

Letter to the Editor

To the Editor,

B. Niggemann and others, in their study 'Development of latex allergy in children up to 5 years – a retrospective analysis of risk factors' (*Pediatr Allergy Immunol* 1998; 9: 36–39) state that immediate-type allergy to natural latex has become an increasing problem, with severe and even fatal incidents occurring. A wide range of physical and socio-economic factors were studied, and no defining cause for the condition could be found. The report concluded that latex allergy occurs in children with no known risk factor, and says that long-term studies are required to unravel the mysteries of early latex sensitization. There is no mystery. With rare exceptions, all babies are exposed to latex at birth in hospital delivery rooms from contact with gloves worn by midwives and doctors, and from the inhalation of latex-bound starch powder in the air of the delivery room. Premature and sick babies are at greatest risk owing to longer contact with the allergen, in NNICUS.

This possibility seems to be unsuspected by the medical profession. In over 400 papers on latex allergy, I have found no mention of neo-natal sensitization. Even obstetric papers, discussing the risk to an atopic mother, do not seem to anticipate any risk for the baby, who might also be atopic.

Could this be the sensitizing event that Dr Niggemann and his colleagues are looking for? Repeated exposure to latex in the home would gradually increase the incidence of latex sensitivity and, with it, associated allergic diseases, including asthma, eczema, and anaphylaxis. Is there a possible link between neo-natal exposure to latex, and the increase of atopic disease in childhood in the last 30–40 years? I believe that there is.

I am the author of a paper (1) that examines this possibility in depth. It is controversial because there is neither evidence nor research to support or reject the theory.

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Reference

1. WORTH J. Neonatal sensitisation to latex – a medical hypothesis. First prize winner, 1998 Annual Essay Competition, Action Against Allergies. Available from Action Against Allergies, Box 279, Twickenham, London TW1 4QQ, UK.

Author's reply,

We thank Jennifer Worth for her interest in our recent study (1). She raises very important questions on the development of latex allergy in the very young age group. However, we still think that there are some mysteries which have to be unravelled – owing to the fact that there is no proof so far for the tempting hypotheses mentioned. Neonates may come into contact with latex in the delivery room. However, this probably neither contributes to: (i) the individual risk of developing sensitization and allergy to latex because the contact usually occurs via the skin and is of short duration (and not via intensive and long-standing mucosal contact after operations); nor (ii) to the generally observed trend of increasing prevalence of allergic diseases, as we did not observe any sensitization to latex by the first birthday of any infant in our study. Furthermore, very low-birth-weight infants show a significantly lower risk of developing atopic dermatitis compared to babies born at term (C. Bührer, personal communication). Current data still indicate that the number of operations and an atopic disposition are the most important risk factors for developing latex allergy. There may be a window of exposure early in life (around birth at term), which is an additional prerequisite.

The hypothesis that babies without an inherited high risk for atopy may become allergic under certain circumstances, such as children with spina bifida, was raised previously (2); however, there is also still no definitive proof for this theory. Therefore, prospective clinical studies are warranted which, on the other hand, may become superfluous if the widely used avoidance measures, which are increasingly undertaken at present, show positive results. These measures include: awareness of latex allergy as a general problem; keeping children

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at special risk for latex allergy latex-free from the first day of life; and general avoidance measures in hospitals, i.e. banning powdered latex gloves and using gloves with a markedly decreased latex content.

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References

1. NIGGEMANN B, KULIG M, BERGMANN R, WAHN U. Development of latex allergy in children up to 5 yrs of age – a retrospective analysis of risk factors. *Pediatr Allergy Immunol* 1998; 9: 36–39.
2. NIGGEMANN B. Atopy and latex allergy in spina bifida: What's chicken, what's egg? *Pediatr Allergy Immunol* 1997; 8: 51.