



Just the Facts...

Latex Allergy

What causes latex allergy?

Latex allergy can result from repeated exposures to proteins in natural rubber latex through skin contact or inhalation. The amount of exposure needed to sensitize individuals to natural rubber latex is not known, but decreasing exposure leads to less risk of sensitization and less symptoms in those who are sensitized.

What are the symptoms of latex allergy?

Reactions usually begin within minutes of exposure to latex, but they can occur hours later and can produce various symptoms. These include skin rash and inflammation, respiratory irritation, asthma, and in rare cases anaphylactic shock. In some instances, sensitized employees have experienced reactions so severe that they impeded the worker's ability to continue working in their current job. Between 1988 and 1992, the Food and Drug Administration (FDA) received reports of more than 1,000 systemic allergic reactions to latex, 15 of which were fatal.

How common is latex allergy?

The prevalence of latex allergy in health care workers ranges from 5 to 10 percent; however, it may be as high as 24 percent in those with an atopic history. In comparison, studies have shown that 1-6% of the general population has latex sensitivity.

Who is at risk for latex allergy?

People at increased risk for developing latex allergy include workers with ongoing latex exposure, persons with a tendency to have multiple allergic conditions, and persons with spina bifida. In the health-care industry, workers at risk of latex allergy from ongoing latex exposure include physicians, nurses, aides, dentists, dental hygienists, operating room employees, laboratory technicians, and housekeeping personnel. Other workers using latex gloves less frequently are also at risk.

I've heard that some food allergies are related to latex allergy. Which food allergies?

Latex allergy is associated with allergies to certain foods such as avocados, potatoes, bananas, tomatoes, chestnuts, kiwi fruit, and papaya.

How can latex allergy be prevented?

Methods of preventing latex allergy include:

- Using non-latex gloves for activities not needing infection barriers (such as food preparation)
- Using non-latex or powder-free latex gloves with low protein content for activities requiring infection barrier (such as phlebotomy)
- Avoiding hand cream when using latex gloves
- Frequently cleaning areas contaminated with latex dust, and changing ventilation filters and vacuum bags in areas where latex is used.

How is latex allergy diagnosed?

When latex allergy is suspected, a physician should be consulted. Medical history should include symptoms, onset, exposure history, presence of spina bifida or frequent surgeries, and history of other allergies. There is an FDA-approved blood test that can be used to detect latex antibodies. Although there are diagnostic tests using glove material and skin prick tests using a drop of liquid containing latex protein, these are not yet FDA approved, and severe reactions may result.

Testing is also available to diagnose allergic contact dermatitis, due to allergy to the chemical additives often used in glove manufacture. In this FDA-approved test, a special patch containing additives is applied to the skin and checked over several days. A positive reaction is shown by itching, redness, swelling, or blistering where the patch covered the skin.

Are all reactions to gloves related to latex allergy?

No. The most common reaction to glove use is ***irritant contact dermatitis***, and this can occur with exposure to non-latex gloves or chemicals at work as well. Irritant contact dermatitis is marked by dry, itchy, irritated areas on the skin, usually the hands. The reaction can also result from repeated hand washing and drying, incomplete hand drying, use of cleaners and sanitizers, and exposure to powders added to the gloves. Irritant contact dermatitis is not a true allergy. ***Allergic contact dermatitis*** (delayed hypersensitivity) results from exposure to chemicals added to latex during harvesting, processing, or manufacturing. These chemicals can cause skin reactions similar to those caused by poison ivy. As with poison ivy, the rash usually begins 24 to 48 hours after contact and may progress to oozing skin blisters or spread away from the area of skin touched by the latex. ***Latex allergy*** (*immediate hypersensitivity*) can be a more serious reaction to latex than irritant contact dermatitis or allergic contact dermatitis. Certain proteins in latex may cause sensitization (positive blood or skin test, with or without symptoms). Although the amount of exposure needed to cause sensitization or symptoms is not known, exposures at even very low levels can trigger allergic reactions in some sensitized individuals. Reactions usually begin within minutes of exposure to latex, but they can occur hours later and can produce various symptoms. Mild reactions to latex involve skin redness, hives, or itching. More severe reactions may involve respiratory symptoms such as runny nose, sneezing, itchy eyes, scratchy throat, and asthma (difficult breathing, coughing spells, and wheezing). Rarely, shock may occur; but a life-threatening reaction is seldom the first sign of latex allergy. Such reactions are similar to those seen in some allergic persons after a bee sting.

What precautions should be taken when latex allergy is diagnosed?

Once latex allergy is diagnosed, the affected individual should avoid exposure to latex. Creating a latex-free environment is probably not possible, but latex-safe environments can be achieved. Latex-sensitive individuals should not handle latex, and they should make their healthcare providers aware of their allergy, so that exposure to latex medical devices can be avoided. For those with serious symptoms, such as asthma, a change in work environment may be needed if latex cannot be completely removed from the area (such as operating rooms.)

Is there a MEDCOM policy on latex allergy prevention?

MEDCOM Regulation 40-44, published 6 June 2002, "Latex Allergy Prevention" states the Army MEDCOM policy, which includes:

- Identifying where latex is used
- Using only powder-free latex gloves where latex gloves are used.
- Educating health care workers and patients about latex allergy and how to prevent it.
- Ensuring that all patients, soldiers and employees working with latex are screened for allergy.
- Reducing latex use through substituting non-latex products wherever practical.
- Taking measures to make the environment latex safe for those identified as sensitive.

Where can I find more information about latex allergy?

A comprehensive document, including epidemiology, diagnosis and prevention of latex allergy can be found at: <http://www.cdc.gov/niosh/latexalt.html>

Information from NIOSH on preventing latex allergy can be found at <http://www.cdc.gov/niosh/latexfs.html>.

The following publication from NIOSH can be used to educate health care workers about preventing latex allergy: <http://www.cdc.gov/niosh/98-113.html>

OSHA published the following technical bulletin about the potential for allergic reactions due to latex: http://www.osha-slc.gov/dts/tib/tib_data/tib19990412.html