



# The Power Medicinal of Plants!!!

by

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## Medicinal Plants

Plants produce an amazing amount of complex chemicals we can use as medicines to “curb and cure” disease. With elements of carbon, hydrogen, nitrogen and sugars plants create compounds such as terpenes, alkaloids and glycosides to name a few. Alkaloids are the better known chemical compounds with compound rings of carbon and nitrogen to produce things like caffeine, cocaine, morphine, codeine, etc. What’s even more amazing is that plants can produce more than just one of these chemicals – the opium poppy produces 26 alkaloids. For chemical compounds, it is sometimes all in the family – the Rosaceae family (Rose) members have a particular cyanogenic glycoside called amygdalin which causes bitter tastes and smells. This is particularly noticeable in the genus *Prunus*, which includes almonds, plums, apricots, cherries and peaches.

Of course, if there are chemicals plants make that can help, there are also those that can harm us. Many chemical compounds in plants were meant to act as a defensive system against predators, invaders and other plants. Take the black walnut tree (*Juglans nigra*), it releases a compound called naphthalene glucoside from its roots into the soil. The chemical then turns into juglone which is known for the affect of inhibiting seed germination and growth of seedlings competing for light and space. Plant compounds can also stunt the growth of juvenile animals, act as birth control or actually mimic reproductive hormones to stimulate breeding get the pests away from the plant.

## History of Herbal Medicine

Humans have recognized their dependence on nature to maintain health for thousands of years. Ancient cultures methodically and scientifically collected plant information and developed well-

defined herbals. The invention of writing was focused around which herbal knowledge could accumulate and grow. Around 2000 B.C.E., the King of Sumeria ordered the compilation of the first known materia medica containing 250 herbs. The most influential herbal encyclopedia written was by the Roman Dioscorides, *De Materia Medica*, containing 600 plant curatives. Eleven medical works on the medicinal use of herbs were written in China in 3rd century B.C.E. The classic *Materia Medica*, written 1st century C.E., was the first Chinese book to focus on individual herbs and their uses.

In North America, early explorers traded knowledge with Native Americans and gained respect for herbs that would sharpen hunting senses, build endurance and to bait traps with. As medicine evolved in the US, plants were still the mainstay of country medicine. Until the 1940’s, medical textbooks still contained hundreds of useful comments on barks, roots, berries, etc.

With technological advances, many people have lost their herbal heritage and forget that almost every prescription and over-the-counter drug have their origins in medicinal herbs. The US FDA considers many herbal remedies worthless or potentially dangerous. Medical texts refer to herbal medicine as an “alternative” to the now “traditional”, technological medicine.

## Medicinal Use Definitions

- Alternative* – Promotes a renewal of tissues and an improvement in function.
- Antiemetic* – Prevents or alleviates nausea and vomiting.
- Astringent* – An agent that causes tissue to bind, or draw together.
- Bitter* – Aromatic plants used as a tonic to stimulate the digestive tract and stimulate the appetite.
- Calmative* – Herbs that are soothing, sedating.
- Carminative* – Relieves and prevents flatulence.
- Depurative* – Purifies blood, thus removing the waste from the body.
- Diaphoretic* – Increases perspiration.
- Diuretic* – Substance that removes water from the body by promoting urine formation and the loss of sodium.
- Expectorants* – Thins mucus and promotes discharge from the respiratory tract.
- Exhilarant* – Herbs that enliven and cheer the mind.
- Febrifuge* – Reduces body temperature and fever.
- Hepatic* – Stimulates liver and gall bladder to promote bile secretions.
- Purgative* – Relieves constipation.
- Soporific* – Herbs that help to produce sleep.
- Stomachic* – Stimulates digestion and increases appetite.
- Tonic* – Restore and produce normal tone throughout the whole body.



## Herbal Preparations

**Bath** – Herbal therapy being immersed with a water based infusion or through osmosis.

**Compress** – Decoctions or infusions in which a cloth has been soaked to apply externally.

**Cream** – An emulsion of water and oil that usually don't mix such as almond oil and rose water.

**Decoction** – To boil or simmer plant parts for extracts or medicinal agents.

**Elixir** – Herbs mixed with liqueurs.

**Essential Oil** – Distillation of herb to extract volatile compounds.

**Infused Oil** - Made for external use only in massage oils or salves. Using cold-pressed olive oil allowing herb to set for six weeks.

**Infusion** – Plant parts boiled or simmered longer than a tea.

**Liniment** – Plants soaked in rubbing alcohol to be used externally.

**Ointment** – Petroleum jelly, beeswax, or lanolin used as a base for salves applied externally.

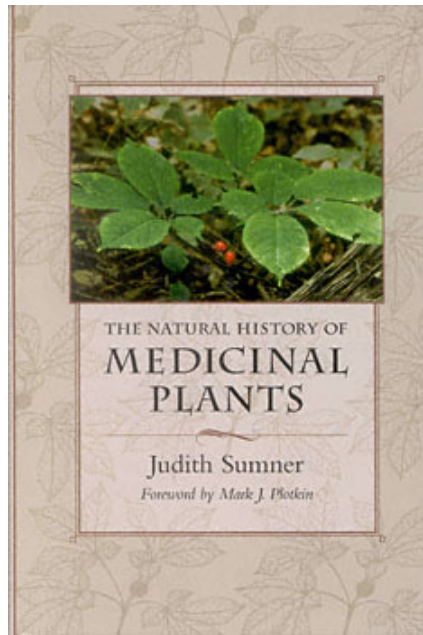
**Poultice** – Softened or mashed herbs, normally fresh, spread and wrapped in a cloth and applied to the body.

**Steam** – Use for skin problems or as an inhalant for bronchial problems. A strong decoction.

**Syrup** – A sweet, sticky preparation made with honey or glycerin.

**Tea** – A quick preparation made with plant part and boiling water.

**Tincture** – Fluid extracts of an herb using alcohol, glycerin or vinegar. Allow to set for up to six weeks.



## Violet

*Viola odorata*

**Description:** herbaceous heart-shaped leaved plant

**Part used:** flowers and leaves

**Used as/for:** treatment of cancers, arthritis, AIDS and gum disease. Highest amount of vitamin C.

**Preparations:** food, candied, jellied, infusion, tincture, capsule

**Habitat:** lawns, fields and forest floor

**History:** Ancient Greeks believed the violet to be the symbol of love and fertility.

## Resources

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## American Ginseng [An At-Risk Plant]

*Panax quinquefolius*

**Description:** herbaceous perennial with leaves palmately divided into 4-5 leaflets; root fleshy sometimes resembling human form; flowers white in round umbels

**Part used:** root, fresh or dried

**Used as/for:** stomach tonic and stimulant, increase mental efficiency, increase physical performance, adapt to high or low temperatures, stress, adaptogenic (tending to return the body to normal)

**Preparations:** tinctures, decoctions, pills and capsules

**Habitat:** old-growth forest floor



## Plantain

*Plantago species*

**Description:** leaves broad or narrow with prominent vertical veins;

**Plant part used:** leaves, seeds, roots, fresh or dried

**Used as/for:** confirmed antimicrobial; stimulates healing process, anti-inflammatory, skin infections, inflammations, bee stings, cuts, wounds, sores, blisters, earaches, poison oak and ivy swellings

- Seed mucilage – lowers cholesterol levels
- Leaf tea – coughs and diarrhea

**Preparations:** tea, infusion, syrup, ointment, poultice, oil, lip balm and wash

**Habitat:** yards, fields, disturbed areas



*Plantago major*



*Plantago lanceolata*



Narrow-leaf Purple Coneflower  
*Echinacea angustifolia*



Purple Coneflower  
*Echinacea purpurea*

## Coneflower

*Echinacea species*

**Description:** herbaceous perennial with prominent cone-shaped disk surrounded by petals pale pink, dark pink, purple and white; June - September

**Part used:** root (fresh or dried) and occasionally flowers and leaves.

**Used as/for:** anti-inflammatory, antibiotic, immune stimulant, detoxifier, increases sweating, heals wounds, antiallergenic, infections, skin irritations, poison oak and ivy, fevers, colds, coughs, earaches, blood poisoning, toothaches and snake bites.

**Preparations:** tinctures, infusions, decoctions, capsules.

**Habitat:** open woods, fields, meadows and prairies.

## Cherry or Black Birch

*Betula lenta*

**Description:** a deciduous tree that grows at a fast rate on the woodland canopy. Monoecious catkin flowers in the spring. By crushing a leaf or twig – black birch smells like wintergreen.

**Part used:** twigs and leaves

**Used as/for:** treatment of fevers, dysentery. Anti-inflammatory and analgesic.

**Preparations:** tea and oil

Ginger ale – batch of birch twig and ginger root tea and dissolve in honey while warm. Store in refrigerator for several months. Take 1/3 glass of tea and mix with cold sparkling water or seltzer water.

**Leaf:** fresh or infusion

**Habitat/Range:** New England well-drained forests down along Appalachians, east and south to Georgia.



## Passionflower

*Passiflora incarnata*

**Description:** climbing vine with large fringed flowers. Large, noticeable yellow stamens; blooms July - October

**Parts used:** roots, leaves and fruit

**Used as/for:** reducing blood pressure, insomnia, tension headaches, epilepsy, restlessness; Root tea – earaches, boils, cuts and inflammations

**Preparations:** teas, infusions, decoctions, tinctures and syrups

**Habitat:** sandy soil from PA to FL



## Bee Balm

*Monarda didyma*

**Description:** herbaceous perennial with scarlet red flowers; leaves paired on square stems; blooms June - September

**Part used:** leaf, fresh or dried

**Used as/for:** colic, headaches, gas, colds, fever, stomachaches, nosebleeds, insomnia, heart trouble, measles, expel worms and to induce sweating

**Preparations:** teas (Oswego Tea), infusions, poultices and capsules

**Habitat:** thickets and stream banks

## Bloodroot

*Sanguinaria Canadensis*

**Description:** herbaceous perennial, spring ephemeral with a white flower and a single, round lobed-leaf. Rhizome is blood-red in color.

**Part used:** rhizome (underground stem)

**Used as/for:** fight plaque (toothpaste and mouth washes), inflammation, bacteria, coughs, spasms, causes vomiting, wound cleaning, skin cancers to the nose and ear, chronic bronchitis and asthma

**Preparations:** decoctions, tinctures and syrups

**Habitat:** rich woods



## Witch Hazel

*Hamamelis virginiana*

**Description:** 20-30 foot deciduous shrub; flowering September - December with yellow slender petals; leaves obovate

**Parts used:** twigs, bark and leaves

**Used as/for:** astringents and toners; Leaf tea – colds and sore throats; Leaf infusion (cooled) – puffy eyes; Bark tea – lung ailments and menstrual flow; Twig tea/wash – limbers up muscles and relieves lameness

**Preparations:** infusions, decoctions, washes, steams, soaps, salves, balms and creams

**Habitat:** woods



## Dandelion

*Taraxacum officinale*

**Description:** a yellow button-like flower hairless, deeply lobed leaves that form a basal rosette with a long thick tap root

**Parts used:** leaves, flower and roots

**Used as/for:** liver, joints, constipation, fever, upset stomach, spring tonic

**Preparations:** food, coffee, tea, infusion, vinegar, wine

**Habitat:** open fields and lawns



## Flowering Dogwood

*Cornus florida*

**Description:** small flowering tree (10-30 feet); leaves ovate; showy scarlet berries; 4 white (pink) bracts surrounding true flowers from April to May

**Parts used:** root-bark, twigs and berries

**Used as/for:** astringent, malarial fevers, chronic diarrhea; Root-bark poultice – external ulcers; Twigs – chewing sticks as a toothbrush; Berries – soaked in brandy used as a bitter digestive tonic and for acid stomach

**Preparations:** infusions, decoctions, tinctures and poultices

**Habitat:** Understory tree in dry Eastern forests

## Wild Onion

*Allium species*

**Description:** perennial with leaves soft and flat or tubular and purple to pink-white flowers

**Part used:** bulb, leaves. Be sure that you have the correct species, since onions are part of the Lily family and the wrong bulb can cause harmful affects.

**Used as/for:** lower cholesterol, influenzas, colds, induce sweating, cough, lung disorders (pneumonia, bronchitis), circulation, cramps and reduce blood pressure

**Preparations:** poultices, infusions, food, tinctures and ointments

**Habitat:** disturbed areas, yards, forests

**Species:**

Nodding Onion – *Allium cernuum*

Wild Onion – *Allium cepa*

Field Garlic – *Allium vineale*

