

TURMERIC Essential Oil *Curcuma longa*

Uses	Properties
Nervous system	Anti-convulsant
Immune system	Anti-inflammatory
Relaxant	Anti-microbial
Body balancer	Anti-malarial
Arthritis (rheumatoid & osteoarthritis)	Antioxidant
Cognitive decline	Anti-protozoal
Cancer	Anti-tumour
Seizures	Anti-ageing
Depression	
Anxiety	

Turmeric Essential Oil Plant Origin and Chemical Composition

Turmeric. Many of us use it in cooking as a condiment but what is it?

Turmeric (*Curcuma longa*) is a perennial herbaceous plant of the ginger family (*Zingiberaceae*). The turmeric plant grows to a height of about three feet and has yellow flowers. The root is bright orange with a thin brownish skin. Turmeric is native to southern India and Indonesia, but today is cultivated on the mainland and in the islands of the Indian Ocean.

Turmeric essential oil is derived from the plant's tuberous rhizomes, or underground roots. The essential oil is typically obtained from the turmeric root through CO₂ extraction or steam distillation. The turmeric essential oil we use in zoopharmacognosy is obtained from the rhizome using steam distillation. It is rich in antioxidants and has potent anti-inflammatory properties. It also has anti-allergic, anti-bacterial, anti-microbial, anti-fungal qualities.

Turmeric essential oil is yellow in colour and has an interesting scent that can be described as sweet and woody with notes of spice.

The most abundant components of turmeric essential oil are aromatic turmerone (25.3 percent), α -turmerone (18.3 percent) and curlone (12.5 percent). Other constituents include caryophyllene (2.26 percent), eucalyptol (1.60 percent) and α -phellandrene (0.42 percent). (17) These components of turmeric essential oil make it extremely potent when it comes to naturally fighting a wide range of health issues.

Turmeric Essential Oil History and Interesting Facts

The use of turmeric dates back nearly 4,000 years to the Vedic culture in India, where it is still used in cooking as well as in religious ceremonies. It is also valued for beauty and skin care routines. Turmeric gradually spread reaching China around 700 A.D., East Africa by 800 A.D., West Africa by 1,200 A.D. and Jamaica in the 18th century.

In 1280, Marco Polo described turmeric and was impressed that it exhibited qualities very similar to that of saffron, a plant he was familiar with. The plant was called Indian saffron during the Middle Ages because of its orange-yellow colour.

According to Sanskrit medical treatises and Ayurvedic and Unani systems, turmeric has a long history of medicinal use in South Asia. Used topically, turmeric essential oil is traditionally used as an antiseptic and in natural skin care to discourage acne and facial hair in women. You can also mix a

carrier oil like coconut oil with a drop or two of turmeric oil for hair and scalp problems like dryness and dandruff.

Today, turmeric is widely cultivated in the tropics and goes by many different names in various cultures and countries. The name turmeric derives from the Latin word *terra merita* (“meritorious earth”), referring to the colour of ground turmeric, which resembles a mineral pigment¹.

Turmeric oil is considered to be a strong relaxant and balancer to the body.

A 2013 study conducted by the Division of Food Science and Biotechnology, Graduate School of Agriculture at Kyoto University in Japan showed that the aromatic turmerone (ar-turmerone) in turmeric essential oil as well as curcumin², the main active ingredient in turmeric, both displayed the ability to help fight colon cancer in animal models. The combination of curcumin and turmerone administered orally at both low and high doses actually abolished tumour formation.

Study results published in *BioFactors* led researchers to the conclusion that turmerone is “a novel candidate for colon cancer prevention.” Additionally, they think that using turmerone in combination with curcumin may become a potent means of natural prevention of inflammation-associated colon cancer³.

2. Neurologic Diseases

Studies have also shown that turmerone, a major bioactive compound of turmeric oil, inhibits microglia activation. Microglia are a type of cell located throughout the brain and spinal cord. Activation of microglia is a tell-tale sign of brain disease so the fact that turmeric essential oil contains a compound that stops this harmful cell activation is hugely helpful for the prevention and treatment of brain disease⁴.

Another study using animal subjects showed both *in vitro* and *in vivo* aromatic turmerone causes neural stem cells to rapidly increase in number. Turmeric essential oil's aromatic turmerone is believed to be a promising natural way to support the regeneration necessary to improve neurologic diseases like Parkinson's disease, Alzheimer's, spinal cord injury and stroke⁵. This means that turmeric may be a potent ally for animals suffering from cognitive decline and impairment of movement due to neurological trauma.

Epilepsy & Seizures

The anticonvulsant properties of turmeric oil and its sesquiterpenoids (ar-turmerone, α -, β -turmerone and α -atlantone) have previously been shown in both zebrafish and mouse models of chemically-induced seizures. More recent research in 2013 has shown that aromatic turmerone has anticonvulsant properties in acute seizure models in mice.

Arthritis

Traditionally, turmeric has been used in Chinese and Indian Ayurvedic medicine to treat arthritis since turmeric's active components are known to block inflammatory cytokines and enzymes. For this reason it is considered to be one of the best essential oils for arthritis. Studies have shown turmeric's

¹ <https://www.ncbi.nlm.nih.gov/books/NBK92752/>

² <https://lpi.oregonstate.edu/mic/dietary-factors/phytochemicals/curcumin>

³ <https://pubmed.ncbi.nlm.nih.gov/23233214/>

⁴ <https://pubmed.ncbi.nlm.nih.gov/25928248/>

⁵ <https://www.greenmedinfo.com/article/aromatic-turmerone-constitutes-promising-candidate-support-regeneration-neuro>

ability to help reduce pain, inflammation and stiffness related to rheumatoid arthritis and osteoarthritis⁶.

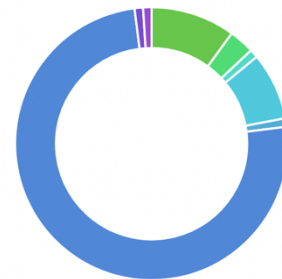
Anxiety & Depression

Turmeric essential oil is traditionally considered to be a strong relaxant and balancer, and studies have shown it can help fight against two extremely common mood disorders, depression and anxiety. As an effective essential oil for anxiety and both mild and severe depression, turmeric essential oil may be a valuable oil to offer to animals suffering from anxiety which, unfortunately, is all too common these days and also animals living in shelters who are suffering from depression⁷.

Biochemical Profile

Turmeric Organic

Linear monoterpene	10 %	Ketone sesquiterpene	75 %
Alcohol monoterpene	3 %	Phenols	1 %
Aldehyde monoterpene	1 %	Esters	1 %
Linear sesquiterpene	8 %		
Alcohol sesquiterpene	1 %		



⁶ <https://pubmed.ncbi.nlm.nih.gov/22740037/>

⁷ <https://pubmed.ncbi.nlm.nih.gov/25046624/>

<https://www.prnewswire.com/news-releases/bcm-95-targets-anxiety-and-depression-positive-results-for-natural-dosing-of-curcumin-for-depression-602417745.html>

<https://www.sciencedirect.com/science/article/abs/pii/S0165032716310217>