

Latex Safe at School

A Student-Centered Approach

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Providing a safe environment for students at risk for anaphylaxis from a latex allergy requires care coordination and collaboration of all members of the school community. Strategies for allergy management include educating the school community, identifying potential exposure to latex, preparing to respond in an emergency, and creating a plan for the future. With the student at the center of sound planning, the school can provide a secure and healthy environment.

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Imagine navigating a school environment where you are at risk of having a life-threatening reaction from exposure to a balloon, eraser, rubber band, basketball, or banana. Many school nurses have experience in the prevention and management of food allergies, but latex allergy puts susceptible children and staff at risk of an equally serious anaphylactic reaction.

Providing a safe environment for students at risk for anaphylaxis from a latex allergy requires care coordination and collaboration of all members of the school community. The school nurse is the leader in the school community to provide information and support to the school staff.

Latex Allergy Facts and Considerations

Latex allergy is present in 1% to 6% of the general population and often affects

workers in the health care industry who become sensitized to latex from gloves and other latex products. Symptoms may be mild at first, progressing from skin redness, urticaria, and itching to a more dramatic situation with nasal drainage, sneezing, itchy eyes, throat irritation, and even the development of asthma. Latex allergies can also develop to the point that the affected person can experience anaphylaxis (Centers for Disease Control and Prevention, 2011). The allergen in latex is the protein in a natural rubber product or related food, and the severity of a reaction or allergy is thought to be related to the length of time that the patient has been exposed to the latex or rubber product (Spina Bifida Association, n.d.).

In the school setting, we often see latex allergies in children and youth who have experienced multiple medical procedures. One affected population is children with spina bifida exposed to latex products from frequent surgeries as well as on a daily basis for bowel and bladder management. Latex gloves, tubing, tapes, bandages, and catheters are potential allergens for this special population (International Federation for Spina Bifida and Hydrocephalus, n.d.).

The keys, as in all allergy management, are avoidance and prevention of exposure to the allergen. This creates the need for a balance of two contradictory needs for children with allergies:

1. the right to access their free, appropriate educational program

2. the need to have a safe environment with minimal risk of exposure to their allergen.

Creating a “latex-safe environment” involves not only avoiding common latex-containing products such as balloons, certain bandages, rubber bands, erasers, and some sports equipment but some foods as well. It has been found that foods with similar proteins to latex cause an allergic reaction in 30% to 50% of individuals with a latex allergy. The most common foods connected to latex allergy are banana, kiwi, avocado, chestnut, white potato, and tomato (Gawchik, 2016).

Four strategies of allergy management can make the difference between life and death for a student or staff member with a latex allergy. These four components are:

1. educating the school community
2. identifying potential exposure to latex
3. preparing to respond to an emergency
4. creating a plan for the future.

Educating the School Community

It is often said that “it takes a village to raise a child.” To establish and maintain a latex-safe school environment, it takes the entire school community. The school nurse or school administrator should begin by listening to the student, parent, and their health care provider to ascertain what the child’s health and

Allergy & Asthma Network provides a list of products by category that commonly contain latex in the school setting (see <http://www.allergyasthmanetwork.org/education/allergies/latex-allergy/>).

social history is and what specific triggers are issues for this student. It is important for parents and school health professionals to “build a bridge” and develop an approach that will best serve the individual student’s needs. Some suggestions may include:

- Educate staff as soon as possible when an individual with latex allergy will be entering the school community. Give staff, parents, and students time to process new information and ask questions to address their concerns.
- Develop a contact person for the parents. This should be the school nurse but could be a teacher, counselor, or school administrator if a school nurse is not available. This “point person” can aid in communication of specific information about latex allergy and communicate a positive attitude to the school staff regarding allergy management.
- Provide both verbal and written information to school staff to reinforce learning.
- Include the student and parent wherever possible in the staff education process. Remember that no one knows the child as well as the parents or guardians.

Identifying Potential Exposure to Latex

Every school is a unique environment, and the process of identifying areas where allergen exposure may occur is different. Caregivers often take on the role of being “a latex detective.” School personnel, armed with a list of products that may contain latex, should look for high-risk areas and activities in the school. Areas to review and include:

- *Use of gloves in all school areas:* Latex gloves are an issue not only because

of the latex they contain but also because they leave a powder on surfaces or in the air. If there is a person in your school with the latex allergy, it would be highly recommended to use nonlatex gloves in all learning and service areas.

- *Use of latex balloons in all school areas:* Latex balloons, commonly used for many different functions, are often the biggest challenge for students with a latex allergy. The issue goes well beyond touching the latex. Balloons are packed in powder for shipping, and the powder bound with latex proteins from the latex balloon is not easy to spot and becomes aerosolized. Whether the balloon itself is present or not, the residue of this “dust” can be and will cause an environmental hazard (Barker & Montagna, 2005).
- *Posting signage* at entrances and key areas of the school prohibiting latex balloons from being used in the school is recommended when the school has a student or staff member with potential for severe allergy to latex. Balloon bouquets should not be delivered to the school, but if they are, they can be kept in the front office as a holding place until the intended recipient takes them home. Mylar and vinyl balloons provide a safe alternative.
- *Classroom:* Check for natural rubber latex in commonly used items such as erasers and rubber bands, art supplies, and science and lab equipment. Allergy & Asthma Network provides a list of products by category that commonly contain latex in the school setting (see <http://www.allergyasthmanetwork.org/education/allergies/latex-allergy/>).
- *Cafeteria:* Check to be sure that food preparation is done with gloves that do not contain latex or cause latex-powder contamination. It is also important for

cafeteria staff to understand possible cross-reaction between latex in certain foods such as bananas, kiwi, chestnut, and avocado.

- *Gym and playground:* Check for rubber mats and flooring, balls, and racquet handles that may contain latex.
- *Housekeeping supplies:* Use latex-free gloves during school cleaning of classrooms, hallways, and surfaces as latex powder from latex gloves can linger in the air.
- *School bus:* Bus drivers and attendants should be aware of a child’s latex allergy, and any emergency first aid kits should contain only latex-free items.
- *Nurse’s office:* It is especially important that the school health office be a safe environment for a student who may be experiencing a reaction from a latex allergy. Even if the child has their own separate supply of non-latex gloves and other first aid items, the presence of latex in other health-related supplies could easily contaminate surfaces and remain airborne, causing an increased risk of exposure for the individual with the latex allergy.
- *Field trips:* All off-campus field trips should be discussed with the school nurse to determine their safety for any student with a latex allergy. The teacher can request that the parent of a student with a latex allergy attend the field trip, but it cannot be required. If the field trip cannot be made safe for every student participating in the educational activity, it must be canceled as there are laws protecting each student’s rights.

Preparing to Respond to an Emergency

Preventing accidental exposures is the goal of allergy care in the school setting; however, it is wise to always be prepared to respond to an anaphylactic emergency. The school nurse is the ideal person to be a leader in developing a school-wide emergency response plan with specific roles assigned to members of the staff. It is valuable to have a “table

top drill” where a specific scenario is discussed with school staff that are likely going to need to respond if an emergent event occurs.

A student at risk for anaphylaxis should have an emergency care plan written by the school nurse (or health care provider if no school nurse is present). Evidence-based practice recommends the prompt treatment of anaphylaxis with epinephrine first, not antihistamines or corticosteroids (Wood, Traub, & Lipinski, 2013), and the care plan should reflect the need to give epinephrine first and fast (Russell & Schoessler, 2017). If ordered by the health care provider, follow the epinephrine administration with an antihistamine.

Staff needs to be willing and able to administer an emergency care plan, and sound preparation should include asking a staff member to talk through how they would react in an emergency. They need to know where a student’s epinephrine is (or where stock epinephrine is stored, in states that allow it) and how to administer it. This life-saving medication should be stored where it is accessible yet safe and secure.

After an emergency is resolved, the school nurse should always lead a debriefing meeting with all school community members involved in the incident. The debriefing allows nonmedical staff to express their feelings and concerns and helps to evaluate the incident and improve outcomes as you move forward.

Creating a Plan for the Future

A standard of school nursing practice is planning (American Nurses Association & NASN, 2011). Comprehensive planning helps the school nurse to elevate the school care for students who are at risk

for anaphylaxis due to latex. School nurses should create an emergency care plan for any student who has an order for epinephrine. Developing an individualized health care plan will outline specific plans for educating students and developing self-management skills, which would include:

- latex allergy knowledge
- identification of allergens
- avoidance strategies and how to get help in the school setting
- self-medication and emergency response
- self-advocacy skills.

Planning on a school-wide basis should include allergen avoidance strategies with a strong staff education component. The school nurse should confirm that latex allergy is addressed alongside food and other allergies in school district policies and protocols.

The Student at the Center

School is so much more than an educational experience for students. It is a social, academic, cultural, and creative world that the student enters on a daily basis. This environment needs to be secure at all levels of experience, but for students with a latex allergy, it needs to be physically safe as well. The challenge is to create an environment where every child feels accepted and protected. With the student at the center of sound planning, the school can provide a safe and healthy environment. ■

References

American Nurses Association & NASN. (2011). *Scope and standards of school nursing practice*. Silver Spring, MD: Author.

Barker, P., & Montagna, D. (2005). It’s just “balloon-acy”! The hidden dangers of latex

allergy. *Journal of the American Association of Occupational Health Nurses*, 53(6), 241-243.

Centers for Disease Control and Prevention. (2011). *Latex allergy*. Retrieved from <https://www.cdc.gov/healthcommunication/toolstemplates/entertainmented/tips/latexallergy.html>

Gawchik, S. (2016). *Latex allergy diagnosis and management*. Retrieved from http://www.worldallergy.org/professional/allergic_diseases_center/latexallergy/latexsynopsis.php

International Federation for Spina Bifida and Hydrocephalus. (n.d.). *Latex allergies and spina bifida*. Retrieved from <https://www.ifglobal.org/en/37-temp-news/9-latex-allergies#>

Russell, S., & Schoessler, S. (2017). To give epinephrine or not to give epinephrine—That is (no longer) the question! *NASN School Nurse*, 32(3), 162-164. doi:10.1177/1942602X17690402

Spina Bifida Association. (n.d.). *Natural rubber latex allergy*. Retrieved from <http://spinabifidaassociation.org/project/natural-rubber-latex-allergy/>

Wood, J., Traub, S., & Lipinski, C. (2013). Safety of epinephrine for anaphylaxis in the emergency setting. *World Journal of Emergency Medicine*, 4(4), 245-251.

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