



Information Sheet

LATEX ALLERGY



Latex is obtained from the *Hevia braziliensis* rubber tree. Individuals who are allergic to latex are allergic to the proteins which are bound to the isoprene molecules responsible for its remarkable elasticity. Latex allergy is more likely to develop in individuals who have other allergies and is a serious problem in health care workers.

How does latex allergy manifest?

True latex allergy results in "immediate" symptoms such as hives or urticaria, itchy eyes, itchy or runny nose, sneezing, wheezing, coughing, asthma, swelling of the throat, a drop in blood pressure and anaphylaxis. Reactions to gloves may also manifest as delayed reactions - red, itchy and crusted lesions on the fingers, hands and wrists. These contact dermatitis reactions are usually not due to latex itself, but to carbamates or thiurams used in the vulcanising of rubber.

How is the diagnosis made?

A history of the above symptoms occurring within about half an hour of exposure to gloves or other rubber products suggests latex allergy. This can be confirmed by a blood test (Latex CAP RAST) or by a carefully conducted latex skin prick test. Because skin prick tests carry a slight risk, they should always be conducted in a hospital setting by an Allergy Specialist.

How does latex allergy develop?

Latex proteins are foreign to the body. Repeated exposure to minute quantities of latex proteins results in the production of harmful IgE antibodies in some individuals which release histamine from mast cells in the skin and mucosal surfaces upon subsequent exposure. Powdered gloves in the hospital environment facilitate the inhalation of the latex proteins and result in symptoms of the nose, eyes, chest and the absorption of these into the body. Thus, some individuals do not even have to touch a rubber product but may develop symptoms when they inhale the air where powdered gloves are used.

How is latex allergy treated?

Once you have developed latex allergy, it is essential to totally avoid exposure to latex, to prevent progression of symptoms. Further exposure results in a deterioration and worsening of your latex allergy. It is not possible to safely desensitize people to latex. Your doctor will recommend a Medic-Alert disc and should arrange for you to have a supply of antihistamines and a pre-loaded adrenaline syringe, e.g. "Epipen" to keep on your person, to be used in the event of inadvertent subsequent exposure to latex. Particular care should be taken if you have a medical, dental or gynaecological examination or an operation.

How to avoid latex in the hospital environment?

Direct exposure to the items on Table I must be avoided. Latex sensitive individuals should never wear latex gloves but may safely wear Neoprene (e.g. Neotech) gloves for sterile work, or vinyl or plastic gloves for non-sterile work. Since exposure can occur from the air if powdered gloves are worn, sensitive individuals should work only in an environment where non-powdered gloves are worn e.g. Easifit Ultra; if possible, out of the theatre or intensive care environment.

What about hypoallergenic gloves?

Table I. Latex in the medical environment

Anaesthetic masks	Implants
Breathing bags	Instrument mats
Blood pressure cuffs	IV injection ports
Breathing circuits	Nasal airways
Catheters	Orthodontic elastics
Cervical dilators	Rubber sheeting
Dental dams	Syringe stoppers
Endotracheal tubes	Tourniquets
Injection adaptors	Ultrasound covers
Eye dropper bulbs	Urine bags
Face masks	Ventilator tubing
Feeding tubes	Warming blankets
Gloves	Wheelchairs
Haemodialysers	Wound drains
Hot water bottles	

Gloves marketed as "hypoallergenic" still contain latex. They are recommended for patients who have delayed reactions (contact dermatitis) to the thiurams or carbamates. They should never be used by latex allergic individuals.

What to do if you need an operation or medical procedure?

You should inform your doctor and anaesthetist. Your operation will have to be planned and conducted in a latex-free environment. Non-latex (e.g. Neoprene) gloves should be worn during the procedure and vinyl, plastic or their synthetic alternatives to the products in Table I should be used. If you are highly allergic to latex you should keep a set of sterile neoprene gloves on standby for use in an emergency, particularly if you are on holiday or in another town. You should ask your doctor to discuss latex alternatives with your allergy specialist. Make sure that your local hospital has latex-free protocols before you even need their services.

What about latex exposure outside the hospital environment?

Latex is also widely used in modern homes, leisure facilities and for sporting gear (see Table II). You should familiarize yourself with and avoid these sources of exposure to latex.

How can you protect yourself in future?

1. Wear a Medic Alert.
2. Carry injectable adrenaline and antihistamines on your person and know when to use them.

Table II. Latex in the home environment

Bandages	Eye droppers
Baby bottle nipples	Hot water bottles
Balloons	Koosh balls
Condoms	Paints (waterproofing)
Diaphragms	Rubber grips on racquets,
Douche bulbs	bicycles, tools
Elastic in clothes	Rubber bands
Diapers	Rubber toys
Erasers	Shoes

3. Avoid direct or indirect exposure to latex.
4. Inform your doctor, dentist and your gynaecologist.
5. Explain your allergy to your family members and close friends
6. Call your local emergency, ambulance and hospital before you ever need their services and ask them to be sure they have their latex-free protocols in place.

Can hospitals do anything to prevent latex allergy?

It has recently become clear that powdered gloves with high levels of free latex proteins are the main cause of latex allergy developing in health care workers. Modern hospitals should adopt a non-powdered glove policy and should purchase latex gloves with the lowest possible protein levels. In this way latex levels and the risk to staff will be significantly reduced in the future.

What about the glove manufacturers?

Glove manufacturers have become acutely aware of the diagnosis of high protein powdered gloves and are modifying manufacturing processes to produce low-protein, non-powdered gloves which are not only safe, but comfortable for use by health personnel.

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See the ALLSA Internet site at:
<http://www.allergysa.org>

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Is it allergy?

Children always benefit from early diagnosis

Today 1 child in 4 is allergic
I identify allergies using UniCAP RAST testing in
early childhood.

Now available through all South African pathology laboratories.