebrahim Abbasi, Oshaghi, Sorkhani Arash Noori, and Rezaei Ali. "Effects of walnut on lipid profile as well as the expression of sterol-regulatory element binding protein-1c (SREBP-1c) and peroxisome proliferator activated receptors  $\alpha$  (PPAR $\alpha$ ) in diabetic rat." Food and Nutrition Sciences 2012 (2012).

- schisandra berries (Wu Wei Zi)
- Chen Xiang (aloeswood)

Directions: Soak the ingredients in rice wine that is 40 proof or greater.

Uses: Appropriate for cold-type bi pain (cold-type joint pain) and chronic coughing and wheezing due to deficiency with coldness. This beverage is especially helpful for the elderly.

#### **Recipe: Walnuts with Quail**

Season chopped quail and small pieces of walnuts with ginger and soy sauce. Shitake mushrooms can be added for flavor. Cook rice in a rice cooker. When the water subsides, add the mixture to the top of the rice and finish the rice cooking process plus an additional 5 minutes of cooking time to ensure proper cooking of the quail mixture. Take care to avoid small bones when eating the dish.

Quail and walnuts benefit the kidneys. This formula is especially beneficial for children for the treatment of bedwetting and malnutrition (Gan Ji). Gan Ji involves spleen and stomach qi and blood deficiency with food stagnation often combined with abdominal distention and possibly parasites. Gan Ji is characterized by bloating of the abdomen and excessively skinny limbs.

#### Honey Water and Walnuts For Constipation

Prior to sleeping, eat several walnuts followed by drinking honey mixed with water. Repeat the process twice. This combination eases bowels movements on the following day and is for cases of yang deficiency related constipation.



Walnuts	Unit	100g	1 oz. (14 halves), 28.35g
Protein	g	15.23	4.32
Total lipid (fat)	g	65.21	18.49
Carbohydrate, by difference	g	13.71	3.89
Fiber, total dietary	g	6.7	1.9
Sugars, total	g	2.61	0.74
Calcium, Ca	mg	98	28
Iron, Fe	mg	2.91	0.82
Magnesium, Mg	mg	158	45
Phosphorus, P	mg	346	98
Potassium, K	mg	441	125
Sodium, Na	mg	2	1
Zinc, Zn	mg	3.09	0.88
Vitamin C, total ascorbic acid	mg	1.3	0.4
Thiamin	mg	0.341	0.097
Riboflavin	mg	0.150	0.043
Niacin	mg	1.125	0.319
Vitamin B-6	mg	0.537	0.152
Folate, DFE	μg	98	28
Vitamin A, IU	IU	20	6
Vitamin E (alpha-tocopherol)	mg	0.70	0.20
Vitamin K (phylloquinone)	μg	2.7	0.8
Fatty acids, total saturated	g	6.126	1.737
Fatty acids, total monounsaturated	g	8.933	2.533
Fatty acids, total polyunsaturated	g	47.174	13.374

Source: USDA National Nutrient Database for Standard Reference

### Pine Nuts (Song Zi Ren)

Pine nuts are sweet, warming and enter the kidney and large intestine channels. Pine nuts moisten the intestines, smooth the bowel movements and are indicated for the treatment of constipation due to dryness and/or kidney yang deficiency, especially in cases of chronic constipation. In Traditional Chinese Medicine, decoctions are made for the treatment of lubricating the large intestine with pine nuts combined with Bai Zi Ren, Tao Ren, Huo Ma Ren and Yu Li Ren. For dietetics treatments, pine nuts are often eaten raw, lightly roasted or made into a porridge with walnuts.

Pine nuts are both lubricating and warming. They are beneficial for both jing and kidney yang. As a result, pine nuts are a healthy addition to the diet for patients with sexual function disorders including impotence and low libido.

As with walnuts, lightly roasting pine nuts is acceptable. However, excess heating or frying will dry out the oils and destroy the medicinal benefits. Roasting increases the medicinal temperature value. Excess consumption of pine nuts, especially roasted pine nuts, may cause excess internal heat. They are a healthy food choice and intake moderation is indicated.



Pine Nuts

Pine Nuts, dried	Unit	Value per 100g	1 cup, 135g	1 oz. (167 kernels) 28.35g	10 nuts, 1.7g
Protein	g	13.69	18.48	3.88	0.23
Total lipid (fat)	g	68.37	92.30	19.38	1.16
Carbohydrate, by difference	g	13.08	17.66	3.71	0.22
Fiber, total dietary	g	3.7	5.0	1.0	0.1
Sugars, total	g	3.59	4.85	1.02	0.06
Iron, Fe	mg	5.53	7.47	1.57	0.09
Magnesium, Mg	mg	251	339	71	4
Phosphorus, P	mg	575	776	163	10
Potassium, K	mg	597	806	169	10
Zinc, Zn	mg	6.45	8.71	1.83	0.11
Thiamin	mg	0.364	0.491	0.103	0.006
Riboflavin	mg	0.227	0.306	0.064	0.004
Niacin	mg	4.387	5.922	1.244	0.075
Vitamin B-6	mg	0.094	0.127	0.027	0.002
Folate, DFE	μg	34	46	10	1
Vitamin E (alpha- tocopherol)	mg	9.33	12.60	2.65	0.16
Vitamin K (phylloquinone)	μg	53.9	72.8	15.3	0.9
Fatty acids, total saturated	g	4.899	6.614	1.389	0.083
Fatty acids, total monounsaturated	g	18.764	25.33	5.320	0.319
Fatty acids, total polyunsaturated	g	34.071	45.99	9.659	0.579

Source: USDA National Nutrient Database for Standard Reference

## Shrimp

Shrimp are salty, sweet and warming. They tonify kidney jing and yang. Observations of nature guided the initial foundations of Chinese medicine dietetics; shrimp lay many eggs and therefore enhance fertility. Shrimp are indicated for the treatment of yang deficiency related infertility for both men and women.

Allergic reactions to shellfish are common. According to Chinese medicine dietetics, this makes shrimp slightly toxic to the blood for some individuals. Otherwise, shrimp is considered nontoxic and is an excellent food choice for tonifying the kidneys. Larger varieties of shellfish such as crab and lobster are considered more toxic and are therefore not commonly used in dietetics treatments.

#### **Fertility Recipe**

Soak shrimp in rice wine (Mi Jiu). Later, remove the shrimp and chop into small pieces. Chop chives into small pieces. Combine the shrimp and chives with eggs and stir. Add the ingredients to a pan to make an omelette. Eggs nourish jing, shrimp tonifies kidney jing and yang, alcohol tonifies the kidneys and chives tonify kidney yang.

#### **Cooking Shrimp with Rice Wine**

White rice wine (Bai Jiu) or yellow rice (Huang Jiu) wine are appropriate. Traditionally, yellow rice wine is combined with seafood for purposes of enhancing flavor combinations.

# Jellyfish

Jellyfish is salty, cooling and dissolves hot phlegm under the skin. This is an excellent choice to clear heat type skin eruptions, including acne, and is an appropriate food choice for patients with soft nodules beneath the skin.



Jellyfish with Sesame Seeds

Jellyfish is usually salted and packaged in plastic bags in noodle form. For this dish, choose the fresh jellyfish instead of dried jellyfish. Remove the jellyfish from the packaging and place in hot water for 1-2 minutes and rinse to remove the sand. Never sauté jellyfish. Add sliced cucumber, vinegar, sesame oil, soy sauce and other flavorings to make a cold jellyfish noodle plate. The cool nature of cucumber enhances the cooling actions of jellyfish.

Jellyfish contains no carbohydrates, sugars or fiber and has negligible amounts of cholesterol. Hai Shen (sea cucumber) also lack carbohydrates and cholesterol. Hai Shen is sweet, salty, warming and tonifies kidney yang and jing. Hai Shen is appropriate in dishes for patients with impotence, frequent urination and nocturnal emissions due to yang and jing deficiency.

Jellyfish, dried, salted	Unit	Value per 100g	1 cup 58g
Carbohydrate, by difference	g	0.00	0.00
Fiber, total dietary	g	0.0	0.0
Sugars, total	g	0.00	0.00
Calcium, Ca	mg	2	1
Iron, Fe	mg	2.27	1.32
Magnesium, Mg	mg	2	1
Phosphorus, P	mg	20	12
Potassium, K	mg	3	2
Sodium, Na	mg	9690	5620
Zinc, Zn	mg	0.42	0.24
Thiamin	mg	0.010	0.006
Riboflavin	mg	0.010	0.006
Niacin	mg	0.200	0.116
Vitamin B-6	mg	0.010	0.006
Folate, DFE	μg	1	1
Vitamin B-12	μg	0.02	0.01
Vitamin A, RAE	μg	2	1
Vitamin A, IU	IU	7	4
Fatty acids, total saturated	g	0.273	0.158
Fatty acids, total monounsaturated	g	0.202	0.117
Fatty acids, total polyunsaturated	g	0.475	0.275
Cholesterol	mg	5	3

Source: USDA National Nutrient Database for Standard Reference

## Carp (Li Yu)

#### **Chinese Culture**

Carp are a revered fish in Chinese culture. Their ability to jump is immortalized in the story of carp powerfully swimming upstream to clear the Dragon Gate waterfall at the Yellow River in Henan. The carp leap from the water while transforming into dragons as they jump over the waterfall. Various cultural meanings about overcoming obstacles and obtaining achievement are expressed in the saying "carp jump over Dragon Gate" (liyu tiao longmen). The powerful life force and transformative abilities required to make this leap reflect the enduring will and strength of the Chinese people. Carp are a popular Chinese symbol of good luck. Carp at a Chinese New Year's banquet symbolizes abundance.

#### **Carp Varieties**

According to Chinese medicine theory, carp is a powerful and auspicious variety of fresh water fish. Carp appear to have a mustache, have golden-shiny scales, survive outside of water longer than many fish, jump high above the water at high speeds and can grow to approximately 145 lbs. and 60 inches in length. Bighead carp has a stronger medicinal function than other varieties, however, silver carp is often more widely available while continuing to provide similar medicinal benefits. Bighead carp and other Asian carp are considered invasive species in the USA. A 40 lb. bighead carp from the Mississippi River is considered very large but record weights for this region are over 90 pounds.

Silver carp jump from the water when frightened. Moving boats frighten silver carp causing them to jump into boats, occasionally injuring boaters or damaging equipment. Entire schools of silver carp may jump simultaneously. Bighead carp usually do not jump in response to boat traffic.

Bighead carp, grass carp, silver carp, black carp and other varieties of Asian carp share similar medicinal therapeutic actions. Large wild carp have stronger therapeutic actions than smaller varieties. Nonetheless, small fresh silver carp maintain valuable medical properties.



Farm Raised Carp

#### **General Carp Properties**

Carp are sweet, neutral and enters the lung and kidney channels. Carp promote urination and moisten the lungs. As a channel leading ingredient, the head of the fish leads the healing properties of the herbs to the head. According the Chinese medicine principle of similarities, this is the 'head to head' function. Bighead carp is the variety of carp with the greatest medicinal function to benefit the head. If carp is unavailable, use catfish or another other quality fish and include the head.

#### Silver Carp (Lian Yu)

Silver carp are sweet, warming and enter the spleen and lung channels. They warm the middle jiao, tonify qi, nourish the skin and hair, and promote lactation. Silver carp may be used in dishes for the treatment of head wind characterized by dizziness or headaches.

- Tian Ma Yu Tou Huo Guo: this dish is a preparation of carp head in a hot pot with Tian Ma.
- Tian Ma Chuan Xiong Bai Zhi: this dish is a preparation of carp head with Tian Ma, Chuan Xiong and Bai Zhi.

#### Wind-Cold Headache Recipe

Cook bighead carp with Bai Zhi, Chuan Xiong and Sheng Jiang (fresh ginger) and Cong Bai (green onion, scallion).

*Cooking Instructions:* The total cooking time is one hour. Sauté carp's head with a little oil, salt, garlic and ginger (optional). Next, place the carp into a boiling soup containing 9g of Bai zhi, 9g of Chuan Xiong and 2 slices of ginger. Add green onions in the last 5 minutes of cooking time.

#### Li Yu Chi Xiao Dou Tang

Li Yu Chi Xiao Dou Tang is a soup that increases lactation, promotes urination and treats dirty water stagnation. Indications include edema, ascites, chronic nephritis, leg qi disorder, obesity, and water retention due to kidney yang deficiency or PMS. Carp and adzuki beans (Chi Xiao Dou) act synergistically in promoting water to reduce dirty water stagnation, a diuretic therapeutic action. Adzuki beans are sweet, sour, neutral and enter the heart and small intestine channels. This recipe is particularly beneficial to patients with turbid water flooding due to kidney yang deficiency related Yi Yin.

Yi Yin, translated as flooding drink, is dirty water affecting the whole body and especially the abdominal region. Yi Yin is present in cases of ascites, a buildup of fluid between the lining of the abdomen and the abdominal organs. This results from high pressure in liver portal blood vessels and low albumin levels. Ascites may be due to schistosomiasis, a fluke infection often caused by drinking water containing freshwater snails. Ascites may also be caused by liver cirrhosis leading to abdominal bloating. Relieving Yi Yin for liver cirrhosis patients helps to protect the heart and lungs. Powerful purgative herbal formulas such as Shi Zao Tang are used for quick results but are contraindicated for use in the elderly, pregnant women, children and patients with underlying deficiencies. A more gentle long-term dietetics approach is beneficial to patients and is not contraindicated for these patients.

#### Variation #1

The most simple version of this soup is a combination of carp, adzuki beans, ginger, garlic and Chen Pi (aged tangerine/citrus peel). In many ways, this is the dietetics equivalent to the herbal formula Wu Ling San. Lightly oil a pan and fry the carp until brown on both sides with ginger and garlic. Separately, boil adzuki beans until soft and add a little Chen Pi to the broth. Next, add the fish to the broth and add additional seasonings. The fish may be placed in a cheesecloth if there is concern about bones.

Black beans may replace adzuki beans to change the therapeutic action. Black beans nourish the kidneys. Also, add red dates (Hong Zao) to the broth to tonify blood. Garlic is usually added to the broth in this variation. This gives the soup the therapeutic action of tonifying the qi, blood and kidneys. This is beneficial to blood deficient patients with dizziness and night sweating after the delivery of a baby.

#### Variation #2

Boil Bai Mao Gen, Sang Bai Pi and Huang Qi to make an herbal soup. Remove the herbs and cook adzuki beans in the herbal broth. Sauté carp in oil with Sheng Jiang (ginger), Da Suan (garlic) and a little Chen Pi (dried citrus peel) until both sides are brown. Add the fish to the soup and serve. Eat the beans and fish with the soup.

### Catfish

Catfish has similar therapeutic actions and properties as carp. It makes an excellent substitute for carp in Li Yu Chi Shao Dou Tang. Catfish is effective in promoting lactation and promoting water to drain the dampness. Cook catfish with adzuki beans to reduce edema. Cook catfish with green papaya to promote lactation.

### Wu Gu Ji (Silkie Chicken)

Most Wu Gu Ji have very soft feathers, often white, that feel smooth as silk to the touch. Also known as the Silkie chicken or Black-Bone Silky fowl, they have fluffy plumage, black skin and bone, and grayish-black meat. There are hundreds of chicken breeds and, according to Chinese medicine theory, Wu Gu Ji has the greatest medicinal value. Their origin is not certain but they may have come from either China or India. Currently, most farming practices allow Silkie chicken to mature at a normal rate thereby imparting greater greater qi tonic properties to the meat than chicken that are harvested unusually young.

Certified organic chickens have greater medicinal properties than chicken that have endured substandard industrial treatment. Although Silkie chicken have the greatest medicinal value, other fowl including other varieties of organic chicken, wild game fowl and free range chicken can be used as a substitute.

Scientists link the Chinese medicine therapeutic value of Wu Gu Ji to its high carnosine levels. This naturally occurring peptide is in greater concentrations in Wu Gu Ji than other types of chicken.<sup>53</sup> Carnosine has antioxidant properties and scavenges reactive oxygen species and aldehydes formed during oxidative stress. Silkie chicken are very low in fat.

#### **Therapeutic Actions**

Silkie chicken is sweet, neutral and enters the liver and kidney channel. The rooster Silkie is warming. Silkie chicken tonify spleen qi and are beneficial for diabetes. They are nourish blood and yin and are beneficial for the treatment of gynecological concerns such as amenorrhea that are due to blood and yin deficiency. For these reasons, Silkie chicken is a chief ingredient in the patent medicine Wu Ji Bai Feng Wan.

<sup>&</sup>lt;sup>53</sup> Tian, Yinggang, Sheng Zhu, Mingyong Xie, Weiya Wang, Hongjing Wu, and Deming Gong. "Composition of fatty acids in the muscle of black-bone silky chicken Gallus gellus demesticus brissen and its bioactivity in mice." Food Chemistry 126, no. 2 (2011): 479-483.

#### **Tonify Qi Recipe**

Double boil whole or cut Silkie chicken with Shan Yao, Huang Qi and Dang Shen. The Dang Shen and Shan Yao can be eaten but discard the Huang Qi after cooking. Ginger slices and Hong Zao are flavorful additions to this recipe.

Ginseng may be added to enhance the qi tonic properties. For yang deficiency, use red ginseng. For yin deficiency, use American ginseng. Alternately, white ginseng may be added.

#### Tonify Yin and Blood Recipe

Double boil or steam Silkie chicken with Sheng Di Huang, Shu Di Huang, or both. Use Sheng Di Huang when appropriate to cool heat in the blood and Shu Di Huang for its blood tonic properties. This recipe is appropriate for patients with night sweating, hot flashes and general menopausal symptoms.

### Leg and Foot Recipe

Cook chicken feet with deer tendon or tendons of another meat. According to the principle of similarities relating to chicken feet, the foot to foot treatment is beneficial for weakness of the legs and ankles, plantar fasciitis pain and other leg and foot concerns. This dish is usually prepared with peanuts and shitake mushrooms. Niu Xi is added as a channel leading herb to the knees and legs. Dang Shen and Huang Qi strengthen the function of this recipe.

## **Chicken Eggs**

Chicken eggs nourish heart shen and tonify blood and jing. They nourish the fetus and benefit reproductive functions. Chicken eggs with a dark color have greater therapeutic actions than lighter colored eggs.

Certified organic fresh eggs are more therapeutic and safer for consumption than those mass produced in non-organic factory farms. Modern science has identified that egg yolks are high in cholesterol and fat. However, egg whites contain no cholesterol and negligible amounts of fat. Chicken eggs are rich in vitamin A, calcium, iron, phosphorus, selenium and several B vitamins including thiamin, riboflavin, folate, B6 and B12.

A total of twenty different amino acids can form a protein. Nine amino acids cannot be made by the human body and are therefore termed essential amino acids because they must be consumed in foods. Eggs are considered a complete protein because they contain all nine essential amino acids in sufficient quantities and proportions for human health.

#### **Fertility Egg Foo Young**

*Ingredients* chicken eggs shrimp pine nuts chives mountain yam powder (Shan Yao) Dang Gui (optional)

This egg dish is presented as a pancake and is not folded as in omelets. It is indicated for the treatment of infertility due to jing deficiency. Preheat a griddle or pan over medium heat and brush lightly with oil. Whisk the eggs and stir in the remaining ingredients. Use a large spoon and drop approximately a half cup of the mixture onto the griddle to make a pancake.

Shrimp lay many eggs reflecting their ability to treat infertility. Chives, pine nuts and shrimp tonify kidney yang. Eggs and shrimp nourish jing. Shan Yao tonifies qi and yin.

#### Lubricate Intestines Egg Foo Young

Ingredients chicken eggs pine nuts (Song Zi Ren) hemp seeds (Huo Ma Ren) walnuts (Hu Tao Ren)

This egg foo young preparation nourishes kidney yang and lubricates the intestines. It is indicated for the treatment of constipation and infertility.

### **Steamed Eggs**

This dish is similar to a savory custard featuring delicate and delicious tastes and textures. This is a healthy method for preparing eggs.

*Ingredients* 3 large eggs 3/4 cup water or chicken, fish or vegetable stock dried or fresh scallops or small shrimp green onion soy sauce

If using dried scallops or shrimp, soak in water prior to use to hydrate. Whisk eggs gently and avoid creating bubbles. Mix in water or stock, scallops or shrimp. Sprinkle green onions on top. Soy sauce or salt may be added to the mix or dashed on top after completion. Other ingredients such as bonito flakes are tasty additions.

Fill a ramekin or shallow stainless steel pan with the mixture and place on a steamer stand in a pot of water filled with about 1" of boiling water and cover. Steam for approximately 7-12 minutes or until the egg is slightly firm but has the softness like tofu.

### Egg Yolk Oil

Egg yolk oil is used in topical applications as an emollient and moisturizer. External use of egg yolk oil encourages the healing of skin and may be mixed with Bing Pian or other appropriate ingredients relevant to skin conditions being treated. The process of making egg yolk oil is slightly complicated. Char egg yolk in a wok and render the oil. Use an outdoor setting because the process is very smoky.



Steamed Eggs with Shrimp, Carrots, Mushrooms, Green Onion and Parsley



Ramekin on Steamer Stand

Egg, whole, raw, fresh	Unit	100g	1 large, 50g	1 small, 38g
Protein	g	12.56	6.28	4.77
Total lipid (fat)	g	9.51	4.76	3.61
Carbohydrate, by difference	g	0.72	0.36	0.27
Sugars, total	g	0.37	0.18	0.14
Calcium, Ca	mg	56	28	21
Iron, Fe	mg	1.75	0.88	0.66
Magnesium, Mg	mg	12	6	5
Phosphorus, P	mg	198	99	75
Potassium, K	mg	138	69	52
Sodium, Na	mg	142	71	54
Zinc, Zn	mg	1.29	0.64	0.49
Thiamin	mg	0.040	0.020	0.015
Riboflavin	mg	0.457	0.228	0.174
Niacin	mg	0.075	0.038	0.028
Vitamin B-6	mg	0.170	0.085	0.065
Folate, DFE	μg	47	24	18
Vitamin B-12	μg	0.89	0.44	0.34
Vitamin A, RAE	μg	160	80	61
Vitamin A, IU	IU	540	270	205
Vitamin E (alpha-tocopherol)	mg	1.05	0.52	0.40
Vitamin D (D2 + D3)	μg	2.0	1.0	0.8
Vitamin D	IU	82	41	31
Vitamin K (phylloquinone)	μg	0.3	0.2	0.1
Fatty acids, total saturated	g	3.126	1.563	1.188
Fatty acids, total monounsaturated	g	3.658	1.829	1.390
Fatty acids, total polyunsaturated	g	1.911	0.956	0.726
Fatty acids, total trans	g	0.038	0.019	0.014
Cholesterol	mg	372	186	141

Source: USDA National Nutrient Database for Standard Reference

## Quail

Quail is a high quality protein that tonifies the zang-fu organs and spleen qi. Quail is indicated as a food item for the treatment of Gan Ji malnutrition syndrome with underlying spleen qi deficiency and dampness.

#### Loose Stool and Damp Bi Pain Recipe

Make a soup with quail, Yi Yi Ren, Chi Xiao Dou (adzuki beans) and Chen Pi.

#### Pediatric Gan Ji Malnutrition Recipe

Cut quail into small pieces and marinate in soy sauce, sesame oil and shitake mushrooms. Hydrate dried shitake mushrooms prior to adding to the mixture.

Make rice in a rice cooker. Before rice has completed its cooking cycle, add the quail and marinade to the top of the rice and close the rice cooker to complete the cooking process.

Children can eat all of the ingredients. If the children are to weak to eat the quail, they can eat the rice. Alternately, quail can be steamed by placing it in earthenware on a steamer stand inside a covered pot of boiling water.

## Beef

Beef is sweet, warming and tonifies blood and spleen and stomach qi. Water buffalo meat has similar properties and is neutral to warming.

### Tonify Qi and Blood Recipe

Double boil beef shank with Shan Yao, Dang Shen and Gou Qi Zi.

#### **Ground Beef Recipe**

Mix ground beef with ginger juice, soy sauce and sesame oil. Cook rice in a rice cooker until almost done. Next, place the ground beef on top of the rice and close the lid to complete the cooking process. This recipe is a general tonic and is beneficial for malnourished patients.

#### Sha Shen Yu Zhu Beef Shank Soup

This nutritious and cooling dish is for patients with internal heat and toxins, particularly after chemotherapy or radiation therapy. This recipe is also beneficial for patients with unhealthy weight loss and no appetite. Double boil Zhi Mu, Yu Zhu, Sha Shen and beef shank into a soup. Xi Yang Shen (American ginseng) may be added.

#### **Benefit Muscles and Tendons Stew**

Beef shank nourishes and strengthens the muscles, tendons and sinew. Combined with kudzu and the other ingredients, this stew helps prevent bodily injury, treats muscular and tendon aching and weakness, and relieves tendonitis and muscle cramps. This stew is recommended for qi and blood deficient patients with muscle aches and cramps. As a preventative, athletes benefit from the muscle and tendon strengthening therapeutic actions of this stew.

*Ingredients* beef shank beef tendon kudzu root (Ge Gen) carrots goji berries (Gou Qi Zi) celery



Note: Chinese celery has a stronger medicinal value and flavor than American celery.

## Goat

Goat meat is very warming and enters the kidney and spleen channels. Goat meat is second only to venison in its warming abilities. According to Chinese medicine principles, deer and goat are very yang because they climb mountains. Lamb is also warming but has less medicinal value. Goat tonifies kidney yang and is therefore primarily consumed in the winter. The meat and skin are tough but lean.

#### Dang Gui Sheng Jiang Yang Rou Tang

Cut the goat meat into small pieces and boil for a long time, until the meat is tender, with Dang Gui and Sheng Jiang (ginger).

## Pork

Pork is sweet, salty, neutral and enters the spleen, stomach and kidney channels.

#### Stomach Pain Relieving Recipe

This soup was originally a stuffing. It benefits patients with stomach pain due to cold and deficiency. Make a soup with pork stomach, Bai Guo (ginkgo fruit) and dried bean curd (a tofu product).

#### **Kidney Tonic Soup**

Make a soup with pork kidneys and Du Zhong. Pork spine can substitute for kidneys but has less of a therapeutic action. This soup is especially for patients with lower back pain due to kidney deficiency. Careful preparation of pork kidneys requires slicing, flushing out the blood and removing the white tissue to eliminate the ammonia taste.

#### **Lactation Recipe**

To promote lactation, boil pig feet until soft. Add peanuts, figs, or Jin Zhen Cai (daylily flowers). After delivery, this dish is often prepared to enhance the nutrient value of breast milk.

#### Postpartum Invigorate Blood Recipe

Boil pork feet in black vinegar with ginger to invigorate the blood postpartum. This dish is spicy, sour and sweet.

#### **Benefit the Eyes Soup**

For eye disorders due to deficiency make a soup by boiling pork liver with Shan Yao and goji berries (Gou Qi Zi). Use fresh Shan Yao when available. Eat the herbs and drink the soup but do not eat the liver. Pork liver is chosen based on the five element theory correlation of the liver with the wood element, which is associated with the eyes.

#### Phlegm Misting the Heart or Palpitations Recipe

This aggressive soup purges phlegm fire with the addition of Gan Sui, a harsh purgative herbal medicine that drains water retention and clears damp heat. Make a soup with Shi Chang Pu, Gan Sui, Chuan Bei Me and pork heart. This soup is contraindicated during pregnancy.

### Milk

Cow milk is sweet, neutral and tonifies lung, spleen and stomach qi. Milk promotes the production of jin ye, body fluids. Milk may contribute to the production of damp cold or phlegm. By cooking milk with ginger and other special preparations, these side effects are mitigated.

#### **Ginger Milk Pudding**

People with lactose intolerance, often resulting in diarrhea, and those who experience excess phlegm production upon consuming dairy products may find this recipe helpful in the prevention of unwanted side effects.

Prepare fresh ginger juice. Bring milk to a light boil then reduce to low heat and add the ginger juice. Turn off the flame and stir.

#### **Tonify Blood with Milk Recipe**

This recipe tonifies blood and is beneficial nourishment postpartum, for children and the elderly. Cook Hong Zao (red dates), Gou Qi Zi (goji berries) and a hard boiled egg in milk.

# **Dietetics Characters**



From top to bottom this reads: Chinese, Medicine, Food, Treatment. Medicine, the second character, is a combination of three symbols: arrow, knife or acupuncture needle, and fermentation/alcohol.

# **About the Authors**

Prof. Jeffrey Pang, L.Ac. received his MD in biomedicine and Traditional Chinese Medicine from Sun Yat Sen University of Medical Science in Guangzhou, China. Since 1984, Prof. Pang has served as the Department Chair for the theory, herbology and clinical medicine departments at Five Branches University. He is a licensed acupuncturist & herbalist and author for the Healthcare Medicine Institute (HealthCMi).

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