

Medical Marigold: Ayurvedic Treasure

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A. Introduction:

Marigold, scientifically known as *Tagetes*, holds a significant place in the history of horticulture and cultural traditions across the world.

Its name is believed to be derived from the old English word "marien gold," which means "Mary's gold," indicating its association with the Virgin Mary and its common use in religious ceremonies.



Fig. 1: Marigold

Table 1: Species/Varieties of Marigold

African Marigold (<i>Tagetes erecta</i>):	French Marigold (<i>Tagetes patula</i>):	Signet Marigold (<i>Tagetes tenuifolia</i>)	Mexican Marigold (<i>Tagetes lucida</i>):	Pot Marigold (<i>Calendula officinalis</i>):
Known for its tall, erect stems and large, showy flowers. African marigolds come in various colors, including orange, yellow, and gold. Example: Pusa Narangi Gainda, Pusa Basanti Gainda, Crackers Jack, Crown of Gold.	Compact plants with smaller, delicate flowers. They are available in a wide range of colors and are often used as border plants. Example: Arka Honey, Arka Pari, Pusa Arpita, Red Brocade, Rusty Red, Spun Gold.	These marigolds have finely divided, lacy leaves and small, single flowers. They are edible and are sometimes used in salads.	Unlike other marigold species, Mexican marigold is primarily grown for its culinary and medicinal uses. It has a strong, anise-like flavour and is used in Mexican cuisine.	Although not a true marigold, it is often called "pot marigold." It is known for its bright orange or yellow flowers and is valued for its medicinal properties

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The robust annual plant known as marigold, which is native to Southern Europe, also grows in most temperate parts of the world. They can reach a height of 50 to 80 cm, and their lance-shaped, mid-green leaves range in size from 5 to 17 cm. Small hairs cover the leaves and stems, and the leaf edges might be serrated or waved sparsely.

B. Species/Varieties of Marigold: Marigolds belong to the *Tagetes* genus and are divided into several species, with various varieties known for their unique characteristics. Some common varieties include:



Signet Marigold



Mexican Marigold



African Marigold



French Marigold



Pot Marigold

C. Tips for Growing Marigolds at Home:

1. **Sunlight:** Marigolds thrive in full sun. Plant them in a location that receives at

- least 6-8 hours of direct sunlight per day.
- Soil:** Marigolds are not picky about soil and can grow in various soil types. However, well-draining soil with good organic content is ideal.
 - Watering:** Keep the soil consistently moist but not waterlogged. Water at the base of the plant to prevent fungal issues and avoid overhead watering.
 - Spacing:** Plant marigold seeds or seedlings at the recommended spacing for the specific variety you're growing. Adequate spacing allows for good air circulation and prevents overcrowding.
 - Deadheading:** Regularly remove faded flowers (deadhead) to encourage continuous blooming. This also helps the plant redirect its energy into producing new flowers.
 - Fertilization:** Marigolds typically don't require heavy fertilization. A balanced, all-purpose fertilizer applied once a month during the growing season is usually sufficient.
 - Pest Control:** Marigolds are known to repel some garden pests, but they can still be susceptible to aphids and spider mites. Monitor your plants for signs of infestations and address them promptly with organic pest control methods if needed.
 - Disease Prevention:** Good air circulation, proper spacing, and avoiding overhead watering can help prevent fungal diseases.
 - Harvesting Seeds:** If you want to save marigold seeds for the next season, allow the flowers to fully mature and dry on the plant. Collect the dried seed heads, remove the seeds, and store them in a cool, dry place.

D. Medicinal Properties of Marigold

The flower is helpful for liver problems, scabies, astringent, carminative, stomachic, fevers, and epileptic fits (according to Ayurveda). used in ocular illnesses (Ampai et al.,2013)

The best cosmetic remedy for minor skin issues like sunburn or subdermal broken capillaries is marigold (Rahman et al. 2016). In India, marigold flowers are frequently used as loose flowers, and their flower petals are also used in the production of xanthophyll, a major carotenoid component that makes up 80–90% of the overall xanthophyll content (Singh et al. 2019). French marigolds' bicolor pattern, commonly known as the French sort, is suitable for mass planting. These can also be grown in pots and window boxes. Over 50 years ago, nematode-fighting abilities of marigolds were discovered. In addition to being insecticidal, Tagetes has been demonstrated to have fungicidal activity

against *Helminthosporium oryzae*, according to Nahak et al. (2016), Tagetes oil is reported to suppress gram-positive bacteria and fungus.

its antimicrobial effects may assist in preventing infections.

3. Eye Health: Marigold extract, when used as

Table 1: Medicinal Properties of Marigold

1. Anti-inflammatory properties	2. Antioxidant effects.	3. Antimicrobial benefits	4. Mosquitocidal activity
<ul style="list-style-type: none"> •Marigold contains compounds like flavonoids and carotenoids, including lutein and zeaxanthin, which have anti-inflammatory properties. •Marigold ointment can soothe skin inflammation 	<ul style="list-style-type: none"> •Marigold is rich in antioxidants such as carotenoids and vitamin C. Marigold tea is rich in antioxidants. •Antioxidants help neutralize harmful free radicals in the body, protecting cells from oxidative damage. •Regular consumption of marigold may reduce the risk of chronic diseases associated with oxidative stress, such as heart disease and cancer. 	<ul style="list-style-type: none"> •Marigold possesses natural antimicrobial and antifungal properties. •The plant produces antimicrobial compounds that can inhibit the growth of certain bacteria and fungi. •Marigold extracts and preparations are sometimes used topically to treat minor skin infections and wounds. Marigold poultices can treat infected wounds. 	<ul style="list-style-type: none"> •Researchers have looked at the mosquitocidal effects of Tagetes erecta flower ethanolic extract and its chloroform and petroleum ether soluble fractions against Culex quinquefasciatus larvae. •The larvicidal impact of ethanol extract and their solvent fractions was assessed against various C. Quinquefasciatus instars using the usual WHO approach (Nikkon et al., 2011).

E. Here are some common Ayurvedic uses of Marigold: Marigold can be used as an eye wash or applied topically around the eyes, is believed to have a cooling and soothing effect. It is used to reduce eye fatigue and redness, especially after prolonged screen time or exposure to harsh environmental conditions.

1. Wound Healing: Marigold has antimicrobial and anti-inflammatory properties that make it useful for treating wounds, cuts, and minor skin injuries. Ayurvedic practitioners often use marigold-based ointments or poultices to promote faster healing and reduce the risk of infection.

2. Skin Disorders: Marigold can be beneficial for various skin conditions, such as acne, dermatitis, and eczema. Its anti-inflammatory properties can help soothe skin irritations, and

4. Digestive Health: In Ayurveda, marigold flowers are sometimes used as a mild digestive aid. Consuming marigold tea or incorporating marigold petals into meals is believed to support digestion and alleviate digestive discomfort.

5. Menstrual Disorders: Some Ayurvedic remedies include marigold for managing menstrual irregularities and discomfort. It is believed to have properties that can help regulate menstrual cycles and reduce cramps.

6. Anti-Inflammatory Poultices: Marigold poultices are used for their anti-inflammatory properties. They are applied topically to inflamed joints or muscles to alleviate pain and swelling.

8. Calming Effects: Marigold is considered a calming herb in Ayurveda. It is sometimes used to reduce stress, anxiety, and restlessness. Marigold tea or the fragrance of marigold flowers is believed to have a calming effect on the mind.

In Ayurveda, marigold (*Tagetes erecta*) is recognized for its medicinal properties and is used in various formulations to address specific health concerns. Here are some Ayurvedic recipes and tips for incorporating marigold into your daily life:

(I). Recipes for Ayurvedic formulations

(II). Tips for incorporating marigold in daily life.

(I). Recipes for Ayurvedic formulations

1. Marigold Skin Soothing Paste:

- Ingredients: Fresh marigold flowers, aloe vera gel.
- Instructions: Crush fresh marigold flowers to make a paste and mix it with aloe vera gel. Apply this paste

to irritated or sunburned skin for a cooling and soothing effect.

2. Marigold Eye Wash:

- Ingredients: Marigold petals, distilled water.
- Instructions: Steep marigold petals in distilled water overnight. Strain the liquid and use it as an eye wash to refresh tired or irritated eyes.

3. Marigold Digestive Tea:

- Ingredients: Dried marigold petals, hot water, honey (optional).
- Instructions: Steep dried marigold petals in hot water for 5-10 minutes. Add honey if desired. Drink this tea after meals to support digestion and relieve digestive discomfort.

4. Marigold Hair Oil:

- Ingredients: Marigold-infused coconut oil, essential oils (e.g., lavender or rosemary).
- Instructions: Mix a few drops of essential oil with marigold-infused coconut oil and massage it into your scalp. Leave it on for at least an hour before washing for stronger and healthier hair.

(II). Tips for Incorporating Marigold into Daily Life:

1. **Marigold Infused Oil:** Prepare marigold-infused oil by placing dried

marigold petals in a carrier oil like coconut or sesame oil. Use this oil for daily self-massage (abhyanga) to promote relaxation and nourish the skin.

2. **Marigold Flower Garlands:** In Indian traditions, marigold flower garlands are commonly used for decorations during festivals and ceremonies. You can create your own marigold garlands to add colour and fragrance to your living space.
3. **Marigold in Cooking:** While not as common as other culinary herbs, marigold petals can be added to salads and garnishes for a touch of colour and flavour. Ensure that you use marigold varieties specifically meant for culinary use.
4. **Marigold in Skincare:** Look for skincare products that contain marigold extract or oil. These products can help soothe and nourish the skin.
5. **Marigold Aromatherapy:** Use marigold essential oil or marigold-scented candles for aromatherapy to create a calming and stress-relieving atmosphere at home.
6. **Marigold Teas:** Enjoy marigold tea regularly as a gentle way to incorporate its potential health benefits into your daily routine.

7. **Marigold in Herbal Formulations:**

Explore Ayurvedic herbal formulations that contain marigold as one of the ingredients, often designed to address specific health issues. Consult an Ayurvedic practitioner for guidance on choosing the right formulation for your needs.

F. Marigold in Home Remedies

1. **Marigold Infused Oil:** To make marigold-infused oil, place dried marigold petals in a clean, dry jar and cover them with a carrier oil like coconut or olive oil. Seal the jar and place it in a sunny spot for about 2-4 weeks, shaking it gently every day. Strain the oil and use it topically for massages or as a soothing balm for skin irritations.
2. **Marigold Poultice:** Create a marigold poultice by crushing fresh marigold flowers and mixing them with a small amount of warm water to form a paste. Apply this paste to minor cuts, bruises, or insect bites to promote healing and reduce inflammation.
3. **Marigold Tea:** Make marigold tea by steeping dried marigold petals in hot water. This tea can be consumed to aid digestion, alleviate menstrual discomfort, or simply as a calming beverage.

4. **Marigold Face Mask:** Mix marigold petal paste with honey and yogurt to create a nourishing face mask. Apply it to your face, leave it on for 15-20 minutes, and then rinse with warm water. This can help improve skin tone and reduce acne.
5. **Marigold Hair Rinse:** Infuse marigold petals in hot water, strain the liquid, and use it as a hair rinse after shampooing. It may help strengthen hair and add shine.

I. Safety Precautions:

1. **Allergy Test:** Before using marigold-based remedies on your skin, perform a patch test. Apply a small amount to a small area of your skin and wait for 24-48 hours to check for any adverse reactions, such as redness, itching, or irritation.
2. **Avoid Ingestion:** While marigold tea is generally safe when consumed in moderation, avoid ingesting large quantities of marigold or any plant material without proper guidance. Excessive consumption may cause stomach discomfort.
3. **Use Organic Sources:** If possible, source organic marigold petals to avoid exposure to pesticides or other chemical residues.

4. Pregnancy and Breastfeeding:

Pregnant or breastfeeding individuals should consult a healthcare professional before using marigold remedies, both internally and externally, to ensure safety for themselves and their baby.

5. **Medication Interactions:** If you are taking medications or have underlying health conditions, consult with a healthcare provider before using marigold-based remedies, as they may interact with certain drugs or exacerbate certain conditions.

6. **Dilution:** When applying marigold-infused oil or paste topically, make sure to dilute it appropriately with a carrier oil or water to prevent skin irritation.

7. **Storage:** Store marigold-based products in a cool, dry place away from direct sunlight to maintain their potency.

J. Culinary Uses of Marigold

1. **Salads:** Marigold petals, with their bright colors and mild, slightly peppery flavour, can be added to salads to enhance their appearance and taste. They make salads more visually appealing and add a subtle tangy note.
2. **Herbal Teas:** Dried marigold petals can be used to make herbal teas. These teas are believed to have soothing

properties and may help with digestive issues and stress relief.

3. **Flavouring:** Marigold petals can be used as a garnish or flavouring agent in various dishes, including soups, stews, rice, and pasta dishes. They can impart a delicate, floral flavour to the food.
4. **Baking:** Marigold petals can be incorporated into baking recipes such as bread, muffins, and cakes. They add colour and a unique flavour to baked goods.
5. **Condiments:** Marigold petals can be infused in vinegar or oil to create flavoured condiments that can be used in dressings or marinades.

Conclusion

A significant source of chemicals with potential therapeutic significance may be found in the genus *Tagetes*. The majority of the *Tagetes* species, including *Tagetes tenuifolia* and *Tagetes patula*, are still unknown to physiochemists, researchers and pharmacologists. In several regions of the world, decorative plants are utilised in traditional medicine. In order to completely screen this genus for its phytoconstituents and biological activity, additional care must be taken.

Reference

1. Ampai P, Kiattisin K, Pensak J, Chansakaow S, Vejabhikul S,

Leelapornpisid P (2013). Appraisal of biological activities and identification of phenolic compound of African marigold flower extract. *Pakistan Journal of Pharmaceutical Science*, 26, 1071-1076

2. Nikkon F, Habib RH, Saud ZA, Rezaul KM (2011). *Tagetes erecta* Linn. and its Mosquitocidal potency against *Culex quinquefasciatus*. *Asian Pacific Journal of Tropical Biomedicine*, 1, 186-188.

3. P T Srinivas and TRajasekharam. Marigold Genotypes Characterization Using Morphological Characters. *Int. Arch. App. Sci. Technol*; Vol 11 [2] June 2020: 78-84

4. Sai Y, Banafar KNS, Sahu T and Chandravanshi V (2018) Economic analysis of marigold in Surajpur distric of Chhattisgarh. *Journal of Pharmacognosy and Phytochemistry* 2018; 7(2)

5. Singh Y, Gupta A, Kannoja P (2020). *Tagetes erecta* (Marigold) - A review on its phytochemical and medicinal properties. *Current Medical and Drug Research*, 4 (1), Article ID 201

6. Vallisuta O, Nukoolkarn V, Mitrevej A, Sarisuta N, Pimporn L, Phrutivorapongkul P, Sinchaipanid N (2014). In vitro studies on the cytotoxicity, and elastase and tyrosinase inhibitory activities of marigold (*Tagetes erecta* L.) flower extracts. *Experimental and Therapeutic Medicine*, 7, 246-250.