American Latex Allergy Association

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Should Food Carry Advisory Labels For Latex?

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A recent research study in the Journal of the Science of Food and Agriculture investigated whether latex allergens could transfer from food wrappers to the food inside and cause allergic reactions. Latex cold seal adhesive is used in some prepackaged food wrappers. Meat netting, rubber bands, bakery release film, and stickers on fruits and vegetables are other possible sources of latex protein transfer to foods.
There are two previous citations in the medical literature about latex allergic reactions after contact with cold seal adhesive in chocolate wrappers. Symptoms in these two cases included tingling and swelling of the lips, and contact uriticaria.

The abstract of the current study is as follows: Commercial FITkitsTM ELISAs for four major latex allergens (Hev b1, Hev b3, Hev b5 and Hev b6.02) were modified to enable semi-quantitative measurement of the allergens at low concentrations (5?10 ngmL-1). The recovery of latex allergens from foods spiked with a latex cold seal adhesive was determined using one sample from each of the following food groups: confectionery/chocolate, fruit/vegetables, fruit juices, ice cream, cheese, meat and pastry. Cheese and pastry samples proved problematic owing to their high fat content. When these samples were excluded, the overall recovery for Hev b6.02 was 98 ± 12% (mean ± SD) and for Hev b5 80 ± 17%. In general, Hev b1 and Hev b3 allergens were difficult to extract from all the foods tested. Of 21 food contact materials tested, the assays detected one or more latex allergen in seven of the samples. Commercial foods associated with these wrappers were tested to determine possible transfer of the allergens to the foods. Transfer of Hev b3 or Hev b5 to food was identified at low levels in three samples, with the highest level being found in a chocolate bar (approximately 17 ngmL-1 extract).

In this study, meat netting, rubber bands, and fruit/vegetable stickers produced extremely low levels of latex protein. Bakery release film demonstrated much higher levels, and the study also demonstrated, along with previous research, that latex proteins are transferred from latex gloves to food.
Obviously, these findings have caused concern among latex-allergic individuals. Our panel of scientific and medical experts advises that the latex allergy community be aware of the risk of allergic reaction to food wrappers, but to consider that the use of latex gloves in food service is still the greater concern and the more likely cause of a reaction to food. The levels of latex protein present or transferred from food wrappers is so small that the U.S Food and Drug Administration does not consider this a serious health risk as of yet. Indeed, the FITkitsTM used for testing in this study had to be modified to detect very low concentrations of allergen.
We will continue to monitor this issue, and encourage you to watch for updates in future newsletters. Our panel of

scientific and medical experts will offer their interpretation of this study and their perspectives on how the latex allergy community should respond to this information. In the meantime, we encourage you to follow the advice of your allergist.

The complete article is available for a fee at www3.interscience.wiley.com/cgi-bin/jissue/ 112759707. Topping JR, Haines J, Kneller S, Patel P. A preliminary investigation into the possible transfer of latex allergens from latex protein containing materials in contact with food. Journal of the Science of Food and Agriculture. 2006;12:1826-1832.

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