

ANAPHYLAXIS
Resource Information and
Lesson Plan
Grades 1-3

Anaphylaxis Canada

Anaphylaxis Canada is dedicated to enabling its members to live safely with life-threatening allergies by sharing information, providing support and advocating for the needs of individuals and families living with anaphylaxis.

Our objective in providing this lesson plan is twofold:

1. To **raise awareness** in classrooms and among friends about anaphylaxis.
2. To impart the concept that students can participate in making their school **SAFE** – and **Support Allergic Friends Everywhere**

What follows is some background information on anaphylaxis followed by a lesson plan for your grade 1 – 3 classroom.

What is Anaphylaxis?

The term “anaphylaxis” (anna-fill-axis) is used to describe a life threatening, generalized (involving multiple systems) allergic reaction.

Allergic reactions happen when the immune system overreacts to normally harmless protein substances such as pollen, dust mites, food, insect stings, latex, and drugs.

The immune system produces antibodies in response to foreign substances in an effort to protect the body from harm. In individuals with a tendency to develop allergic immune responses, an abnormal antibody response produces specific IgE that recognizes specific protein antigen. Specific IgE is the lock; protein antigen is the key. The result is allergy.

In an allergic reaction, one out of five possible organ systems – skin, airways, heart and blood vessels, central nervous system, or gastrointestinal – is involved.

In an anaphylactic reaction, more than one target organ system is involved. Without appropriate treatment (the administration of epinephrine) anaphylaxis can lead rapidly to unconsciousness and death.

What are some of the symptoms of an anaphylactic reaction?

People with anaphylaxis are exquisitely sensitive and generally react immediately to an *allergen*.

Two or more symptoms often occur at the same time. Symptoms are often severe. When exposed to an allergen, a person may experience any of the following symptoms:

- Tingling, itchiness or metallic taste in mouth
- Watering of eyes and nose, sneezing
- Hives, redness, generalized flushing, rash, itching
- Swelling – eyes, ears, lips, tongue, face and skin
- Itchiness or tightness in throat, choking, tightness in chest
- Wheezing, hoarseness, hacking cough
- Nausea, vomiting, stomach pain and/or diarrhea
- Dizziness, unsteadiness, drowsiness, feeling of impending doom
- Fall in blood pressure
- Loss of consciousness
- Coma and death

What foods are most likely to cause an anaphylactic reaction?

Although a person could be allergic to any food, 90 percent of all food related anaphylactic reactions are caused by: peanuts, tree nuts, milk, eggs, soy, fish and shellfish. In addition, insect stings, latex, medication and

exercise can cause an anaphylactic reaction.

Is there a cure for food allergy?

Anaphylaxis is generally a life-long condition for people with peanut, tree nut, fish, and shellfish allergies. Milk and egg allergies can be outgrown and should be reassessed. Insect stings can be treated by desensitization.

Is there medicine that can control a reaction?

Yes. Epinephrine (adrenaline) is recognized as the drug of choice and all efforts should be directed toward its immediate use. After injection, the student should be transported to the hospital, even if symptoms have disappeared. As the reaction can return, you are advised to remain at the hospital under observation for 4 to 6 hours. Asthmatics with anaphylaxis are higher risk.

Information adapted from Anaphylaxis Resource Manual, Copyright Anaphylaxis Network of Canada, 1999. Toronto

**Anaphylaxis
Lesson Plan
Grades 1 – 3**

Objectives:

- Understand that some allergies can make people very very sick.
- Recognize foods that can cause an anaphylactic reaction.
- Identify some of the symptoms of a life-threatening allergic reaction.
- Recognize some of the rules an allergic person must follow to avoid an allergic reaction.
- Show how we can help a friend who has allergies.
- Tell what to do if a friend is having an allergic reaction.

Materials:

Picture of EpiPen[®] (*attached*)

Examples of food for a camping trip (*Use real examples or pictures. Include examples of packaged foods that **contain** or **may contain** peanuts/nuts or other allergens. Include examples of snacks/treats that are safe and others that are not safe for allergic people.*)

Picnic basket.

Procedure:

Ask students if any have allergies. What are you allergic to? *Explain that some people sneeze and wheeze or get itchy from their allergies. **Others have allergies that can make them much sicker.***

1) Building Awareness:

Talk to students about anaphylaxis highlighting the following points:

Today we are going to learn about anaphylaxis (anna-phil-axis), the kind of allergy that can make people very very sick. Have students repeat “anna-phil-axis.”

Some foods like peanuts, nuts, milk and eggs, fish and shellfish, and soy can cause a serious allergic reaction. Also some insect stings and latex can make people very sick. Most balloons are made of latex.

We are going to talk about **food** “anaphylaxis.” People who eat a food they are “anaphylactic” or highly allergic to begin to feel funny. They only have to eat a tiny bit of the food to have a severe reaction. They may get covered in itchy hives (bumps on the skin), or begin to wheeze (demonstrate the sound of wheezing), their eyes may begin to swell shut, they may get sick to their stomach, they may

not be able to breathe. **They need help.**

Luckily there is medicine that can help. (*Show picture of EpiPen[®]*) The person needs medicine called “epinephrine.” The medicine is given with a needle in the outer thigh. (*Show location*) The needle hurts a bit, but it prevents the allergic person from getting very, very sick. Then the person must go straight to the hospital to see a doctor to make sure he or she is all right.

People who are “anaphylactic” (have a severe allergy) must carry an EpiPen[®] all the time so they are prepared if they have an allergic reaction.

2) Recognizing the need for Avoidance

The only way to avoid a severe allergic reaction is to not eat the foods to which you are allergic. This can be a challenge.

Activity 1: Imagine you are “anaphylactic” (severely allergic) to peanuts (*or milk, eggs, - whatever is applicable to your class*) and that if you ate a peanut or peanut butter you would become very sick and have to go to the hospital.

Pretend you are going camping with your family or friends. Make a list of the foods that are safe for you take on the trip.

Using real food or pictures of food, ask children to decide what foods they can pack for the trip. Read the ingredient labels where applicable to help decide what is safe. Place the food that is safe in the picnic basket.

Ask: What food is safe for you to take on the trip? Why?

Answer should include the following points:

- Food allergic people eat only food brought from home*
- Food allergic people must read labels on everything they eat*
- Products containing the “allergen” must not be eaten*
- Products with “may contain” warnings on the label must not be eaten*

Ask: Are there lots of foods you can take on the trip?

Answer: There are still lots of foods allergic people can eat. They just have to be careful.

Ask: How would you feel if peanut butter were taken on the trip?

Answer could include: Nervous because peanut butter is sticky and oily and can easily get into the butter dish or on plates and cutlery or other camping equipment. Afraid that you might accidentally eat peanut butter and get really sick and have to go to the hospital.

Ask: What else must you take with you on the camping trip to be prepared if you eat something by mistake?

Answer: EpiPen[®]

Pretend you will do lots of cool stuff on the trip.

Ask: What kinds of things do you like to play and do when you go camping?

Ask: Are there any of these things you cannot do because of your allergy?

Answer: No, people with “anaphylaxis” are just like everybody else. They just have to be very very careful about what they eat.

3) How can we help our allergic friends avoid the foods to which they are allergic?

Ask: How do you think you can help your allergic friends avoid the

foods to which they are allergic? Do you have a **SAFE** school? Do you **Support Allergic Friends Everywhere**?

Answers should include:

-Never tempt a food allergic classmate to “try a bite.” Don’t share your food with an allergic person. The allergic person must eat only food brought from home.

-Know the foods to which your friend is allergic

-Never share straws or drinks

-Be careful not to spill or splash your food near someone with food allergies

-Avoid bringing peanut butter/peanuts/nuts to school

-Wash your hands after you eat

-Remind the allergic person to wash hands

-Never tease someone with food allergies. They didn’t choose to be allergic.

-Know the symptoms of an allergic reaction, and what you can do to help if someone is having a reaction.

Ask: What should you do if you notice a few kids are teasing your allergic friend about her allergy?

*Answer could include telling the kids to stop and explaining that food allergies are serious, or telling an adult.**

4) Know what to do in an Emergency

Ask: What should you do if you see that a friend is not feeling well because she has eaten something she should not have eaten?

Perhaps she is sick to her stomach, is getting hives, and/or is starting to have trouble breathing. (*Refer to list of symptoms*)

(Answer should include: Get help. Find a teacher or other adult right away. Tell them your friend is allergic to food and is sick. Ask them to come right away.

The adult emergency response must be to administer an EpiPen[®] and call 911)

getting very sick because she has accidentally eaten a food to which she is allergic.

Information and some activities adapted from:

Anaphylaxis Resource Manual, Copyright Anaphylaxis Network of Canada, 1999. Toronto

**Class Discussion Guide, Friends Helping Friends: Make It Your Goal! Funded by an educational grant from the Jaffe Family Foundation. Available from The Food Allergy & Anaphylaxis Network, Fairfax, VA.*

5) Extending and Reinforcing Learning

Activity 1: Draw a picture showing how you can be a good friend to someone with a food allergy. Show how you can help your friend avoid her allergen.*

Activity 2: Make a poster for your classroom to show how the classroom can be kept safe for your allergic friends.

Activity 3: Draw a picture to show how to help someone who is

