



Editorial

Food allergen management

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Many people have been suffering from food allergies, amongst children are more concerned and vulnerable to this issue. There is insufficient data among children's food allergies, but as per available literature, almost 6%-8% are children affected by food allergies globally. Various systems or organs are impacted by allergens: respiratory system, skin, gastrointestinal tract, central nervous system, cardiovascular system, etc. Skin or cutaneous level allergy-based symptoms of IgE-mediated allergies are flushing, pruritis, urticaria. Similarly, sneezing, congestion, conjunctivitis, hypoxia, hypoxemia, coughing, and wheezing are also symptoms of IgE-mediated food allergy. In general, food allergens get attached to allergen-specific IgE present in basophil and mast cells. They secrete histamine, which is the primary responsible factor of allergy.^{1,2}

There are three types of food allergies commonly observed:

1. IgE-mediated allergy: Contact urticaria, pollen-food allergy syndrome
2. Non-IgE mediated allergy: Food-protein induced proctocolitis and enterocolitis
3. Mixed and non-IgE mediated allergy: Eosinophilic esophagitis

Common food allergies

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Allergic reactions are commonly noticed based on immunity and general factors related to allergens. Non-immunity allergies or adverse reactions are lactose intolerance which is due to lactose present in the bovine milk. However, some people do not get allergies from yogurt, pasteurized or double-toned milk available by some branded companies in a packet. There is upcoming popularity of camel milk and deer milk showing good tolerance levels. Caffeine is considered another allergic stimulant that may cause porosity of bones and cartilage and ultimately leads to osteoarthritis. Some of the people are also having gluten allergies, present in wheat products and refined flour. Some animal foods like shellfish, pork, and crabs, including eggs, are also allergic to many populations worldwide. Soya allergy is due to an allergen named beta-conglycinin and glycinin, whereas nut allergy from the storage protein vicilins, legumins.³

Clinical features and symptoms³

1. Hypotension, headache, lethargy, nausea, or severe vomiting because of food-protein induced enterocolitis.
2. Headache, chronic abdominal pain, blood stool pass due to food-protein-induced proctocolitis.
3. Mixed and non-IgE mediated allergy is commonly observed among some people who often have complaints like abdominal pain, dysphagia, esophageal discomfort, hypoxia, hypoxemia, and cardiovascular disorders.

Oral allergy or pollen-allergy syndrome (mild angioedema, pruritis) is often noticed after consuming some fruits and vegetables. Cutaneous level allergy is manifested through the isolated chronic respiratory symptoms such as rhinitis, asthma^{3,4,5}

Food allergy Testing

1. Radioallergosorbent test (RAST)
2. Enzyme-linked immunosorbent assay (ELISA)
3. Real-time polymerase chain reaction (RT-PCR)

There are various factors responsible for allergies, such as environmental, pests but food allergy is most common and often a matter of great concern. It is recommended to consult a physician for the right medicine if needed, but the proper diet should be mandatory. The diet, devoid of detected allergic foods, should be prepared by an experienced and skilled dietitian. Additionally, fresh air and clean drinking water, and personal hygiene are always part of life to that allergic-prone individual.

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2. Conflict of interest

None

References

1. Food Allergies; 2021. Available from: <https://www.fda.gov/food/food-labeling-nutrition/food-allergies>.
2. Sampson HA, Aceves S, Bock SA, Lang D, Wegrzyn AN, Oppenheimer J. Food allergy: a practice parameter update - 2014. *J Allergy Clin Immunol.* 2014;134(5):1016–41. doi:10.1016/j.jaci.2014.05.013..
3. Allergy F, Sicherer SH, Sampson HA. *J Allergy Clin Immunol.* 2010;125(2):116–141.
4. Boyce JA, Assayed JA, Burks A, W A. Guidelines for the diagnosis and management of food allergy in the United States: report of the NIAID-sponsored expert panel. *J Allergy Clin Immunol.* 2010;126(6):1–58. doi:10.1016/j.jaci.2010.10.007.
5. Abrams EM, Sicherer SH. Diagnosis and management of food allergy. *Can Med Assoc J.* 2016;188(15):1087–93. doi:10.1503/cmaj.160124.

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