

Latex Sensitivity Reactions

There are three main types of latex sensitivity reactions.

Irritant contact dermatitis (non-allergic or non-immune) has a gradual onset, taking days, and is caused by additives used in the latex glove manufacturing such as “rubber accelerators.” Symptoms can include redness, cracks, fissures, and scaling.

Allergic contact dermatitis begins 6 to 48 hours after contact. Symptoms, which are also caused by the rubber accelerators and chemical additives, include redness, tiny blisters, itching, crusting and sometimes blisters. This can resemble the reaction to poison ivy or poison oak. Approximately 80 percent of allergic reactions are this type.

The third type of reaction is immediate hypersensitivity, or “IgE mediated” reaction, which is caused by the natural latex proteins found in rubber. It starts within minutes and rarely lasts longer than 2 hours. Early symptoms are usually itching and burning on the hands and a runny nose. More severe symptoms include hives on the body, light-headedness, swelling of the lips or eyelids, nausea, vomiting, abdominal cramps, , wheezing, and anaphylactic shock. It is possible to have used latex for years without problems and suddenly progress to systemic symptoms. Anaphylactic reactions to latex have occurred in people who have previously experienced only mild hand rashes from latex.

FDA-approved lab tests to measure latex allergy are available. Perhaps 6% of the population has a tendency to develop allergy to latex according to lab tests, but only about 1.5% actually develops it. These tests are limited because a positive result does not always prove or disprove latex allergy. Tests include the Pharmacia CAP and the AlaSTAT tests. A negative lab test despite a strong positive history of allergic sensitivity would need a skin prick test to confirm the diagnosis. People heavily exposed to latex are much more likely to become allergic.

Because latex is a natural product of the rubber tree, many other fruits in this family of plants will have similar proteins. These proteins are so similar that the immune system recognizes these as latex proteins and then responds to it. The most common cross-reactivity has been found between latex and such foods as banana, avocado, chestnut, passion fruit, kiwi fruit, potatoes, and tomatoes, all of which have been found to be chemically (“antigenically”) similar to latex.

Products That Contain Latex

Medical Products:

- Adhesive tape
- Ambu bags
- Blood pressure cuffs
- Bulb syringes
- Crutches (arm and hand pads)
- Electrocardiogram electrode pads
- Elastic bandages
- Electrode pads
- Endotracheal tube
- Face masks, straps

Gloves
Mattresses on stretchers
Nasopharyngeal and oropharyngeal airway tubes
Reservoir breathing bags
Rubber syringe stoppers
Stethoscope tubing
Teeth protectors
Tourniquets
Tympanometers
Urinary catheters
Ventilator bellows and hoses
Wheelchair tires, cushions
Wound drains

Household and Personal Items:

Automobile tires
Bath mats
Buttons on electronic equipment
Carpet backing and pads
Computer mouse pads
Condoms
Contraceptive sponges
Diaphragms
Dishwashing gloves
Foam rubber Hot water bottles
Pencil erasers
Rubber bands
Rubber cements

Infant and Child Items:

Balloons
Bottle nipples
Elastic in clothing and disposable diapers
Halloween masks
Infant pacifiers
Rubber balls
Rubber toys

Sports Items:

Athletic shoe soles
Rubber boats
Scuba face masks
Sports racquet handles
Swimming caps and goggles

Foods that Commonly Cross-React with Latex:

Avocados
Bananas
Chestnuts
Kiwi
Passion fruit
Potatoes
Tomatoes

Other Foods that can Cross-React with Latex:

Apples
Apricots
Celery
Cherries
Figs
Grapes
Melons
Milk
Papayas
Peaches
Pineapples

Questionnaire to determine Latex Sensitivity:

Allergies

1. Do you have a history of hay fever, eczema, asthma, hives, rashes, or allergic reactions to certain drugs?
2. Do you have a history of allergic reactions (rash, swelling, oral itching or wheezing) after eating certain foods such as bananas, avocados, kiwis or chestnuts?

Occupationally related symptoms

3. Have you ever had an allergic response to something in your work environment?
4. Are you exposed to any latex-containing products at work?
5. Have you ever developed a rash on your hands after wearing latex gloves? If so, how long after wearing the gloves did the rash develop, and what did the rash look like?

Risk factors for latex allergy

6. Do you have spina bifida or urinary tract problems requiring frequent catheterizations?
7. Have you ever had an operation? If so, how many?
8. Have you ever worked in an environment with latex products?

Hidden reactions to latex

9. Have you ever had a rash, swelling, shortness of breath, itching, cough, wheezing, or itchy eyes while wearing household gloves, blowing up a balloon, using a condom or diaphragms, or after a rectal or vaginal examination?
10. Have you ever had an allergic reaction without a known cause, especially during surgery, hospitalization, or dental procedure?