### University of Minnesota School of Dentistry Policy

Policy Area: Clinical Systems Policy #: Date Adopted: Date Amended: 2013

# Latex Allergy Policy

## I. Purpose

Latex gloves have proved effective in preventing transmission of many infectious diseases to health care workers. But for some workers, exposures to latex may result in allergic reactions. Reports of such reactions have increased in recent years, especially among health care workers.

Latex allergy is a reaction to certain proteins and chemicals in latex rubber products. The amount of latex exposure needed to produce sensitization or an allergic response is unknown; however, increasing the exposure to latex increases the risk of developing allergic symptoms. Health care workers are at risk due to their continued exposure to the latex proteins. Since 1988, FDA reported the number of allergic reactions to latex - containing medical devices at 1% of the general public and 8-12% of healthcare workers and others exposed to latex on their jobs.

Latex is a common component of disposable gloves, stethoscopes, adhesive bandages, syringes, rubber dams, prophy cups, suction tips, bite blocks, IV tubing, rubber bands, pencil erasers, and many other medical and dental supplies. Because of frequency of use, latex gloves are the most significant source of exposure among healthcare workers. Cornstarch powder previously used to line disposable gloves can absorb latex proteins and then become airborne resulting in asthmatic reactions among individuals who did not use gloves but merely inhaled latex-containing dust.

#### Incidence of latex Reaction

Studies indicate that 1-6% of the general population is sensitized to latex. A smaller group of the population has been classified as higher risk for latex sensitization. Those individuals include:

- 1 persons with multiple allergies, including food allergies,
- 2 persons with spina bifida or other neural tube defects,
- 3 persons who have undergone multiple surgical procedures
- 4 persons requiring multiple bladder catheterizations.

#### Severity of Latex Reaction

The type and severity of reaction depend on the level of sensitivity, the amount of allergen, and the site of exposure. A number of exposures may occur before any clinical symptoms appear. In attempting to predict latex reaction, it is important to remember three key factors:

- 1 the severity of a previous reaction does not reliably predict the severity of a future reaction,
- 2 even casual contact with latex can cause severe reactions in highly sensitive individuals, and
- 3 latex allergy can be mistaken for other allergies.

## II. Policy

#### Exposure Control for Health Care Workers

Implementing the following recommendations outlined by NIOSH (National Institute for Occupational Safety and Health) can minimize latex exposure in the dental setting:

1 Use non-latex gloves for activities that are not likely to involve contact with infectious materials, e.g. routine housekeeping.

2 Use powder-free latex gloves for activities that potentially involve contact with infectious

materials.

3 When wearing latex gloves, do not use oil-based hand creams or lotions unless they have been shown to reduce latex-related problems.

4 Wash hands with a mild soap and dry thoroughly after removing gloves.

5 Frequently clean work areas that may be contaminated with latex particles.

6 If you develop symptoms of latex allergy, avoid direct contact with latex gloves and products until you can see a physician experience in treating latex allergy.

7 Attend continuing education programs and review training materials about latex allergy.

#### PROCEDURES FOR TREATING PATIENTS

#### Identification

Identifying patients at risk should be a specific and integral part of the medical history, both initial and update. The following questions can help determine the likelihood of a patient with a latex allergy:

1 Have you ever had or been told you had an allergy to latex (rubber) products?

2 When exposed to rubber gloves, glove powder, balloons, adhesive bandages, rubber toys, or other rubber products have you ever experienced: itching, swelling, watery eyes, hives, wheezing, or other breathing difficulties.

3 Have you ever experienced itching, swelling of the lips, or other allergic reaction during a dental exam or during the use of a dental rubber dam?

4 Have you ever experienced an unexplained allergic reaction during surgery, a urinary catheterization, barium test, or other medical procedure?

5 Have you ever experienced itching or swelling of the mouth or other allergic reaction when eating avocados, chestnuts, bananas, kiwi, papaya, or other tropical fruits? If the patient answers YES to any of these questions, the dental healthcare provider should consult with the patient's allergist before proceeding with any dental care.

#### Precautions for latex allergic patients

1 Obtain latex-free materials from the Dispensary for each appointment. Vinyl and nitrile examination gloves are available.

2 Encourage latex-allergic, latex-sensitive patients to obtain and carry with them some type of allergy identification such as a medical alert bracelet.

3 If a patient demonstrates symptoms of latex allergy, immediately stop procedure, remove any problematic items from contact with patient, and notify your supervising faculty. They will determine if a medical emergency response is necessary.

#### Exposure control for patients

The amount of exposure necessary to sensitize individuals is not known, but reductions in exposure to latex proteins can result in decreased sensitization and symptoms, according to NIOSH. Care must be taken with all patients to reduce their levels of exposure to latex by:

1 Wear non-latex gloves when setting up the dental operatory and handling instruments.

2 To reduce the possibility of the latex protein becoming airborne, care must be taken by the healthcare worker not to snap powdered gloves off and on.

3 By touching any latex object, or object that has been stored with a latex product, then touching the patient, the healthcare worker can transmit the latex allergen to the patient. Caution should be taken to keep glove powder away from the patient since the powder will act as a carrier for the latex protein; hands should be washed after removing gloves.

4 Non-latex gloves and Non-powdered latex gloves should be utilized whenever possible.

## III. Definitions

**Irritation Dermatitis** - is the most common reaction to latex products and is characterized by development of dry, itchy, irritated areas on the skin, usually the hands. This reaction is caused by skin irritations from using gloves, powder in the gloves, and possibly exposure to other workplace products and chemicals. Irritation dermatitis is a non-specific response and a true immune allergic reaction.

Allergic Contact Dermatitis (Type IV hypersensitivity or delayed hypersensitivity) - results from exposure to the 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 24-48 hours after contact and may progress to oozing skin blisters.

Latex Allergy (Type I or immediate) - the most serious of the reactions that usually begins within minutes of exposure to latex, but can occur hour later with a variety of 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. Anaphylactic shock may occur on rare occasions.

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