

## **Environmental Fact Sheets**

### **Latex Allergy**

#### **What is Latex Allergy?**

During recent years, reports of an allergic reaction to latex gloves and other latex products have increased, especially for health care workers. It is estimated that 8% to 17% of regularly exposed health care workers are sensitized to latex as compared to 1% to 6% of the general population.

#### **What is Latex?**

Latex products are manufactured from a milky fluid derived from the rubber tree. The sap from the tree contains rubber globules and tree proteins. During the processing and manufacture of commercial latex, preservatives and chemicals are added to prevent the latex from degrading and to control the growth of bacteria. Both the proteins and chemicals in latex may cause a range of mild to severe allergic reactions. Several types of synthetic rubber are also referred to as "latex," but these do not release the proteins that cause allergic reactions.

#### **Who is at Risk for Exposure?**

Workers in the health care industry, such as physicians, nurses, dentists, and technicians, are at risk for developing latex allergy because they use latex gloves frequently. Also at risk are workers who use latex gloves less often such as housekeepers, food service workers, hairdressers, ambulance attendants, and law enforcement personnel. Additionally, workers in factories where latex products are manufactured or used can be affected.

Workers in a variety of occupations and persons with a tendency to have allergies are at an increased risk. In the health care setting, many patients may react to latex products. Atopic individuals (persons with a tendency to have multiple allergic conditions) are at increased risk for developing latex allergy. People who undergo frequent medical procedures, such as children with spina bifida, are at increased risk for latex allergy.

#### **In What Products is Latex Found?**

In the health care industry, latex can be found in many products including medical gloves, airway/respiratory devices, dental and surgical equipment, catheters, tubing, injection ports, and other items. Latex is also found in personal protective equipment, office supplies, condoms, and many household products.

#### **Why are Latex Gloves an Issue?**

With the institution of more protective measures for handling infectious materials in health care facilities and other workplaces, the use of latex gloves for many tasks and procedures has increased dramatically. This in turn has led to more exposure to

latex protein, powder, and chemical additives. The protein in the latex used to make the gloves is the agent that causes sensitization or the allergic reaction. Cornstarch powder used to make the gloves easier to slip on absorbs the latex proteins from the gloves. When a person puts on or takes off the gloves, the particles become airborne and can be inhaled. Other particles may settle on clothing, skin, mucous membranes or any surrounding surface. Other people may experience an allergic reaction from skin contact with the latex protein, cornstarch powder, or from chemicals added to the latex glove.

### **What are the Symptoms to watch for?**

If a reaction is going to occur, it is likely to be one of three types. The most common reaction is **irritant contact dermatitis**, which is characterized by dry, itchy, irritated areas on the skin, usually on the hands. The reaction is caused by irritation from wearing the gloves and by exposure to the cornstarch powder added to them. Another reaction is **allergic contact dermatitis**, also known as chemical sensitivity dermatitis or delayed hypersensitivity. Chemicals added to the latex can cause reactions that may begin with a rash 24 to 48 hours after contact and spread to other areas of the skin. **Immediate hypersensitivity**, or **latex allergy**, can be the most serious reaction to exposure and is usually triggered by the proteins in the latex.

With latex allergy, sensitized persons may experience symptoms within minutes of exposure, but varied symptoms can also occur hours later. Mild reactions to latex involve skin redness, hives, and itching. More severe reactions may involve respiratory symptoms such as runny nose, sneezing, itchy eyes, scratchy throat, and asthma. Rarely, shock may occur, but life-threatening reaction is seldom the first sign of latex allergy.

### **How is Latex Allergy Treated?**

Detecting symptoms early, reducing exposure to latex, and obtaining medical advice are important to prevent long-term health effects. Once a person becomes allergic to latex, special precautions are needed to prevent exposures. Certain medications may reduce allergy symptoms, but complete latex avoidance, though very difficult, is the most effective approach.

### **How can you Prevent Latex Allergy?**

To prevent or reduce latex allergy, employers and workers should cooperate to get the most effective results.

Employers should take the following steps:

- Review glove use and provide alternatives to latex gloves for employees, when there is little potential for contact with infectious materials, such as in the food service industry.
- If latex gloves are chosen for protection from infectious materials, consider providing reduced protein, powder-free gloves.

- Identify areas contaminated with latex dust or powder for frequent cleaning, including ventilation ducts, plenums, and work area surfaces. Make sure that ventilation filters and vacuum bags are changed frequently and safely.
- Provide workers with education and training about latex allergies.
- Evaluate current prevention strategies whenever a worker is diagnosed with latex allergy.

Employees should take the following steps:

- Use non-latex gloves whenever possible if an activity does not involve exposure to infectious materials.
- If you use latex gloves, consider choosing reduced protein, powder-free gloves.
- Use appropriate work practices such as washing hands and drying them thoroughly after wearing latex gloves. Refrain from using an oil-based hand cream, which can deteriorate the glove.
- Use good housekeeping practices to remove latex-containing dust and powder from the workplace. These practices include frequently cleaning areas contaminated with latex dust such as ventilation ducts, plenums, carpets, upholstery, and other surfaces. Change vacuum bags and ventilation filters frequently in a safe manner.
- Take advantage of all the latex allergy education and training provided by your employer.
- Learn to recognize the symptoms of latex allergy and report them to your employer. Avoid contact with latex gloves and products until you can see a physician who understands latex allergy.

### **Where can I get More Information about Latex Allergy?**

For additional information on this subject:

Call NIOSH at 1-800-35-NIOSH or visit its website at <http://www.cdc.gov/niosh/homepage.html> and search "latex allergy".

Review the Food and Drug Administration's (FDA) proposed rule on latex gloves on its website at <http://www.fda.gov/ohrms/dockets/98fr/073099a.txt> .