Managing Latex Allergies
What is a latex allergy?

- Latex allergies are reactions to the proteins present in natural rubber latex
- The first documented case of immediate hypersensitivity to latex occurred in 1979

Latex tapped from the rubber tree (hevea brasiliensis)

Concentrated natural rubber latex
Causes of Increased Latex Allergy

- Glove use increased dramatically between 1988 and 1992 due to the establishment of universal precautions
- The increase in demand for gloves led to a decrease in glove quality due to inadequate glove washing during the manufacturing process
- More water-soluble proteins were retained in the gloves, resulting in an increase in allergic reactions
Types of Latex Reactions

- Irritant contact dermatitis
- Allergic contact dermatitis
- Immediate hypersensitivity
Irritant Contact Dermatitis

- Local skin reaction due to the mechanical abrasion of the glove, hand washing, inadequate rinsing or drying of hands, hand scrubs, antiseptics, or glove powder

- Not considered a true allergy because the immune system isn’t involved
Irritant Contact Dermatitis

- Dry, crusty, hard bumps
- Sores and horizontal cracks on skin on the back of the hands under gloves
Allergic Contact Dermatitis

• Also known as delayed hypersensitivity, Type IV cell-mediated reaction

• Caused by exposure to chemicals encountered in latex manufacturing

• Most common type of latex reaction
**Allergic Contact Dermatitis**

- Erythema (redness or rash)
- Pruritus (Itching)
- Vesiculitis (red, scaly rash)
- Papules (raised lesions)
- Exfoliation (peeling)
- May have horizontal cracks extending up the forearm
- May appear 6-48 hours after glove contact and persist for several days
Immediate Hypersensitivity

• Also called Type I IgE-mediated reaction

• Caused by exposure to proteins in latex on the surface of gloves or bound to the powder in the gloves and aerosolized, settled on objects, or transferred by touch

• This is a TRUE latex allergy – a systemic reaction that can be life-threatening
Immediate Hypersensitivity

- Edema and itching around eyes
- Rhinitis
- Itching nose
- Sneezing
- Urticaria (hives)
- Wheezing

- Shortness of breath
- Asthma
- Bronchospasm
- Sudden attack – blood pressure drops and heart rate increases, which can lead to circulatory collapse and anaphylactic shock
Latex Allergy Patients

- Patients who have had a known reaction during prior surgical/medical interventions
- Patients with history of allergy symptoms during non-medical latex contact
- Patients with spina bifida and congenital urological anomalies
Latex Risk

- Involved in manufacture of items containing natural rubber latex
- History of multiple allergies, especially to certain tropical fruits
- Undergone multiple surgical procedures
- History of asthma
- Chronic illness
- Regular wearing of latex gloves
- History of spinal cord injury
Identification of Patients With Latex Allergy /Risk

• Ask all patients about allergies to medications, food, and latex
• Foods such as kiwi, bananas, raw tomatoes and potatoes, water chestnuts, etc. have cross-sensitivities to latex allergies
• Patients needing latex precautions will have their chart labeled and signs posted
Latex Precaution Signs & Labels

Place latex precaution sign on door

Latex precaution stickers will be applied to the patient’s identification bracelet and the patient’s chart

Policy: Latex Allergy Management
CL 30-04.11

https://mcapps.mc.vanderbilt.edu/E-Manual/Hpolicy.nsf/AllDocs/3ECFE7F30D8CFCAD8625692200743388
Scheduling
Whenever possible, a latex-sensitive patient should be scheduled as the first case of the day!
Preparing a Latex Safe Environment

• Remove **ALL** latex containing products from the OR (gloves, tourniquets, tape, etc.)

• Items that cannot be removed from the room should be placed in a closed storage area and marked: “*Do not use – latex allergy*”

• Once all latex items are removed, clean the room using nitrile gloves in order to remove any latex-containing dust that may be present in the area
Preparing a Latex Safe Environment

- Items that contain latex should have the latex portion wrapped with a latex-free materials to protect the patient
- Restock the room with latex-free gloves/ products
- Place a latex precaution sign on the door
- Prior to patient contact, wash your hands!
- Communicate the need for latex precautions to all areas and staff involved in caring for the patient
Pharmacy Considerations

• Anesthesiologist will determine if all latex-free products and medications are immediately available

• All vials with medication stoppers will be removed BEFORE preparing doses unless the vial is clearly labeled latex-free or the Pharmacy has determined the stopper to be latex-free
Other Considerations

• Surgical team will review all supplies needed for the patient prior to surgery to determine if they are appropriate
• Surgical team will protect patient from latex exposure
• Restrict traffic flow in the room
Signs/Symptoms of a Latex Allergic or Anaphylactic Reaction in the AWAKE Patient

- Itchy eyes
- Generalized pruritus
- Shortness of breath
- Feeling of faintness
- Nausea/Vomiting
- Abdominal cramping
- Diarrhea
- Wheezing
Signs/Symptoms of a Latex Allergic or Anaphylactic Reaction in the ANESTHETIZED Patient

- Tachycardia
- Hypotension
- Wheezing
- Bronchospasm
- Cardiopulmonary Arrest
- Flushing
- Facial edema
- Urticaria
- Laryngeal edema
Managing a Reaction

• Notify anesthesia provider immediately

• Anesthesia provider will administer 100% oxygen and may order/administer a fluid bolus and medications

• Anaphylaxis medications should be kept in an area that allows immediate availability for patient use
Latex-Free Product Information

• Look at package label to determine latex content of products
• Use latex-free IV tubing, syringes, tourniquets, etc. on all patients requiring latex precautions
• Emergency carts will be maintained as latex-free except for items that have no latex-free alternative
• Latex items will be labeled as containing latex

Caution: This Product Contains Natural Rubber Latex Which May Cause Allergic Reactions.
Patient/Family Education

• Level of sensitization: latex risk or allergy?
• Information to share with healthcare workers
• Signs/symptoms of allergic reaction and appropriate management
• Identification and use of non-latex products at home and in community settings
• Correlation between certain foods and latex allergic reactions
Reducing Your Risk

- Use non-latex gloves if possible
- If latex gloves must be used, select reduced-powder gloves or powder-free gloves with reduced protein content
- Be aware that gloves labeled “hypoallergenic” are not latex-free; however, they may reduce reactions caused by chemical additives in latex
- Do not use oil-based hand creams or lotions when wearing latex gloves
- Wash hands after removing latex gloves
- Consult a physician if you experience signs/symptoms of latex allergy