Could eczema prevention start at birth?

27 August 2015, by Lindsay Brooke

1300 new born babies are being signed up to a study looking at whether the application of non-cosmetic moisturisers, along with best practice skin care advice, could prevent the onset of eczema in high risk babies. The video can be viewed here.

The Barrier Enhancement for Eczema Prevention (The BEEP Study) is being led by the Centre of Evidence Based Dermatology (CEBD) and managed by the Nottingham Clinical Trials Unit at The University of Nottingham. It is funded by the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) programme.

Hywel Williams, Professor of Skin Diseases and Co-Director of the CEBD, has been researching the causes and treatment of eczema for over 30 years. He said: "Wouldn't it be great if we could prevent eczema? Although treatments have improved, attempts to prevent it have proved unconvincing and inconsistent. Moisturisers are one of the commonly used treatments for childhood eczema, but they have not been properly studied for the prevention of eczema. This study will hopefully tell us whether using moisturisers after birth can prevent or reduce the severity of eczema. The information we gain will be of benefit to eczema sufferers in the future."

Eczema is a very common skin problem affecting 16 per cent to 30 per cent of children in the UK and around 20 per cent worldwide. The onset of eczema usually occurs in infancy, and generally dry skin is one of the first abnormalities in babies who eventually develop the condition.

**Emollient therapy potential**

It is thought that skin barrier dysfunction (dry skin and increased trans-epidermal water loss) could be a primary event in the development of eczema and atopy. Emollient therapy has been shown to improve skin barrier function by providing lipids to the stratum corneum (the outermost layer of skin), in turn improving skin hydration by trapping in water. Early use of emollient could lead to a potential improvement in skin barrier function which could in turn prevent or delay eczema from starting.

The primary objective of this study is to determine whether advising parents to apply emollient to their child's skin in addition to best practice infant skin care advice can prevent or delay the onset of eczema in high-risk children, when compared with a control group who are given the best practice infant skin care advice only. It is simply not known if such an approach will work which is why the study is needed.

**Hundreds more volunteers needed**

The research team has already enrolled an army of tiny recruits from across the country but they need many more.

Pregnant women (or women who have very recently given birth) with eczema, asthma or hay fever in the immediate family are being invited to participate in the study. Their babies are split into two groups – both groups will get the best skin care advice but one group, decided at random - is being asked to supplement that best practice advice with emollients. These non-cosmetic moisturisers soften the skin and are already in common use by people with eczema.

So far the BEEP trial has recruited 346 volunteers but their overall study target is 1282. The current research sites are in Nottingham, Portsmouth,
Harrogate, Kings Mill, Derby, Leicester, York, Sheffield, Imperial, Kings, South London with Bristol poised to join the study later this year.

**Time will tell**

Professor Williams said: "Until we have completed this trial and the results have been analysed we really won't know whether emollients work or not and only by running this trial will we ever know the answer."

**More information:** If you want to know more about the trial a leaflet can be found [here](https://medicalxpress.com/news/2015-08-eczema-birth.html).

Alternatively please go to the [BEEP](https://medicalxpress.com/news/2015-08-eczema-birth.html) website or contact the team on beep@nottingham.ac.uk.