

Head Lice treatment alternative that won't leave you scratching your head

Tea Tree Oil: A Natural, Non-Toxic head lice solution

What are head lice?

Head Lice (*Pediculus humanus capitis*) are wingless insects two to four millimeters in size that live on the scalp and feed on blood. They spread through head-to-head contact or contact with clothing, bedding or furniture where they have fallen. The symptoms of lice infestation include excessive head scratching, scalp inflammation, black fecal specks on the back and shoulders, and a rash on the scalp.

A natural treatment

Many commercial preparations are available for the treatment of head lice. However, these can contain synthetics and pesticides, and as such an increasing number of parents prefer to use natural, non-toxic alternatives such as essential oils¹. Tea Tree Oil effectively eliminates head lice when applied in an alcoholic solution to the scalp. It has a complex chemical composition that makes it difficult for organisms to develop a resistance to it². The main components of tea tree oil work as an insecticide for treating head lice³.

Application: Tea Tree Oil Spray for helmets

Tea Tree oil can be applied as a spray to the inside of bike helmets as an innovative way to prevent and treat head lice. This spray needs to have a 10% solution of tea tree oil diluted in water. An example would be 90ml of water and 10ml of tea tree oil. Ideally a 5% emulsifier (e.g. polysorbate or lecithin) is needed to enable water and oil to mix. A cheap and cost effective alternative to conventional emulsifier is detergent.

1. Blend the oil and emulsifier or a little detergent (approx. 1 drop)
2. Slowly add the water
3. Shake to emulsify
4. Spray and apply to helmets

Application: Tea Tree Shampoo

Tea Tree Oil can be added to shampoo to prevent and treat head lice⁴. The simple five step process includes:

1. Squeeze a quarter-size amount of shampoo onto your hand, and add three drops of tea tree oil
2. Apply to a child's hair whilst washing it
3. Rinse shampoo out and place some tea tree oil around the child's scalp line
4. Carefully comb through the child's head whilst wet to examine for lice
5. If found, remove them. Repeat process

Application: Washing with Tea Tree Oil

In order to prevent re-infestation, wash the infected child's clothes, bedding and stuffed animals with soap, hot water and tea tree oil. Add six to eight drops of tea tree oil into a standard size laundry load.⁵



¹ Olsen C, 2013, 'Tea Tree Oil vs. Head Lice', *Alive*, <http://www.alive.com/articles/view/16753/tea_tree_oil_vs._head_lice>, accessed 12/03/13

² Combest W.L, 'Tea Tree', *U.S. Pharmacist*, Volume 24, Issue 4, <http://legacy.uspharmacist.com/oldformat.asp?url=newlook/files/Alte/tea.cfm&pub_id=8&article_id=355>, accessed 20/03/13

³ Mills C, Cleary B.J., Gilmer J.F., Walsh J.J., 2004, 'Inhibition of acetyl cholinesterase by Tea Tree Oil', *J Pharm Pharmacol*, Volume 56, Issue 3, pp 375-9 <<http://www.ncbi.nlm.nih.gov/pubmed/15025863?dopt=Abstract>>, accessed 21/03/13.

⁴ Joy T, 2010, 'How to prevent lice with Tea Tree Oil', *Livestrong*, <<http://www.livestrong.com/article/110931-prevent-lice-tea-tree-oil/>>, accessed 22/03/13

⁵ Bartkowski, A, 2010, 'Tea Tree Oil for treating head lice', *Livestrong*, <<http://www.livestrong.com/article/113994-tea-tree-oil-treating-head/>>, accessed 24/03/13