 Anaphylaxis

Lesson 1

Outcomes and indicators

SLS3.13 Describes safe practices that are appropriate to a range of situations and environments

* identifies factors that may cause an allergic reaction

Learning experiences

What is an allergy?

1. Ask students:
   * What is an allergy?
   * What does it mean if you are allergic to something?
   * Does anyone in this class have an allergy?
2. Encourage students to share examples of their allergies and experiences.
3. Brainstorm the different things people might be allergic to e.g. bee stings, peanuts, penicillin.
4. Ask students: Why is it important to know if someone has an allergy?

What is anaphylaxis?

1. Ask students:
   * Have you have heard of anaphylaxis? If so, do you know what it is? Allow students time to explain.
   * Do you know someone with anaphylaxis?
   * What is the difference between someone who has an allergy and someone who has anaphylaxis?
2. In small groups, ask students to use the Internet to find out: What is anaphylaxis?
   * What are the main causes of anaphylactic reaction?
   * What are the most common types of food that can cause an anaphylactic reaction?
   * What other triggers can cause an anaphylactic reaction?
3. Ask groups to share their findings with the class. Record group responses.

What causes anaphylaxis?

1. Discuss the different causes of anaphylaxis from the previous activity.
2. Distribute a set of food allergen cards to small groups. Each group is asked to group the allergen cards into categories.
3. When complete, ask students what categories they created for their allergens, e.g. food, insects, medication. Review answers as a whole class, placing cards in the correct category on the board, i.e. food, insect sting or medication.
4. Discuss which category may be the most risk for children.
5. What category may be the most risk at school; at a party; at home; bushwalking?

Resources - Food allergen cards

milk

wasp sting

peanuts

ant bite

soy

penicillin

tree nuts

fish

shell fish

bee sting

Lesson 2

Outcomes and indicators

SLS3.13 Describes safe practices that are appropriate to a range of situations and environments

* describes the signs and symptoms of allergic reactions including anaphylaxis

Learning experiences

Signs and symptoms of anaphylaxis

1. Ask students if they know what happens to someone when they have an anaphylactic reaction. If students are unsure, ask students to predict what might happen. To find the signs and symptoms of anaphylaxis, direct students to the [Allergy and anaphylaxis Australia website](https://allergyfacts.org.au/allergy-anaphylaxis/what-is-anaphylaxis)  (https://allergyfacts.org.au/allergy-anaphylaxis/what-is-anaphylaxis) or provide them with a hard copy of the information from the above website.
2. Provide each group with a piece of paper. Have them draw an outline of a body on their paper. Ask each group to record and describe the different signs and symptoms on their picture, e.g. swelling of eyes, next to the person’s eyes.
3. Discuss the signs and symptoms of an anaphylactic reaction with students.

Teaching notes: Signs and symptoms

The signs and symptoms of anaphylaxis may occur almost immediately after exposure or within the first 20 minutes after exposure. Rapid onset and development of potentially life threatening symptoms are characteristic markers of anaphylaxis.

Allergic symptoms may initially appear mild or moderate but can progress rapidly. The most dangerous allergic reactions involve the respiratory system (breathing) and/or cardiovascular system (heart and blood pressure).

Common symptoms

Mild to moderate allergic reaction

* Tingling of the mouth
* Hives, welts or body redness
* Swelling of the face, lips, eyes
* Vomiting, abdominal pain

Severe allergic reaction- ANAPHYLAXIS

* Difficulty and/or noisy breathing
* Swelling of the tongue
* Swelling or tightness in the throat
* Difficulty talking or hoarse voice
* Wheeze or persistent cough
* Loss of consciousness and/or collapse
* Pale and floppy (young children).

Lesson 3

Outcomes and indicators

PSLS3.13 Describes safe practices that are appropriate to a range of situations and environments

* devises strategies to reduce risk from known allergens

PSS3.5 Suggests, considers and selects appropriate alternatives when resolving problems

* suggests alternate foods

DMS3.2 Makes informed decisions and accepts responsibility for consequences

* discriminates between a variety of products that do and do not contain allergens

Learning experiences

Food allergens

1. Divide the class into small groups. Allocate each group one food allergen; milk, peanuts, eggs or soy. Ask groups to brainstorm the different food products they think might contain the food allergen, e.g. ice-cream contains milk, biscuits may contain peanuts, cakes contain eggs and some foods have soy.
2. Ask groups to:
   * use an Internet search engine to locate food products that contain their food allergen.
   * compare the food products they brainstormed to the food products they found contained their given allergen.
3. As a class, discuss:
   * Are there any products that contained your allergen that you weren’t aware of?
   * What impact does food selection have on a person with anaphylaxis?
   * What strategies would a person with anaphylaxis need to have when: eating out/at a friend’s place/at a party.
4. Provide an example(s) of a food package and explain where to find the ingredients on the package. Distribute food packages to each pair. NOTE: Provide food packaging or use packaged foods students may have at school.
   * Ask pairs to read the ingredients on each food package and record whether that food would be safe or unsafe for a student allergic to peanuts, milk, soy and eggs. Refer to the information provided from the website search relating to the various ingredients that contain certain foods.
   * Ask students to report their findings back to the class.
5. Ask students to create a list of foods that could be eaten at school that would be appropriate for a person allergic to milk, peanuts or eggs. Ask students to set their information out in table.
   * As a group, ask students to exchange their ideas and justify their choices.

Teacher note:

Example of ingredients containing egg:

* albumin
* egg in any form (including whole egg, dried egg, powdered egg, egg solids, egg yolk, egg white, egg white solids, and egg substitute)
* globulin
* livetin
* lysozyme
* ovalbumin
* ovoglobulin (and any other - ingredients that begin with the prefix "ovo," including ovomucin, ovomucoid, ovotransferrin, ovovitella, and ovovitellin)
* silici albuminate
* Simplesse (a fat replacer)
* vitellin

1. In small groups, provide the following scenario to students.

You have invited your friend Marika to your place for your birthday party next week. Marika has accepted the invitation, but he says he has a serious condition called anaphylaxis and is allergic to…...

1. In their group, students discuss the following:
   * What questions should you ask Marika before your party?
   * What sort of foods might Marika need to avoid eating?
   * Marika says he can’t eat birthday cake. What might he be allergic to?
   * What alternative foods could you provide that Marika could eat?
2. Ask groups to develop a menu for a safe party when a guest has a food allergy.

Lesson 4

Outcomes and indicators

SLS3.13 Describes safe practices that are appropriate to a range of situations and environments

* practises emergency response procedures e.g. recognising and treating an anaphylactic reaction

PSS3.5 Suggests, considers and selects appropriate alternatives when resolving problems

* suggests actions needed for someone having an anaphylactic attack

DMS3.2 Makes informed decisions and accepts responsibility for consequences

* recognises a medical emergency and knows how to give and gain assistance.

Learning experiences

Managing and living with anaphylaxis

1. Explain to students that anaphylaxis is a preventable and treatable condition.
2. As a class, define and explain the difference between preventable and treatable.
3. Explain to students that an anaphylactic reaction is treated by administering adrenalin using an Epi-Pen. Show the class a picture of an Epi-Pen (or an actual Epi-Pen if available).
4. Refer to and discuss a sample action plan for managing anaphylaxis.
5. Ask students:
   * Why is it important for our school to have an anaphylaxis management plan?
   * Why is it important that the staff knows who has an allergy and/or anaphylaxis?
   * How is an Epi-pen administered?
   * When would it be necessary to use an epi-pen?
   * What are the signs of a severe allergic reaction?
   * What are the signs of a mild to moderate allergic reaction?
   * Would you administer an epi-pen for a mild to moderate reaction?
6. Ask students what they would do if they noticed a student having an allergic reaction to something in the following situations:
   * at school
   * at the park
   * at a friend’s place.
7. Ask students:
   * Who would you contact?
   * What support would you provide?
   * What would you do?
8. In pairs, ask students to come up with five important messages to raise awareness about anaphylaxis. Students present their five messages to the class, justifying why they have chosen them.