
COMMENTARY

Can Lavender and Tea Tree Oils Hurt Kids?

Hansa Bhargava, MD | December 16, 2016

I'm Dr Hansa Bhargava, a practicing pediatrician and medical editor for Medscape

Tea tree and lavender essential oils are two popular ingredients in many personal care products, including ones marketed to children. Tea tree oil has become a common addition to kids' hair and body products. Lavender oil is often added to calming sprays and aromatherapy products.

Both are touted as safer and more natural alternatives to chemical ingredients. But are they really safer? It is difficult to know for sure, because the US Food and Drug Administration (FDA) doesn't oversee essential oils that are not used in a drug.

Over the past few years, the safety of these oils has been called into question after a few small studies suggested that frequent use might cause gynecomastia in boys as young as 4 or 5 years old. The research at this point is limited, but here's the evidence we have to date.

In 2007, Colorado pediatrician Clifford Bloch, MD, reported on three otherwise healthy boys (age 4, 7, and 10 years) with gynecomastia.^[1] All of the children had normal thyroid and sex hormone levels. The one common denominator was the use of personal care products that contained lavender or tea tree oil. In all three boys, the gynecomastia resolved within a few months of discontinuation.

As a result of this case report, the National Institute of Environmental Health Sciences (NIEHS) examined the effects of these oils on human cells and reported that they mimic the effects of estrogen while dampening the effects of androgens.^[2] In other words, they found evidence that these oils act as endocrine disruptors.

A couple of additional very small studies have found a similar link between lavender and tea tree oils and breast growth. Yet, other research has contradicted these findings. In 2013, the Research Institute for Fragrance Materials conducted its own study of lavender oil on female rats.^[3] They found no evidence that the oil exerted estrogen-like activity.

As of now, there is no definitive proof that lavender or tea tree oil stimulates breast growth in prepubertal boys and girls, although studies suggest a possible link. Although only a handful of cases have been published, in my experience, endocrinologists are reporting seeing this in practice.

In 2007, the NIEHS issued a warning about the potential for lavender and tea tree oils to act as endocrine disruptors.^[2] Yet, researchers also cautioned against drawing any firm conclusions until more studies have been completed. That warning still remains in effect, although more research is needed.

In the office, it's important to ask parents about the use of these oils when you see a young patient with enlarged breasts—and most important, to stop the use of those products to see whether it makes a difference.

For Medscape, I'm Dr Hansa Bhargava.

References

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