Allergies

DHGarabrant et al. American Journal of Epidemiology. March (2001) Vol. 153 #6 p 515.

A study of the association between latex sensitisation and occupational use of rubber gloves. [Sensitisation is a prerequisite for allergic reactions.]

5512 adults aged 17 to 60 were taken at random from the general population and examined between 1988 and 1991. Measurement of latex specific IgE was made by blood analysis.

A Questionnaire for allergic symptoms, job type, family history, smoking, race etc was completed for each subject.

Sensitisation was defined by two threshold concentrations of latex specific IgE as follows:

- Positive threshold ≥ 0.35 IU/ml.
- Strongly positive ≥ 1.5 IU/ml

Logistic regression analysis was used to determine the strength of association of explanatory variables:

Explanatory Variable	Strength of Association (95% CI)
Longest period of occupation was in health care. (a proxy measurement of glove use)	OR = 1.49 (0.92,2.4)
Female gender	OR = 0.58 (0.45,0.75)
Black Hispanic	OR = 2.25 (1.27,3.98)
Physician diagnosed asthma or hay fever	OR = 2.53 (2.12,3.02)

Comment
Predisposition to allergies seems to be the strongest predictor of sensitisation to latex. The occupational association is positive but not statistically significant. However, occupation is not necessarily a reliable proxy for actual exposure to rubber, this result should be treated with caution.

If verified, an increased duty of care would seem to be appropriate for atopic people (those with a more sensitive immune system).

BMSympson et al. Clinical and Experimental Allergy. Mar (2001) Vol. 31 # 3 p 391.

A study of risk factors for asthma in adults.

5687 adults were skin prick tested for sensitivity to a range of common allergens (Dust mite, Cat, Dog and Grasses). Common allergen sensitivity was tested for any association with diagnosed asthma.

49% of adults were described as atopic (sensitised to environmental allergens).

Each allergen was found to be independently associated with asthma but the strength of association increased with combinations of allergens.

OR = 4.3(3.3-5.5)	for any two
OR = 7.0 (5.3 – 9.3)	for any three
OR = 10.4 (7.7 – 14)	for any four

Comment
The reported prevalence of atopy in adults is unusually high (perhaps double), suggesting methodological inconsistencies with other studies. However, a high prevalence of susceptibility to harm suggests the need for high standards of occupational and environmental hygiene.

The study tends to confirm the increasingly accepted view that asthma is much more likely among people who are atopic. However, this does not indicate with certainty, the cause of asthma for an individual.