

Marine algae can help acne sufferers

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Seaweed. Credit: Tom Ashton

Scientists from the University of Stirling have discovered an unlikely treatment for acne – marine algae.

Research by marine scientists at the University's internationally renowned Institute of Aquaculture revealed the cleansing qualities of certain fatty acids including some produced by algae.

They found these fatty acids prevent the growth of *Propionibacterium acnes*, a bacterium which causes the common skin condition.

"The fatty acids inhibited the growth of the bacterium at concentrations similar to other acne treatments like benzoylperoxide and salicylic acid," explained Marine Biotechnology lecturer Dr Andrew Desbois, who led the study.

"Many fatty acids inhibit or kill bacteria and now some of these have been shown to prevent the growth of *Propionibacterium acnes*. Fatty acids are present naturally on our skin to defend us against unwanted bacteria so the application of additional fatty acids will augment our existing defences."

New treatment options for acne are being sought

as current drugs may cause side effects on the skin and bacterial resistance is making them less effective.

Scientists found six fatty acids were effective, including eicosapentaenoic acid (EPA), an omega-3 fatty acid already known to be important for human health and wellbeing, and dihomo-gamma-linolenic acid (DGLA), an omega-6 fatty acid with anti-inflammatory properties. EPA is produced by [marine algae](#) and then accumulated via the food chain into fish like salmon, while DGLA is made by some types of brown algae.

Dr Desbois added: "Normally, we obtain these beneficial fatty acids through consuming fish or seaweed in our diets. However, we are planning to formulate the fatty acids into an ointment that can be applied to the skin to help people suffering with acne."

Dublin-based drug discovery and development company Dignity Sciences commissioned the study and are currently at the trial stage to develop prescription medicines containing antibacterial [fatty acids](#) for treating acne and other [skin](#) diseases.

The research has been published in the journal *Marine Drugs*.

More information:

www.mdpi.com/1660-3397/11/11/4544

Provided by University of Stirling

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