

Newborn babies sought for trial to reduce risk of developing allergies

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Researchers are calling for newborn babies under three weeks from families with a history of allergies for a study trial into skin barrier cream to prevent the development of childhood allergies. Credit: Khoa Pham

More than 750 Melbourne newborn babies are needed for a trial to test if it is possible to prevent the risk of developing childhood eczema and food allergies by applying a barrier skin cream, which researchers hope will stop allergic irritants penetrating infant skin.

The trial, being led by the University of Melbourne, the Murdoch Children's Research Institute and major Melbourne hospital partners, needs babies aged three weeks or younger whose parents or siblings suffer from either eczema, asthma or food allergies.

University of Melbourne lead researcher Adrian Lowe said young babies have a relatively poor skin barrier, and research has found [children](#) with the poorest skin barrier are at increased risk of developing eczema and food allergies.

"Researchers now believe allergens are penetrating infant skin and increasing the risk of

developing an allergic condition like eczema, food allergies and asthma," Associate Professor Lowe said.

"Sometimes this theory is called 'leaky skin.' A range of factors, both genetic and environmental, can lead to skin barrier damage. When allergens enter through the skin, the result is then sensitization and subsequent allergic disease."

Associate Professor Lowe said it was well established that kids who develop eczema are at increased risk of developing food [allergy](#) and asthma.

"The promising results in the second phase of the trial were published in the *British Journal of Dermatology*," Associate Professor Lowe said.

"This is one of the largest studies to test if a barrier cream can prevent the development of eczema and food allergy and is based in Melbourne where there are very high rates of allergy.

"The cream being used, EpiCeram, contains the major building blocks of skin. We hope that it will build the infant's skin barrier and prevent allergens penetrating their [skin](#) to cause sensitization. If this works, it may prevent children from developing eczema and food allergy, and possibly other allergic conditions like asthma."

This is the third phase of the team's research. "In the first phase we tested the safety of EpiCeram and no adverse reactions occurred," Associate Professor Lowe said.

"In our second phase, 80 babies were recruited, and our intervention showed a very promising reduction in the rate of not only eczema but also sensitization to food allergens, a marker of food allergy."

Murdoch Children's Research Institute co-

investigator Mimi Tang said Australia's rates of childhood allergies were among the highest in the world. She is excited to be working on a preventative treatment for children.

"Beyond early introduction of allergenic foods (like peanut) into the infant's diet, there are currently no effective strategies to prevent infants developing allergic diseases," Professor Tang said.

"Applying [barrier](#) creams to children from birth is an exciting and promising area of research for prevention of allergies. We hope this study will validate that approach."

The MCRI/University of Melbourne HealthNuts study of one-year old children found that one in every 10 had an allergy to a [food](#); about one in three children from Melbourne will develop [eczema](#); while one in five children will develop asthma.

To join the study or find out more information visit www.mspgh.unimelb.edu.au/visit/pebblesstudy.

Provided by University of Melbourne

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