# **FOOD ALLERGY & SCHOOL TEAMS**

## WHAT, WHEN & WHY?



### What is a food allergy?

- Food allergy is an abnormal interaction between a food protein and the immune system.
- Food allergy is not the same as food intolerance, food poisoning or food aversion.
- Any food may potentially cause an allergic reaction.
- 8 most common foods triggering allergic symptoms: **Peanuts**

Eggs

Tree Nuts (e.g. walnut, pecan)

Soy

Milk

Wheat

Fish

Shellfish (e.g. shrimp, crab)<sup>1</sup>



#### Is there a cure?

- There is no cure for food allergy. Researchers are studying potential treatment options in clinical trials.
- An allergy to peanuts, tree nuts and seafood typically lasts a lifetime.
- Children may outgrow an allergy to other foods. Testing to determine if a food allergy is outgrown should only occur in a medical facility with trained healthcare professionals.
- Daily management of a diagnosed food allergy requires strict avoidance of the food allergen.1



#### Can food allergies be life-threatening?

- Yes. Food allergy is a common trigger of anaphylaxis which is the severest form of an allergic reaction.
- Anaphylaxis is a life-threatening medical emergency.
- Anaphylaxis can begin suddenly and progress rapidly.
- Anaphylaxis may include a second set of symptoms, called a biphasic reaction, even after initial symptoms resolve. 1





#### When might symptoms begin?

- Anaphylaxis may begin within minutes to hours after exposure to a food allergen.
- The body creates IgE antibodies to the food protein causing the allergy. Upon exposure to the food allergen, various cells in the body release histamine and other chemicals which cause different symptoms.
- Symptoms range from hives to gastrointestinal complaints to respiratory distress to death. 1,2

#### How much food does it take to cause a reaction?

The amount of food and the route of exposure needed to cause an allergic reaction vary. Tiny specks of food allergen exposure may be enough to trigger a reaction.<sup>1</sup>

#### What are symptoms of anaphylaxis?

- Anaphylaxis may involve every body system.
- Anaphylaxis may occur without seeing hives (itchy, red welts) or other skin symptoms.

Skin: hives; itching; rash; flushing; swelling; red, itchy watery eyes; paleness or blue skin appearance Lungs: nasal congestion; runny nose; coughing; throat itching; stridor; wheezing; shortness of breath; chest tightness Throat: hoarseness; tongue and/or mouth swelling; difficulty swallowing; trouble speaking; throat tightness; choking; itchy lips Gut: stomach pain; stomach cramping; nausea; vomiting; diarrhea

Heart: dizziness; very high heart rate; decreased blood pressure; decreased heart rate; irregular heart rate; decreased muscle tone Brain: mental confusion; lethargy; seizures; fainting; irritability; feeling a sense of doom; loss of consciousness<sup>1,2</sup>

#### How is it treated?

- Treatment is an injectable medication called epinephrine. It must be given immediately. Chance of survival is directly correlated with how
- Epinephrine is the medication in auto-injectors such as the EpiPen® and Auvi-Q™. This medication is by prescription. By Michigan law, nonstudent specific stock epinephrine and school staff anaphylaxis training is required in public and charter schools.
- Once epinephrine is given, the student must be promptly taken to the nearest Emergency Department via ambulance. Even if the student feels fine after the epinephrine, they must still go by ambulance to the hospital for evaluation and monitoring by physicians and nurses. 1-3



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- 1. Boyce JA, Assa'ad A, Burks AW, et al. 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 suppl):51-SS8.
- 2. Simons FER. Anaphylaxis pathogenesis and treatment. *Allergy* 2011; 66 (Suppl. 95):31–34.
  3. Centers for Disease Control and Prevention. Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs. Washington, DC: US Department of Health and Human Services; 2013.