

SPOTLIGHT: LATEX (NATURAL RUBBER) ALLERGY IN SPINA BIFIDA PATIENTS

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Latex, the sap of the *Hevea brasiliensis* tree, has been used in the manufacture of medical equipment since 1888 when the first surgical rubber gloves were manufactured. The possibility of severe latex (natural rubber) allergy in individuals with spina bifida was first raised in 1989. Since that time research studies have shown that between 18 and 73% of children and adolescents with spina bifida are sensitive to latex as measured by history or blood test. The type of allergic reaction experienced can range from watery and itchy eyes and/or sneezing and coughing, to hives (a blotchy, raised, itchy, rash) to swelling of the trachea (windpipe) and even to life-threatening changes in blood pressure and circulation (anaphylactic shock).

Although the cause of rubber allergy in individuals with spina bifida is not known, it is theorized that sensitization may occur from the early, intense, and constant exposure to rubber products through multiple surgeries, diagnostic tests and examinations, also from bladder and bowel programs.

Exposure to latex can occur when products containing rubber come in contact

The Food and Drug Administration and the Centers for Disease Control are investigating the problem of rubber allergy and current efforts are aimed at finding the component(s) of latex responsible for causing this allergy, developing methods of

with a person's skin or mucus membranes such as the mouth, eyes, genitals, bladder or rectum. Serious reactions can also occur when latex enters the bloodstream. Some cases of severe reaction following injection of medication through latex stoppers, IV ports or syringes have been reported. In addition, the powder from balloons or gloves can absorb particles and become airborne causing reactions when handled by latex sensitive person. Food that has been handled by latex gloves may also cause a reaction, and people who have allergic reactions to latex may also be allergic to certain foods, including bananas, chestnuts, avocados and kiwi fruit.

Although a lot has been learned about rubber allergy in the last few years, the problem is really just beginning to be studied and understood. Interestingly, health care workers such as nurses, doctors, and dentists, individuals born with severe bladder abnormalities, and some people who have had multiple surgical procedures are also at increased risk for rubber allergy although their risk is much lower than it is for individuals with spina bifida. producing "safe", non allergy causing rubber, and labeling products as to natural rubber (latex) content.

Since the story of rubber allergy is just beginning, and, without a doubt new understanding will emerge over the next

several years, recommendations made now may need to be revised. Because of the life-threatening nature of this allergy a list of current recommendations is included. Individuals with spina bifida and their families are urged to consider the following recommendations and to discuss them with members of their health care team.

1. All individuals with spina bifida should be considered at **high risk** for having an allergic reaction to rubber and should avoid contact with rubber products, particularly during medical or surgical procedures. Only non-latex gloves and catheters should be used. Alternative products, usually made of silicone, plastic or vinyl, can be safely substituted.

2. Individuals who have experienced allergic reactions during surgical or medical procedures should consider wearing a medical-alert bracelet or necklace, carrying auto-injectable epinephrine and sterile non-latex gloves for emergency use, and discussing latex allergy with all health care community providers including school, day care and camp. In addition, consultation with an allergist familiar with the problem is recommended to fully evaluate the risks and the possible need for preoperative treatment with special medications to suppress the potential for severe allergic reaction. Avoidance of all latex-containing items, especially in the operating room, is strongly recommended.

The following commonly encountered items may contain latex and pose a risk to the latex sensitive individual:

Healthcare items which may contain latex: gloves, catheters, tourniquets, elastic bandages, ace wraps, I.V. tubing injection ports, medication vials, adhesive tape, bandaids

Home/community items which may contain latex: balloons, pacifiers, dental dams, rubber bands, elastic in clothing, beach

toys, Koosh balls, baby bottle nipples, condoms, diaphragm, diapers, art supplies.

Please note that this is only a partial list and it is strongly recommended that individual with spina bifida and their families ask about the composition of products used in their care. A more complete list is available directly from the Spina Bifida Association of America.

