

Eczema treatment creams could make it worse

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Tape was used to remove the top layer of skin cells; this was used to measure the thickness of the skin at the start and end of the study.

New research at the University of Bath suggests that using emollient creams to relieve the symptoms of eczema could actually make the condition worse.

The researchers, from the University's Department of Pharmacy & Pharmacology, have published a study in the [British Journal of Dermatology](#) showing that aqueous cream BP reduces the thickness of healthy skin over a period of four weeks, calling into question whether the cream should be used for treating eczema.

Originally used as a wash product, aqueous cream BP is currently the most widely prescribed emollient for the treatment of dry skin conditions. It is used to moisturise the skin, improving flexibility and

preventing cracking in the protective outer layer, called the stratum corneum.

However, the cream contains a detergent, called sodium lauryl sulphate (SLS), which can increase the permeability of the skin barrier and cause irritation.

The study found that when healthy volunteers applied the cream to their forearms daily for a period of four weeks, the thickness of the stratum corneum was reduced by more than ten per cent.

The researchers anticipate that using this cream would have an even more dramatic effect on damaged skin such as that found in eczema.

Richard Guy, Professor of Pharmaceutical Sciences at the University and Project Supervisor, explained: “The skin has a protective barrier layer of lipids, around one eighth the thickness of a sheet of paper, that stops chemicals from getting into the body and keeps moisture in.

“SLS is a detergent used to mix oils into water-based moisturisation creams to give a nice creamy texture. It’s also used widely in shower gels and other cosmetics.



Manda Tsang and Prof Richard Guy use an evaporimeter probe to measure the moisture content of the skin.

“Our study has found that rubbing aqueous cream containing SLS into the skin thins this protective barrier, making the skin more susceptible to irritation by chemicals.

“So to use this cream on eczematous skin, which is already thin and vulnerable to irritation, is likely to make the condition even worse.”

Postgraduate researcher Manda Tsang worked on the project as part of her PhD CASE studentship funded by the Biotechnology & Biological Sciences Research Council with York Pharma Plc.

Tsang said: “Eczema affects around 30 per cent of the population, an increase from around five per cent a generation ago.

“This is due to a combination of genetic and environmental factors, such as central heating and carpets that can encourage dust mites, and using more creams and cosmetics that can thin the skin if used too frequently.

“Our study suggests that it might be better for [eczema](#) patients to use oil-based ointments on damaged [skin](#).”

Provided by University of Bath

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