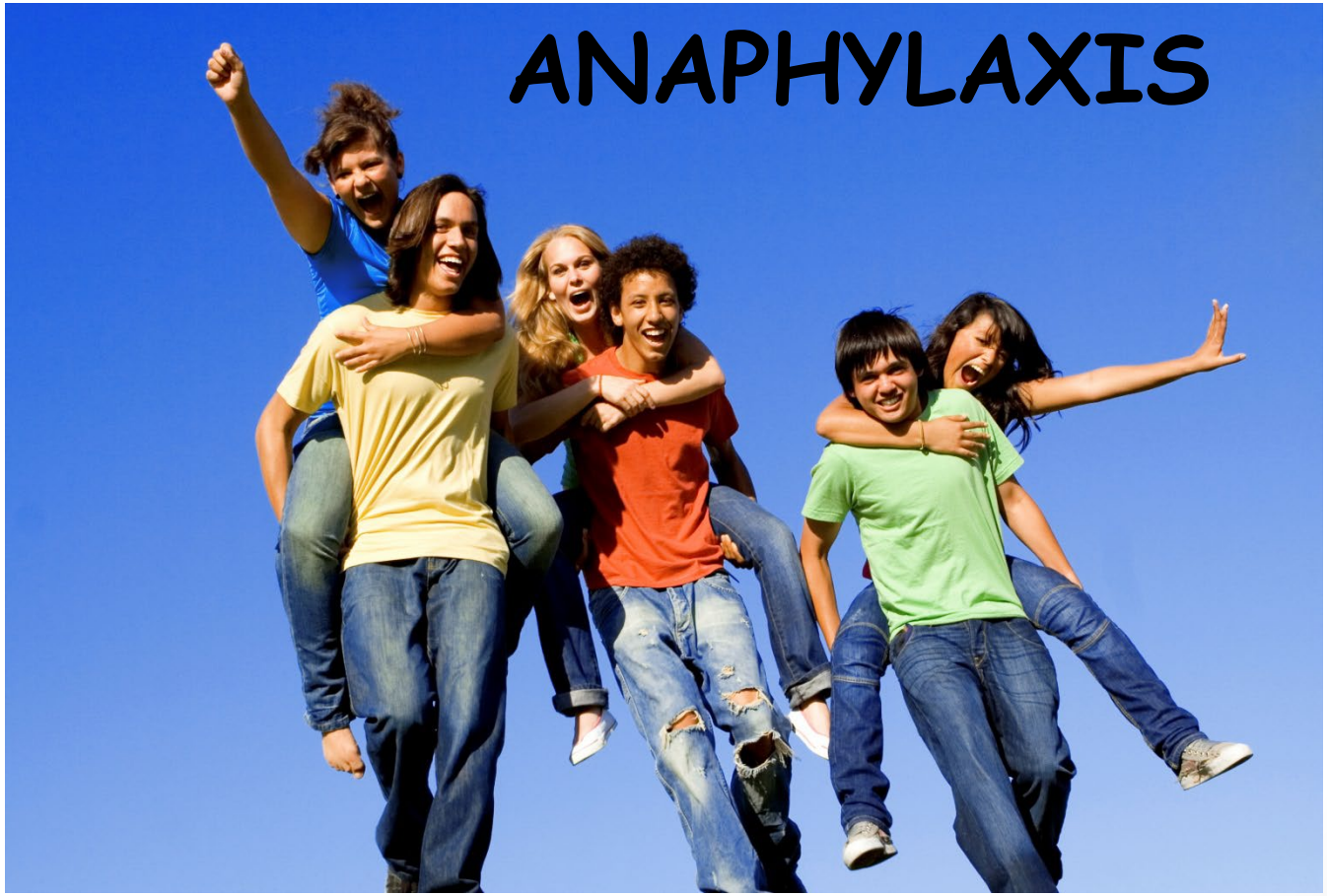
Adapted from the Ministry of Education website

Secondary School Presentation

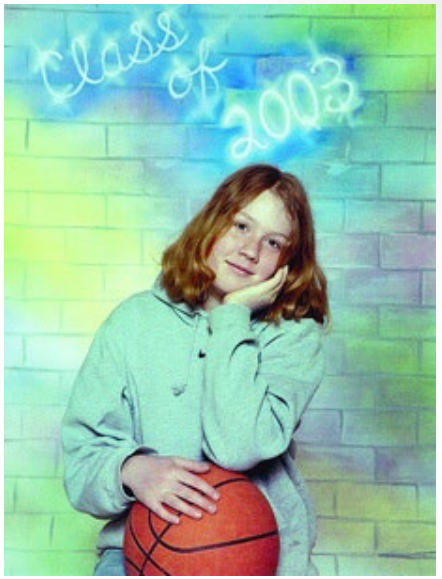
ANAPHYLAXIS



Interior Health

September 2025

Sabrina Shannon



September 2003

Sabrina ordered fries at the school cafeteria, after making sure that they were safe.

After lunch, Sabrina began to wheeze - thought she was having an asthma attack, she was sent to the office, by the time she got there, she was in serious respiratory trouble, and kept repeating "it's my asthma."

A teacher raced to Sabrina's locker to get her EpiPen in case it was anaphylaxis; school officials called 911. Sabrina collapsed, lost consciousness, suffered a cardiac arrest before the device could be administered and before the ambulance arrived.

https://youtu.be/JxxYRv2cCi8

(http://allergicliving.com/2010/07/02/sabrinas-law-sara-shannons-journey/)

Why are we here?

- Boards of Education must establish a training strategy according to the Ministry of Education Anaphylaxis Protection Order School Act, amended 2009

- Ministry of Education BC Anaphylactic and Child Safety Framework updated 2013

- Consensus Statement regarding standardized anaphylaxis training : Anaphylaxis in Schools & Other Settings 3rd Edition Revised, 2015

What is an Allergy?

Allergies occur when the immune system becomes unusually sensitive and overreacts to common substances that are normally harmless.

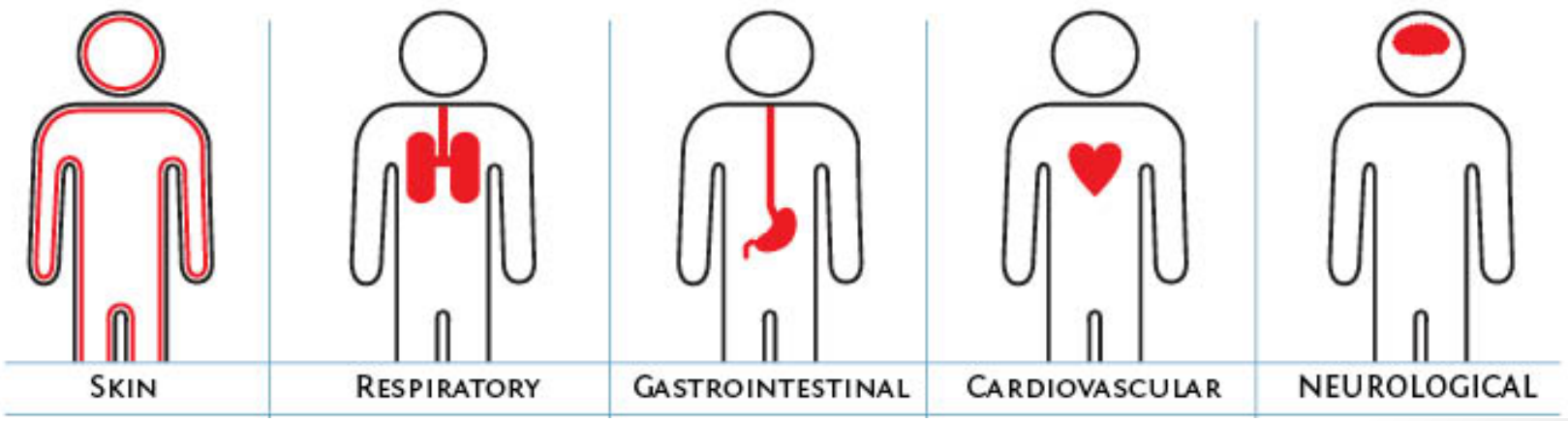
Examples are:

- **Foods** – peanuts, tree nuts, sesame, milk, eggs, fish, crustaceans and mollusks (shellfish), soy, wheat, and mustard
- **Insect bites –** bees, wasps, hornets and some ants
- **Medications –** penicillin, sulfa drugs
- **Exercise**
- **Latex –** gloves/medical devices

Reference: Food Allergy Canada(2021)

What is Anaphylaxis?

- **Most serious type** of allergic reaction
  - Can affect different parts of the body
  - Can happen quickly or can be delayed
  - Can be life-threatening
- Immediate treatment is necessary



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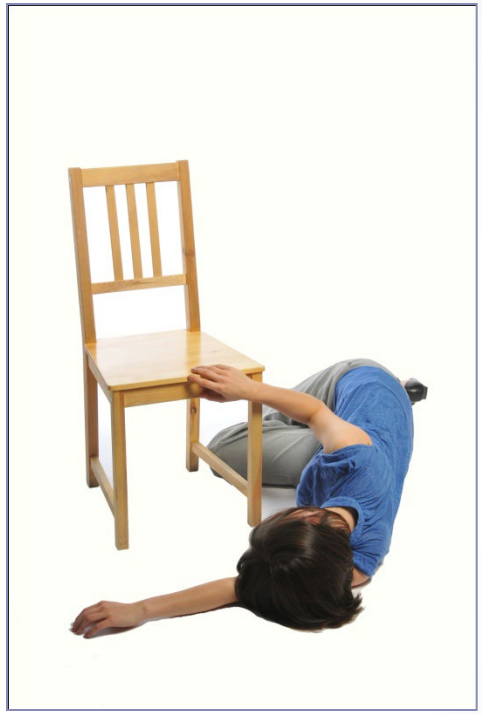
Most dangerous symptoms

Breathing difficulties



Drop in blood pressure

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Why are Teens at Higher Risk?

"Risk-taking behaviors in teenagers have been studied and are generally attributed to a reduced appreciation of potential dangers and a belief that consequences can be controlled."

"…social isolation [is] the hardest part of living with a food allergy"

http://www.jacionline.org/article/S0091-6749(06)00652-X/pdf

% of time teens report carrying their Epi

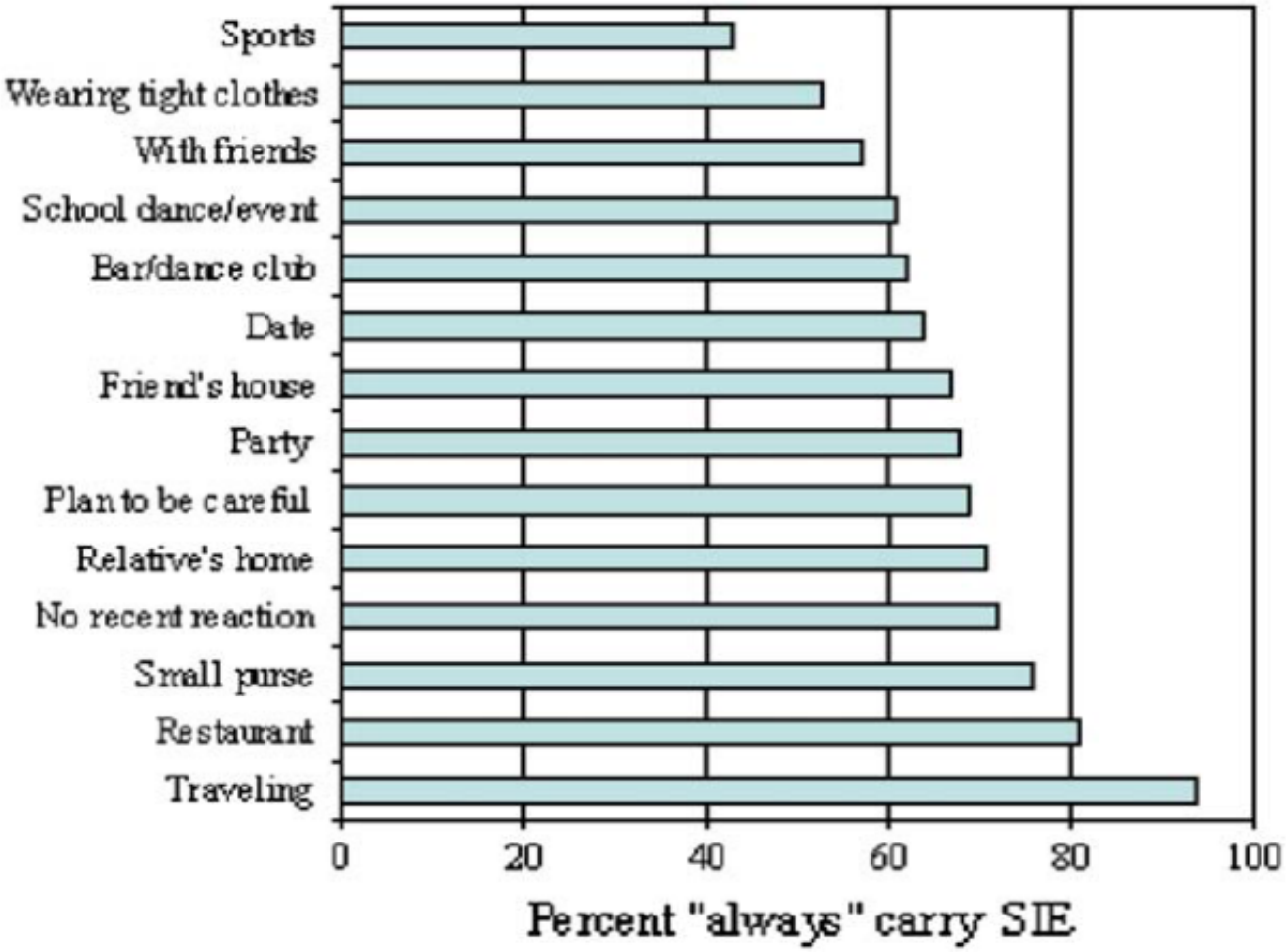


FIG 1. Percentage of respondents who "always carry" SIE during various activities.

Why are Teens at Higher Risk?

- Transition from elementary school
- Increased independence
- Increased risk taking, not wanting to appear different
  - Eating unsafe food and eating out
  - Not reading food labels
  - Not carrying auto injector, not wearing medic alert ID
  - Teenage Brain - the last to mature
  - Not telling friends or others, wanting to fit in
  - Alcohol and drug use

Prevention = Having a Plan

- Ensure the medical alert list and epinephrine auto-injectors are current
- Be aware of students who have allergies
- Review emergency care plans for each student
- Epinephrine must be immediately available, carried by student
- Additional devices to be stored in a central unlocked location
- Know when and how to administer epinephrine
- Prepare for outdoor and off school grounds activities
- Sample awareness and avoidance strategies & checklist

What should I do?

1) **Administer epinephrine auto-injector**
2) **Call 911**
3) **Administer second dose after 5-15 minutes IF symptoms do not improve or recur**
4) **Have ambulance transport student to hospital**
5) **Notify parent/guardian**

Remember:

- Epinephrine is **the** drug to use for an allergic reaction
- Delay in receiving epinephrine is associated with fatalities
- Individuals must go to the closest emergency department

Reference: BC Anaphylactic and Child Safety Framework (2007)

Effects of medications in anaphylaxis

Body System	Epinephrine	Antihistamine
Breathing	Opens airways	
Circulation	Raises heart rate and blood pressure Increased heart contractions	
Immune	Stops ongoing reactions	
Skin	Reduces hives	Reduces hives

Remember

- **When in doubt, administer epinephrine, early use saves lives.** Symptoms of anaphylaxis are unpredictable
- Antihistamines are not appropriate drugs to use during anaphylaxis and **must not be given**
- Asthma medication may be given **after** epinephrine
- Some symptoms of anaphylaxis can be confusing i.e. breathing difficulties
- **Epinephrine** addresses the life threatening symptoms of **breathing difficulty and loss of blood pressure**

What are auto-injectors?

A disposable, pre-filled automatic injection device that administers a single dose of epinephrine

Reference: EpiPen Allerject Emerade

How big are the needles?

EpiPen®/Allerject®	Emerade™	Immunization needles
		

Using the EpiPen®

- Hold firmly with **ORANGE** tip pointing downward.
- Remove **BLUE** safety cap by pulling straight up. Do not bend or twist.

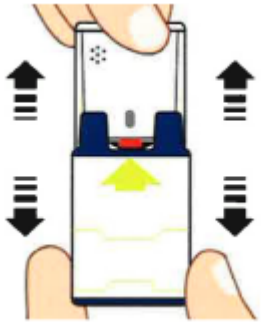
- Place and push **ORANGE** tip firmly into mid-outer thigh until you hear a "click."
- Hold on thigh for a slow count of 3.
- EpiPen video link (see how to use video)

Built-in needle protection

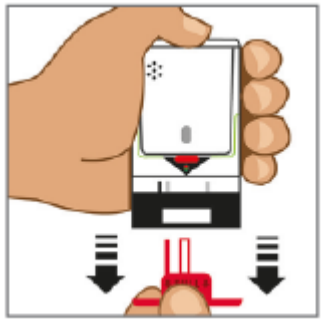
When EpiPen® is removed, the **ORANGE** needle cover automatically extends to cover the injection needle, ensuring the needle is never exposed.

Reference: www.epipen.ca

Using Allerject®



STEP 1



STEP 2

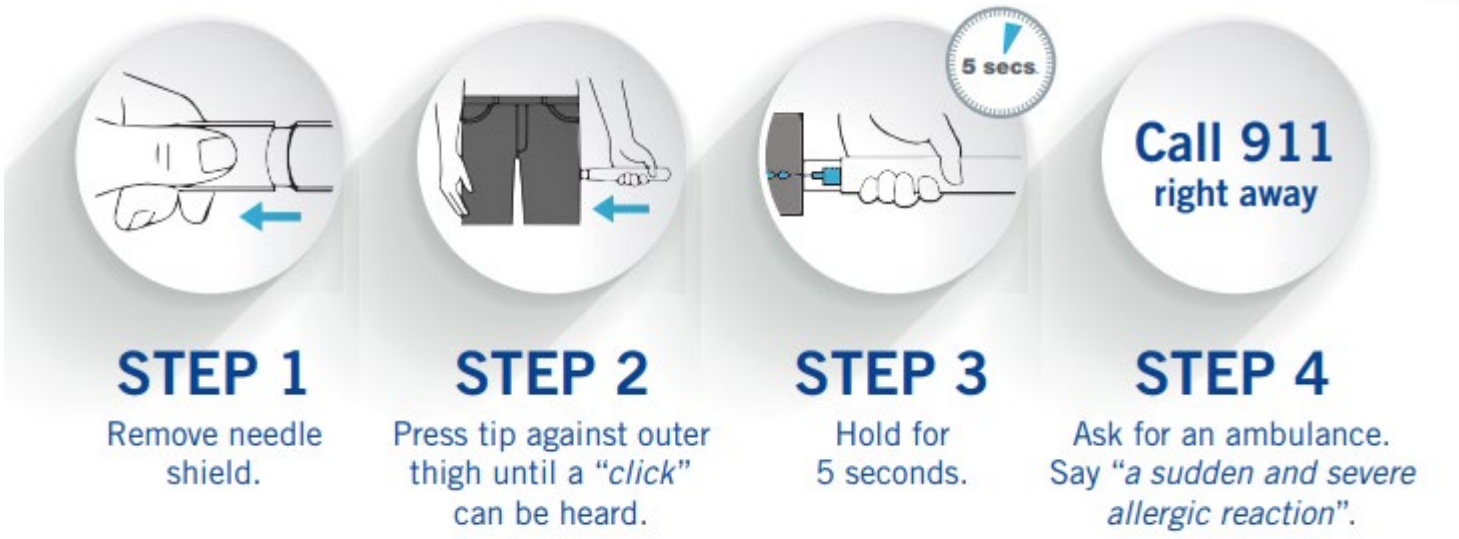
STEP 3

- Pull Allerject® up from the outer case
- Pull red safety guard down and off of Allerject®
- Place black end of Allerject® against the middle of the outer thigh, push firmly until you hear a click and a hiss.

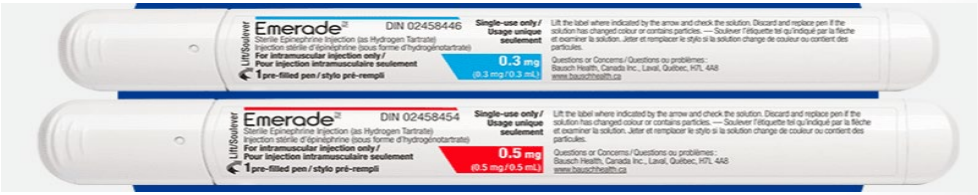
  Hold for 5 seconds.
- Allerject video Link

Reference: Allerject

Using Emerade®



- Emerade video link



Reference: Emerade

Body Positioning

- When giving epinephrine
  - have student sit or lie down
- After giving epinephrine
  - Lay on back, legs elevated
  - If student feels sick or vomits place in recovery position

Important: Do **not** have student sit up or stand suddenly

Food Allergy Canada 2019

*Sources: **Simons** FER et al, World Allergy Organization Guidelines for the Assessment and Management of Anaphylaxis, WAO Journal, 2011; **Pumphrey** RS. Fatal posture in anaphylactic shock. Journal of Allergy and Clinical Immunology. 2003.]*

Conclusion: Follow the three A's

- **Awareness**
  - Know the students affected by allergy
  - Know the steps of the emergency plan
  - Know the location of the epinephrine auto-injector
  - Know how to use an epinephrine auto-injector
- **Avoidance**
  - Communication
  - Avoid contact with allergens
  - Regular cleaning
  - Handwashing
- **Action**
  - Give the epinephrine auto-injector and call 911.
  - Don't delay!

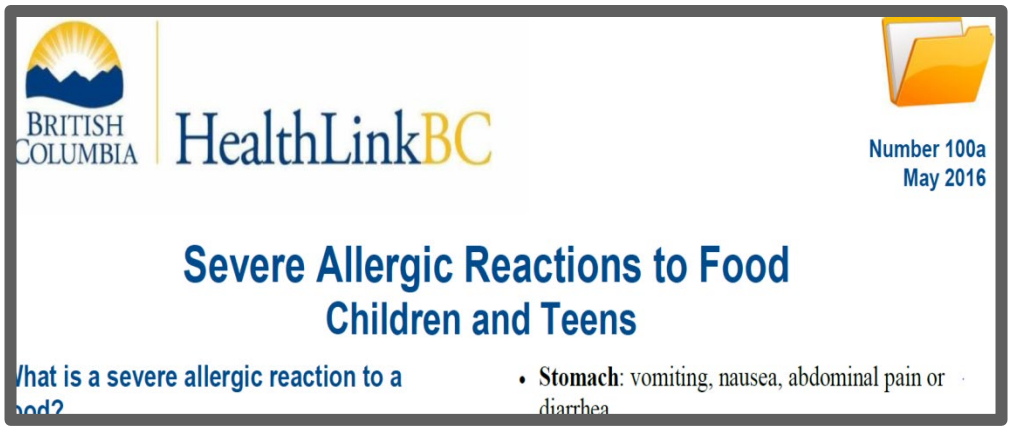
Teen Scenario…

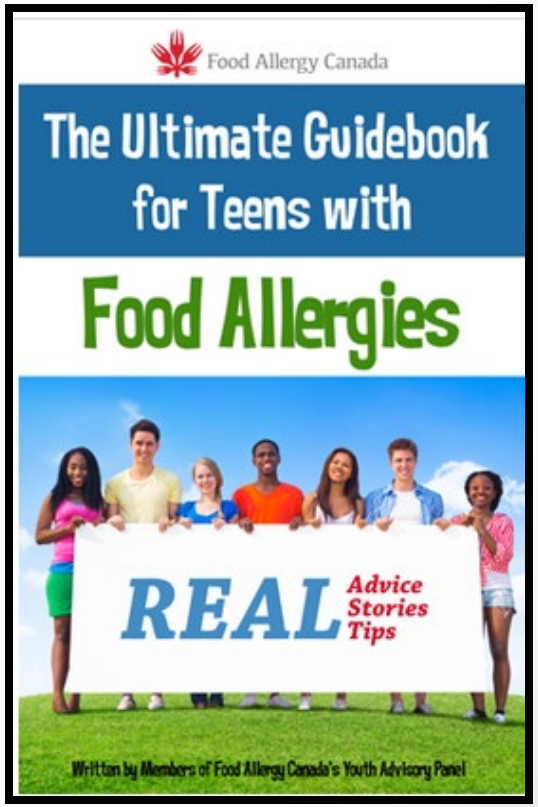
What it could look like…

https://youtu.be/msM7zDrex4Q

*** play to 2:07…


Anaphylaxis in Schools
For teachers, administrators and other school personnel, our online course will help you understand the basics of anaphylaxis, ways to reduce risks in a school setting, and the recommended emergency treatment.
Duration: About 30 minutes
Version: July 2020


BRITISH COLUMBIA
HealthLinkBC
Number 100a
May 2016
Severe Allergic Reactions to Food
Children and Teens
What is a severe allergic reaction to a
• Stomach: vomiting, nausea, abdominal pain or
diarrhea


Food Allergy Canada
The Ultimate Guidebook for Teens with
Food Allergies
REAL Advice Stories Tips
Written by Members of Food Allergy Canada's Youth Advisory Panel

Resources

For more information contact your Public Health Nurse and see:

- BC Anaphylactic and Child Safety Framework
- http://foodallergycanada.ca/ (Food Allergy Canada)
- http://www.whyriskit.ca/ (Why Risk It- Teens)
- http://www.epipen.ca/ EpiPen®
- https://www.allerject.ca/ Allerject®
- https://www.emerade.ca/ Emerade®
- https://www.medicalert.ca/ Medic Alert
- www.bchealthguide.org/healthfiles Health files
- Anaphylaxis BC Ministry of Education
- https://www.allergyaware.ca/courses/ Allergy Aware
- Anaphylaxis in Schools & Other Settings 3rd edition
- Teens and Young Adults resources

References

Food Allergy Canada (2019) http://foodallergycanada.ca/

Anaphylaxis in Schools & Other Settings (Third edition) by the Canadian Society of Allergy and Clinical Immunology.

Risk-Taking and coping strategies of adolescents and young adults with food allergies http://www.jacionline.org/article/S0091-6749(06)00652-X/pdf

Article about Sabrina's Law
http://allergicliving.com/2010/07/02/sabrinas-law-sara-shannons-journey/

IH public website
http://www.interiorhealth.ca/YourHealth/SchoolHealth/SchoolMedicalConditions/Pages/AllergiesAnaphylaxis.aspx

Acknowledgments

Presentation developed by Interior Health Authority, with input from: Food Allergy Canada

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Images and/or product shots from:

Pfizer Canada Inc. (EpiPen®), kaleo Inc. (Allerject®), *Bausch Health (Emerade®)Food Allergy Canada or purchased by Interior Health*

Any Questions?