**ROSELLE, HIBISCUS** *Hibiscus sabdariffa*, *H. rosa sinensis*, *H. spp.*

**Common Names & Etymology:**
Roselle, Hibiscus, Jamaica Sorrel, Red Tea, Sour tea, Sudanese Tea, rosemallow, Flor de Jamaica [Mexico], Gongura in India, Bissap [West Africa], Karkade [Egypt]. Zobo [Afrikaans], zhu jin [Chinese], ambashthaki / pulicha keerai [Sanskrit / Hindi] Tulipan, Bell Flower

The name *Hibiscus* may have originated with Dioscorides around 50 AD, as he used the word to refer to a related plant now known as Marshmallow *Althea officinalis*.

*Hibiscus* flower teas have also been referred to as "rose" teas even though they are not in the rose family.

**Plant Family:** Malvaceae (Mallow family)

**Botany & Cultivation:**
*Hibiscus sabdariffa* is native to Africa (primarily the region of present day Angola), but now well established in many tropical regions around the world.

The main species of *Hibiscus* in Mexico is *H. sabdariffa* and is thought to have been introduced in the colonial period. *Hibiscus syriacus* is the national flower of South Korea and *Hibiscus rosa sinensis* is native to Asia and is the national flower of Malaysia and the state flower of Hawaii. *Hibiscus tiliaceas* or Sea Hibiscus is native to Oceania and introduced into Australia in the early 1800s.

There are many other species of *Hibiscus*, some native to Hawaii, and *Hibiscus* enthusiasts work to create multi colored varieties of *Hibiscus* flowers by controlling pollination. Many *Hibiscus* flowers have also been used around the world as dye plants. Cotton, Okra and Hollyhocks are all relatives of *Hibiscus* and members of the Malvaceae family.

Hibiscus species are sensitive to frost and does not thrive in temperate zones, but the related *Hibiscus syriacus*, going by the common names Rose of Sharon are attractive ornamental shrubs, but the flowers do not import the same flavor, color, nor likely medicinal effects as the tropical species.

**Parts Used:**
The calyces and bracts of the flowers. The whole plant flowers root and leaves used in Ayurveda and other medicine traditions. The stalks are used in making rope in Africa and the seeds are expressed for the oil.

**Harvest:**
Harvest the Ripe Calyxes; After a hibiscus flower has bloomed, it will shrivel up and easily snap off of the plant when it's ready for harvest.

**Medicine Preparation:**
Tea (infusion), tincture, syrup, powder

Hibiscus is typically prepared using earthenware pots or enameled crock pots (as it is believed that metal pots will leach away whatever nutrients and therapeutic properties the plant matter possesses
**Major Constituents:**

Hibiscus is particularly high in antioxidant flavonoids along with other phenolic compounds, fruit acids, vitamins, minerals, amino acids, and bioflavonoids. Anthocyanins are the main flavonoid group and include delphinin, sambubiosides, and cyanidin. Phenolic compounds include hydroxycitric and chlorogenic acids. Sequiterpenes include Hydoroxyhiscone (has an anti-aging effect on neutrophils in a way that prolongs the life of elastase elaboration by the blood cell). Other plant pigments are found in the hibiscus. in addition, relatively large amounts of the oxalic, malic, citric-12% to 17%, and tartaric acids are also found. Lastly up to 28% of hibiscic acid - which is a lactone of a hydroxycitric acid, is also seen in hibiscus extracts. The herb also contains very appreciable quantities of many water-soluble mucilaginous polysaccharides in high proportions to the total volume.

**Cultural Traditions and Uses**

In the ancient Nile Valley, hibiscus tea was regarded by Egyptian pharaohs to be royalty’s most choice drink as it was known to improve health and vitality. And throughout history wherever hibiscus is grown, the tea has been a preferred beverage including in China, Mexico, Caribbean countries, Africa, and Europe.

In India, *Hibiscus* flowers are among those sacred flowers and are used as offerings by Hindus to both to the Goddess Kali and the elephant-headed Lord Ganesh. In both Tahiti and Hawaii, a single flower is tucked behind the ear of a woman to enhance feminine beauty, but is also the particular ear used is an indication of the wearer’s availability for marriage. The flowers have been used throughout centuries as an aphrodisiac and has been used to attract love. In some places, Egyptian women are banned from drinking tea made with this herb because it is said to induce lusty feelings. hibiscus flowers can also be burnt as an incense, and is said to invite love, promote fidelity, and encourage passionate. Hibiscus was and still is ceremonial 'toast' for wedding ceremonies in Sudan and Egypt.

The Flemish botanist, M. de L’Obel, published his observations of the plant in 1576, and the edibility of the leaves was recorded in Java in 1687. Seeds are thought to have been brought to the New World by African slaves. Roselle was grown in Brazil in the 17th Century and in Jamaica in 1707. The plant was being cultivated for food use in Guatemala before 1840. J.N. Rose, in 1899, saw large baskets of dried calyces in the markets of Guadalajara, Mexico.

“In India, Africa and Mexico, all above-ground parts of the roselle plant are valued in native medicine. Infusions of the leaves or calyces are regarded as diuretic, cholerectic, febrifugal and hypotensive, decreasing the viscosity of the blood and stimulating intestinal peristalsis. Pharmacognosists in Senegal recommend roselle extract for lowering blood pressure. In 1962, Sharaf confirmed the hypotensive activity of the calyces and found them antispasmodic, anthelmintic and antibacterial as well. In 1964, the aqueous extract was found effective against *Ascaris gallinarum* in poultry. Three years later, Sharaf and co-workers showed that both the aqueous extract and the coloring matter of the calyces are lethal to *Mycobacterium tuberculosis*. In experiments with domestic fowl, roselle extract decreased the rate of absorption of alcohol and so lessened its effect on the system. In Guatemala, roselle "ade" is a favorite remedy for the aftereffects of drunkenness.”

“In East Africa, the calyx infusion, called "Sudan tea", is taken to relieve coughs. Roselle juice, with salt, pepper, asafetida and molasses, is taken as a remedy for biliousness. The heated leaves are applied to cracks in the feet and on boils and ulcers to speed maturation. A lotion made from leaves is used on sores and wounds. The seeds are said to be diuretic and tonic in action and the brownish-yellow seed oil is claimed to heal sores on camels. In India, a
decoction of the seeds is given to relieve dysuria, strangury and mild cases of dyspepsia and debility. Brazilians attribute stomachic, emollient and resolutive properties to the bitter roots.”

*Hibiscus syriacus* is the national flower of South Korea and *Hibiscus rosa sinensis* is native to Asia and is the national flower of Malaysia and the state flower of Hawaii.

**HIBISCUS AS MEDICINE: HERBAL USES & INDICATIONS**

**Taste:** sour and sweet  

**Energetics Qualities:** Cooling, astringent effects in hot & damp conditions.  

**Actions:**  
Diuretic, anti-parasitic, antioxidant, cardioprotective hypolipidemic, anti-cancer, antihypertensive, refrigerant, hepato-protective, nervine, anxiolytic, anti-venom  

**Doses:**  
Dosage for the herbal hibiscus tea prepared using 1.5 g of the herb in a cup of boiling water can be about five to ten doses, daily during the treatment regimen.

**Specific Indications:**

**Cardiovascular Benefits:**  
Antioxidants found in hibiscus tea are often compared to those in red wine and have been noted for their positive effects on cardiac health including:

- **Hypolipidemic (cholesterol and triglyceride level lowering):** Promoting cholesterol levels within their normal ranges. “Many studies have shown *Hibiscus*, like other high flavonoid plants, to have hypolipidemic effects and to help protect the vasculature from oxidative damage. *Hibiscus sabdariffa* has also been demonstrated to have hypolipidemic effects similar to what is accomplished by a 4 microgram dose of pravastatin and to have a similar mechanism of activity inhibiting HMG CoA reductase enzyme activity... *Hibiscus* roots have also been examined for possible cholesterol lowering effects.” Some studies where shown to not be effective in lowering cholesterol levels but they may be due to low dosing (1 gram a day)

- **Heart Repair:** “One group of researchers has recently reported to have beneficial effects in helping the heart to repair and regenerate following ischemic injury (lack of blood flow to organ). With pretreatment, *Hibiscus* was capable of reducing infarct size in test animals and showing positive inotropic (muscle contracting) effects.”

- **Hypertension, Hypotensive and blood pressure regulating (blood vessel dilating):** Studies on hibiscus indicate it acts in ways similar to an ACE inhibitor i.e. dilate blood vessels.) Heart attacks usually happens when cold when vessels constrict. Vessel usually naturally dilate in hot weather. *Hibiscus sabdariffa* flowers prepared into a simple infusions is reported to act as a mild hypertensive agent. One human clinical trial used Hibiscus flower tea to be helpful for adults with mild hypertension.40. Iranian researchers reported that study participants who drank hibiscus tea after every meal for a month saw a 44% drop in blood pressure. Boston researchers found a seven point blood pressure drop among hibiscus tea drinkers, which they said was enough to lower the risk of heart attack and stroke among most patients. Note: while some studies and reports find that hibiscus normalizes blood pressure, there are other reports that is can further lower blood pressure for those who already have low blood pressure

- **Hyperlipidemia and Fatty Liver:** “*Hibiscus rosa sinensis* roots have showed a hypolipidemic effect in animals and protection against fatty liver in animal models of hyperlipidemia. An isolate of *Hibiscus sabdariffa* polyphenols (flavonoids) was shown to be a more powerful hypolipidemic agent than an extract of the whole plant using similar dosages. Investigations into the mechanisms of action of *H.sabdariffa* report reduced expression of fatty acid synthase and HMG CoA reductase enzymes systems. Further the liver’s binding of low density lipids (various LDL fractions) is enhanced by *Hibiscus* polyphenols.”
Liver Inflammation incl. fatty liver syndrome and jaundice: In numerous studies Hibiscus sabdariffa exerts a strong antioxidant effects increasing the glutathione level, decreasing the lipid peroxidation level, and increasing the catalase activity in the liver. “Researchers measured LDH, and SGOT, and SGPT and other markers of liver inflammation and reported that Hibiscus was particularly helpful when used prior to exposure to hepatotoxins serving to prevent inflammatory and oxidative damage to liver cells.19 Hibiscus sabdariffa has been shown to prevent liver injury in animals exposed to hepatotoxins by mechanisms believed to be involved with reducing oxidative stress in the liver as evidenced by lower inflammatory markers in treated animals compared to controls.”

Detoxification & Antioxidant: “Hibiscus sabdariffa has antioxidant properties17 and contains anthocyanins have been shown to induce phase II drugs detoxification enzymes.18 One recently published study (Jan 2011) reports that Hibiscus sabdariffa protects liver cells from the damaging effects of carbon tetrachloride” Carbon tetrachloride is the toxic chemical used in dry cleaning. It is difficult to protect the liver from its action of this very toxic chemical. And so it is theorized Hibiscus would also protect from lesser liver toxins & challenges “Furthermore, an earlier study had determined that the dried flower extracts of Hibiscus sabdariffa ...possesses a hepatoprotective property against tert-butyl hydroperoxide (t-BHP)–induced cytotoxicity and genotoxicity. In a similar vein, the polyphenol extract of Hibiscus sabdariffa helps to protect the liver from the assault or damage associated with acetaminophen, diminishing the mitochondrial dysfunction in vivo and in vitro and decreasing oxidative stress.”

Anti-inflammatory: Hibiscus “has been used folklorically in China for hypertension and a variety of inflammatory conditions. In addition to flavonoids, Hibiscus sabdariffa also contains phenolic acids credited with medicinal effects as well. The aqueous extract (tea) of Hibiscus flowers has been shown to protect white blood cell monocytes from inflammatory damages and to modulate the release of inflammatory cytokines.”

Anti-cancer & Chemo-protection: Hibiscus antioxidants also contain powerful properties which have the ability to protect cells and keep them healthy and free from damage. “One group of researchers credited Hibiscus with chemoprotective properties owing to the antioxidant effect of the anthocyanins and phenolic compounds.24 Inhibition of LDL oxidation, oxidative damage to hepatocytes, and support of smooth muscle cell development are among the specific chemoprotective effects reported. Furthermore, the same researchers reported Hibiscus flower extracts to promote apoptosis in cancer cells and leukemia cell lines and protect the kidneys from inflammatory damage in diabetic research models. Antimutagenic effect have been reported from Hibiscus rosa sinensis flowers. 25 H. rosa sinensis was shown to protect animals from nitrites and Salmonella toxins but to be less potent than lotus flowers, and Curcuma and Guayaba flowers. The researchers proposed that the flavonoids found in flowers were responsible for the antimutagenic effects.” “One group of researchers demonstrated that Kenaf seed extracts could halt the progression of early colon cancer in rat models.”

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CNS and Neuroprotective Effects: *Hibiscus rosa sinensis* has been shown to prevent the neurological symptoms induced by reserpine toxicity, thus suggesting central nervous system effects. *Hibiscus asper* is another species of *Hibiscus* found mainly in Africa and India where the roots are sometimes prepared as a vegetable, the stems and stalks as a fiber, and the leaves as a medicine for inflammation and depression.

Skin anti-inflammatory and health: Mayan Herbalist Rosita Arvigo uses hibiscus as a herbal bath for skin burns, diaper rash, rashes, infected sores. "*Hibiscus sabdariffa* has displayed antioxidant effects and researchers have reported its inclusion in skin formulae helps to improve the absorption and penetration of other ingredients... A flavonoid in *Hibiscus abelmoschus* seeds has been reported to protect dermal epithelium by acting like heparin sulfate in directing the release of dermal growth factors and stimulated the synthesis of sulphated glycosaminoglycans.” Maya herbalist Rosita Arvigo uses it as a facial treatment for acne & pimples.

Cerebral inflammatory diseases and damage (Anxiety, Depression, dementia): “Recently published animal studies show that *Hibiscus asper* species anxiolytic effect due to CNS effects involving dopaminergic pathways, explaining the folkloric use for depression... Researchers have reported that *Hibiscus* alleviates cerebral hypoxia and also decreases anxiety and increases memory and learning capacity. The researchers felt that based on their finding on *Hibiscus*, the plant warranted further investigation as a possible tool in the treatment and prevention of various types of dementia. Other researchers have reported that *H. rosa sinensis* root extracts attenuate reserpine toxicity and reverse the elevations of SOD (superoxide dismutase), CAT (Catalase) , and GSH (glutathione reductase) enzymes typically elevated in cerebral inflammatory diseases and damage... Another species of *Hibiscus*, *H. cannabinus*, sometimes going by the common name Kenaf, has been shown to inhibit tyrosinase, an enzyme involved in the synthesis of monoamines.27 Kenaf seeds are high in essential fatty acids, phytosterols, and vitamin E, the sum of which many credit to providing anti inflammatory activity. Other researchers have repeated these findings confirming a neuroprotective effect of *Hibiscus rosa sinensis.29* A common animal research model is to induce states of cerebral hypoxia and test for agents capable of preventing ischemic damage to the brain.

Nervous restlessness: In Germany it is often formulated in medicinal teas in combination with lemon balm leaf (*Melissa officinalis*, Lamiaceae) and St. John’s Wort herb (*Hypericum perforatum*, Clusiaceae) for nervous restlessness and difficulty falling asleep. Hibiscus has also been burned as an incense to promote peacefulness and calm.

Diabetes and Metabolic Syndrome: Hibiscus improves blood parameters in diabetes by “protects the vascular smooth muscle in states of high blood glucose, modulates the expression of connective tissue growth factor and stimulation of metabolic end products or high glucose loads, sometime referred to as "RAGE", advanced glycation end products. Low density lipoprotein or LDL is known to be associated in the formation of atherosclerotic lesions due to promotion of macrophage derived "foam cells." *Hibiscus sabdariffa* has been shown to inhibit LDL oxidation as well of the progression of atherosclerotic lesions in animal (rabbit) studies. Anthocyanin rich extracts of *Hibiscus sabdariffa* are noted to reduce foam cell formation; One human clinical trial involving 60 diabetic subjects evaluated the effects of *Hibiscus sabdariffa* tea on lipids and lipoproteins. Patients were randomly divided into two groups and given either Black tea or Hibiscus tea, twice daily for a month. The patients receiving the Hibiscus tea showed significantly lower lipids, without significant differences in lipoproteins compared to the group receiving the black tea."

Anti Venom Effects: *Hibiscus aethiopicus* has been shown to possess anti venom activities against several species of Naja vipers and shown to protect muscle cells against the cytotoxic effects of snake venom in rabbits and guinea pigs against what would have otherwise been a fatal dosage of Naja venom.
Anti-fertility?: “Hibiscus rosa-sinensis roots have been found to have uterotropic anti-implantation, estrogenic” Traditionally this drug is attributed to antifertility activity in Ayurvedic literature... The flowers have been reported to possess anti-implantation and antispermatogenic activities... The study [on rats] was undertaken to explore the antifertility and estrogenic activity of ethanolic extract of the roots of *Hibiscus rosa-sinensis* Linn. A strong anti-implantation (inhibition 100%) and uterotropic activity was observed at the dose level of 400mg/kg body weight.” However in the Mayan traditions hibiscus is use for threatened miscarriage, excessive menses, spotting in pregnancy. The flowers eaten for anemia, painful or excessive menses. (Rosita Arvigo)

Post-partum hemorrhage: as a cooled tea with cinnamon (Rosita Arvigo)

Headaches and fevers as a poultice for cooling and soothing sensation to the scalp (Rosita Arvigo)

Kidney stone preventative: “Hibiscus sabdariffa had also been shown to decrease renal calcium crystal deposition, significantly decreasing serum oxalate and glycolate in the kidneys of Hibiscus sabdariffa–treated Wistar rats and increasing their excretion into the urine, as illustrated in one Japanese study. [9] This antilithic effect of Hibiscus is medically important and valuable, as the retention of urinary calcium oxalate crystals and other crystal agglomerates in the kidneys induces an inflammatory response that increases the number of interstitial cells and expands the extracellular matrix. [10] In addition, Hibiscus sabdariffa improves one's capacity to excrete uric acid in the urine, [11] consequently decreasing uric acid concentration in the blood plasma and thus helping patients suffering from gout and hyperuricemia.”

Diuretic: “The calyx and petals of the hibiscus flower is commonly dried and used to make a richly hued tea drunk as a mild diuretic,. it is usually decocted in either its fresh or dried form, the ensuing liquor typically taking on a rich burgundy or otherwise slightly golden hue depending on the colour of the petals and calyx - although typically, commercially sold hibiscus petals used for tea are usually of the reddish variety, while wildcrafted ones come in a wide range of colours and, in effect, liquor hues.

Hot weather: Traditionally used to cool in the desert and hot environment to help maintain healthy body temperatures.

Anti Fungal -, hibiscus possesses many of the same antifungal and antibacterial properties as Tea tree. Dried hibiscus leaves have been shown to have antifungal effects on *Rhizoctonia solani*, a type of pathogenic fungus that attacks plants. More importantly, a review published in the journal Mycobiology identified the root of the Hibiscus syriacus as a treatment for athlete’s foot fungus. By crossing the plant with the Hibiscus syriacus Ggoma,they were able to achieve four times higher antifungal activity against the ringworm fungus. Researchers from Asia concluded that nonanoic acid was responsible for inhibiting spore germination and mycelial growth of pathogenic fungus.

Hair and scalp: Mayan herbalist Rosita Arvigo uses roselle as a a strong decoction of the flowers as a hair rinse to promote shine, luster, and hair growth. The maceration of dried leaves in coconut oil can be used fungal scalp infections as a massage oil to help treat common scalp problems such as greying hairs, alopecia, and. In India, *Hibiscus* flowers are decocted in oil and applied the hair and scalp to prevent hair loss and graying. The leaves are also ground into a powder and made into a paste with water and also been used on the hair and scalp as a conditioner.

**Contraindications & Cautions:**
The American Herbalist Association Botanical Safety Handbook list hibiscus’ safety as class 1 with no known contraindication for pregnancy or other conditions. There are however others who suggest otherwise.

Low blood pressure? While some studies and reports find that hibiscus normalizes blood pressure, there are other reports that is can further lower blood pressure for those who already have low blood pressure ( quoting a USDA-sponsored study done by Diane McKay of Tufts University and presented to the American Heart Association's 2008 convention)

Pregnancy & Antifertility? (see above) while use and studies are contradictory consumption by pregnant women, in large doses should be avoided.
Hibiscus as Flower Essence

Hibiscus [FES] – Positive qualities: Warmth and responsiveness in sexuality; integration of soul warmth and bodily passion Patterns of imbalance: Inability to enjoy sexual experience; lack of warmth and vitality, often due to prior exploitation, false cultural expectations or abuse. Aids in maintaining sexual warmth and responsiveness during aging process

Hibiscus Pollen: Ignites potency in all aspects of your creative, spiritual, sexual and relational lives. Helps to transform dreams, visions and intentions into concrete action in the world. [notes: helps energy manifest and center around visions intentions and dreams -use when trying to put a focus on something; helps us understand what we love; gives passion and spark for what we want to be in service to. ]

Coral Hibiscus [Delta Uganda Essence] – Warmth friendliness and courage to experience vulnerability, for those who are shy, cynical or judgmental. (notes: When there is a threat in the environment, over-busy, things not going right, contention; the feminine retreats masculine energy takes. When the feminine retreats one can become fearful suspicious as well shy and/or cynical; A strong feminine – not a soft feminine )

Red Hibiscus (Delta Thai Essence) – Spiritualizes masculine soul psyche.

White Hibiscus [Delta Thai Essence] – Spiritualizes feminine soul psyche

Hibiscus Schizopetalus [Delta Honduran Essence] – For exploring deep imbalances to the feminine psyche, resulting in illness. Helps spiritual and intellectual types strengthen positive commitment.

Hibiscus as Food & Drink

Hibiscus is one of the most popular summer drinks throughout the world and in warmer countries wear it grows is consumed year round. In Egypt, roselle "ade" (instead of lemonade) is consumed cold in the summer, hot in winter. In the Caribbean a hibiscus drink, known as "Sorrel" is prepared with the sour hibiscus flower tea combined with other herbs and spices and often sweetened with sugar and spiked with rum or wine as a holiday punch. In Thailand, this infusion is frequently drunk ice cold and is known as Nahm Kra-jiap. In Jamaica, a traditional Christmas drink is prepared by putting roselle into an earthenware jug with a little grated ginger and sugar as desired, pouring boiling water over it and letting it stand overnight. The liquid is drained off and served with ice and often with a dash of rum. A similar spiced drink has long been made by natives of West Tropical Africa. The juice makes a very colorful wine.

Hibiscus flowers are also used as a ‘vegetable’ to prepare jams, deserts and savory dishes. “Roselle sauce or syrup can be added to puddings, cake frosting, gelatins and salad dressings, also poured over gingerbread, pancakes, waffles or ice cream. It is not necessary to add pectin to make a firm jelly. In fact, the calyces possess 3.19% pectin and, in Pakistan, roselle has been recommended as a source of pectin for the fruit-preserving industry.

The leaves of Hibiscus are also edible and the young tender leaves make an excellent addition to salads.

Hibiscus also acts as a corrigent (taste masker) for other less tasty herbs and preparations as in syrups One example is A syrup made from elecampane (Inula helenium) and roselle (Hibiscus sabdariffa). The roselle makes the syrup red and tart.

The seeds are considered excellent feed for chickens. The residue after oil extraction is valued as cattle feed when available in quantity.
**Hibiscus Natural Blush** from wellnessmama.com

**Ingredients:**
- ½ tsp Arrowroot Powder
- ½ tsp organic Cocoa Powder
- ½ tsp Hibiscus Powder
- air-tight storage container

**Method:**
As with any homemade make-up recipe, the amounts vary by person. You’ll have to experiment with quantities of each ingredient to find the shade that works for you. I always start with a base of about 1/2 tsp of arrowroot and darken as needed, testing on my inner arm as I go. When you get your desired shade, store in a small jar or old makeup shaker and use as needed.

**Sources:** [citations forthcoming]
1. Jillian Stansbury, *High Flavonoid Herbs And Vascular Health*
2. Yun-Woo Jang, et al., *Nonanoic Acid, an Antifungal Compound from Hibiscus syriacus Ggoma*
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