# Latex Allergy

## Information for Health Professionals

## What is latex allergy?

Latex is found in a variety of products, from everyday household items to many articles used in routine medical and dental care. An allergic reaction to natural rubber latex is actually a reaction to a protein contained in the sap of the Brazilian rubber tree *(Hevea brasiliensis)*. This sap is used in manufacturing latex products. If someone who is sensitive to this protein comes in contact with it by touching or breathing it, an allergic reaction can occur. This allergic reaction can range from a simple skin rash to shock (which is rare). The amount of latex exposure needed to produce sensitization or an allergic reaction is unknown, but frequent exposure to latex proteins increases the risk.

People who experience allergic symptoms should avoid contact until medically evaluated. Some other chemicals used in the manufacture of latex gloves and other latex products may also cause sensitization and serious reactions, particularly skin reactions.

## What items contain natural rubber latex?

Latex is used in a variety of products. Many everyday items contain latex but not all brands of all these items always contain latex. Check labels or contact the manufacturer. Following are examples of some products that may contain latex:

- medical devices, such as gloves, syringes, blood pressure cuffs, bandages, IV tubes and catheters;
- dental items, such as toothbrushes with rubber grips, irrigation tips, dams, orthodontic rubber bands and elastic;
- clothing items, such as the elastic waistband in pants, underwear, sneakers, socks and pantyhose, swimsuits;
- children's items such as bottle nipples, diapers, rubber pants, pacifiers, teething toys, infant gum massagers and toys;
- household items such as flooring, rug mats, bathmats, rubber gloves, tires and mats;
- personal care items such as diaphragms, condoms and adult diapers;
- office supplies, such as rubber bands and erasers;
- school supplies, such as erasers, rubber cement and paint.

## How common is an allergy to natural rubber latex?

It is difficult to determine just how widespread a problem latex allergy may be. Less than one percent of the general population is reported to have a reaction to latex. Despite this, more than 1,700 cases of latex allergy have been reported to the U.S. Food and Drug Administration (FDA) since 1988. Many more cases probably go unreported. Latex allergy reactions occur more frequently in high-risk professions due to increased exposure to latex products. In the health care profession, up to 12 percent of staff may be affected.

## Latex has been used for many years. Why is it now becoming a problem?

The increase in latex allergies is believed to be linked to the dramatic increase in latex glove use since the introduction of universal precautions in health care settings to prevent the spread of HIV/AIDS and hepatitis B. In addition, the use of latex gloves in other settings (e.g., food service and restaurants, day care) has proliferated. From 1991 to 1996, the number of latex gloves imported in the United States increased by 247 percent. NIOSH (National Institute for Occupational Safety and Health) has reported that changes in the manufacturing process of some latex products may have contributed to the increase in observed latex allergy.

## What are some of the symptoms of latex allergy?

- localized skin rash or itching (generally on the hands);
- hives;
- swollen red skin;
- swollen lips and tongue with difficulty breathing, wheezing;
- shortness of breath;
- dizziness;
- fainting;
- abdominal pain;
- diarrhea;
- anaphylactic shock.

Anaphylactic shock is rare. The risk of anaphylactic shock seems to be greatest in people who have had previous allergic reactions to products that contain latex or prior unexplained anaphylaxis. Health care workers with a history of worsening latex allergy symptoms should be especially cautious.

## Who is at risk?

Those at risk include people whose job or medical status puts them in frequent direct contact with latex. Health care workers and dental workers are those most often exposed to latex, principally by using latex gloves that are powdered to make them easier to put on. The powder binds with the latex proteins and becomes airborne. It can then be inhaled and cause an allergic response. People at increased risk include:

- multiple allergy sufferers;
- children with spina bifida or multiple surgeries at an early age;
- health care workers: doctors, nurses, surgical staff, dentists, dental hygienists, emergency medical services personnel, lab technicians;
- people who undergo frequent medical procedures such as catheterization;
- anyone working in the latex rubber industry (tire factories, rubber manufacturing and glove manufacturing);
- child care providers;
- food service workers;
- housekeeping staff in and outside of health care facilities;
- law enforcement professionals;
- firefighters;
- funeral home employees;
- hairdressers;
- people with a history of worsening allergic reaction to foods known to cross react (see below) with natural rubber latex.

## What is a cross reaction?

People allergic to latex may also be allergic to similar proteins found in some food items. This is called a cross reaction. When this occurs, your body responds with the same allergic symptoms that you would have if you were exposed to latex. Cross reactions differ from one individual to another. Someone may have a reaction to all the foods noted to cause cross reaction while another may have no reaction at all. Likewise, if you are allergic to any of the food items listed below, you may also be allergic to latex. If you are allergic to any of the listed food items, inform your doctor before undergoing any medical procedure. People allergic to these foods have been known to have cross allergic reactions during surgery.

## What foods may cause a cross reaction?

Following are *some* foods that may cause a cross reaction:

- apples, bananas, kiwi, peaches, plums, figs, grapes, melons, papaya, passion fruit, cherries, nectarines, pears, pineapple and strawberries

- carrots, celery, raw potatoes, avocados and tomatoes;
- chestnuts and hazelnuts;
- wheat and rye.

## What can I do to reduce the risk of developing an allergy to latex?

- If you work in a job that exposes you to latex, take advantage of all latex allergy education and training provided by your employer.
- Learn the symptoms of latex allergy and seek medical attention as appropriate.
- For activities that are not likely to involve contact with infectious material (food preparation and housekeeping) nonlatex gloves may be used. If latex gloves are used, powder-free gloves with reduced protein content may reduce the risk of developing an allergy to latex.
- When wearing latex gloves, do not use oil-based hand creams or lotions (which can cause glove deterioration).
- After removing latex gloves, wash hands with mild soap and dry them thoroughly.

## What should I do if I suspect I have a latex allergy?

- Avoid contact with latex products.
- Be evaluated by a physician experienced in diagnosing latex allergy.

## What are some things I can do to protect myself if I am allergic to latex?

- Avoid contact with natural rubber latex products.
- If you have to wear gloves in your work, ask your employer for nonlatex gloves. For health care workers, nitrile gloves are an appropriate alternative to latex.
- Avoid areas where you might inhale the powder from latex gloves worn by other workers.
- Wear a personal medical emergency ID bracelet.
- If prescribed by your physician, carry an emergency epinephrine kit in case you are accidentally exposed to latex and go into anaphylactic shock. Learn how to use it and make sure family members, friends and fellow employees know how to use it.
- If you use latex-based products on the job, alert your employer about your allergy.
- Before dental and medical procedures or examinations, alert health care providers about your allergy. Ask to be scheduled as the first patient in the morning to minimize your exposure to airborne latex particles.
- Participate in educational and training programs regarding latex allergy.
- If the allergy sufferer is a child, alert school and/or day care providers.
- Work with your allergist, local hospital and medical facilities to find latex-safe environments where you can go for treatment.
- If you come in contact with local emergency responders (police, fire or ambulance service), let them know if you are allergic to latex before they put on gloves.

## What are health care facilities doing to protect people with latex allergy?

Hospitals and health care facilities are beginning to create latex-safe treatment areas and surgical suites to accommodate people who are allergic to latex. Check with your local hospital. Some facilities have also set up systems for identification of staff and patients with latex allergy. In addition, many facilities have moved to low protein, powder-free or nonlatex gloves.

## Where can I get more information?

### Governmental Sources

- U.S. Food and Drug Administration (FDA), 5600 Fishers Lane, Rockville, MD 20857, 1-888-463-6332
  http://www.fda.gov
- National Institute for Occupational Safety and Health (NIOSH), Hubert H. Humphrey Bldg., 200 Independence Ave., Room 715H, Washington, DC 20201, 1-800-356-4674
  http://www.cdc.gov/niosh
- Occupational Safety and Health Administration (OHSA), U.S. Department of Labor, 200 Constitution Ave, Washington, DC 20210
  http://www.osha.gov
- New York State Department of Health (DOH), Center for Environmental Health, 547 River Street, Troy, NY 12180
  www.health.ny.gov

## Other Sources

- American College of Allergy, Asthma and Immunology, 85 West Algonquin Road, Suite 550, Arlington Heights, IL 60005
  http://www.acaai.org/Pages/default.aspx
- Spina Bifida Association of America, 4590 MacArthur Blvd. Suite 250, Washington, DC 20007-4226, 1-800-621-3141
  http://www.sbaa.org
- University of Wisconsin
  http://www.familyvillage.wisc.edu/lib_latx.htm

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