



# The Review On Medicinal Uses Of *Hibiscus rosa-sinensis*

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## **ABSTRACT:**

Hibiscus is a genus of flowering plants in the mallow family, Malvaceae. It is quite large, containing several hundred species that are native to warm-temperate, subtropical, and tropical regions throughout the world. Member species are often noted for their showy flowers. The tea made from Hibiscus flowers is known by many names in many countries around the world and is served both hot and cold. The beverage is well known for its color, tanginess, and flavor. It is known as bissap in West Africa, karkadé in Egypt and Sudan, flor de Jamaica in Mexico, gudhal in India, and gongura in Brazil. Some refer to it as roselle, a common name for the Hibiscus flower.

There are many folk remedies attributed to Hibiscus flowers, including antihypertensives, antiatherosclerotics, antioxidants, antihypercholesterolaemics, antinociceptives, antipyretics, antimutagenics, antifungals, antibacterials, and chemopreventives. These properties are attributed mainly to their polyphenolic constituents; thus, the Hibiscus species needs to be investigated in more detail.

**KEYWORDS:** Hibiscus rosa-sinensis, chemical constituents, pharmacology, therapeutic, side effects. Silver, Plant extract, Liver, cancer, Antioxidant

## INTRODUCTION:

Herbal medicine is the oldest form of healthcare known to mankind. Herbs had been used by all cultures throughout history. As a result of accumulated experience from the past generations, today, all the world's cultures have an extensive knowledge of herbal medicine. Plants are a valuable source of a wide range of secondary metabolites, which are used as pharmaceuticals, agrochemicals, flavours, fragrances, colours, biopesticides and food additives. The current review will discuss the chemical constituents, pharmacological effects and therapeutic importance of *Hibiscus rosa-sinensis*.

### Vernacular names:

**Family:** Malvaceae.

**Unani:** Jasut.

**Sanskrit:** Japa, Arkapriya, Aruna, Harivallabha.

**Hindi:** Jasut.

**English:** Hibiscus.

**Marathi:** Jasvand.

**Malayalam:** Chembarathi.

### Botanical Description:

Botanical description of *Hibiscus rosa-sinensis* : Habit : Perennial shrub. Root : Tap root system. Stem : Aerial, erect, cylindrical, woody and branched. Leaf : Simple, Alternate, petiolate, stipulate, serrate, glabrous, apex acuminate with multicostate reticulate venation.

**Habit:** Perennial shrub.

**Root:** Tap root system.

**Stem:** Aerial, erect, cylindrical, woody and branched.

**Leaf:** Simple, Alternate, petiolate, stipulate, serrate, glabrous, apex acuminate with multicostate reticulate venation.

**Inflorescence:** Solitary cyme and axillary.

**Flower:** Pedicel jointed, bracteate, bracteolate, bisexual, large, showy, pentamerous, dichlamydeous, actinomorphic, complete and hypogynous and mucilage is present in floral parts.

**Epicalyx:** 5 to 8 bracteoles outer to the calyx. They are green and free.

**Calyx:** Sepals 5, green, gamosepalous showing valvate aestivation and odd sepal is posterior in position.

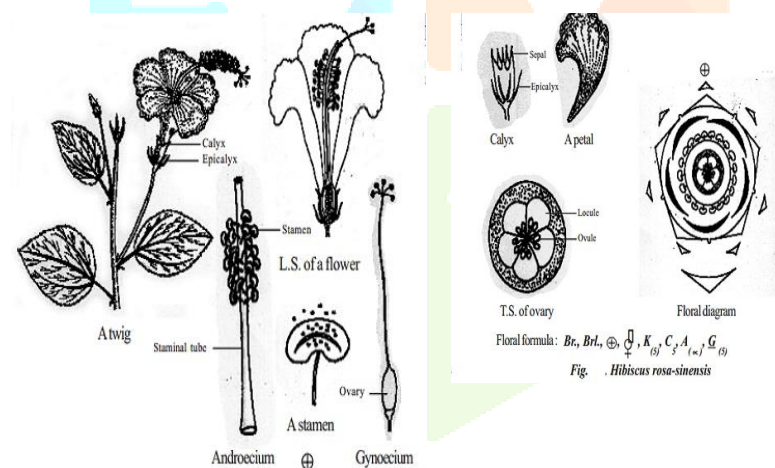
**Corolla:** Petals 5, variously coloured, polypetalous but fused at the base and showing twisted aestivation.

**Androecium:** Numerous stamens, monadelphous, filaments are fused to form a staminal tube around the style. Staminal tube is red. Anthers are monothealous, reniform, yellow, transversely attached to the filament, dehisce transversely and extrorse.

**Gynoecium:** Ovary superior, pentacarpellary and syncarpous. Ovary pentalocular with many ovules per locule on axile placentation. Style simple, long, slender and passes through the staminal tube. Stigma 5, capitate and coloured.

**Fruit:** Mostly abortive.

**Floral Formula:** Br., Brl., +, &, K(5), C<sub>5</sub>, A<sub>(x)</sub>, G (5)



### Taxonomical Classification:

**Kingdom:** Plantae

**Division:** Tracheophyta

**Class:** Magnoliopsida

**Order:** Malvales

**Family:** Malvaceae

**Genus:** Hibiscus

**Species:** arbor-tristis

**Binomial name:** Hibiscus rosa-sinensis L.

## Medicinal uses to treatment of *Hibiscus rosa-sinensis* L:

1. Possesses Antifertility Properties Today, more than 100 million women worldwide utilized Hormonal Contraceptives, which is the artificial birth control method.

Although it has been proven that this artificial method of preventing pregnancy can cause various side effects for most people, this method is the most sought after.

However, studies have shown that *hibiscus rosa-sinensis* has anti-fertility properties, making it effective as a natural contraceptive with no side effects when prescribed properly.

2. Promotes Cardiovascular Health:

High blood pressure is one of the most important causes of heart disease and if the blood pressure is kept under control it will not cause any damage to the heart. But when the blood pressure rises, and when the antioxidant pressure in the blood rises, they can greatly affect the heart and cause heart attacks and chest pains. *Hibiscus rosa-sinensis* is very effective in lowering blood pressure and regulating blood flow. For people with heart problems and high blood pressure, the daily use of hibiscus extract or its dried flowers can make a difference.

3. Has the Potential to Fight Cancer:

Antioxidants are chemicals that prevent the damage caused by free radicals and control their effects, which are usually available to the body through the natural food we consume on a daily basis.

The hibiscus plant is high in antioxidants that help balance the free radicals and protect the immune system. It also prevents damage to other cells in the body by free radicals.

Often, high levels of antioxidants are involved in the beneficial process and effectively inhibit the growth of cancer cells and tumor growths.

**Seeds:** Seeds employed in diabetes, also in cutaneous diseases. Filaments— astringent and cooling; prescribed for bleeding piles and menorrhagia. Plant—toxic on the nervous system.

The seeds are used as anthelmintics and in alopecia. It's antibilious and an expectorant, and is additionally useful in bilious fevers. The powdered seeds are accustomed cure scurfy affections of scalp, piles and skin diseases.[13] On the idea of chemical constituents, Seeds contain Arbotristoside A&B, Glycerides of polyunsaturated fatty acid, oleic acid, lignoceric acid, saturated fatty acid, palmitic and myristic acids, nyctanthin acid, 3-4 secotriterpene acid, a water soluble polysaccharide composed of D-glucose and D mannose.[18]

**Leaves:** The leaves are ovate to lanceolate and are borne alternately.

The leaf margin is often lobed or toothed.

It may be smooth or covered in trichomes.

The fresh leaves contain 2-3% proteins and traces of iron, calcium and phosphorus.

**Flowers:**

The Hibiscus flowers are showy and conspicuous.

It is usually borne singly but sometimes can be seen in clusters.

The flowers are trumpet shaped and range in colours of red, orange, yellow, pink or purple.

There are five or more petals in a Hibiscus flower.

The most common species, *Hibiscus rosa-sinensis*, has bright red-coloured flowers with a striking orange tipped red anther.

The Hibiscus flowers are acidic in taste because they are rich in natural acids and also contain iron, phosphorus, calcium and vitamin B complex.

The presence of epicalyx is common.

The stamens are fused to form a tube and the pollen grains are spiny in nature.



**Fig. 5 Flowers of *Hibiscus rosa sinensis***

**Bark:** The bark used as a tanning material and also the leaves sometime used for polishing wood and also the ivory.[21] The bark contains glycosides and alkaloids an used for various purposes. Sometime bark is incredibly useful for wound.[15]

**Stem:** The branches are somewhat flexuous (bending and twining) and are sparsely finely hairy (pubescent) with simple hairs. The smaller twigs especially, exhibit these hairs. The stems contain the glycoside naringenin-4-0- $\beta$ -glucapyranosyl- $\alpha$ -xylopyranoside and  $\beta$ -sitosterol.[15]

## CONCLUSION:

The current review discussed the pharmacological effects and therapeutic

importance of *Hibiscus rosa-sinensis* as a promising medicinal plant with wide range of pharmacological

activities which could be utilized in several medical applications because of its effectiveness and safety.

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