

# Bacterial cause found for skin condition rosacea

August 29 2012

---

Scientists are closer to establishing a definitive bacterial cause for the skin condition rosacea. This will allow more targeted, effective treatments to be developed for sufferers, according to a review published in the *Journal of Medical Microbiology*.

Rosacea is a common dermatological condition that causes reddening and [inflammation of the skin](#) mostly around the cheeks, nose and chin. In severe cases [skin lesions](#) may form and lead to disfigurement. Rosacea affects around 3% of the population – usually fair-skinned females aged 30-50 and particularly those with weak immune systems. The condition is treated with a variety of antibiotics, even though there has never been a well-established bacterial cause.

A new review carried out by the National University of Ireland concludes that rosacea may be triggered by bacteria that live within tiny mites that reside in the skin.

The mite species *Demodex folliculorum* is worm-like in shape and usually lives harmlessly inside the pilosebaceous unit which surrounds hair follicles of the face. They are normal inhabitants of the face and increase in number with age and [skin damage](#) – for example, following exposure to sunlight. The numbers of *Demodex* mites living in the skin of rosacea patients is higher than in normal individuals, which has previously suggested a possible role for the mites in initiating the condition.

More recently, the bacterium *Bacillus oleronius* was isolated from inside a *Demodex* mite and was found to produce molecules provoking an [immune reaction](#) in rosacea patients. Other studies have shown patients with varying types of rosacea react to the molecules produced by this bacterium – exposing it as a likely trigger for the condition. What's more, this bacterium is sensitive to the antibiotics used to treat rosacea.

Dr Kevin Kavanagh who conducted the review explained, "The bacteria live in the digestive tracts of *Demodex* mites found on the face, in a mutually [beneficial relationship](#). When the mites die, the bacteria are released and leak into surrounding skin tissues - triggering tissue degradation and inflammation."

"Once the numbers of mites increase, so does the number of bacteria, making rosacea more likely to occur. Targeting these bacteria may be a useful way of treating and preventing this condition," said Dr Kavanagh. "Alternatively we could look at controlling the population of *Demodex* mites in the face. Some pharmaceutical companies are already developing therapies to do this, which represents a novel way of preventing and reversing rosacea, which can be painful and embarrassing for many people."

**More information:** Dr Kavanagh's review "The potential role of *Demodex folliculorum* mites and bacteria in the induction of rosacea," will be published online ahead of print on Thursday 30 August in the Society for General Microbiology's *Journal of Medical Microbiology*. [dx.doi.org/10.1099/jmm.0.048090-0](http://dx.doi.org/10.1099/jmm.0.048090-0)

Provided by Society for General Microbiology

Citation: Bacterial cause found for skin condition rosacea (2012, August 29) retrieved 25 April

2024 from <https://phys.org/news/2012-08-bacterial-skin-condition-rosacea.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.