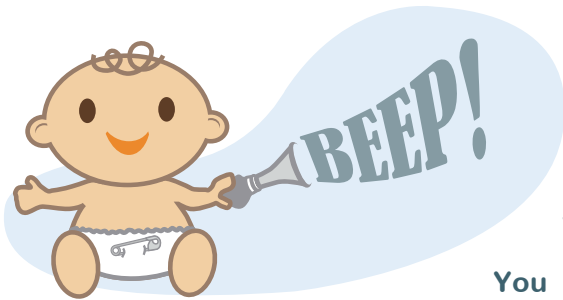


# the BEEP study

## Results of the UK DCTN Barrier Enhancement for Eczema Prevention study



The BEEP study randomised 1394 babies across England with a family history of eczema, asthma or hayfever. 1212 of these children saw a BEEP nurse for their 2 year visit.

We have now finished analysing the data from the 2 year visits and are pleased to be able to share the results with you.

You will receive another results update after all children in the study turn 5 years old.

## Why was a trial needed?



Approximately one in five school age children have eczema.

Children born into families with a history of eczema, asthma or hayfever are more likely to develop the condition. **As there is no known cure, it is very important to research how to prevent eczema.**

We know that moisturisers help to treat childhood eczema, but little was known about whether moisturisers could also prevent childhood eczema by protecting the skin barrier (to keep allergens out).

Some small previous studies suggested that following best practice skin care advice plus regular application of moisturiser from birth, might prevent eczema. There was some evidence to suggest that if the skin barrier could be protected with moisturisers, this might also prevent or reduce the development of allergies.

So a very large study was needed to confirm whether or not moisturisers do have a preventative effect for eczema and allergy.

This is why the NIHR (National Institute for Health Research - *the research arm of the NHS*) funded the Barrier Enhancement for Eczema Prevention (**BEEP Study**).



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## What did we do?

When you kindly signed up to the trial you were randomly assigned to one of two groups (like tossing a coin). You will have received by post either:

- 1) a leaflet with best practice skin care advice for your newborn, or
- 2) a leaflet with best practice skin care advice including instructions about applying moisturiser to your newborns skin at least once a day for a year

You were sent questionnaires whilst your child was a baby (3, 6, 12, 18 months) and were invited to attend a face-to-face visit with a nurse around your child's second birthday.

Children were examined by the nurses to check for signs of eczema. The nurses did not know whether the family was in the group asked to use the moisturiser or not, so as to help us make a fair comparison between the groups. Parents also had the option to allow the nurses to perform an allergy test for common food allergens. Depending on your



responses to the food allergy questions and allergy test, some families were also offered further allergy testing. Long-term follow-up questionnaires will continue to be sent to all children around the time of their 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> birthdays.

The results presented here include the data we have collected up until the children's second birthdays and the food allergy testing. The long-term results, up until 5 years of age, will be shared with you after the last child in the study turns 5 (Spring 2022).

## What did the 2 year results show?

The BEEP trial aimed to find out whether advising parents to apply moisturiser to their newborns skin for the first year of life in addition to best practice infant skin care advice could prevent eczema. We also wanted to see if using moisturisers would delay how soon children developed eczema, or if any eczema they did develop would be less severe than the eczema of the children who did not have daily moisturisers.

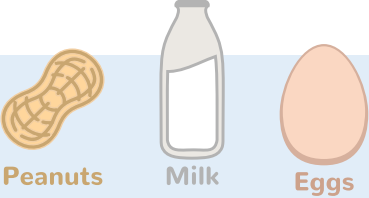
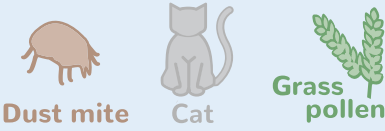



This trial did not show any differences between the two groups: both groups were the same in terms of the numbers of children who went on to develop eczema, how early this eczema appeared, and how serious the eczema was.

In the group that used daily moisturisers, babies were *slightly* more at risk of developing skin infections.

## What did the 2 year results show? (continued)

We also wanted to see whether or not using daily moisturisers made a difference in the development of common allergies:

	Skincare advice and moisturiser group	Skincare advice group
 <p>Peanuts Milk Eggs</p>	<b>7.5%</b> of children developed food allergies	<b>5.1%</b> of children developed food allergies
 <p>Dust mite Cat Grass pollen</p>	<b>10%</b> of children sensitised to household allergens	<b>10%</b> of children sensitised to household allergens
 <p>Wheezing Hayfever</p>	<b>32%</b> of children developed wheezing or hayfever	<b>32%</b> of children developed wheezing or hayfever

The group who used daily moisturisers had a *slightly* higher rate of food allergy than the group who used best skin care advice alone.

The slightly higher rate of food allergy in the moisturiser group is unexpected and hard to explain.

**It is important to note that the difference in food allergy between the groups was small, and not statistically proven,** so further research will need to be carried out to see if the use of moisturisers does in fact increase the risk for developing food allergy.

### This trial was able to answer our research question:

**Applying moisturisers to babies skin in the first year of their life does not lower a child's chance of developing eczema nor does it affect the severity of the eczema.**

## What do these results mean?

Although the BEEP study has shown that the moisturisers used in this study do not prevent eczema, please do remember they are effective for treating eczema. **If you child has eczema, do make sure you continue to use moisturisers.** If you have any concerns about your child's skin, you should discuss these with your doctor.

Dr Bob Boyle, who has led on the food allergy aspects of the BEEP Trial, is leading a large global project to combine the data from all similar trials (called a meta-analysis) across the world which will help give a much more accurate answer about the relationship between regular moisturiser use and food allergy.

*Thanks to your commitment and support for this trial, the results clearly show that parents do not need to go to the trouble of applying moisturisers to prevent eczema. Instead, researchers can now explore other possibilities for eczema prevention.*

## What happens next?

This is not the end of the trial and you staying involved is key for us answering our long term research questions. We will continue to send you questionnaires until your child is 5 years old. This ongoing data collection will give us information about how children's skin and allergy may change into older

childhood. If you move or change email address, please do continue to let us know by email: [beep@nottingham.ac.uk](mailto:beep@nottingham.ac.uk) or call 0115 7487106.

The BEEP Research team will now publish these results in medical journals and present them at scientific conferences.

We will publish a full report of the 2 year and 5 year results in the NIHR Journals Library in June 2022. You will receive another results update at that time.

## Who conducted the Trial?



The BEEP trial was led by Professor Hywel Williams based at the Centre of Evidence Based Dermatology and coordinated by Nottingham Clinical Trials Unit, both from the University of Nottingham. The trial team included an international team of skin and children's doctors and nurses, lay members and researchers. The UK Dermatology Clinical Trials Network (UK DCTN) supported the development of the trial, and clinicians, nurses, researchers and patient representatives from across the UK were involved in designing and conducting the study.

**The BEEP team would like to take this opportunity to tell you how much we appreciate your continuing involvement in the study. Your enthusiasm and dedication to completing the yearly questionnaires is making this research possible!**

*Thank you!*

We hope you found the results of the trial interesting. If you'd like more information about the detailed results of the trial, links to any articles we publish about this research will be found here, in due course:

[www.beepstudy.org](http://www.beepstudy.org)