

New Treatment Shows Hope for People With Food Allergy



In 2024, a medical paper was published after researchers spent many years studying a medicine called omalizumab (brand name Xolair) to see if it could help people with food allergy. This summary explains why the study was done, how it worked, and what the results mean for people with food allergies.

Why was this study done?

Researchers did this study to evaluate a new treatment option for children and adults with more than 1 food allergy. For most people with food allergy, the treatment is to avoid food that can be dangerous to them. This medicine was studied to see if people could be protected if they accidentally ate a small amount of their allergen.

What is the study medicine, omalizumab, and how does it work?

Omalizumab is a medicine given by injection (by needle) that works on your immune system if you have a food allergy.

- Your body makes an antibody (or protein) called IgE, which is involved in reactions to foods you are allergic to. These reactions can cause hives, swelling, or even a deadly reaction.
- Omalizumab sticks to the IgE in the blood, so IgE cannot start a reaction. When there is less IgE to bind to allergy immune cells, the body reacts less to relevant food allergy triggers.
- Omalizumab has been used for more than 20 years in people with asthma, so this medicine has been very well studied.

What did the researchers do in this study?

This study was a phase 3 clinical trial, which means it was a large study to see if a treatment works and is safe.

Who joined the study: The study had 177 children, ages 1 to 17.

- All the children were allergic to peanuts and at least two of the following foods: cashew, milk, egg, walnut, wheat, or hazelnut.
- Each child was given small amounts of the foods, with a doctor or nurse present, to confirm they were truly allergic to the food.

How the groups were formed: Children in the study were assigned by chance, like a flip of a coin, into 2 groups. This helps make the study fair.

- One group got the medicine.
- The other group got a placebo. A placebo is a fake medicine that looks like the real one but has no drug in it. It is harmless.

The groups got treatment every 2 to 4 weeks for about 4 months.

What researchers tested: Researchers wanted to see how many children could eat increased amounts of these foods without symptoms after treatment. See the types of foods and amounts in the next section.

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What did the study find?

These results show that the medicine, omalizumab, helped many children safely eat small amounts of the foods without experiencing an allergic reaction. The table below shows how many children were able to eat the foods tested without symptoms in each group.

Food and amount tested	Number of children in medicine group who had foods without symptoms	Number of children in placebo group who had foods without symptoms
Peanuts (2 peanuts)	67 out of 100	7 out of 100
Cashews (3.5 cashews)	41 out of 100	3 out of 100
Eggs (1 bite)	67 out of 100	0 out of 100
Milk (1 sip)	66 out of 100	10 out of 100

Most side effects were similar in the 2 groups. Children who were treated with the medicine had more redness, swelling, or itching at the spot where they got their shot. Serious reactions, like anaphylaxis, were rare.



What do these results mean for people with multiple food allergies?

This study is good news for people with food allergies. Based on the results of the children who were given the medicine, omalizumab:

- **May lower the risk of symptoms from when a person eats a food by mistake.** It can raise the amount of food a person can eat before they have allergic symptoms. This protects them if they eat the food by mistake.
- **May reduce worry or stress.** Families often feel stress about hidden ingredients or cross-contact (when an unsafe food mixes with a safe food). When they know a person can handle a small amount before they react, they can feel more at ease.
- **Helps across several foods.** Since the medicine helps the body's overall immune system response, it may help with many food allergies at once.

But it is important to know that the medicine:

- **Is not a cure.** People must take medicine every 2 to 4 weeks to keep its effects. People still need to avoid their allergens and carry epinephrine. Also, not all foods were tested. Researchers will need to test other foods and for longer amounts of time in future studies.
- **Did not work for every child.** The medicine did not work for:

About 6 out of 10 children with cashew allergies



About 3 out of 10 children with peanut, egg, and milk allergies



Can omalizumab help me/my child?

If you want to know more about this treatment, talk to your allergy doctor. They can help you decide if the treatment is right for you/your child.