

Briefing:

Importance of Anaphylaxis Awareness in the Workplace

The Situation

Anaphylaxis is a severe life-threatening allergic reaction that can result in death.¹ Food allergies are the most common cause of anaphylaxis.² Food allergies affect 8% of children under the age of 18, and 4% of adults.^{3,4}

It is estimated that the number of these reactions has been increasing, and the cause for this increase is unknown.¹ From 1997 to 2007, the prevalence of food allergies increased by 18% among children under the age of 18.⁵

The potential risk of an anaphylactic reaction occurring in an employee or a customer exists for employers⁶—especially those providing food services or vending machines on the worksite, as well as employers with outdoor workers.

The Problem

Anaphylaxis can be triggered by a wide range of allergens, including those in:

- Food⁷
- Insect venom, such as bee stings⁸
- Latex, especially for people who wear latex gloves at work⁹
- Medications¹⁰

Further complicating matters, some people with allergies don't know which allergens trigger severe life-threatening reactions.¹⁰

Thus, it's impossible to completely eliminate the risk of anaphylaxis in the workplace, at a company's on-site restaurant or cafeteria, if employees work outdoors, or if customers are on site at the company.



What Employers Can Do

Epinephrine/epinephrine auto-injector is considered the first-line treatment of choice to treat anaphylaxis. At-risk people don't always own or carry epinephrine auto-injectors.

In fact, many people don't know they have an allergy until their first anaphylactic reaction begins.¹

Employers can help employees and their families by:

- Educating the workforce about the dangers of anaphylaxis and how best to avoid known allergens
- Creating a brief awareness campaign so that employees can recognize and respond to the signs of anaphylaxis

Collaborations with companies such as Pfizer offer access to resources for employers, emphasizing the importance of anaphylaxis awareness. Additional information about anaphylaxis can be found on the websites of these organizations: the Food Allergy & Anaphylaxis Network (www.foodallergy.org), the National Institute of Allergy and Infectious Diseases (www.niaid.nih.gov), and the Food Allergy Initiative (www.faiusa.org). Be sure to share these links with your employees.



How You Can Help

Strict avoidance of allergens must be the first line of defense in managing the risk of anaphylactic reactions.¹ It is important to be aware of the ingredients in foods, stay away from at-risk areas if allergic to insect venom, and reduce unnecessary latex exposure in the workplace.

Epinephrine auto-injectors should be used immediately in cases of anaphylaxis, according to the National Institute of Allergy and Infectious Diseases (NIAID), which stresses that delays can be deadly.¹¹ Seek immediate emergency medical treatment after use.¹² While having an epinephrine auto-injector is important, it does not prevent a reaction from occurring. Remaining vigilant is critical.

Some factors that may increase anaphylaxis severity or fatality include¹³

Age	The elderly are at a greater risk of fatal anaphylactic reactions if stung by an insect and/or if they suffer from concurrent diseases such as chronic obstructive pulmonary disease (COPD) and cardiovascular disease (CVD) and take medications to treat them.	
Comorbid diseases¹²⁻¹⁴	<ul style="list-style-type: none"> • Respiratory diseases (severe/uncontrolled asthma) • Mastocytosis or clonal mast cell disorders • Atopic diseases (eg, allergic rhinitis, eczema) 	
Comorbid diseases that hamper sign/symptom recognition^{13,14}	<ul style="list-style-type: none"> • Impaired vision or hearing • Neurologic disorders such as seizures 	<ul style="list-style-type: none"> • Psychiatric disorders such as depression • Autism spectrum disorder
Concurrent medications that hamper sign/symptom recognition¹³	<ul style="list-style-type: none"> • Antidepressants • Sedatives • Hypnotics • CNS-active chemicals such as ethanol 	<ul style="list-style-type: none"> • Recreational drugs • β-blockers • Angiotensin-converting enzyme (ACE) inhibitors

References

- Centers for Disease Control and Prevention. Food allergies in schools. <http://www.cdc.gov/healthyyouth/foodallergies>. Accessed January 9, 2012.
- Simons FER, Arduzzo LRF, Bilò MB, et al. World Allergy Organization guidelines for the assessment and management of anaphylaxis. *WAO Journal*. 2011;4:13-37.
- Gupta RS, Springston EE, Warriar MR, et al. The prevalence, severity, and distribution of childhood food allergy in the United States. *Pediatrics*. 2011;128(1):e9-e17.
- National Institute of Allergy and Infectious Diseases, National Institutes of Health. Report of the NIH Expert Panel of Food Allergy Research. <http://www.niaid.nih.gov/topics/foodallergy/research/reportfoodallergy.htm>. Accessed March 7, 2012.
- Branum AM, Lukacs SL. Food allergy among U.S. children: trends in prevalence and hospitalizations. <http://www.cdc.gov/nchs/data/databriefs/db10.pdf>. Accessed March 6, 2012.
- Patel DA, Holdford DA, Edwards E, Carroll NV. Estimating the economic burden of food-induced allergic reactions and anaphylaxis in the United States. *J Allergy Clin Immunol*. 2011;128(1):110-115.e5.
- Nowak-Wegerzyn A, Conover-Walker MK, Wood RA. Food-allergic reactions in schools and preschools. *Arch Pediatr Adolesc Med*. 2001;155(7):790-795.
- O'Connell J. Bee sting sends Ashland High student to hospital. *The Milford Daily News*. January 7, 2012. <http://www.milforddailynews.com/news/x1468792501/Bee-sting-sends-Ashland-High-student-to-hospital>. Accessed January 9, 2012.
- Reddy S. Latex allergy. *Am Fam Physician*. 1998;57(1):93-100.
- Tang AW. A practical guide to anaphylaxis. *Am Fam Physician*. 2003;68(7):1325-1332.
- US Department of Health and Human Services. *Guidelines for the Diagnosis and Management of Food Allergy in the United States: a report of the NIAID-sponsored expert panel*. Bethesda, MD: National Institute of Allergy and Infectious Diseases; 2011. <http://www.niaid.nih.gov/topics/foodallergy/clinical/Pages/default.aspx>. Accessed January 31, 2012.
- Sampson HA, Muñoz-Furlong A, Campbell RL, et al. Second symposium on the definition and management of anaphylaxis: summary report—Second National Institute of Allergy and Infectious Disease/Food Allergy and Anaphylaxis Network symposium. *J Allergy Clin Immunol*. 2006;117(2):391-397.
- Simons FER. Anaphylaxis. *J Allergy Clin Immunol*. 2010;125(suppl 2):S161-S181.
- Sicherer SH, Simons FE. Quandaries in prescribing an emergency action plan and self-injectable epinephrine for first-aid management of anaphylaxis in the community. *J Allergy Clin Immunol*. 2005;115(3):575-583.