

Letter to the Editor

Alleged Allergenicity of Latex Gloves

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The Editor,

I feel that Sawyer and Bennett (2006) imply that there is something intrinsically hazardous about natural rubber latex (NRL) gloves. The evidence shows this not to be the case.

NRL gloves were used for many years in health care and laboratory work with only a rare incidence of latex allergy. The problem arose when the health care sector decided to adopt a policy of general glove use in response to the problems associated with AIDS/HIV.

Unfortunately, due to pressure on cost, this led to the introduction of cheap, poorly manufactured, single-use natural rubber gloves. These not only had a high level of free protein but also, due to the omission of post-vulcanization chemical treatment, had an interior surface that made donning the gloves difficult. In order to overcome this, manufacturers introduced a powder.

The powder, usually epichlorohydrin cross-linked corn starch, is a mild skin irritant. However, it also has a surface to which the latex protein can easily attach itself. Used inside the cheap, high free-protein gloves, by the time these are donned each starch granule will have a coating of latex protein. These granules are easily absorbed into the skin increasing the exposure to the latex protein and eliciting the allergic reaction. They can also become airborne with the consequent risk of asthmatic reactions.

However, many studies have shown that if unpowdered, low protein natural rubber gloves are used, then the risk of latex allergy is minimal. Indeed, in one study Turjanmaa *et al.* (2002) divided gloves into different categories depending upon the level of free protein and commented: 'The gloves in categories "very low" and "low" contain such low levels of the main natural rubber allergens that they are suitable not only for non-allergic persons but also for most of the sensitized users.'

In Germany the decision was taken in the health care sector some years ago to ban the use of powdered NRL gloves. The result is that the incidence of latex

allergy in health care workers is now comparable with that of the unexposed population. Allmers *et al.* (2002) were able to report: 'Change to powder-free NRL gloves in the German health care system resulted in decline in occupational allergies. Conclusion was that this was a valid solution to the problem.'

Dr John English, a UK consultant dermatologist on this topic has given me permission to quote a comment to me that, 'The latex allergy is over as we now have powder free and low release of NRL protein gloves in the NHS'.

Incidentally, I am seeing increasing reports of allergic reactions to the chemicals used in the manufacture of nitrile rubber gloves.

There is a mass of other studies and evidence that supports the view that low-protein, unpowdered NRL gloves offer only an insignificant risk of causing an allergic reaction. Perhaps it is time now to discard the concept that these gloves are in some way hazardous and should be replaced by other materials.

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