

# Beneficial tea tree oil given all-clear

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After two recent reports suggesting that exposing bacteria to tea tree oil may contribute to antibiotic resistance in humans, an international study - led by researchers at The University of Western Australia - has found no evidence that this is the case.

UWA's Dr Christine Carson and her colleagues from UWA, PathWest and a university in The Netherlands exposed golden staph ([Staphylococcus aureus](#)) and other bacteria to [tea tree oil](#). They found there was no difference in resistance to antibiotics compared to bacteria not exposed.

Their study was published in the *International Journal of Antimicrobial Agents* this week.

"The need for new antimicrobial agents is particularly pressing owing to the continued occurrence and spread of resistance to existing agents," the authors write.

"Agents from different chemical classes that have diverse mechanisms of action would be most welcome. One possibility is tea tree oil."

"It has broad-spectrum in vitro activity against bacteria, including antimicrobial-resistant and multiresistant organisms, and its use for the decolonisation of methicillin-resistant golden staph has attracted particular attention."

Dr Carson and her group argue the weight of evidence now shows that tea tree oil does not contribute to [antibiotic resistance](#). "It is low-level exposure to tea tree oil that is alleged to promote resistance to it and other antimicrobial agents. But we found that tea tree oil does not in fact induce resistance."

Researchers at UWA have been studying the [antimicrobial properties](#) of tea tree oil since the early 1990s and its anti-cancer effects since 2007.

Tea tree oil is a natural, renewable resource from *Melaleuca alternifolia*, a tree native to [New South Wales](#). Its earliest reported use was by the Bundjalung Indigenous people of northern NSW who treated their coughs, colds and wounds with crushed leaves.

Provided by University of Western Australia

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