## Latex Allergies

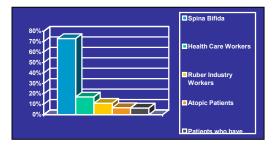
## Kerri-Anne Lachance Biomedical Engineering, University of Rhode Island Kingston, Rhode Island 02881

Latex is a processed plant product made from the tree Hevea braziliensis (found in Africa Southeast Asia). It is composed of Lipids, Phosholipids and Proteins. It is made by first harvesting the latex in a fashion that is similar to harvesting sap from a Sugar Maple. It then has preservatives such as ammonia added to keep it from degrading. Antioxidants and Accelerators are then added to achieve the desired characteristics. This then has porcelain molds dipped into the concentrate to produce products of desired shape and sizes. accelerators then help to cure the rubber.

Latex Allergy is a reaction of the body's immune system to the proteins or additives found in latex. It can range from very mild to deadly. Some patients have allergies so severe that direct contact with latex is unnecessary; breathing the dust from latex glove alone could cause a reaction.

There are two basic types of reactions to latex. Contact Dermatitis is the most common and maybe either irritant or Allergic contact dermatitis; these reactions are mild skin irritations due to the additives in creating the latex. The Immediate Allergic Reaction however is a response to the Latex Protein and may cause symptoms such as: Rhinitis, Conjunctivitis, Urticaria, Angioedema, Asthma, Anaphylaxis, and even death.

There are certain groups of individuals that are more at risk of developing the latex allergy. The highest risk group is people with spina bifida because they have so many procedures done at such a young age. The second highest group at risk are



Health Care Individuals because of their high exposure to the substance and the constant wearing of latex gloves. Other groups at higher risk are rubber industry workers, people who have undergone multiple medical procedures and people with food allergies.

The number of people with latex allergies is increasing do to the more common use of latex as a barrier for blood born diseases. As the number of Latex Allergic people increase the health care industry will also see an increase in demand for alternatives, and latex-safe facilities. More research needs to be done on the barrier capabilities of vinyl as a substitute for latex gloves and development in new materials to replace the existing latex in hospitals and all objects around us.

## References:

- http://latexallergylinks.tripod.com/
- http://allergy.mcg.edu/physicians/latex.html #anchor404284
- http://www.goodyear.com.au/school/01/01h evea.html