



ACAAI Powder Position Statement

ACAAI Statement Concerning the Use of Powdered and Non-powdered Natural Rubber Latex Gloves

This statement was developed by a joint subcommittee of the American College of Allergy, Asthma and Immunology (ACAAI) and the American Academy of Allergy, Asthma and Immunology (AAAAI). It was approved by the ACAAI Board of Regents on the recommendation of the Executive Committee on July 21, 1997.

IgE-mediated latex allergy is the result of the exposure of susceptible individuals to latex rubber proteins. Medical devices principally latex gloves (1) are the largest single source of exposure to these potent allergens. Exposure to bioavailable allergen may be by direct contact with an offending device (2, 3) or by inhalation of allergen carried by cornstarch powder with which most powdered gloves are coated (4, 5). The clinical manifestations of latex allergy range from mild contact urticaria to fatal anaphylaxis.

Allergic sensitization to constituent latex rubber proteins is linked to exposure to latex allergens in the vast majority of cases. Direct exposure to latex allergens results from either contact exposures to medical devices and latex gloves (2, 3) or from respiratory exposure to latex aeroallergen carried by donning glove powders (4, 5).

Latex occupational asthma may result from inhalation of latex rubber proteins carried on glove powder from latex gloves (6-8). Asthma caused by occupational exposure may continue and lead to persistent impairment, and rarely, to disability (9).

These risks of acute allergic reactions and of occupational asthma can be reduced only by curtailing exposure to latex rubber proteins (10, 11). We recommend that the following steps, which utilize currently available devices, be taken to reduce these risks:

- Latex gloves should be used only as mandated by accepted Universal Precautions standards. The routine use of latex gloves by food handlers, housekeeping, transport and medical personnel in low risk situations (e.g. food handling, bed transport, routine physical examination) should be discouraged.
- Only low-allergen latex gloves should be purchased and used. This will reduce the occurrence of reactions among sensitized personnel and should reduce the rate of sensitization (12-14).
- Only powder-free latex gloves should be purchased and used. This will reduce latex rubber aeroallergen levels and exposure. (15-17).

References

1. Slater J. Latex Allergy. *J Allergy Clin Immunol* 1994;94:139-49.
2. Charous B, Hamilton R, Yunginger J. Occupational latex exposure: characteristics of contact and systemic reactions in 47 workers. *J Allergy Clin Immunol* 1994;94(1):12-18.

3. Sussman G, Beezhold D. Allergy to latex rubber. *Ann Int Med* 1995;122(1):43-46.
4. Beezhold D, Beck W. Surgical glove powders bind latex antigens. *Archives of Surgery* 1992;127:1354-57.
5. Tomazic V, Shampaine E, Lamanna A, et al. Cornstarch powder on latex products is an allergen carrier. *J Allergy Clin Immunol* 1994;93(4):751-8.
6. Swanson M, Bubak M, Hunt L, et al. Quantification of occupational latex aeroallergens in a medical center. *J Allergy Clin Immunol* 1994;94:445-551.
7. Swanson M, Yunginger J, Reed C. Immunochemical quantification of airborne natural rubber allergens in medical and dental office buildings. In: Maroni M, ed. *Ventilation and indoor air quality in hospitals*. 1996:257-62.
8. Heilman D, Jones R, Swanson M, et al. A prospective, controlled study showing that rubber gloves are the major contributor to latex aeroallergen levels in the operating room. *J Allerg Clin Immunol* 1996;98:325-30.
9. Paggiaro P, Vagaggini B, Bacci E, et al. Prognosis of occupational asthma. *Eur Respir J* 1994;7:761-67.
10. Charous B, Banov C, Bardana EJ, et al. Latex allergy - an emerging healthcare problem. *Ann Allergy Asthma Immunol* 1995;75:19-21.
11. Kelly K, Sussman G, Fink J. Stop the sensitization. *J Allerg Clin Immunol* 1996;98:857-858.
12. Jones R, Scheppmann D, Heilman D, et al. Prospective study of extractable latex allergen contents of disposable medical gloves. *Ann Allergy* 1994;73(4):321-25.
13. Patterson P. Allergy issues complicate buying decisions for gloves. *OR Manager* 1995;11(6).
14. Yunginger J, Jones R, Fransway A, et al. Extractable latex allergens and proteins in disposable medical gloves and other rubber products. *J Allergy Clin Immunol* 1994;93:836-42.
15. Tarlo S, Sussman G, Contala A, et al. Control of airborne latex by use of powder-free gloves. *J Allergy Clin Immunol* 1994;93:985-9.
16. Vandenasplas O, Delwiche J-P, Depelchin S, et al. Latex gloves with a lower protein content reduce bronchial reactions in subjects with occupational asthma caused by latex. *Am J Respir Crit Care Med* 1995;151:887-891.
17. Siu S, Smith G, Sussman G, et al. Reduction of airborne latex protein exposure by use of low protein, powder-free gloves. *J Allerg Clin Immunol* 1996;97:325.

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