

Food allergy video game trial launched

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Elizabeth McQuaid, Ph.D., a staff psychologist from the Bradley Hasbro Children's Research Center, is leading a research team testing a new interactive software game developed to help children with peanut allergies better manage allergy symptoms, social situations and proper food avoidance.

"Pediatric [food](#) allergy is a serious health issue that now affects approximately 4 to 8 percent of children. Yet, very few resources for children exist to promote effective management strategies," said McQuaid. "Most resources targeting those with food allergies provide support through groups or via the web, and typically focus on parents, with few resources designed for affected children."

To address this need, McQuaid's research team is collaborating with a virtual reality and software development company called Virtually Better, Inc. to test an interactive web-based computer game for children between 8 and 12 years old with food allergies. The game's goal is to increase knowledge, improve self-efficacy to manage the disease, and ultimately reduce risk of serious allergic reactions.

Funded by the National Institute of Child Health & Human Development, thirty-two children will be enrolled in an open trial in which families will be asked to use the software for four weeks, and will be prompted to use it three times a week. The team will measure gains in families' knowledge and confidence in [food allergy](#) management, and will conduct interviews with families to gain further input regarding the software's usability and efficacy.

In the game, each child will progress through virtual scenes structured to help them learn about food avoidance, symptom detection, and reaction management. For example, a child might be offered a food item in the school cafeteria and need to negotiate pressure to accept "trigger" foods. Or a child might have to look inside a virtual food pantry and play a label-reading game to

decide which foods are safe to eat. There are also other interactive scenarios that address how to handle being bullied about food allergies, and games that teach how to identify the symptoms of a reaction.

Using the system earns points. Doing so with increased safe decision-making in scenarios and games earns more points. Points earned in each of these activities are used by players to select items to continually decorate their personalized "virtual aquarium" within the software program.

"With the feedback we receive from these trial families regarding efficacy, engagement, and ease of use, we can improve the intervention content and games, so we can better plan future versions, incorporating social scenarios such as birthday parties, family picnics, and other events where children with food allergies face disease management challenges," said Josh Spitalnick, Ph.D., psychologist and vice president of research at Virtually Better, Inc. "This initial software program will act as a template, so that in the future we can offer an interactive and engaging program for [children](#) with other food allergies beyond the peanut specific trial game, as well as other chronic conditions requiring self-management, such as asthma, diabetes, and celiac disease."

Provided by Lifespan

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