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In-vitro activity of essential oils, in particular *Melaleuca alternifolia* (tea tree) oil and tea tree oil products, against *Candida* spp.

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The in-vitro activity of a range of essential oils, including tea tree oil, against the yeast candida was examined. Of the 24 essential oils tested by the agar dilution method against *Candida albicans* ATCC 10231, three did not inhibit *C. albicans* at the highest concentration tested, which was 2.0% (v/v) oil. Sandalwood oil had the lowest MIC, inhibiting *C. albicans* at 0.06%. *Melaleuca alternifolia* (tea tree) oil was investigated for activity against 81 *C. albicans* isolates and 33 non-*albicans* *Candida* isolates. By the broth microdilution method, the minimum concentration of oil inhibiting 90% of isolates for both *C. albicans* and non-*albicans* *Candida* species was 0.25% (v/v). The minimum concentration of oil killing 90% of isolates was 0.25% for *C. albicans* and 0.5% for non-*albicans* *Candida* species. Fifty-seven *Candida* isolates were tested for sensitivity to tea tree oil by the agar dilution method; the minimum concentration of oil inhibiting 90% of isolates was 0.5%. Tests on three intra-vaginal tea tree oil products showed these products to have MICs and minimum fungicidal concentrations comparable to those of non-formulated tea tree oil, indicating that the tea tree oil contained in these products has retained its anticandidal activity. These data indicate that some essential oils are active against *Candida* spp., suggesting that they may be useful in the topical treatment of superficial candida infections.

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