

ECHINACEA



Echinacea angustifolia

[ek-in-AY-shee-uh an-gus-tee-FOH-lee-uh]



Echinacea purpurea

[ek-in-AY-shee-uh pur-PUR-ee-uh]



Echinacea pallida

[ek-in-AY-shee-uh PAL-lid-duh]

Family: Compositae

Names: *E. purpurea*: purple coneflower, black Sampson, rudbeckia, Missouri coneflower, Echinacée pourpre

Description: *E. purpurea*: Stately plant with a striking flower with a height of 3 feet and a width of 2.5 feet, sometimes larger. The flowers are a few on each stalk, bright pink-purple, petals of 3 inches long, around a raised center disk or orange. Heads are up to 6 inches wide. The leaves are sparse, narrow, pointed, and very 6 inches long. The fruit is brown, papery seeds. The root is long, spindly, grouped together in older plants with a fleshy white inside covered by a dark skin. It blooms from July to August.

Cultivation: *E. purpurea*: A perennial to Zone 3. It germinates 10-20 days, best if stratified 4 weeks in the refrigerator. Plant shallow, needs sunlight to germinate. Space 1.5 to 2feet. Prefers soil

temperature of 70-75F. Soil should be well drained, fairly poor, can be fairly dry with a pH of 6.8. Prefers full sun or light shade in very hot climates. Plant from seed or divide the crown on 2 year or older plants. It will bloom the first year from seed if started early. Root division is not suggested too often but young plants can be removed from the main rootstock and replanted. It takes 3-4 years to develop roots large enough for a substantial harvest.

History: Botanists named the plant after the hedgehog (*Echinus*) to describe its prickly, conelike center. The Plains Indians used various species for treatment of sore throats, toothaches, infections, wounds, snakebites, and skin problems as well as mumps, measles, smallpox, and cancer. When these illnesses occurred, they would suck on the root. They also applied root poultices to all manner of wounds, used Echinacea mouthwash for painful teeth and gums and drank the tea to treat ailments. Samples of Echinacea were uncovered in campsites from the 1600s, but its use probably goes back much further. Since the 1930s, over 300 scientific articles have been written about it. It was included in *King's American Dispensatory* after the eclectic doctor, John King, tested the herb and successfully used it to treat bee stings, chronic nasal congestion, leg ulcers and infant cholera.

Constituents: *E. purpurea*: Essential oil includes humulene, caryophyllene, sesquiterpenes, polyacetylenes, isobutylalkamines with olefinic and acetylenic bonds, glycoside, polysaccharide, betaine, inulin, caffeic acid esters (mainly echinacoside and cynarin), echinolone

Constituents: *E. angustifolia*: alkalamides (mostly isobutylamides with olefinic and acetylenic bonds); caffeic acid esters (mainly echinacoside and cynarin); polysaccharides; volatile oil (humulene); echinolone; betaine

Properties: anti-inflammatory, antibiotic, detoxifying, increases sweating, heals wounds, antiallergenic

Character: cool, dry, mainly pungent, bitter

Meridians/Organs affected: lungs, stomach, liver

Medicinal Uses: Echinacea root is a popular medicinal herb because it activates the body's immune system, increasing the chance of fighting off almost any disease. It is very nontoxic. Clinical

studies show that extracts improve white blood cell count and create other immune responses. Echinacin, found in Echinacea, stops bacteria from forming the hyaluronidase enzyme, which helps make cells more susceptible to infection. It is a mild natural antibiotic, 6 milligrams of one glycoside equals 1 unit of penicillin, that is effective against strep and staph infections. A study done with over 200 children found that the group who took echinacea, along with two other herbs, had fewer colds and, when they did get sick, had fewer days of fever. Similar results were observed in studies with upper respiratory tract infections and viral infections. It is obvious to researchers that echinacea contains a number of immune-stimulating constituents, although the mechanism is not fully understood. Some components are better extracted into water, others into alcohol. Small amounts taken a few times daily work better than larger doses. Echinacea is also more stimulating to immunity when taken in an on-off regime, say 2 weeks on, 1 week off.

The same chemical (HA) that helps shield tissues against germs also lubricates the joints. Arthritis breaks down HA, but echinacea's HA-protective action may have an anti-inflammatory effect, lending credence to the herb's traditional use in treating arthritis. German researchers have successfully treated rheumatoid arthritis with echinacea preparations. The herb is a helpful remedy for treating allergies, such as asthma

Echinacea serves to support disease resistance in several ways. At the blood level, it accelerates phagocytosis, the means by which macrophages and other antibodies attack and remove bacteria. At the cellular levels, Echinacea helps to reduce the production of an enzyme that breaks down hyaluronic acid, the compound that occurs between cells to bind them together. Because of its multidirectional means of immune system support, its primary usefulness, depends on a healthy immune system. Without a healthy population of unencumbered antibodies to work with, echinacea's capacity to fight infection is limited to its simple, and less-than-impressive, antiseptic actions. This means that timing is critical to echinacea's effectiveness—this herb should be taken at the first onset of infectious symptoms, otherwise its activity will amount to a losing battle against microbial opponents that have already fortified their positions in the body.

Echinacea tincture can be added to juice three times a day and taken along with other herbal

approaches for athlete's foot.. It is also used to treat mastitis and nipple fissures in nursing women.

Solvent: The acid constituents in Echinacea are poorly water soluble and require a strong alcohol base to extract them into a tincture form, but the plant's polysaccharide constituents are easily extracted into water and largely destroyed by alcohol. That is why a 50% alcohol menstrum is an excellent extraction method allowing the acids to be dissolved in the alcohol half and the polysaccharides to be soluble in the half that's water.

Tincture of root: For chronic infections, take ½ tsp in water 3 times a day

Decoction of root: To treat throat infections, gargle with 50 ml 3 times a day. Take 2-5 ml doses every 2-3 hours for influenza, chills, and urinary tract infections, during the first couple of days of acute symptoms. For more chronic conditions, use standard doses and combine with other suitable herbs such as buchu and couchgrass for kidney infections, or cleavers for glandular fever. May be used in 10 ml doses for food poisoning or snakebites.

Wash: Use the decoction or diluted tincture for infected wounds. Bathe the affected area frequently.

Powder: Use for infected skin conditions such as boils (combine with marshmallow) or weeping, infected eczema

Combinations: With yarrow or bearberry for stopping cystitis

Winter Shield Protective Tincture

3 parts Echinacea root (fresh preferred)

2 parts blue elderberries, fresh or dried

2 parts rose hips

1 part fresh or frozen blackberries

1 part fresh or frozen raspberries

1 part grated fresh gingerroot

1 part sliced fresh organic oranges
brandy

Combine herbs and fruits in a glass jar with a tight fitting lid. Cover with brandy. Let sit in a dark place for 2 weeks, shaking each day. Strain off the plant material and bottle in dark bottles.

Allergy Tea

2 cups water

½ tsp each echinacea root and marshmallow root

1 tsp chamomile flowers

½ tsp peppermint leaf

¼ tsp ginger rhizome

Combine water and echinacea and marshmallow roots in a saucepan and simmer for about 5 minutes. Turn off heat and add remaining ingredients. Steep for 15 minutes, then strain out herbs. For a 50-lb child give 1-2 cups daily.

Homeopathy: Tincture of the whole fresh plant for appendicitis, bites of rabid animals, blood poisoning, carbuncles, diphtheria, enteric fever, gangrene, poisoned wounds, pyoemia, rhus poisoning, scarlatina, snake bites, syphilis, typhoid, ulcers, vaccination

Flower Essence: For those feeling shattered by severe trauma or abuse which has destroyed one's sense of Self or those threatened by physical or emotional disintegration. Echinacea flower essence stimulates and awakens the true inner Self. This is a fundamental remedy for many soul and physical illnesses, especially when the individual has experienced shattering and destructive forces. Echinacea restores the soul's true self-identity and essential dignity, in relationship to the Earth and to the human family.

Recipes:

Echinacea and Sheep Sorrel Dressing

3 Tbsp each powdered echinacea root and sheep sorrel

1 cup unpasteurized cider vinegar

½ cup olive oil

3 Tbsp lemon or lime juice

1 Tbsp garlic granules

1 Tbsp onion granules

4 big pinches parsley flakes

salt and pepper to taste

Blend mixture and set out overnight in sealed jar. This is a tangy immune stimulant. (An Herbal Feast)

References:

The Encyclopedia of Medicinal Plants, Andrew Chevallier, Dorling Kindersley, 1996; ISBN: 0-7894-1067-2

Flower Essence Repertory, Patricia Kaminski and Richard Katz, Flower Essence Society, 1996; ISBN: 0-9631306-1-7

An Herbal Feast, Risa Mornis, Keats, 1998; ISBN: 0-87983-801-9

Herbs for Pets, Mary Wulff-Tilford and Gregory Tilford, 1999; BowTie Press; ISBN: 1-889540-46-3

The Illustrated Herb Encyclopedia, Kathi Keville, Mallard Press, 1991; ISBN: 0-7924-5307-7

Resources:

Companion Plants, 7247 No Coolville Ridge Rd.,
Athens, OH 45701; 740-592-4643;

www.companionplants.com plants, seed

Crimson Sage, PO Box 337, Colton, OR 97017;
503-824-4721; <http://www.crimson-sage.com>

Plants

The Rosemary House, 120 S Market St.,
Mechanicsburg, PA 17055; 717-697-5111;

www.therosemaryhouse.com tincture

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