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## PATIENT & CAREGIVER EDUCATION

# Tea Tree Oil

This information describes the common uses of Tea Tree Oil, how it works, and its possible side effects.

Tell your healthcare providers about any dietary supplements you're taking, such as herbs, vitamins, minerals, and natural or home remedies. This will help them manage your care and keep you safe.

## What is it?

Topical tea tree oil may be effective in treating certain skin conditions, but research is limited.

Tea tree oil is the essential oil distilled from *Melaleuca alternifolia*, a plant native to Australia. It has been used in traditional medicine for its antiseptic and anti-inflammatory properties to treat various skin conditions and infections. It is also a popular ingredient in skin and hair products. In lab studies, tea tree oil killed several bacteria and fungi most commonly found in skin infections and acne.

Studies on the use of tea tree oil in humans are limited. In healthy volunteers, a topical tea tree oil extract reduced inflammation caused by histamine exposure. It has also shown some benefit in individuals with athlete's foot, acne, cold sores, and warts, but more studies are needed.

# What are the potential uses and benefits?

- **To treat skin conditions**

In a small older study, tea tree oil was as effective as benzoyl peroxide for acne, but additional study is needed.

- **To treat infections**

Studies on whether tea tree oil is effective in treating fungal infections are mixed. A small study suggests it may be helpful for cold sores, but further study is necessary.

- **To reduce inflammation**

Small studies suggest tea tree oil may reduce inflammation related to histamine exposure, or from insect bites or stings.

- **To treat mucositis (painful mouth sores, swelling)**

There are no clinical data to prove this claim. Intake of tea tree oil by mouth can cause severe toxicity.

# What are the side effects?

## Case reports

- **Topical:** Local skin irritation, itching, redness, and swelling; breast tissue enlargement in boys with application of lavender and tea tree oils.
- **Oral:** Disorientation, systemic body rash, abnormal white blood cell counts, and coma.

# What else do I need to know?

## Patient Warnings:

- Tea tree oil should not be taken orally, as severe side effects have occurred.

## Do Not Take if:

- You have **sensitive skin:** There have been a number of case reports of skin rash and other reactions with the use of tea tree oil.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit [www.mskcc.org/pe](http://www.mskcc.org/pe) to search our virtual library.

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