

## National Jewish Evaluating Food Allergy Treatment

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DENVER — Researchers at National Jewish Medical and Research Center are conducting trials to evaluate a method to prevent allergic reactions to food. They are feeding peanut- and egg-allergic people increasing doses of an investigational protein extract from the foods to see if they can induce the participants' immune systems to tolerate the food.

“We hope these trials will lead to the development of the first active, preventive treatment for food allergies,” said pediatric allergist David Fleischer, MD, principal investigator for the National Jewish studies. “If successful, it would offer great hope for allergic patients and their families, whose lives are haunted by a daily fear of food.”

Currently the only advice doctors can give to the estimated 12 million Americans who have food allergies is to avoid the food and carry a self-injectable dose of epinephrine in case they accidentally consume the allergenic food. There is no treatment available to prevent an allergic reaction to food other than strict avoidance of that food. It can often be difficult to determine if a food contains peanuts or eggs, especially when eating at a restaurant or food prepared by another person. It can even be difficult recognizing egg and peanut proteins listed on food ingredient labels, especially from products that are not manufactured in the U.S. As a result, thousands of people rush to emergency rooms every year suffering severe allergic reactions to food. As many as 200 people die from allergic reactions to food each year.

Allergists treating hay fever and other allergies have long used immunotherapy, also known as allergy shots, to reduce their patients' sensitivity to pollen, cat and dog dander, and dust mites. However, it is not considered safe to give allergy shots to food-allergic patients because the shots can cause severe allergic reactions. Previous research has suggested that placing the allergenic food protein under the tongue or directly swallowing it, are safer methods of administering food immunotherapy. So that is how National Jewish researchers will try to desensitize allergic patients in the trials.

Study participants (ages 12-40 years for peanut allergy and 6-18 years for egg allergy) will start by consuming tiny amounts of either egg or peanut protein. Physicians and staff at National Jewish will observe them closely to see if they have any symptoms of an allergic reaction. Over the course of several months, participants will consume the protein daily at home, coming in every couple of weeks or so to slowly ramp up the amount of protein they consume until they reach a “maintenance dose.”

Shortly after reaching the maintenance dose, participants will be tested with a larger amount of either egg or peanut to see if the immunotherapy has reduced the immune system's response. Participants will continue taking the maintenance doses for one to three years to see if they can achieve long-term results. Six to eight weeks after discontinuing the immunotherapy, participants will again consume a larger amount of peanut or egg to see if they have become tolerant of the food.

“In traditional immunotherapy, the majority of hay fever patients achieve tolerance, which can last for years,” said Dr. Fleischer, the principal investigator for the National Jewish study. “We hope to achieve similar results for our food allergic patients.”

National Jewish is participating in this research as part of the Consortium of Food Allergy Research, a network of academic medical centers funded by the National Institute of Allergy and Infectious Diseases. The researchers are all highly experienced food allergists who have conducted thousands of food challenges.

Other participants in the research are the Mount Sinai School of Medicine in New York; John Hopkins University School of Medicine in Baltimore; Duke University School of Medicine in Durham, NC; and the University of Arkansas Children's Hospital Research Institute in Little Rock, AR.

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## **Media Contacts**

Our team is available to arrange interviews, discuss events and story ideas.

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