

## **Suspect Latex Allergy**

**Scenario 1:** Mark is a 6 year old who has hemophilia (a rare genetically acquired bleeding disorder) since birth. He has been getting monthly infusions of factor 8 replacement therapy through vein at his local healthcare facility without any problem. However during the last two infusions Mark developed generalized hives, itching, swelling of lips and eyelids and slight difficulty breathing. The infusions were stopped immediately and he was treated successfully with several allergy medications. Mark is referred to an allergist to rule out allergy to factor 8. Surprisingly, the evaluation shows that Mark is allergic to latex (in the gloves worn by nurses) and not to factor 8! Nowadays Mark gets the factor 8 infusions in latex-free environments without any difficulty.

**Scenario 2:** Edwin suffers from a rare spinal cord problem (spina bifida) since birth. He has undergone multiple surgeries since birth to correct the deformity. Now he is 15 years old and is referred by his surgeon to an allergist to rule out allergy to several of the medications used during surgery one month ago. Apparently, the reaction during surgery was so severe that the surgery got stopped in the middle and Edwin required cardiopulmonary resuscitation to revive him. The allergy evaluation shows that Edwin has developed allergy to latex. In fact, his surgery was completed successfully recently in a latex-free environment.

**Scenario 3:** Linda is 5 months old. She was recently rushed to a local emergency room for a suspected allergic reaction to milk. Apparently, she coughed, spluttered, and developed wheezing and difficulty breathing soon after she started drinking from a bottle containing a new infant milk-formula. Initially an allergic reaction to the new formula was suspected. However subsequent allergy evaluation showed that she is allergic to latex and not to the milk. Now she is able to drink milk from a non-latex container.

### **What is latex allergy?**

The above scenes depict situations where latex allergy masqueraded as something else. High index of suspicion and appropriate evaluations were required to unravel the mystery in each case! Latex is a plant derivative. It is made from sap derived from tropical rubber tree- *Hevea Brasiliensis*. During the manufacture of latex, chemicals are added to the sap as anti-oxidants and preservatives. People who develop latex allergy are allergic to one of the plant-derived latex proteins or to one of the chemicals added during the manufacturing process. Allergy to the latex protein causes immediate-type allergic reactions. Allergy to one of the chemicals manifests as a delayed allergic reaction with local rash and itching with no systemic symptoms.

Latex allergy has become more common since the advent of HIV epidemic. Imported gloves without state-of-the-art quality control during production are blamed for this. Healthcare workers, people with hand eczema, children with spina bifida requiring multiple surgeries and people with allergic tendencies (those with personal or family history of hayfever, asthma, eczema and food allergies) are at increased risk for

developing latex allergy. Even infants and small children can develop latex allergy if they are exposed to latex containing products (such as balloons, pacifiers and nipples) from very early age.

### **How is it diagnosed?**

There are no FDA approved skin tests for latex allergy at present. However, immediate-type latex allergy can be diagnosed by doing blood tests. Blood tests such as RAST tests for latex allergy are about 50-90 percent sensitive and more than 95 percent specific. A negative RAST test for latex allergy does not necessarily rule out latex allergy. The test results should be interpreted in the context of clinical history by physicians who are knowledgeable in this area. Patch tests are useful in diagnosing delayed-type latex allergy.

### **How is it managed?**

Immediate-type latex allergy could be severe and could end fatally. You should avoid all latex containing products if you are allergic to latex. You should work in latex free or latex safe environments. Latex allergy could get worse with continued exposure. You should carry a pair of non latex gloves (Nitrile or Vinyl) at all times and use them if non latex gloves are not available for immediate use [when visiting dental offices, for example]. Should you require surgery or procedure of any kind, it should be carried out in latex free or latex safe environments. Premedication before such procedures may help lessen an allergic or anaphylactic event. A medical alert bracelet should be worn. EpiPen or Twinject should be available at all times to take care of unexpected emergencies. 911 should be called after using them.

Foods such as passion fruit, pineapple, grapefruit, banana, avocado, kiwi, apricot and chestnut can cross-react with latex and cause allergic symptoms in patients who are allergic to latex. Such foods should be avoided especially if the patient has had an allergic reaction to one of them. You can learn more about latex allergy by visiting the web pages of The American Latex Allergy Association at [www.latexallergyresources.org](http://www.latexallergyresources.org).

### ***About the author:***

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