

Information on Allergy to Natural Rubber Latex

Natural rubber latex is known to cause an allergic response in some individuals working in environments in which products composed from this material are extensively used. The health care and the rubber industries are predominantly affected but laboratory workers, particularly in some areas of the biosciences may also be affected. This sheet is provided to inform those using latex products of the symptoms of allergy and the steps that may be taken if they have any concerns.

What is Latex?

Latex is a natural sap of the rubber tree *Hevea brasiliensis*. It has been in use for over 100 years. The following are examples of its use:

Medical Equipment:

Gloves; airways; suction tubing; oxygen masks; blood pressure cups; tourniquets; multi-dose vials; syringe bungs; catheters; injection ports.

It is estimated that 40 billion latex medical gloves are used each year to protect patients and healthcare workers from infection.

Non Medical Equipment:

Rubber shoes, boots; swimming hat; hot water bottle; balloons; dummies; cosmetics; shower curtains; rubber bands; contraceptives; door/window insulation; scratch cards; bicycle/motor bike handle grips.

Who is most at risk?

Estimates around 1% of the population may react to natural rubber latex. Higher risk groups include:

- Healthcare workers where frequent use of latex gloves occurs,
- Those who have a history of asthma, dermatitis, eczema or hayfever,
- Those who have known allergies to other substances in particular to certain fruits: bananas, avocados, chestnuts and kiwi fruits,
- People who have a lot of operations,
- Rubber industry workers.

How Can Latex Cause Reactions?

Repeated exposure to natural rubber latex (NRL) products can, very rarely, produce serious allergenic responses either to the naturally occurring proteins in latex, or the chemicals used in the manufacturing process.

Glove powder, which facilitates putting on gloves, can carry the proteins into the air, which can then be inhaled. This risk can be removed by using non-powdered gloves. University policy now prohibits the use of powdered latex gloves.

Not all reactions are allergies however. Allergies may take years to develop and are a response by the immune system to a substance (an allergen). Most skin reactions are

irritant reactions, which may not always be due to the glove material. This may be due to not changing gloves frequently enough, poor hand washing techniques, washing agents. Guidance on good glove practice can be found [here](#).

Types of Reaction to Latex

There are three recognised types of reaction:

1. Irritation

This is a non-allergic reaction causing a skin rash the effects of which are usually reversible.

2. Immediate Hypersensitivity

This is most often a response to the natural protein residue found in NRL. Symptoms occur immediately following contact with latex (within 5 -30 minutes) The symptoms are characterised by local or generalised spots and swelling. If mucous membranes are affected rhinitis (nasal irritation and /or runny nose), conjunctivitis and asthma may result. Respiratory difficulties and anaphylaxis may occur in extreme cases.

3. Delayed Hypersensitivity

This reaction is predominantly caused by an allergy to agents used in the manufacturing process of NRL products. It is also known as allergic contact dermatitis and the severity can vary greatly. It is characterised by a red rash on the back of the hands and between the fingers. The skin may become leathery and develop blisters. The reaction is delayed, occurring several hours after contact, reaching a maximum after 24-48 hours and then subsiding.

Diagnosis and establishing the causative agent is essential in order to manage the problem correctly.

If you are concerned that you may be developing symptoms of an allergic reaction to latex you should contact Occupational Health.

Skin care and gloves

- Keep skin in good condition using daily moisturisers.
- Cover cuts to hands with waterproof plasters at work.
- Use appropriate type of glove for procedures where protection to the hands is agreed policy.
- Do not use powdered gloves.
- Change gloves frequently.
- Remove gloves and wash hands at earliest opportunity.
- Dry skin carefully and well.
- If you notice any change in your skin - dryness, chapped skin or itchy rash, seek advice from occupational health.

For more detailed guidance see [this document](#)