

Medsafe Alert: Essential oils associated with seizures

Essential oils, obtained from plants, are widely used in aromatherapy and are included in some medicines. Healthcare professionals are reminded that these substances, when administered orally or topically, can rarely cause seizures in young children and in those patients with epilepsy.¹

The essential oils generally associated with seizures include:¹

Essential Oil	Species
Eucalyptus	<i>Eucalyptus globulus</i>
Fennel	<i>Foeniculum vulgare</i>
Hyssop	<i>Hyssopus officinalis</i>
Pennyroyal	<i>Mentha pulegium</i> or <i>Hedeoma pulegioides</i>
Rosemary	<i>Rosemarinus officinalis</i>
Sage	<i>Salvia officinalis</i>
Savin	<i>Juiperus Sabina</i>
Tansy	<i>Tanacetum vulgare</i>
Thuja	<i>Thuya occidentalis</i>
Turpentine	<i>Pinus</i> species
Wormwood	<i>Artemisia absinthium</i>

Active substances contained within camphor, thujone and cineole have also been associated with seizures. In addition to the substances listed above, there is also a report in the literature of clove oil causing fits, coma, coagulopathy and acute liver damage after unintentional exposure in a two-year-old.²

Healthcare professionals are reminded that many over-the-counter products contain essential oils. For example there have been reports of seizures in children who have unintentionally consumed products such as Vicks vapour rub.³

Importantly, seizures have been reported when products have been taken orally or following topical use. An adverse reaction report received recently in New Zealand describes vomiting, lethargy and ataxia followed by a grand mal seizure in a 4-year-old girl who was treated with an over-the-counter head lice treatment containing eucalyptus oil.⁴

The potential of exposure to a product containing an essential oil should be considered in any case of a first seizure of unexplained origin. In addition, patients with epilepsy should be warned of the risk of seizure following exposure to these substances.

While the risk of seizure appears to be very low, it is likely that adverse reactions to complementary and over-the-counter medicines are rarely reported. Lack of reporting may be due to public and healthcare professional perception that these products are safe, and/or a lack of knowledge by consumers about where to report problems.

Any suspected adverse reaction to complementary medicines and over-the-counter medicines should be reported to CARM.

References

1. Burkhard PR, Burkhardt K, Haenggeli C-A et al 1999 'Plant induced seizures: reappearance of an old problem' *J Neurol* **246**: 667-670.
2. Hartnoll G, Moore D, Douek D 1993 'Near fatal ingestion of oil of cloves' *Arch Dis Childhood* **69**: 392-393.
3. Flaman Z, Pellechia-Clarke S, Bailey B et al 2001 'Unintentional exposure of young children to camphor and eucalyptus oils' *Paediatr Child Health* **6**: 80-83.
4. Waldman N 2011 'Seizure caused by dermal application of over-the-counter eucalyptus oil head lice preparation' *Clin Toxicol* **49**: 750-1.

Source: Medsafe