



OCIMUM L. – GENERE

Order: Lamiales

Family: *Lamiaceae*

The genus *Ocimum* belongs to the family Lamiaceae, which includes most popular herbs/shrubs known for their medicinal properties and aroma profile. Due to the important morphological as well as chemical variability within the genus, its taxonomy and phylogenetic relationships are still debated. Moreover, the existence of chemotypes within single species increases the complexity to a higher level. [KumarA]

Occurrence of polyploidy and possibility of inter- and intra-specific hybridization within the genus lead to the occurrence of a large number of subspecies, varieties, and forms, which differ in essential oil composition and morphological characters. Over 120 species belonging to the *Ocimum* genus are currently recognized. [KumarA, WFO]

OCIMUM BASILICUM L.



Primary functionality: Mars; Scorpio

Secondary functionality:

Nature: Hot in the 2.nd degree. It contains a “superfluous dampness”.

Taste: Aromatic, pungent, bland (due to mucilages), slightly salty

Tropism: Kidneys and adrenals, heart, stomach and digestive system, lungs,

	spleen, liver, skin and autonomous nervous system
<i>Humoral actions</i> ¹ :	Eliminates the excesses and stasis of Heat, Phlegm (also thickened and adust, with melancholic elements), Phlegm-Heat and Tension; supplements Tension (especially Kidneys, Heart, Stomach and Liver Tension).
<i>Tissue states</i> :	Excess and stasis of Heat, Phlegm (also thickened and adust), Phlegm-Heat, Phlegm-Melancholy, and Tension; Tension deficit (especially in the Kidneys, Heart, Stomach and Liver).
<i>Clinical actions</i> :	Adaptogenic tonic to the autonomic nervous and cardiovascular systems, alexipharmic, anti-diarrhoeaic, anti-emetic, antifungal, antihelminthic, anti-inflammatory, antipyretic, antispasmodic, antitussive, aperitive, aphrodisiac, carminative, cephalic, cordial, diaphoretic, diuretic, emmenagogue, espulsive, galactagogue, hypotensive, immunomodulatory, laxative (mild), nervine (exhilarant), pectoral, provocative, stimulant, stomachic, uterine.
<i>Used parts</i> :	Aerial parts, flowering tops, seeds, roots

Description

Basil, *Ocimum basilicum* L., is probably native to the tropical regions of Africa and Southeast Asia. The generic epithet *Ocimum* comes from the Greek ὄκϊμον (ócion), which in turn derives from ὄζω (ózo), that means 'to smell, to give off an odor' due to the characteristic scent of the plants. Both the common name 'basil' and the specific epithet 'basilicum' come, instead, from the greek βασιλικόν, that means "regal".

Known to most people as a spice and used in cuisines across the world, from Thai to Italian, it is probably one of the most frequently used kitchen herbs, sitting in sunny kitchen windowsills across many lands and in many times, as Fuchs records in 16th century Germany and Bauhin in the 17th regarding the reports of scorpions commonly making their homes under pots in Venice. [Tobyn]

Yet the chances to find it in any modern herbal are very low. Maud Grieve's *A Modern Herbal* (1931) has an entry for basil with some information (the plant name etymology, the plant history and the description of some varieties) but no real indications or uses².

According to Mrs. Grieve, "*the physicians of old were quite unable to agree as to its medicinal value, some declaring that it was a poison, and others a precious simple.*" [Grieve] Indeed, most ancient and even more modern authors do not agree about the real virtues or defects of this aromatic herb.

Culpeper writes that "*it carry a kind of virulent quality with it*" and reports the controversial opinions the classical authorities had about this herb: "*Galen and Dioscorides hold it not fitting to be taken inwardly; and Chrysippus rails at it with downright Billingsgate rhetoric; Pliny, and the Arabian physicians, defend it*" [Culpeper]. The author ends the paragraph with a concise and clear "*I dare write no more of it.*"

¹ See the "Notes on humors" paragraph.

² In fact, Grieve's herbal has an entry for bush basil (also known as Greek basil), *O. minimum*, and describes some uses of this plant that shares several properties with *O. basilicum*. Indeed, also classical Italian authors such Castore Durante and Pietro Andrea Mattioli mix somewhat the properties of both *Ocimum* species.

Pliny relates Chrysippus' superstitions concerning basil: that the bruised herb placed under a stone will breed a serpent; or that the herb chewed and put in the sun will breed worms and maggots; that basil pounded with crabs or crayfish will attract all the scorpions of the area to gather around the bait; or finally, that if you are stung by a scorpion on a day when you have eaten basil, you will surely die. Anyhow Pliny has also made it clear that basil possesses medicinal qualities, including that of treating scorpion stings, when applied externally with wine and vinegar. [Tobyn]

Ibn Sina reckons the internal consumption of basil generates turbid and melancholic blood from its superfluous humidity. [Tobyn]

According to Dioscorides, *"Eaten much in food it dulls the eyesight. [...] Some abstain from eating it in food, because when it is chewed and set in the Sun it breeds little worms."* (see [Durante, Mattioli]).³

The story of basil goes on this way until the Age of Enlightenment, causing disagreement among most authors. Therefore, it is no surprise that basil would have easily disappeared from the herbal pharmacopoeia. [Tobyn]

Speaking of the qualities of basil, Castore Durante writes: *"It is hot in the second degree, & has a superfluous dampness in itself, & yet it is not so fit in foods, as it is very conveniently administered externally both to ripen, & to digest; it has the faculty to open, expel, & provoke; it is enemy to the stomach, for being very hard to digest."* [Durante]

According to Pelikan: *"This plant [...] was used in medicine for its digestive organs warming, uterus purifying, childbirth facilitating, milk secretion promoting, aphrodisiac action. Its effectiveness is also in catarrhal diseases and inflammation of the mucous membranes of the urogenital system. As in other Labiates, there is also a calming, spasmolytic action."* [Pelikan]

According to Matthew Wood, *"sweet basil removes heat and toxins from the bloodstream, liver, portal circulation, and intestines. [...] It] opens the skin and lungs, relax the digestive tract, and purge the blood of heat and toxins. It detoxifies through the skin by diaphoresis and removes mucus from the lungs [...]. It stimulates the appetite and digestion, removing stagnant food and flatulence. It also penetrates to the deeper regions of the organism to detoxify the blood, liver, portal circulation, spleen, and intestines."* [Wood]

The same author also reports the following quote: *"Basil appears to dissolve and liberate for excretion, toxic lipophilic compounds which are stored in body fat deposits. It especially neutralizes past (and long past) damage to the body from recreational marijuana use"*. [Wood]

As a gynaecological remedy, basil is a gentle cleanser and strengthener of the womb, and may have a role in both facilitating conception and in managing labour. It may encourage breast milk in the nursing mother. [Tobyn]

Nervine effects of sweet basil are quite complex. Various authors define it as a sympathomimetic drug [Valnet], a parasympatholitic drug [Paoluzzi], both sympatholitic and parasympatholitic [Duraffourd-Lapraz], or more simply a drug that acts on both the sympathetic and the parasympathetic sides of the autonomic nervous system [Wood]. Indeed, basil first stimulates, then relaxes the brain and nervous system, and it is used both for insomnia and to

3 This is also reported from a modern Chinese author, Lu Zhao, which writes, in his *"Ethnopharmacological Study of Aromatic Uyghur Medicinal Plants In Xinjiang, China"*, that basil is *"harmful to eye, can reduce vision"*, also suggesting a couple of possible remedies: *"grape vinegar or purslane."* [Zhao]

enhance alertness [Wood]. This makes sweet basil a really interesting drug, capable of rebalancing the ANS.

Sweet basil may have a place in chronic fatigue syndrome and similar deficiency states, especially where gastrointestinal symptoms or a depressed mood are evident, or where chronic pain is experienced. [Tobyn]

Prolonged use of the essential oil during the day stimulates concentration and frees the head from thoughts, "separates Pure from Impure" and acts on the Heart (in the sense of Shen). It has a strong influence on emotions and can be of great help to those suffering from fear and sadness. [Paoluzzi]

According to Jean-Claude Leunis, basil *"is the plant of dystonia in the nervous patient, still dynamic, but nervously exhausted. These patients often have an increase in albumin accompanied by a hypoglobulinic profile. It also stimulates the cerebral cortex and is indicated in memory loss and dynamism. It acts by stimulation of the adrenal glands. Its tropism is intestinal and can be used alone in the treatment of pseudomembranous colitis."* [Leunis]

O. basilicum (Jiu Cheng Ta – 九層塔) is also used in Traditional Chinese Medicine (TCM) as a "herb that Regulate Qi". It is classified as an acrid, warm herb that enters the Stomach, Liver and Kidney meridians.

It's used to:

- *Regulate the Middle Jiao and promote digestion*, in case of Stomach Cold with Qi Stagnation with stomach cramps which are better with warmth and worse with pressure and poor appetite in children.
- *Invigorate Blood and dispel water*, in case of obstetric and gynecological disorders from Qi and Blood Stagnation with irregular menstruation; postpartum Blood Stagnation.
- *Open the channels and collaterals and relieve pain*, in case of soreness and pain in the tendons and bones.
- *Eliminate toxins and disperse Wind*, in case of toothache and eye swelling and pain (when combined with Heat-clearing and toxin eliminating herbs). [AmDragon]

Sweet basil and scorpions

Sifting through the myths and superstitions reported about basil, it is interesting to note that one often encounters the motif of scorpions, either in a positive or negative sense: indeed, some authors repute this herb able to cure the bite of a scorpion or to render it harmless, while other authors tell it increases the danger up to the point that anyone who is stung by a scorpion on the same day he ate basil will surely die.

In addition to what Pliny reports about Chrysippus (see above), Dioscorides recommends basil for bites of the sea dragon and for scorpion stings. He relates how Arabs eat the herb to remain without pain if they get stung: *"The Arabs said that, being pierced by Scorpions, those who ate Basil that day feel no pain."* [Mattioli, Tobyn]

According to Mattioli, *"Galen mentioned it in the second [book] of the faculties of food, saying: There are many who use Basil in food, as if little is commended. Lie those who say that placing it chopped in a well covered earthen jar, and especially placed in the sun, generates Scorpions; because this is completely alien to the truth."* [Mattioli]

The same author also reports that *“drunk with wine, and with a little vinegar it heals the stings of marine and terrestrial scorpions, no less than the rue and mint.”* [Mattioli]

Castore Durante (referring to the basil called ‘gentle’⁴) writes: *“The present age cheerfully defends Basil against the opinion of the ancients by saying that goats eat it, and drunk it with wine, and with a little vinegar, it heals the stings of the marine, & terrestrial scorpions, no less than the rue, & the mint. If anyone is hurt by the scorpion, in the same day he has eaten basil, he will hardly heal, frequently eaten in foods it generates lice.”* [During]

Culpeper reports that *“Hilarius, a French physician, affirms upon his own knowledge, that an acquaintance of his, by common smelling to it, had a scorpion bred in his brain.”* [Culpeper]

Still Culpeper makes it a herb of Mars in Scorpio, projecting the association of the plant with scorpions onto the astrological plane.

Properties

Temperature and taste

The plant is classically classified as hot in the second degree and as having a “superfluous dampness” which makes it poorly suitable for digestion [Durante, Gerard, Mattioli].

Castore Durante says about ‘gentle’ basil that *“the more it is perfumed, the hotter it is than the other”* [Durante]. Clearly this is also true for any variety of basil: the more aromatic and spicy it is (depending on the concentration and composition of the essential oil, which may also contain eugenol, methyleugenol and camphor) the hotter it is.

Flavor is certainly dependent on the specific variety. In general we can classify it as: aromatic, pungent, bland (due to mucilages), slightly salty.

Signatures

According to Culpeper, sweet basil is a *“herb of Mars, and under the scorpion.”* [Culpeper]

Tissue phases

N/A

Actions and indications

Humoral actions

Being aromatic and pungent it is a warming, digestive, resolving, astersive, diffusive and tonic plant that eliminates excesses and stasis of Heat, Phlegm, Phlegm-Heat and Tension, but is also able to supplement Tension (especially in the Kidneys, Heart, Stomach and Liver). It moves the body fluids, “opens the pores” and resolves the “oppilations” (this is especially true for the spicier varieties).

⁴ Probably *Ocimum minimum* L.

The presence of mucilages and the slight saltiness make basil humectant and emollient and therefore capable of providing correct Phlegm, but they also make it able to prepare thickened and adust Phlegm and Melancholy for elimination.

According to the Ayurvedic medicine, it treats *kapha* and *vata* excesses.

Tropism

Sweet basil tropism is complex. It mainly acts on kidneys and adrenals, heart, stomach and digestive system, lungs, spleen liver, skin and the autonomous nervous system.

Clinical actions

Adaptogenic tonic to the autonomic nervous and cardiovascular systems, alexipharmic, anti-diarrhoeic, anti-emetic, antifungal, antihelminthic, anti-inflammatory, antipyretic, antispasmodic, antitussive, aperitive, aphrodisiac, carminative, cephalic, cordial, diaphoretic, diuretic, emmenagogue, espulsive, galactagogue, hypotensive, immunomodulatory, laxative (mild), nervine (exhilarant), pectoral, provocative, stimulant, stomachic, uterine.

Principal actions:

Anti-inflammatory [Atzei, Bilal, Durante, Gerard, Mattioli, Khair-ul-Bariyah, Tobyn]:

- Liter.: *"The water has the virtue of refreshing, & for this reason it is applied to the inflammation of the eyes, the head, & breast tumors, & other parts."* (external use) [Durante]
- Liter.: *"the leaf was used as an anti-inflammatory agent."* [Atzei]
- Liter.: *"Plastered with flour of polenta, oil of rose and vinegar it helps lung inflammation. [Plastered] together with Chios wine, to the pains of the eyes."* (Dioscorides) [Mattioli; simil. Gerard]
- Liter.: *"[Give to smell with vinegar] to the inflamed people."* (Pliny) [Mattioli]; simil. for 'gentle' basil [Durante]
- Migraine, headache [Atzei, Bilal, Durante, Gerard, Mattioli]:
 - infusion or decoction of leaves, infusion of leaves and flowering tops. [Atzei]
 - leaves infusion. [Bilal]
 - Liter.: *"With oil or rose or of myrtle, it helps the pains of the head."* (Pliny) [Mattioli]; simil. for 'gentle' basil [Durante]
 - Liter.: *"The fresh leaves, or the distilled water applied to the forehead, are good for headache."* (external use) [Durante]
- Joints pain (juice); gouty joints (infusion) [Bilal]
- Toothache, earache/otitis (juice) [Bilal]
- Neuralgia (decoction of leaves and stem). [Bilal]
- Rheumatism. [Tobyn]

Alexipharmic:

- Bites of scorpions, insects, spiders, snakes [Atzei, Bilal, Culpeper, Durante, Mattioli, SchwabeIndia, Toby]:
 - Liter.: *"[Plastered] by itself only to the stings of the Sea Dragon, and of the Scorpions."* (Dioscorides) [Mattioli]
 - Liter.: *"Drunk with wine, and with a little vinegar it heals the stings of marine and terrestrial scorpions, as well as the rue and mint."* [Mattioli]
 - Liter.: *"The seed drunk with wine helps the bites of vipers, & other poisonous animals."* [Durante]
 - Liter.: *"Insect bite, the juice of the crushed leaf is applied to the part."* [Atzei]
 - Liter.: *"Being applied to the place bitten by venomous beasts, or stung by a wasp or hornet, it speedily draws the poison to it."* [Culpeper]
 - Liter.: *"Snake-bite (the seeds are chewed, one portion is swallowed and the other portion is applied to the bitten part)."* [Bilal]
- Aperitive (resolves Tension excess):
 - Antiseptic diuretic (seeds, aerial parts) [Bilal, Durante, Gerard, Mattioli]; for renal troubles, burning micturition, cystitis, nephritis:
 - Liter.: *"Cooked in wine it provokes urine."* [Durante]
 - Liter.: *"The seed drunk helps the difficulty to urinate."* (Dioscorides) [Mattioli]
 - Liter.: *"[The seed drunk is a remedy] for those that are short winded, and them that can hardly make water."* [Gerard]
 - Expectorant; catarrh (decoction of the aerial parts, infusion or decoction of leaf or flower) [Alston, Atzei, Bilal, Toby]
- Regulates inverted Tension (TCM category: "herbs that regulate Qi and descend countercurrent Qi")
 - Lungs (respiratory system):
 - Dyspnoea [Atzei, Durante]:
 - Liter.: *"Cooked in wine it heals dyspnoea and cough."* [Durante]
 - Liter.: *"decocted with white wine in dyspnoea."* [Atzei]
 - Cough, whooping cough [Atzei, Bilal, Toby]:
 - Liter.: *"infusion of flowering top as a bechic-expectorant."* [Atzei]
 - Liter.: *"breathing difficulties and old coughs, by clearing thick and viscid humours."* [Toby]
 - Liter.: *"composite infusion of dried tips of basil, thyme and wild lavender as a bechic in whooping cough."* [Atzei]

- Asthma. [Alston]
- Stomach:
 - Nausea, vomiting, severe vomiting, preventing vomiting. [Tobyn]; simil. [Grieve] for *O. minimum*.
 - Indigestion. [SchwabeIndia, Tobyn]
 - Motion sickness. [Tobyn]
- Carminative (resolves Tension excess; TCM category: “herbs that regulate Qi”)
 - Gastrointestinal antispasmodic, carminative, stomachic (leaves, flower tops, seeds); in case of gas, cramps and colic, indigestion [Atzei, Bilal, Durante, Pelikan, Mattioli, SchwabeIndia]
- Tonic (Supplements Tension, especially in the Kidney, Heart, Stomach and Liver)
 - Lipothymias (TCM category: “aromatic herbs that open the orifices”) [Alston, Durante, Mattioli]:
 - Liter.: “*Basil is given to smell with vinegar in syncope, & to those who stun, & to other heart defects; & equally to lethargic people.*” (Pliny) [Mattioli]⁵; simil. for ‘gentle’ basil [Durante]
 - Liter.: “*Its distilled WATER [...] helps syncope.*” [Durante]
 - Vertigo. [Atzei, Alston]
 - Liter.: “*infusion of flowered top as an anti-hysteria and in vertigo.*” [Atzei]
 - Aphrodisiac. [Bilal, Culpeper, Duke, Pelikan, Tobyn]
 - Seeds. [Bilal]
 - Liter.: “*it helps the deficiency of Venus.*” [Culpeper]
- Antidepressant (Unani-Tibb category: “exhilarant herbs”)
 - Depression, melancholy [Durante, Gerard, Mattioli]
 - Liter.: “*The seed drunk benefits those, in whose bodies melancholic humors are generated.*” (Dioscorides) [Mattioli]
 - Liter.: “*Seed drunk with wine benefits the passions of the heart, & melancholy, & generates joy. Its distillate WATER comforts the heart [...].*” [Durante]
 - Liter.: “*The seed drunke is a remedy for melancholy people.*” [Gerard]
 - Liter.: “*The later Writers, among whom Simeon Zethy is one, doe teach, that the smell of Basill is good for the heart and for the head. That the feed cureth the infirmities of the heart, taketh away sorrowfulnesse which commeth of melancholy, and maketh a man merry and glad.*” [Gerard]

⁵ Mattioli reports that even specifically the ‘gentle’ basil “*is given to smell with vinegar in syncope, and other defects of the heart*” [Mattioli]. So this is valid both for basil in general, as Pliny suggests, and for ‘gentle’ basil.

- Liter.: *“to raise the vital spirits in depression and grief.”* [Tobyn]
- Liter.: *“The more it is perfumed, the more it is reasonably comforting than the other, & more cordial, & more convenient to put in the Electuaries for the heart.”* (gentle basil) [Durante]
- Antiseptic/anti-parasitical
 - Antiseptic. [Tobyn]
 - Skin infections. [Bilal, SchwabeIndia, Tobyn]:
 - Fungal infections of the skin. [Tobyn]
 - Leucoderma. [Bilal]
 - Liter.: *“leaf poultice is used as a skin antiseptic.”* [Atzei]
 - Kustha⁶ (obstinate skin disease including leprosy) [Bilal]
 - Intestinal antiseptic (infusion of leaves) [Atzei]
 - Gonorrhea. [Bilal, SchwabeIndia]
 - Infusion of seeds, because of the mucilage and their cooling effect [Bilal]
 - Foul breath (infusion, as a gargle) [Bilal]
 - Nasal myiasis. [Bilal]
 - Ringworm. [Duke, Bilal, Tobyn]
 - Insecticide [Bilal, Tobyn]:
 - Liter.: *“the juice of leaves is applied on the nostrils of camels to kill the worms, which infest them during winter.”* [Bilal]

Specific indications

Mind

- Recommended for people with schizoid tendencies as it soothes, calms and relaxes; it is the antistress essence par excellence. Very powerfully antispasmodic, it has a definite effect on tense people who eat too fast without properly chewing their food. [Mailhebiau]
- Excellent calmative and sedative for digestive insomnia in people who “digest” their worries during the night. [Mailhebiau]
- It rebalances those who use their intellect a lot and are mentally exhausted and people suffering from high blood pressure who end up mentally depressed (in this, it works in a similar way to the homoeopathic remedy, *Nux vomica*). [Mailhebiau]

⁶ Ayurvedic term for skin disease.

General

- Lypothimia (give basil with vinegar or basil hydrosol to smell) [Alston, Durante, Mattioli]
- Vertigo. [Alston, Atzei]
- Spasmophylic syndromes caused by anxiety, for which a “terrain” treatment is essential. [Mailhebiau]

Immune system

- Fever, ethical fever, malaria, fever with cold and flu (decoction of leaves and stem, infusion of seeds) [Bilal, SchwabeIndia, Toby, Wood]:
 - & thirst increases with rise in temperature, flashes of heat from face, eyes, mouth. [Wood]
 - & scanty sweat in axilla, neck, shoulders, and chest. [Wood]
 - Intermittent fever; with autonomic disorder; constantly yawning and stretching during the chills; spasms in the extremities, violent electric-like shocks in the nerves, violent chills and shivering. [Wood]
 - Liter.: *“Anointing the thread of the back, and the soles of the hands, & the feet with basil juice, it greatly helps the rigors of long fevers before paroxysm comes.”* (gentle basil). [Durante]
 - Aftereffects of fever/influenza; residual cold, wiped out, exhausted after, lingering (basil tea). [Wood]
- Immunomodulatory [Gomez-Flores, Khair-ul-Bariyah]
 - Induces lymphocytes proliferation. [Gomez-Flores]
 - Anti-herpes Simplex Virus activity. [Khair-ul-Bariyah]
 - Liter.: *“Its antiviral properties are weak, but it is effective internally at “terrain” level in cases of neuritis, shingles and certain forms of herpes manifesting through predispositions that are deficient, overworked, etc.”* (essentail oil). [Mailhebiau]
- Hay fever, allergies, pollen allergies (1-2 teaspoonfuls of basil tea in apple cider). [Wood]

Head

- Migraine, headache (leaves or flowering tops); especially if due to or associated with cold, indigestion, nervous tension. [Atzei, Bilal, Durante, Gerard, Mattioli, Toby, Wood]
- Head cold, sinus infection, sinus headache, sinus drainage. [Wood]

Nose

- Nasal myiasis (12% decoction of the plant used as irrigation: it produces anesthesia and acts as a parasiticide and antiseptic, so that the larvae which causes the disease rendered inactive and expelled). [Bilal]

Eyes and sight

- Cataract [Durante, Mattioli, SchwabeIndia]
- Gives luster to eyes (juice) [Bilal]
- Sore eyes (as a lotion). [Bilal]
- As an eye-wash. [Tobyn]
- Sight:
 - Poor eyesight [Tobyn, Wood]
 - Decreases visual acuity⁷:
 - if eaten too much (Dioscorides) [Mattioli]; simil. [Durante] fro 'gentle' basil.
 - Liter.: "*harmful to eye, can reduce vision*"; possible remedies: "*grape vinegar or purslane*." [Zhao]

Ears and hearing

- Earache/otitis (juice) [Bilal]
- Dullness of hearing (juice, dropped into the ears). [Bilal]

Mouth and teeth

- Toothache. [Bilal]
- Foul breath (infusion, as a gargle) [Bilal]
- As a mouthwash for oral ulceration. [Tobyn]

Heart and cardiovascular system

- Adaptogenic tonic to the cardiovascular system. [Tobyn]
- Palpitations. [Tobyn]
- Hypotensive, vasorelaxant⁸. [Alegría-Herrera, Umar]
- Cardiac hypertrophy (reduces). [Umar]
- Atherosclerosis. [Umar]
- Antithrombotic. [Tohti, Umar]
- Hypolipidemic. [Bilal, Umar]
- Protective against infarction:

⁷ This symptom is produced, according to the classical authors, only in case of excessive food consumption.

⁸ According to the authors, *O. basilicum* may act in a manner similar to that of telmisartan, which is an antagonist of the receptors to angiotensin type 1.

- Liter.: *"O. basilicum was shown that it is capable of strongly protecting the myocardium against isoproterenol-induced infarction."* [Alegría-Herrera]
- Increase RBC, WBC, haemoglobin and antibody titre [Khair-ul-Bariyah].
- Venous decongestant for people whose food is too rich (essential oil). [Mailhebiau]

Nervous system

- Adaptogenic tonic to the autonomic nervous, capable of rebalancing both sympathetic and parasympathetic sides of ANS. [Durauffourd-Lapraz, Paoluzzi, Tobyn, Valnet, Wood]
- Depression, melancholy (seed drunk, aerial parts) [Durante, Gerard, Mattioli, Shakeri, SchwabeIndia, Tobyn, Wood]
 - Liter.: *"A calming nervine agent to reduce the pain of headaches and neuralgias, and counter depression, anxiety and irritability with tonic effects suitable for chronic fatigue syndromes."* [Tobyn]
- Anxiolytic. [Alegría-Herrera, Shakeri, Tobyn]
- Insomnia (leaves infusion, before going to bed) [Atzei, SchwabeIndia, Tobyn, Wood]
- Neuralgia (decoction of leaves and stem). [Bilal, Tobyn]
- Nerve tonic, stimulant (leaf). [Atzei, Tobyn]
 - Exhaustion [Tobyn]
 - Liter.: *"powerful tonic stimulant and nerve remedy."* [Tobyn]
 - Liter.: *"stimulant nervine for mental clarity."* [Tobyn]
- Nerve tonic, calming: [Tobyn]
 - Liter.: *"nerve tonic to calm the system."* [Tobyn]
- Anticonvulsant. [Khair-ul-Bariyah]
- Nootropic. [Alegría-Herrera, Shakeri]
- Protection of central nervous system against oxidative damages of electromagnetic field (EMF) by using *O. basilicum* has been reported. [Khair-ul-Bariyah]

Gastrointestinal system

- Warming action on the digestive organs. [Pelikan]
- Gastrointestinal antispasmodic, carminative, stomachic; flatulence, cramps and colic [Atzei, Bilal, Durante, Mailhebiau, Mattioli, Pelikan, SchwabeIndia, Tobyn, Wood]
 - Bowel complaints of children (roots). [Bilal]
 - Relax smooth muscle spasm and relieve irritable intestinal conditions. Irritable bowel syndrome. [Tobyn]
 - Gastric disorders of nervous origin (infusion of leaves and flowering tops). [Atzei]

- Stimulates the appetite and digestion, removing stagnant food. [Bilal, Mailhebiau, Wood]
- Catarrh in the stomach [Wood].
- Intestinal antiseptic (infusion of leaves) [Atzei]
- Constipation (mild laxative). [Bilal, Tobyin]
- Diarrhea, dysentery, chronic dysentery, enteritis (infusion of leaves or seeds). [Bilal, Tobyin, Wood]
 - Colic and dysentery; it also helps to reduce the intensity of symptoms. [Tobyin]
- Internal piles (seeds). [Bilal]
- Nausea, vomiting, severe vomiting, preventing vomiting. [Tobyin, Wood]; simil. [Grieve] for *O. minimum*.
- Indigestion. [SchwabeIndia, Tobyin]
- Motion sickness. [Tobyin]
- Vermifuge. [Duke, Bilal, Tobyin]

Liver and gallbladder

- Detoxify the liver and portal circulation. [Wood]
- Liver decongestant and cholagogue. [Mailhebiau]
- Hepatoprotective with liver antifibrotic effects. [Dasgupta, Ogaly, Renovaldi, Teofilović, Yacout]
 - Sweet basil extracts reversed liver fibrosis induced by CCl₄. [Yacout]

Pancreas

- Diabetes (aerial parts, seeds)⁹. [Al-Rikabi, Ezeani, Purush., Widjaja, Zeggwagh]

Kidney and urinary system

- Antiseptic diuretic (seed, aerial parts) [Bilal, Durante, Gerard, Mattioli]:
 - Renal troubles (decoction of leaves and stem). [Bilal]
 - Burning micturition. (decoction of leaves and stem). [Bilal]
 - Cystitis, nephritis (seeds) [Bilal]
 - Inflammation of the mucous membranes of the urogenital system. [Pelikan]
- Urinary calculi. [Zaveri]
- Nephroprotector. [Zaveri]

⁹ Sweet basil is a hypoglycemic drug, but Matthew Wood suggests it for hypoglycemia too. [Wood]

- Reverses nephrotoxicity induced by cisplatin (both from the histological and functional – as measured by the blood urea and serum creatinine levels – point of view). [Zaveri]
- Adrenal cortex stimulant. [Tobyn]
 - Sweet basil essential oil can be used to build up the cortisol side of the adrenal cortex. [Wood]

Respiratory system

- Expectorant; catarrh [Alston, Atzei, Bilal, Pelikan, Tobyn]
- Cough, whooping cough [Atzei, Bilal, Tobyn]
- Croup (warm juice of the leaves with honey). [Bilal]
- Dyspnoea [Atzei, Durante]
- Asthma. [Alston]
- Liter.: *“An anticatarrhal and expectorant for the respiratory system, including sinus congestion and head catarrh, earache, asthma and bronchitis and simple cough.”* [Tobyn]

Sex organs

- Gonorrhea. [Bilal, SchwabeIndia]
- Aphrodisiac. [Bilal, Culpeper, Duke, Pelikan, Tobyn]
- MALE
 - Sexual dysfunction and fertility problems (increases sperm count). [Tobyn]
 - Prostatitis (essential oil). [Mailhebiau]
 - Protects from doxorubicin/irradiation induced testicular injury, normalizing the damaged testicular architecture and restoring the normal spermatogenesis (aqueous extract). [Ibrahim]
- FEMALE
 - Emmenagogue [Alston, Durante, Wood]:
 - Liter.: *“the fresh tea he holds as excellent against all obstructions, ‘no simple is more effectual for gently promoting the menses and for removing complaints which naturally attend their stoppage’.”* [Tobyn]
 - Facilitates childbirth. [Culpeper, Pelikan, Tobyn]:
 - Liter.: *“It expels both birth and after-birth.”* [Culpeper]
 - Galactagogue¹⁰. [Atzei, Shakery, Mattioli, Pelikan, SchwabeIndia, Tobyn, Wood]

¹⁰ Even if, according to some classical authors, *“eaten at table with vinegar, the herb strengthens the female womb and can be used to repress breast milk when it is time to wean the child.”* (see [Tobyn]). John Gerard writes that basil is galatofuge: *“Dioscorides saith that if Basill be much eaten, it dulleth the sight, it mollifieth the belly, breedeth winde, prouoketh vrine, drieth vp milke, and is of a hard digestion.”* [Gerard]. But it is a bad translation from Dioscorides, since the latter tells exactly the opposite, that is *“increases the milk”* (see [Mattioli]).

- Assuage the pain of childbirth, relieve the pain associated with post natal uterine contraction (aqueous extract of the leaves, cold infusion of seeds). [Bilal]
- Cleanser and strengthener of the womb [Pelikan, Tobyn]:
 - Purifies the uterus. [Pelikan]
 - Liter.: *“As a gynaecological remedy, basil is a gentle cleanser and strengthener of the womb, and may have a role in both facilitating conception and in managing labour.”* [Tobyn]

Skin

- Bites of scorpions, insects, spiders, snakes (internal and external use). [Atzei, Bilal, Culpeper, Durante, Mattioli, SchwabeIndia, Tobyn, Wood]
- Skin infections. [Bilal, SchwabeIndia, Tobyn]:
 - Fungal infections of the skin. [Tobyn, Wood]
 - Fresh basil juice as a direct application on fungal lesions on the skin. [Wood]
 - Leucoderma. [Bilal]
 - Ringworm. [Duke, Bilal, Tobyn]
 - Kustha (obstinate skin disease including leprosy) [Bilal]
 - Acne (topical). [Tobyn]
 - Liter.: *“leaf poultice is used as a skin antiseptic .”* [Atzei]
- Unhealthy sores (seeds washed and pounded, as a poultice). [Bilal]

Limbs and musculoskeletal system

- Joints pain (juice). [Bilal]
- Gout. [Bilal, Duke] Gouty joints (infusion). [Bilal]
- Rheumatism. [Tobyn, Wood]
- Broken bones that take a long time to heal. [Wood]

Other

- The seed infused in wine or water for a day produces a mucilage with pectoral properties and which helps the warts of the chest and the cracks of the tongue. [Durante]
- Seed or herb placed in the nose stimulate sneezing. [Durante]
- The juice cures epistaxis when used with camphor. [Bilal]
- Useful in withdrawal from cannabis. [Tobyn, Wood]

- Results of past use of marijuana; with: neurological disorganization; complex hormonal dysregulation, infertility; extreme aggravation of premenstrual syndrome; confounding symptoms associated with chronic structural complaints, instability; ligamentous laxity. [Wood]
- Beneficial for removing heavy metals (combine with cloves) [Wood].

Used parts and collection

The whole basil plant can be used: leaves, aerial parts before flowering, flowering tops, roots and seeds. The mature flower head contains the most complete representation of the properties [Wood].

Preparation and dosage

Basil can be used fresh or dried or a tincture can be made with it. Some varieties lose their aroma when they are dried (for example, Genovese basil and the varieties derived from it) and therefore it is preferable to use them fresh.

The recommended dosages for the herb and the tincture also vary significantly between the various authors.

According to Duke: 1–2 tsp herb/cup water 2–3 ×/day; 0.5–1 tsp tincture up to 3 ×/day; 5g leaf/200 cc water for gas; 20 g leaf/300 cc water for aphthae; 15 g fresh plant/l water, one cup before retiring. [Duke]

According to Menzies-Trull, a physiomedicalist, the dried herb can be given in doses of 3 g, or as 30 ml of the infusion or 4 ml of the tincture. [Tobyn]

In traditional Chinese Medicine usually 5-12g of dried herb are employed. [AmDragon]

Contraindications and side effects

Sweet basil can be considered a safe plant (LD₅₀ hydromethanolic extract ≥ 2000 mg/kg; LD₅₀ powdered herb >6000 mg/kg). [Duke]

The herb and essential oil should not be used during pregnancy and lactation (use as a condiment may be regarded as safe). [AmDragon, Duke, Tobyn]

Use caution with the essential oil of basil and do not use it over a long period. [Duke, Tobyn]

The essential oil is slightly hypnotic in high doses. [Mailhebiau]

Sweet basil extracts can inhibit phase I (e.g. CYP2B6) and increase phase II hepatic enzymes. [Dasgupta, KumarS]

Homeopathy

Ocimum basilicum has practically not been studied in homeopathy. Only Jan Scholten has published a sense proving [Scholten] and a dream proving [Scholten2]. The information below is taken from [Scholten]¹¹.

People needing *Ocimum basilicum* keep going in a hopeless situation seeking acknowledgment. They have a compassionate, social nature, serving others in order to be recognised, but they have problems making changes and evolving because they are fundamentally conservative and traditional. Values are important. They are devoted, self-sacrificing and of high moral feeling. They are more down to earth than for example Aristolochiaceae and ambitious in a simple way. They are simple but have a royal aura.

Mind

Devoted. Self-sacrificing.

Bourgeois¹².

Need a devoted atmosphere.

Religious but down to earth.

Basic.

Traditional.

Narcissist.

Does not understand what happens to him.

Despair, < loss of relative, < not being understood.

Powerless.

On the wrong track.

Wants to be recognised as part of the group.

Delusion: not being appreciated; being downtrodden in a mud city, being the doormat of her parents.

Dreams: teeth falling out; walking in a churchyard, in meadows with flowers and cows, swollen abdomen, itch under feet, making love, doubting to let her breast be operated on, enlarged, fitting her night gown, meditating.

General

Desire: refined food.

Body

Nose: obstructed.

Throat: raw, burning.

¹¹ Which also includes data from [Scholten2].

¹² Bon-vivant.

Urinary: cystitis; difficult urination.

NOTES

Notes on humors

According to the Hippocratic-Galenic medicine, four humors rule the human body:

- *Bile* (or *Yellow Bile*), corresponding to the Fire element, responsible for all the caloric activities of the human body, both in a physiological sense (e.g., body heat) and in a pathological sense (fever, inflammation, etc.);
- *Blood*, corresponding to the Air element and to the physical blood;
- *Phlegm* (also called *Pituita* or *Lymph*), corresponding to the Water element, responsible for everything that is fluid in the body (body fluids, lymph, blood plasma, synovial fluid, cerebrospinal fluid, etc.)¹³;
- *Melancholia* (also called *Black Bile*), corresponding to the Earth element, responsible for everything that is hard and structured (bones, teeth, but also growths, polyps, stones, tumors, etc.).

Heat and body fluids are governed by Yellow Bile and Phlegm respectively. When there are no further specifications, the terms “heat” and “fluids” can be used, in this text, to indicate the corresponding humor.

The functioning of the whole body is governed by the mixing (*crasia*) of such humors: if the ratio between the humors is proper (we speak of *eucrasia*), the body functions at its best and the health is guaranteed; if they are blended improperly (we speak of *discrasia*), illness results.

A humor is defined *correct* when both its “quantity” and its “quality” are proper; when it prevails over the others, generating dyscrasia, it is said that it is *superabundant*, and when its quality is not appropriate it is said that it is *corrupt*. We say in general that a humor is *perverse* when it is overabundant or corrupt. In this text, in order to facilitate comparisons between different systems of medicine, we resort to an extension with respect to the classical conception and define a humor as “perverse”:

- when its “quantity” is not optimal, that is, it is excessive (superabundant humor) or deficient (deficient humor) with respect to the condition of eucrasia (the classical theory allows only excess; deficiency is due to the prevalence of another humor with opposite qualities), or
- when its “quality” is different from the physiologically appropriate one (corrupt humor)¹⁴.

An excess of heat in the body can overheat and “cook” the humors, altering their characteristics. Phlegm thickens and becomes more viscous, giving rise to the so-called *thickened Phlegm*. If the excess heat is important or lasts for a long time, all humors can end up “burning” (in

¹³ In this sense, it is conceptually different from the *Phlegm* of Chinese medicine, which corresponds specifically to the *thickened Phlegm* of humoral medicine when it is located in the upper part of the organism.

¹⁴ Melancholia, for example, can be in excess with respect to the physiological condition of eucrasia (generating excessive structures) or in deficit (generating deficient constructions), but it can also be generated by the combustion of humors by heat (see below); in the latter case, it is always perverse (therefore it is perverse in quality rather than in quantity). In classical humoral medicine these three conditions are usually not so sharply distinguished from each other.

this case we call them *adust humors*). When burned, humors always produce Melancholia. Unani-Tibb medicine provides four types of perverse melancholia produced by the combustion of humors: *malankholia damvi*, produced by the combustion of Blood; *malankholia safravi*, produced by the combustion of Yellow Bile; *malankholia balghami*, produced by the combustion of Phlegm (generally due to fermentation) and *malankholia saudawi*, produced by the combustion of “correct” Melancholia.

Phlegm is cold in the first degree and damp in the second and is a mobile and flowing humor. When coldness becomes excessive, however, the Phlegm can thicken and become viscous (cold indeed makes viscous), producing once again *thickened Phlegm*.

Phlegm itself, when it accumulates and stagnates for any reason (for example due to a lack of heat or an excess of Tension, see below), generates, by “compression”, secondary heat that can condense the humor and make it viscous.

Furthermore, in nature stagnant dampness favors fermentation and putrefactive processes, especially when there is concomitant heat. Also in the human body an accumulation or stagnation of Phlegm may cause the onset of fermentation or putrefaction (phenomena that today’s medicine generically indicates as *infections*), which are certainly supported by the natural heat of the body and by any secondary heat generated by compression of the Phlegm. Moreover, the fermentation and putrefaction generate further secondary heat¹⁵. All these phenomena are characterized by the coexistence of perverse dampness and heat, even if, to be more precise, they should be described as due to the presence of pathological dampness associated with a certain degree of perverse heat (it is therefore more correct to think of them as due to “heated” humidity rather than moist heat). From a clinical point of view, the disorders characterized by this humoral picture include the phenomena known as *putrefaction*¹⁶ which are manifested by the emission or collection of purulent material, often even hardened (e.g., abscesses)¹⁷.

The conditions described so far (thickened phlegm, adust humors, putrefaction) are perverse not due to an incorrect quantity of the humors, but because of their “bad” quality.

Tension

In this text, for the exclusive purpose of simplifying any comparisons between different systems of medicine (for example, Chinese and humoral), we add the pseudo-humor *Tension*¹⁸, which is responsible for the “functionality” of the whole body or its parts (e.g., the organs). In this sense, it corresponds to the *Qi* of Chinese medicine but also to other concepts, such as that of the *Four Virtues* (attractive, retentive, alterative and expulsive) of organs according to Galen (see for example [Giannelli]) and it can also be related to the *vasoconstriction* and *vasorelaxation* conditions of Physiomedicalism and to Matthew Wood’s *Constriction* and *Relaxation* tissue states [Wood].

Tension, defined as a *pseudo*-humor because it is not contemplated by the classical humoral theory, can be thought of as formally derived from Fire to which a sort of “constraint”,

15 The fermentation and putrefaction processes are generally exothermic or generate a “hot” response from the human body..

16 Corresponding to the *toxic heat* of Chinese medicine. This condition also includes diseases characterized by macular or maculopapular eruptions (e.g., exanthematous diseases).

17 The conditions known as *Dampness/Heat* in Chinese medicine (which include, for example, problems often related to the urinary tract or gallbladder, some cases of jaundice, etc.) also fall within this picture.

18 Name borrowed from Matthew Wood’s tissue states model [Wood].

“limitation”, or “obstacle” has been applied. Like Fire, in fact, it is a form of “energy”, mobile in itself and activating; but whereas Fire tends to move only upwards and centrifugally, thus expanding indefinitely, the movement of Tension is more “structured” and so to speak “oriented” towards specific, defined forms and modalities. We can therefore see it as a kind of Fire to which a structuration (element of “terrestrial” nature) has been applied.

We can resort to an image taken from everyday life as an example. If we pour water on the fire, the latter goes out and the water disperses or evaporates. If we place a hard (i.e., cold and dry) element above the fire (for example, a terracotta or metal container) which prevents the water to directly “mix” with the fire, we are able to let the water heat up without dispersing, and to use it warm for specific purposes (for example, to cook food). By applying a cold and dry “obstacle” (the container) to the fire, we “functionalize” the heat that otherwise would disperse or make the water disperse or evaporate.

Tension can therefore be described, in a humoral sense, as derived from a sort of “functionalization” of Fire by a factor (a principle rather than a material cause) of a cold and dry nature. For this reason Tension is hot and dry, with a lower degree of heat than Fire (because of the cooling due to functionalization).

Even Tension can be correct or perverse and, in the latter case, it can be perverse both in quantity (excess or deficit of Tension) and in quality (think for example of the *Qi ni*, or *counterflow Qi*, of Chinese medicine). Given the correspondence, described above, of Tension with Qi, the various manifestations of perverse Tension will typically have a more or less specific correspondence in Chinese medicine (for example, “Tension deficiency” corresponds to “Qi deficiency”). In general, Tension imbalances correspond to Qi imbalances and/or to “Wind” (intended as a pathogenic manifestation).

An imbalance in Tension can also affect other humors, potentially making them perverse. For example, an excess or a stasis (stagnation) of Tension can prevent the body fluids from being moved correctly, generating stagnation of Phlegm and/or Blood; Tension stagnation can generate “compression” which in turn can produce heat (Chinese medicine speaks, for example, of “implosion of stagnant Qi” which generates Fire, understood here not as the element but as a specific manifestation of heat).

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