Kenilworth Medical Associates

Adult and Pediatric Allergy and Asthma
American Board of Allergy and Immunology

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LATEX ALLERGY

Latex allergy is an important medical problem for an increasing number of patients. Latex is a milky substance which is derived from the commercial rubber tree *Hevea brasiliensis*. The sap is then taken through a sulfurization process called vulcanization which turns this rubber into latex. Latex is a very complex intracellular product which contains a number of protein antigens to which people can become allergic if exposed.

With the increasing use of latex gloves in the health industry as well as use of other latex products (balloons, condoms, toys, etc.), exposure in the medical community as well as lay community has increased dramatically over the past several decades. Sensitization has also increased.

The first immediate-type reactions were reported in the literature in Germany in 1927. Over the past five years, the FDA has received over a thousand reports of severe injury and 15-20 deaths associated with latex allergy. This is a relatively small but not inconsequential problem.

Latex reactions can be divided into two major groups.

The first is what we call an **Immediate-Type 1 reaction**. Immediate-type latex reactions can be elicited through simple contact with a latex product such as adhesive, foam, carpet backing, gloves, balloon, condoms, toys or certainly medical devices such as intravenous catheters, Foley catheters, operative materials and latex gloves. The reactions consist of hives, itching, lip swelling, tongue swelling, closure of the throat and/or airway, wheezing, sneezing, runny nose, conjunctivitis and hypotension. These are thought to be true allergic reactions mediated by IgE antibody. These patients need to wear Medic Alert bracelets to inform medical professionals.

The second type of "latex" reaction can occur with **prolonged topical latex contact**, such as with an elastic waistband around socks or shorts. The reaction consists of a red itchy rash which can persist for several days after prolonged exposure. This reaction looks more like eczema and is a reaction to chemicals used in the latex production, *not actually the latex itself.*

RISK GROUPS

Latex allergy occurs for the most part in well defined risk groups. These include health care workers, rubber industry workers, in children with multiple surgical procedures for bladder abnormalities or spina bifida. The prevalence of the immediate-type reactions in the general population is not known, although it appears to be more common in "allergic" persons than non-allergic persons. Health care workers have a 5-10% risk of latex allergy due to their occupational exposure.

Testing is now available with skin testing to protein samples or by using fluid in which a latex glove has been bathed for several hours which contains the latex protein. Blood testing can be confirmatory, and all testing must accompany an exposure history consistent with latex allergy.

Interestingly, latex allergic patients often find they are also allergic to a number of cross reactive foods such as avocado, mango, banana, papaya, and others.

TREATMENT

There is no current treatment to care for a person with latex allergy. Avoidance of latex products is the only measure that can avert serious reactions to latex. Given the ubiquity of latex in the household and medical environments, complete latex avoidance is perhaps an impossible task.

Latex has been found, in addition to medical equipment made of rubber, in adhesive tape, intravascular sets, and a number of other devices. Latex-free gloves and catheters are available. A special concern is the intra-operative management of a person with latex allergy. A latex-free surgical room can be achieved with latex-free devices which are commercially available.

In addition, premedication with steroids and antihistamines can diminish somewhat sensitivity when a person with latex allergy may be required to have latex contact.

Following is a list of some of the common things to avoid if you have been shown to be allergic to latex:

Bandages
Balloons
Rubber toys
Latex containing gloves
Condoms/Diaphragms
Adhesives, adhesive tape
Rubber bands
Waistbands or sock bands containing latex
Rubber anesthesia mask
Dental dams
Bladder catheters
Foley catheters
Bottle nipples
Racquet or bicycle grips
Shoes
Blood pressure cuffs
Endotracheal tubes
Eye dropper bulbs
Finger cots
Orthodontic elastics
Rubber sheeting & pillows
Tourniquets
Ventilator tubing & bellows

In addition, with a history of severe reactions, it would also be advisable to wear a Medic Alert bracelet to avoid incidental latex contact in an emergency room following a motor vehicle accident.