

Latex allergy

Occupational
aspects of
management

Evidence-based guidance for
healthcare professionals



Royal College
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This leaflet is for healthcare professionals and provides guidelines on the optimal interventions for individuals with type I latex allergy. It summarises the findings of a review of the scientific evidence on occupational aspects of the management of latex allergy.*

What is type I latex allergy?

Type I latex allergy (LA) is an IgE hypersensitivity to latex proteins in individuals with latex-specific IgE antibodies from previous exposure and sensitisation. Clinical manifestations range from contact urticaria, itching of the skin and eyes, sneezing, bronchospasm and asthma to anaphylaxis, and these may occur in people previously unknown to be sensitised.

Type I latex allergy should be distinguished from rubber contact dermatitis, a type IV hypersensitivity to chemicals added to rubber products during their manufacture. This is more common and presents with a vesicular, eczematous, pruritic dermatitis appearing hours to days after contact with the allergen.

Who is at risk of type I latex allergy?

Occupational groups at increased risk include healthcare workers, hairdressers, food handlers, construction workers, painters, and cleaners. Other frequent users of latex gloves, such as police officers and nursery workers, may also be at increased risk. The prevalence of type I latex allergy (based on skin prick testing) has been reported to be as high as 17% in healthcare workers, hairdressers and food handlers.

*NHS Plus, Royal College of Physicians, Faculty of Occupational Medicine. *Latex allergy: occupational aspects of management*. London: RCP, 2008.

Individuals who have had multiple surgical procedures and instrumentation in childhood are at increased risk of latex allergy, as are those allergic to certain fruits such as avocado, kiwi and chestnut.

By far the most important occupational risk factor for latex sensitisation is the use of powdered latex gloves. Powdered gloves have higher latex allergen content than powder-free gloves and there is good evidence that their use is associated with a substantially higher prevalence of latex sensitisation. The cornstarch particles added to gloves as a donning agent have been shown to carry latex particles when airborne, and therefore greatly increase latex aeroallergen exposure. Latex aeroallergen levels are positively correlated with latex allergic symptoms.

Key findings and recommendations

- 1 Powdered latex gloves should not be used in the workplace when powder-free latex gloves are available as an alternative.
- 2 Alternatives to latex gloves may have other associated problems, particularly barrier integrity after use, user satisfaction, barrier effectiveness and other possible allergic reactions.
- 3 In employees who are latex allergic/sensitised, taking latex avoidance measures results in cessation or diminution of symptoms. Markers of sensitisation decrease regardless of whether co-workers continue to use powder-free low protein latex gloves or latex-free gloves.
- 4 In employees with latex-induced asthma or rhinitis using non-latex gloves, the use of powder-free low protein gloves

by their colleagues reduces symptoms and indices of severity in the affected employee to a similar degree as the use of non-latex gloves by colleagues.

- 5 At a national or local level, a policy that encourages switching to powder-free low protein gloves is a proven effective method of reducing the incidence of latex allergy.
- 6 Where powder-free latex gloves are being used, and there remains a significant risk to highly sensitive latex-allergic employees that cannot otherwise be adequately controlled, the use of certain respiratory protective equipment can help in reducing inhalational exposure.
- 7 In people who are going to wear powder-free low protein latex gloves, the prior use of hand creams cannot be recommended.
- 8 Immunotherapy can be recommended as a treatment option for those with latex allergy, where switching to other glove options to reduce the symptoms is either not feasible or is ineffective.
- 9 Appropriately targeted and sustained educational interventions, using different methods (eg leaflets, training, educational feedback analysis) for different occupational groups, induce important positive behavioural changes in latex glove use.
- 10 All but the most severe cases of latex allergy and late-induced asthma can usually be managed without the need for redeployment or redundancy, by careful personal avoidance of latex at work and minor changes in the workplace.
- 11 A switch to powder-free latex gloves *or* latex-free gloves can be cost effective (in terms of glove costs, compensation).

■ **Good practice point**

Latex aeroallergen measurement may be helpful in confirming the effects of allergen reduction measures.

■ **Good practice point**

Both non-latex and latex gloves should be changed after two to three hours of use because the barrier of either type of glove becomes compromised with extended use.

The evidence does not therefore support a complete ban on the use of latex gloves. Institutions should judge whether their needs would be met better by the use of latex-free or powder-free latex gloves, or use of both in different settings, while taking into account the desirable and undesirable properties of both materials.

For a full version of these guidelines see
www.nhsplus.nhs.uk/web/public/default.aspx?PageID=331

Other sources of information

British Association of Dermatologists Patient Information Gateway on Latex Allergy:

www.bad.org.uk/public/leaflets/bad_patient_information_gateway_leaflets/latex/

Further copies of these booklets are available
from NHS Plus:

Email: nhsplus@nhs.net

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