GINSENG

_Panax ginseng_ [PAN-aks]

**Family:** Araliaceae

**Names:** Korean Ginseng, Chinese ginseng, Ren Shen (Chinese); Ginseng (German); ginseng (French); ginseng (Italian)

**Description:** a perennial growing to 3 feet with oval, toothed leaves and a cluster of small green-yellow flowers. Red and white ginseng are not plant species, but rather are terms used to describe the processing that the root has undergone. All ginseng roots, when picked and dried are white. Processing the root with steam is what makes it red. In addition to changing its color and preserving it, the process makes the ginseng more warm." Consequently red Oriental ginseng is more stimulating than white Oriental ginseng

**Cultivation:** Ginseng is native to northeastern China, eastern Russia, and North Korea, but is now extremely rare in the wild. Ginseng cultivation requires great skill. It is propagated from seed in spring and requires rich, moist, but well-drained soil. The plant takes at least 4 years to mature. The root is then normally harvested in autumn, washed, and steamed before being dried.

**History:** Ginseng is the most famous Chinese herb of all. It has been valued for its remarkable therapeutic benefits for about 8,000 years and was so revered that wars were fought for control of the forests in which it thrived. An Arabian physician brought ginseng back to Europe in the 9th century, yet its ability to improve stamina and resistance to stress became common knowledge in the West only in the 18th century. It was used extensively by the Vietcong during the Vietnam War to improve recovery from gunshot wounds. Ginseng has a rich history. Emperors monopolized the rights to harvest it and wars have been fought over it. A 2,500 year old Chinese myth from the Province of Shenqi tells of villagers hearing a loud voice calling them from underneath a plant shaped like a man, which they named Jen-shen or Ren-shen, meaning “man root.” It is said to be a manifestation of Tu Ching, the Spirit of the Ground, the Chinese went on spiritual quests to find ginseng, reciting an ancient chant before digging it. It is also told that ginseng is found where a bolt of lightning strikes a clear spring, for the fusion of fire energy, water cohesiveness and earth solidity produces this crystallized essence.
The name Panax comes from the Greek pan-axios meaning all-healing. It is from the same word as panacea, which means cure-all.

Ginseng collectors in China were called va-pang-suis and their profession was extremely dangerous. They were preyed upon by vicious bandits called the White Swans, who killed many of them to get the root. The only redeeming feature of these bandits was that they believed that no prospector should be robbed twice. They would present a red-bordered flag to the unfortunate victim to signify to other bandits that he had already been cleaned out.

Older Chinese men will buy the most expensive pieces of root that they can afford. The root is sold in balsa-wood boxes, sometimes lined with lead to “preserve the radiations emitting from the root”. Inside, the root itself is carefully wrapped in silk or tissue paper. It will be taken home and nugget-sized pieces will be boiled in a little silver kettle designed specifically for the purpose. Or the root may be kept in brandy for years, the family eking out the precious liquid by taking it in little sips and offering a little to the most honored guests.

The Jesuits were responsible for the real start of trade in American ginseng. In 1704, a French explorer returned to Paris with what turned out to be American ginseng he’d found in southern Canada. Jesuits officials (who maintained a substantial missionary presence in China) sensed a potential commercial bonanza, and instructed their missionaries in Canada to find more American ginseng. In 1718, Canadian Jesuits shipped some to their Canton brethren who sold it for $5 a pound. For the next 25 years, Canadian Jesuits shipped tons of American ginseng to China. They kept the trade a secret to protect their monopoly but eventually word leaked out and by the 1740s colonists were scouring the countryside for the plant. By the late 1770s, ginseng fever had virtually wiped out the plant along the Eastern seaboard. The search for ginseng played a key role in spurring the exploration of the wilderness across the Appalachians.

**Constituents:** triterpenoid saponins, ginsenosides, acetylenic compounds, panaxans, sesquiterpenes

**Action:** adaptogenic, tonic, stimulant, carminative, demulcent, stomachic

**Energetics:** warm, sweet, slightly bitter

**Meridians/Organs affected:** spleen, lungs

**Medicinal Uses:** When ginseng is dried in the sun or roasted it’s called “sun-dried” or “white ginseng.” After steam cooking, dried ginseng turns a red-brown color and is known as “red ginseng.” When soaked in syrup, it is known as “sugar-processed ginseng.” The sliced root is a powerful Qi tonic and antiaging medicinal herb.

Ginseng was considered for generations to be a panacea by the Chinese and Koreans, although there are some disorders, such as acute inflammatory diseases, for which it is not recommended. It usually is not taken alone, but combined in formulas with other herbs. One of ginseng’s key investigators, Russian I.I. Brekhman, coined the term “adaptogen” to describe ginseng’s ability to regulate many different functions. It can have different responses, depending on what an individual needs. Studies show that ginseng increases mental and physical efficiency and resistance to stress and disease. Psychological improvements were also observed according to Rorschach. Studies done at the Chinese Academy of Medical Science in Beijing, China, showed that the ginsenosides increase protein synthesis and activity of neurotransmitters in the brain. They are also probably responsible for ginseng’s dual role of sedating or stimulating the central nervous system, depending on the condition it is being taken to treat. Studies also show that ginseng improves carbohydrate tolerance in diabetics. When volunteers were given 3 grams of ginseng along with alcohol, their blood alcohol level was 32% to 51% lower than that of the control group.

Ginseng appears to stimulate the immune system of both animals and humans. It
revs up the white blood cells (macrophages and natural killer cells) that devour disease-causing microorganisms. Ginseng also spurs production of interferon, the body’s own virus-fighting chemical, and antibodies, which fight bacterial and viral infections. It reduces cholesterol, according to several American studies. It also increases good cholesterol. Ginseng has an anticlotting effect, which reduces the risk of blood clots. It reduces blood sugar levels. Ginseng protects the liver from the harmful effects of drugs, alcohol, and other toxic substances. In a pilot human study, ginseng improved liver function in 24 elderly people suffering from cirrhosis. Ginseng can minimize cell damage from radiation. In two studies, experimental animals were injected with various protective agents, then subjected to doses of radiation similar to those used in cancer radiation therapy. Ginseng provided the best protection against damage to healthy cells, suggesting value during cancer radiation therapy.

Asians have always considered ginseng particularly beneficial for the elderly. As people age, the senses of taste and smell deteriorate, which reduces appetite. In addition, the intestine’s ability to absorb nutrients declines. Ginseng enjoys a reputation as an appetite stimulant and one study showed it increases the ability of the intestine to absorb nutrients, thus helping prevent undernourishment. This is a yin tonic, taken in China for fevers and for exhaustion due to a chronic, wasting disease such as tuberculosis. It can help coughs related to lung weakness. In the 1960s, a Japanese scientist, Shoji Shibata, at the Meiji College of Pharmacy in Tokyo, identified a unique set of chemicals that are largely responsible for ginseng’s actions. They are saponins, biologically active compounds that foam in water. Ginseng’s unique saponins were dubbed “ginsenosides.”

Research reveals that ginseng can have beneficial effects on metabolic function, immunity, mood, and physiological function at the most basic cellular level. It doesn’t benefit everyone; recent studies of elite athletes reveal that it has no demonstrable effects on athletic performance. Yet in older people, studies show that it reduces fatigue, improves performance, and boosts mood. This makes sense in classic terms because why would world-class athletes, with superior yang energy, want to take a root for people with “devastated” yang? But if you are recovering from a drawn-out illness, feeling fatigued, or feeling the effects of age—if you are experiencing a “collapse” of your “chi,” ginseng may be right for you.

As an adaptogenic, ginseng’s action varies. In China, ginseng is best known as a stimulant, tonic herb for athletes and those subject to physical stress, and as a male aphrodisiac. It is also a tonic for old age, and is traditionally taken by people in northern and central China from late middle age onward, helping them to endure the long hard winters.

Ginseng has been researched in detail over the past 20-30 years in China, Japan, Korea, Russian, and many other countries. Its remarkable “adaptogenic” quality has been confirmed. Trials show that ginseng significantly improves the body’s capacity to cope with hunger, extremes of temperature, and mental and emotional stress. Furthermore, ginseng produces a sedative effect when the body requires sleep. The ginsenosides that are responsible for this action are similar in structure to the body’s own stress hormones. Ginseng also increases immune function and resistance to infection, and supports liver function.

In Asian countries, ginseng has long been recognized as effective in reducing alcohol intoxication and also as a remedy for hangovers. A clinical experiment demonstrated that ginseng significantly enhanced blood alcohol clearance in humans. In regards to cancer, a number of experiments have shown that ginseng can help restore physiological balance within the system and significantly reduce the side effects when used along with anticancer drugs. For diabetes, when patients are treated with ginseng at the early stages, conditions can return to normal. In advanced stages, the blood glucose level is significantly lowered. When combined with insulin, insulin requirements are reduced while still effectively
lowering blood glucose level. Other symptoms such as fatigue and decreased sexual desire are also alleviated.

There is some evidence that ginseng, taken in small amounts over a long period of time, improves regulation of the adrenals so that stress hormones are produced rapidly when needed and broken down rapidly when not needed. Whole root is best. Extracts, even those that contain specific guaranteed-potency ginsenosides, don’t have some of the other compounds in ginseng that may be beneficial. It’s not recommended to take even good quality extracts for more than 2-3 weeks at a time, but the whole ginseng root, in small amounts can be taken every day for a year or more.

At the Institute of Immunological Science at Hokkaido University in Sapporo, Japan, researchers have been studying a ginsenoside, Rb2. In mice given lung tumors, “oral administration of ginsenoside Rb2 caused a marked inhibition of both neovascularization and tumor growth,” they write. Neovascularization, also called angiogenesis, is the tendency of tumors to create tiny blood vessels that feed their malignant growth.

A case-control study in Korea compared about 2,000 patients admitted to the Korea Cancer Center Hospital in Seoul to another 2,000 noncancer patients. Those with cancer were about half as likely to use ginseng as those without cancer. Cancer risk was lower with those who took ginseng for a year but much lower for those who took ginseng for up to 20 years. Fresh ginseng, white ginseng extract, white ginseng powder, and red ginseng were all associated with reduced cancer risk.

If you want to take supplements, try ginseng for a month on, a month off. Whole root, in food or tea, can be taken for a longer period of time, a year or more. Good whole ginseng root is thick, long, and intact. Commercially grown ginseng root is often very soft and, when you break it, spongy. This is inferior. Good ginseng, is compact; the roots are much harder, with plenty of wrinkles around the top. The best ginseng root is at least five or six years old. To determine the age, count the scars, each one represents a year.

Whole root is more balanced and beneficial as a tonic than concentrated extracts or supplements. In China, Korea, and other Asian countries, there is a tradition of cooking with ginseng, of integrating it into the diet. It is often cooked with chicken to make a strengthening soup or stew. Once might make the soup every month or two or at the beginning of each season, supplemented by other appropriate culinary-medical herbs, to prepare the body and mind for the changing season.

Traditionally, different forms of ginseng have different “energies.” The strongest, most “yang” is red Korean, followed by red Chinese; this is ginseng that has undergone a process that may concentrate ginsenosides. American ginseng is purported to have a cooler, milder, more balanced yin-yang energy. Pharmacological studies confirm that red Korean ginseng tends to contain more ginsenosides that stimulate the central nervous system than white ginseng does and that American ginseng tends toward less stimulatory, more sedating ginsenosides.

In medical literature, confusion exists between *P. pseudo-ginseng* and *P. notoginseng*, and whether or not they do differ notably in constituents is not clear. *P. quinquefolius* was discovered in the 18th century by Jesuit colleagues of Pere Jartoux, who deduced that similar plants might exist in North America. It was first collected for export to China by backwoodsmen and was first described in Chinese medicine in 1765. Regarded as more yin than *P. ginseng*, *P. quinquefolius* is given to children and young people, for whom *P. ginseng* would not be appropriate.

**Remedies:** Capsules: for nervous exhaustion, take a 500 mg capsule once a day. Soup: is a common way of taking ginseng in China. Add 1 g dried root per potion of vegetable soup. Take daily. **Tablets:** are a convenient way of taking ginseng. Take for short-term stressful events, such as moving a household. Decoction: Take 3-10 g in 500 ml as a general yang tonic.
Tincture: use for diarrhea related to weak digestive function. For asthma and chronic coughs, combine with walnut and ginger

**TCM**:

**Indications:** nervous exhaustion; lack of appetite, night sweats; cold extremities; recuperation after surgery, long illness, or childbirth; short-term memory loss; impotence; stroke; diabetes; hypertension; anemia; heart palpitations; adrenal deficiency; immune deficiency; high or low blood pressure; gastritis; morning sickness; deficient energy; empty lung- and spleen-energy.

**Incompatibles:** with iron and other metal compounds and utensils; amethyst; Veratum nigrum; opium; dairy products; tea; white turnip

**Toxicity:** Ginseng is a safe herb with low toxicity, but too much can cause headaches, insomnia, heart palpitations, or a rise in blood pressure in some people. Don’t take with high blood pressure.

**Culinary Uses:** Small amounts of ginseng are chopped and added to sops and stews in the Orient, where the difference between foods and medicine often loses its distinction.

**Recipes:**

**Double Boiled Chicken with ginseng**
1 small chicken, about 1 1/2 lb or 3 chicken thighs
3 cups water
1/4 oz ginseng
1/2 tsp salt
Combine all ingredients and double boil for 4 hours. Drink warm. (The Family Herbal Cookbook)

**Ginseng Steamed with Chicken Legs**
3 large or 4 small chicken legs
1 cup rice wine or dry sherry
White pepper to taste
2 spring onions, minced
5 slices ginger root
1/2 oz ginseng

Cut each chicken leg in half at the joint; with a heavy cleaver chop each half into 2 pieces, including bone. Place chicken chunks in a Pyrex or ceramic bowl, add sliced ginseng and ginger, add wine or sherry. Place bowl in a steamer basket or steamer-wok, and steam over high heat for 1 hour. Sprinkle pepper and minced spring onions into individual soup bowls, then ladle chicken chunks, ginseng pulp, and broth into soup bowls, stir, and serve. (Chinese Herbal Medicine)

**Chocolate Peanut Butter Ginseng Cookies**
1 pkg. (18 1/4 oz.) Devils Food Cake Mix
2 eggs
1/3 cup vegetable oil
1 pkg. (10 oz.) peanut butter chips
1/2 to 1 cup chocolate chips
1 tsp. ginseng powder
Preheat oven to 350 degrees. Combine cake mix, eggs, oil and ginseng. Stir in chocolate chips and roll batter into 1” balls. Place onto lightly greased baking sheet and flatten slightly. Bake 9 - 11 minutes. Cool cookies for one minute and place on wire rack. Makes 3 - 4 dozen.

**Sex Muffins**
1 3/4 cup all-purpose flour
2 tsp baking powder
1 tsp ginger
1 tsp cinnamon
contents of 15 capsules ginseng
2 oz semi-sweet chocolate
1/2 stick butter
1/3 cup honey
1 cup milk
2 egg whites, slightly beaten
Mix together flour, baking powder, spices and ginseng in a bowl. In the meantime, slowly melt chocolate and butter together in top of double boiler, stirring mixture until melted and smooth. Add melted chocolate to the ingredients in the bowl along with the honey, milk and egg whites. Stir just enough to blend. Pour into greased muffin tins and bake in preheated 400F oven. Bake 20-25 minutes.
Tossed Ginseng Salad
1 small head of lettuce or cabbage, coarsely shredded
1 fresh ginseng root, thoroughly cleaned and thinly sliced
1 small red or white onion, sliced into rings
1 or 2 green onion stalks, julienned 1" 
Several spinach leaves torn into small pieces
Condiments such as soy sauce, sugar, sesame seeds or black pepper.

Combine all ingredients and toss well. 
Serve with oil and vinegar or your favorite dressing. Flavor with condiments of your choice.

Steamed Chicken Breast with Ginseng
1/3 cup fresh orange juice
2 tbsp. chopped green onion
2 tbsp. soy sauce
2 tsp. dark sesame oil
2 tsp. minced ginger root
1 tsp. honey
1/4 tsp. grated ginseng
2 boneless, skinless chicken breasts, 6 ounces each
Sliced green onion for garnish

Combine all ingredients except chicken and garnish. Add chicken and cover. Marinate in refrigerator for one or more hours. Remove chicken. Pour marinade into pot with fitted steamer. Add water to 3/4" depth and bring to simmer. Place chicken in single layer on steamer, cover tightly and steam over high heat 12 - 15 minutes. Sprinkle with sliced green onion.

Sex Muffins
1 3/4 cups all purpose flour
2 tsp. baking powder
1 tsp. ginger
1 tsp. cinnamon
1 tbsp. ginseng powder (equal to contents of 15 capsules)
2 ounces semisweet chocolate
4 tbsp. butter (1/2 stick)
1/3 cup honey (liquid works best)
1 cup milk
2 egg whites, slightly beaten

6 ounces mini chocolate chips or raisins (optional)

Preheat oven to 400 degrees. Mix flour, baking powder, spices and ginseng powder in bowl. Meanwhile, slowly melt chocolate and butter in top of double boiler until smooth. Add melted chocolate to dry ingredients. Add honey, milk and egg whites and stir just enough to blend. Pour into greased muffin tins and bake for 20 - 25 minutes. Cool two minutes before removing from pan.

Ginseng and Beef
Fresh ginseng root, thoroughly cleaned and thinly sliced
1/2 pound tenderloin, cut into narrow strips or chunks
3 or 4 small green onions
Soy sauce
Sherry or wine
Sugar
Black pepper
Garlic powder
Vegetable oil

Marinate beef with a mixture of soy sauce, sherry and sugar. Stir-fry meat in oil. Add ginseng and fry briefly while adding the seasoning of sherry, pepper, garlic powder, sugar and soy sauce to taste. Add green onions and cook briefly.

Deep-Fried Ginseng
Fresh ginseng roots, cleaned and sliced
Batter Ingredients:
1 cup flour
1 egg yolk
Dash of salt
3/4 to 1 cup of water (or use your favorite batter mix)
Dipping Sauce:
Soy sauce, sherry, vinegar, sugar

Mix egg yolk with cold water. Add flour and salt and mix lightly. Add ginseng slices to coat. Deep fry and serve with dipping sauce

References:
The Healing Power of Chinese Herbs and Medicinal Recipes, Joseph P. Hou and Youyu Jin, Haworth Press, 2005, 0-7890-2202-8

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