

## **Automobile tires are being recycled and used to produce outside playground mat surfaces. Do these products represent a problem for children who come in contact with the mat and are sensitized to natural rubber latex allergens?**

### **Answered by**

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The short answer is a qualified no.

In one community in Maryland, we directly examined this issue as it involved a playground that was planned with recycled automobile tires as its surface. In this community, there was also a severely latex allergic child. His parents were concerned for their son's safety if he were to come into contact with the mat's surface. We received a sample of the mat material from the company and we analyzed it by extracting it in a physiological buffer (1 gram per ml) and testing it in a human IgE anti-latex based competitive inhibition assay for latex allergen. The result was that we were not able to detect any extractable latex allergen in the recycled auto-tire matting material. Studying this further, most auto and truck tire companies do not use natural rubber latex in their manufacturing. If natural rubber is present, it is in a small percentage, with the majority of the material being synthetic butyl rubber that contains no natural rubber latex allergens. The tire is also a molded product that by its nature is known to poorly release allergenic proteins, if they are present.

So, based on our limited experience, the one recycled tire surface material that we evaluated was not a problem for latex allergic children in the Maryland community. This is not to say that all rubber surfaces are totally free of natural rubber allergens, but it appears that (in general), these surfaces should be a safe alternative to other playground surfaces. If there are specific questions about a particular tire related mat material, the material can be tested for latex allergen content.

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