Latex Allergy: Asthma and Occupational Asthma Fact Sheet

By Dr. Michael C. Zacharisen, MD for Latex Allergy 101

1 in 10 cases of asthma in adults is caused by or worsened by exposures at the workplace
Up to 18% of healthcare workers have natural rubber latex allergy

Natural rubber latex products contain large rubber proteins from the rubber tree that can:
1. Stimulate the immune system to make allergic antibody that can be measured in blood (IgE)
2. Be carried on cornstarch particles and become airborne and inhaled into the lungs

Sources of airborne latex: powdered natural rubber latex gloves, rubber balloons

At risk jobs:

- Health care workers: physicians (especially surgeons), dentists, nurses, dental hygienists, dental and medical students, and laboratory technicians
- Housekeeping staff
- Food handlers

Diagnosis: Establish Asthma **AND** determine whether asthma is triggered by latex.

- Asthma symptoms (cough, wheeze, chest tightness, shortness of breath)
- Location: Initially at workplace that usually improves away from work, on weekends and while on vacation; however, over time, symptoms can become persistent
- Examination by physician
- Chest x-ray: can help eliminate other lung problems, but can be normal in asthma
- Spirometry: a simple breathing test that can establish air flow obstruction.
- Methacholine challenge: A breathing test to confirm asthma when spirometry is normal.
- Latex allergy: blood (IgE RAST or ELISA); there is no skin test extract available

Treatment:

- Avoid and/or reduce airborne latex: Substitute powdered latex gloves with low protein powder-free latex gloves or latex-free gloves).
- Avoid rubber balloons
- Once allergic to latex, other irritants like smoke and fumes can aggravate asthma
- Using face masks can reduce latex exposure, but does not completely prevent latex asthma.
- Treat asthma with usual asthma medications.
- Desensitization injections are not currently available for treatment.