

Peanut in household dust linked to peanut allergy in children with eczema during infancy

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A new study led by researchers at King's College London in collaboration with the US Consortium of Food Allergy Research and the University of Dundee has found a strong link between environmental exposure to peanut protein during infancy (measured in household dust) and an allergic response to peanuts in children who have eczema early in life.

Around two per cent of school children in the UK and the US are allergic to peanuts. Severe eczema in early infancy has been linked to food allergies, particularly [peanut allergy](#).

The study, published in the *Journal of Allergy and Clinical Immunology*, looked at the amount of [peanut protein](#) infants aged 3-15 months were exposed to in [house dust](#), by vacuuming dust from the living room and measuring peanut in the dust. The study was conducted in 359 children who had a high risk of developing peanut allergy because they were allergic to cow's milk or egg or had moderate to severe eczema and had tested positive for an allergy to cow's milk or egg.

The study found that exposure to peanut in dust early in life doubled the risk of peanut allergy. In children with a history of eczema, the risk of peanut allergy increased further.

Dr Helen A Brough, first author from the Department of Paediatric

Allergy, King's College London, said: "This study adds to the growing body of evidence that exposure to peanut via a damaged skin barrier may increase the risk of peanut allergy. Previous studies have shown, for example, that infants with eczema treated with creams containing peanut oil in the first six months of life had a higher risk of developing peanut allergy later in life."

Professor Gideon Lack, senior author from the Department of Paediatric Allergy, King's College London, said: "This is further evidence for the dual-allergen-exposure theory which suggests food allergies develop through exposure to allergens via the skin, likely through a disrupted skin barrier, whilst consumption of these food proteins early in life builds up tolerance in the body. Previous guidelines recommending that mothers should avoid peanuts during pregnancy and breastfeeding have now been withdrawn. It may be that the timing and balance of skin and oral exposure to a particular food early in life determines whether a child develops an allergy or tolerance to that [food](#)."

Provided by King's College London

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