

## 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?