

INVESTMENT IN RESEARCH SAVES LIVES AND MONEY

Food Allergies

Food allergy is a serious, potentially life threatening medical condition that occurs when the body’s immune system “misfires,” attacking a food protein as if it is a bacteria or virus and producing symptoms that can vary from hives to low blood pressure and loss of consciousness.¹ While food allergy can be triggered by any food, the most common food allergens in the U.S. are milk, egg, peanut, tree nuts, soy, wheat, fish, and shellfish. There is no known cure for food allergy.¹ Investments in food allergy research have uncovered ways to identify allergy risk factors and treatments for those who are already affected.²

TODAY

<p>About 32 million people in the U.S. have food allergies, including 5.6 million children.³</p> <p>75% of parents have reported that their child’s food allergy causes fear and anxiety for their family.⁵</p>	<p>Among children with food allergies, almost 40% have a history of severe reactions and more than 30% have allergies to multiple foods.³</p>	<p>A food allergy sends someone to the emergency room every 3 minutes.⁴</p>
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COST

Between 2007 and 2016, treatment for severe food allergy reactions increased by

400%

Laboratory services costs for diagnosing those reactions grew by over

5,000%.⁶

With over

\$1,000

in annual charges, milk allergy was associated with the highest average costs and services per patient in 2016.⁶

The most recent estimate of the annual economic burden of food allergies in the U.S. is

\$24.8 billion.⁷

Research Delivers Solutions

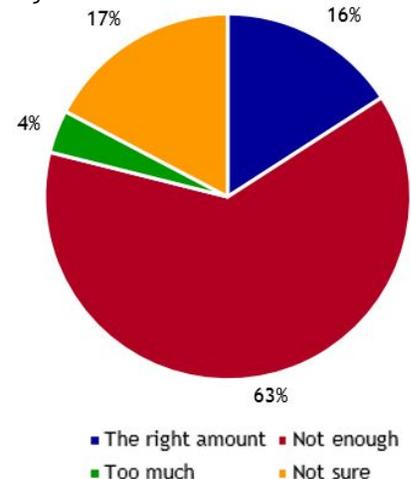
Anaphylactic shock due to food allergies can potentially lead to serious health injuries, but epinephrine injection is the first line of defense during allergic reactions. Epinephrine helps to restore a person’s blood pressure level after it falls during an allergic reaction and is most effective when given as soon as possible after the reaction. Scientists developed **auto-injector technology to deliver epinephrine to a person’s bloodstream more rapidly** compared to the traditional method of using a syringe.⁸⁻¹¹

Researchers have developed a technology that **“hides” peanuts from the immune system** of a person who is allergic, preventing an allergic reaction. Specifically, scientists created a molecule that blocks the interaction between the immune system and allergy-causing proteins in peanuts.^{12,13}

With the prevalence of allergies rising in the last several decades, researchers sought to discover what in our modern environment was contributing to food allergies. They examined the human digestive tract’s internal microbes, which have changed from previous generations due to our modern diet. Studies show that certain **internal bacteria can help prevent sensitivity to allergy-causing components in food.**¹⁴

Majority Say Current Spending on Research to Prevent, Cure and Treat Disease is not Enough

The U.S. spends about 5 cents of each health dollar on research to prevent, cure and treat disease and disability. Do you think that this is too much, the right amount, or not enough?



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2019

Food Allergies

Then. Now. Imagine.

THEN

Before the 1970s, no treatment existed to disrupt a food allergy attack.

NOW

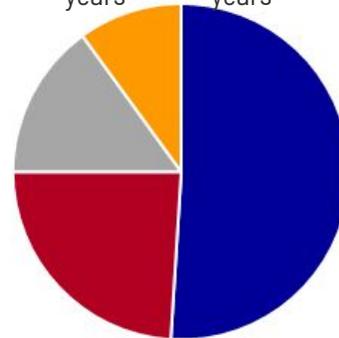
With the development of epinephrine auto-injector technology, food-allergic patients treated with epinephrine before emergency room visits cut their likelihood of hospitalization in half compared to patients who did not receive epinephrine.¹⁵

IMAGINE

A cure for all food allergies.

Food Allergy Reactions by Age Group*

■ 0-10 years ■ 11-30 years ■ 31-50 years ■ Over 50 years



*According to private insurance claims for anaphylaxis and history of food allergy diagnosis during 2007-2016

Source: FAIR Health¹⁶

Percentage Increase in Frequency of Food Allergies by State from 2009 to 2016*

