

'Stomach flu' may be linked to food allergies

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Researchers at the Medical College of Wisconsin have found a possible link between norovirus, a virus that causes "stomach flu" in humans, and food allergies. The findings are published in *The Open Immunology Journal*, Volume 4, 2011.

Mitchell H. Grayson, M.D., associate professor of pediatrics, medicine, microbiology and [molecular genetics](#) at the Medical College, and a pediatric allergist practicing at Children's Hospital of Wisconsin, is the corresponding author of the paper.

The researchers took mice infected with [norovirus](#) and fed them egg protein. They then examined the mice for signs of an immunoglobulin E, or IgE, response against the food protein; an IgE response is what leads to an allergic reaction. The team of researchers has previously shown an IgE response to an inhaled protein during a respiratory infection in another a mouse model, which suggests early respiratory infections in children could lead to [allergic diseases](#) like asthma later in childhood. Likewise, an IgE response to a gastrointestinal virus could signify a likelihood of developing a food allergy after the viral infection.

Six million children in the United States have food allergies, and the Centers for Disease Control reports an 18 percent increase in the prevalence of food allergies from 1997 to 2007. Every three minutes, a [food allergy](#) sends a child to the emergency room.

"Food allergies are a dangerous, costly health issue not only in the United States, but worldwide," said Dr. Grayson. "This study provides additional

support for the idea that allergic disease may be related to an antiviral immune response, and further studies are planned to continue exploring the exact series of events that connect the antiviral response with allergic diseases."

Provided by Medical College of Wisconsin

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