

ANAPHYLAXIS IN THE CAMP SETTING

OCA Health Care Conference
2016

Bev Unger RN

OCA Health Care Committee Chair
Camp Robin Hood - Health Coordinator

Bev Unger, RN April 2016

AGENDA

**What is
Anaphylaxis?
(a brief overview)**

- Triggers
- Risk Factors
- Signs and Symptoms of an Anaphylactic Reaction

Treatment

- What Is Epinephrine?
- Epinephrine Auto injectors - EpiPen

**Keeping Camps
Safe for Campers**

- Identification of the person who is anaphylactic
- Establish relationship with family
- Anaphylactic Emergency Plan
- Raising Awareness
- Staff Training
- How to avoid exposure to an allergen
- Program considerations

Resources

Bev Unger, RN April 2016

WHAT IS ANAPHYLAXIS (ANNA-FILL-AXIS)?

There is no universally accepted definition of anaphylaxis

A serious allergic reaction

It can be life-threatening without proper medical attention

Affects multiple body systems:

skin

upper and lower respiratory

gastro-intestinal

cardiovascular

Bev Unger, RN April 2016

HOW CAN EXPOSURES TO ALLERGENS OCCUR

Tasting

Ingesting

Inhaling

Touching

Being injected or stung

Bev Unger, RN April 2016

POSSIBLE TRIGGERS

FOOD

STINGING INSECTS

NATURAL LATEX

MEDICATIONS

EXERCISE

UNKNOWN CAUSES (idiopathic)

Bev Unger, RN April 2016

PRIORITY FOOD ALLERGENS

✓ **Peanuts**

✓ **Tree nuts**

(Almonds, Brazil nuts, cashew nuts, hazelnuts, macadamia nuts, pecans, pine nuts, pistachios, walnuts)

✓ **Seafood**

> **Fish**
 > **Crustaceans** (crab, crayfish, lobster, shrimp)
 > **Shellfish** (clams, mussels, oysters, scallops)

✓ **Eggs**

✓ **Milk**

✓ **Wheat**

✓ **Soy**

✓ **Sesame**

✓ **Sulfites**
(food additives)

✓ **Mustard**

❖ not an inclusive list
 ❖ More than 200 allergens

Bev Unger, RN April 2016

INSECT STINGS

Honey Bees
Bumble Bees



Yellow Jackets



Hornets



Wasps



Fire Ants



Bev Unger, RN April 2016

NATURL LATEX

THE FOLLOWING MAY CONTAIN LATEX:

- Surgical gloves
- Dental supplies
- Condoms
- Erasers
- Bandages (i.e.: Band-Aid®)
- Balloons
- Carpet backing
- Fidget toys
- Sport Balls
- Medical tubing / supplies

Bev Unger, RN April 2016

EXERCISE-INDUCED ANAPHYLAXIS

- Not common
- Occurs during or after exercise
- Itching, large hives and tiredness common
- May be caused by a combination of eating a certain food and then exercising within a few hours (at swim time after lunch!)

Bev Unger, RN April 2016

UNKNOWN ORIGIN (IDIOPATHIC)

- Trigger is unknown
- Hard to diagnose
- Very frightening type of anaphylaxis as cause is not known

Bev Unger, RN April 2016

RISK FACTORS

Asthma

- People with asthma and anaphylaxis are more susceptible to severe breathing problems during an anaphylactic reaction
- Epinephrine can be used to treat life-threatening asthma attacks.

Delay in use of Epinephrine Auto injector

- Epinephrine must be given early
- There are no contraindications to using epinephrine for a life-threatening allergic reaction

Underlying Cardiac Disease

- Beta-blockers and ACE Inhibitors (Angiotensin Converting Enzyme) may slow down the effect of epinephrine and worsen allergic reaction

Bev Unger, RN April 2016

SIGNS & SYMPTOMS OF AN ANAPHYLACTIC REACTION

- Range from:
 - Mild - rash or hives
 - To severe - life threatening = difficulty breathing and sudden drop in BP
- Effects many different body systems
- The initial presentation can be delayed
- S & S could develop rapidly - no way to tell how quickly a reaction may progress
- May develop some symptoms, but usually not all
- There is no "typical" reaction
 - every reaction may be different

Bev Unger, RN April 2016

**THE MOST DANGEROUS SYMPTOMS OF AN
ANAPHYLACTIC REACTION ARE:**

Swelling of the airways

- including a severe asthma attack for people who have asthma

A drop in blood pressure

- causing dizziness, light-headedness, feeling faint or weak, or passing out

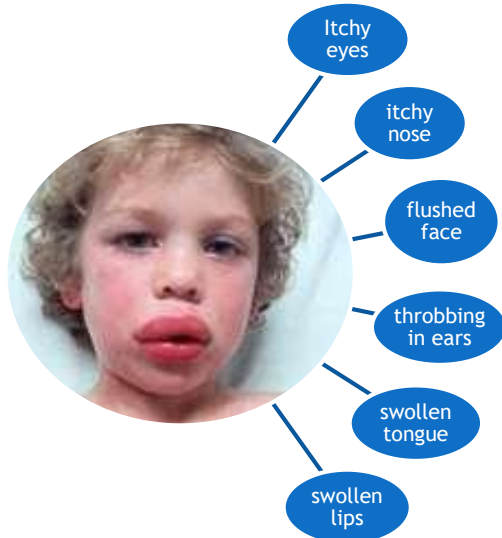
Without immediate medical aid
death can occur

Bev Unger, RN April 2016

A closer look at
Signs and Symptoms
in each body
system.....

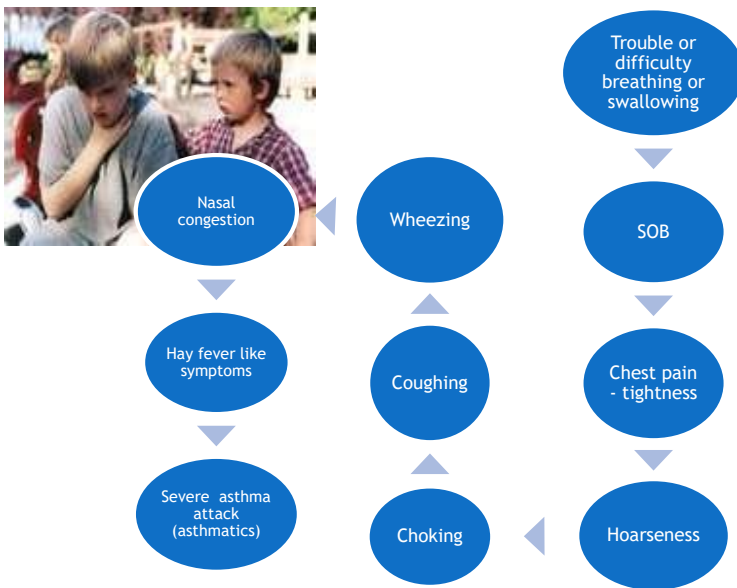
Bev Unger, RN April 2016

S & S OF THE FACE



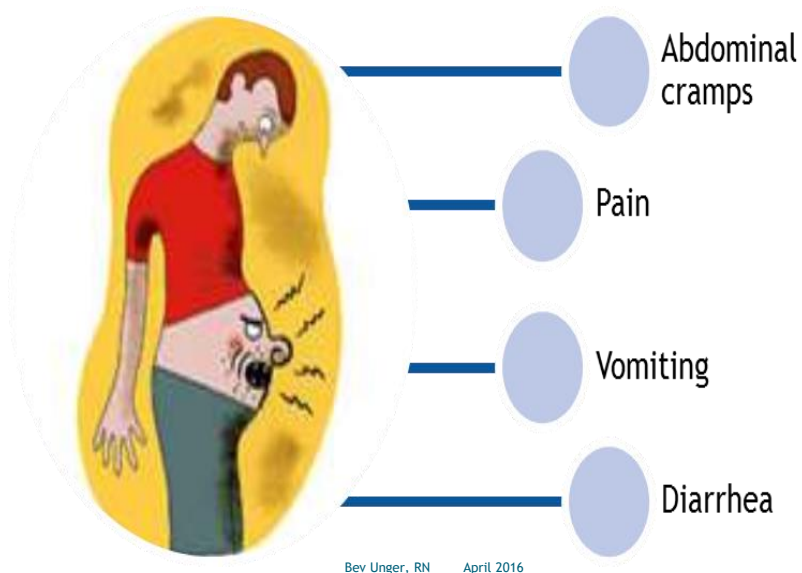
Bev Unger, RN April 2016

S & S - RESPIRATORY (BREATHING)

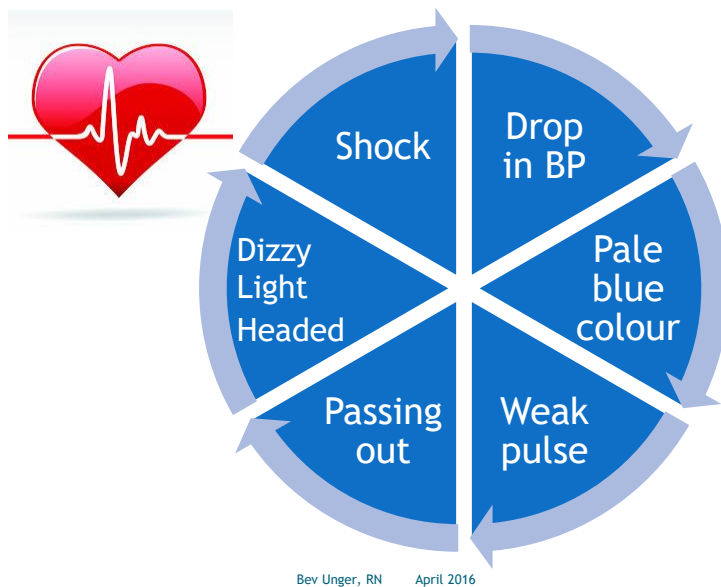


Bev Unger, RN April 2016

S & S - GASTROINTESTINAL(STOMACH)



S & S - CARDIOVASCULAR (HEART)




S & S - SKIN

SKIN REACTIONS MAY NOT ALWAYS BE PRESENT

Rash and Swelling



Redness and Itchiness

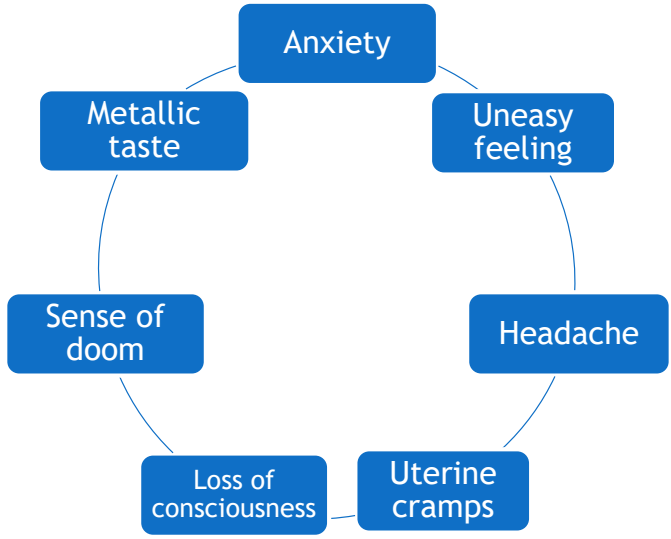


Hives anywhere on body



Bev Unger, RN April 2016

S & S - GENERAL / NEUROLOGICAL



Bev Unger, RN April 2016

TREATMENT

The **first** step
to control an anaphylactic
reaction is to administer
Epinephrine
ASAP!

Bev Unger, RN April 2016

EPINEPHRINE

- Is also known as Adrenaline (hormone)
- **MUST be administered immediately!**
- Can be used for potentially life threatening allergies
- **Can be used for severe asthma attacks**
- Reverses symptoms of anaphylaxis by:
 - opening the airways
 - increasing blood pressure
 - accelerating heart rate
- **Available in ampoules**
 - Administered with needle and syringe
 - Cost effective
- Auto injectors available in adult and child doses

Bev Unger, RN April 2016

Epinephrine Auto Injector EAI

EpiPen®



Bev Unger, RN April 2016

AUTO INJECTOR DEMONSTRATION

Wrong & Right Technique



Bev Unger, RN April 2016

Who can administer the Auto Injector?

YOU !!!!!

- An individual may NOT be able to self-administer their epinephrine
 - You may need to do it for them!
- Never allow a person who you think may be experiencing a reaction to go off on their own.
- Always give the auto injector if you think it is necessary!
- There are no contraindications!
- Better safe than sorry!

Bev Unger, RN April 2016

CONSIDERATIONS WHEN ADMINISTERING EPINEPHRINE

- Difficulty breathing: Keep in an upright position
- Sitting or standing may cause drop of BP
- Feeling faint or dizzy: Place on back with legs raised above heart level

If pale - lift the tail

- Vomiting: Place on side

Bev Unger, RN April 2016

CARE OF AUTO INJECTORS

- **Epinephrine is light sensitive**
 - store at a temperature between 15-30° C
 - do not refrigerated
 - Ok outside in a bag / fanny pack at camp
 - Hang out of direct sunlight when not worn

- **Check solution window regularly**
 - Ensure no brown discoloration or precipitate

- **Check the expiry date**
 - Shelf life around 12 months

Bev Unger, RN April 2016

THE NEED FOR 2

- The need for a 2nd dose of epi cannot be predicted

- **All who are anaphylactic should have 2 or more auto injectors available to them at all times**
 - At least one must be carried by the individual and a 2nd (the spare) kept in an UNLOCKED location and must be taken when transporting to the hospital
- **If a reaction is not improving or getting worse after the first dose a 2nd dose may be given as early as 5 minutes after the first dose**
 - Signs of a reaction getting worse may be increased breathing difficulty, decreased level of consciousness, fainting

- **Any more than 2 doses should always be given under medical supervision**

Bev Unger, RN April 2016

OTHER TREATMENT

Antihistamines

Benadryl or other antihistamines should **NOT** be used as the first line of treatment

Antihistamines:

- will not stop an anaphylactic reaction
- can be used as secondary medication for hives and skin reactions

Bev Unger, RN April 2016

KEEPING CAMPS
SAFE FOR
CAMPER WITH
ANAPHYLAXIS

Bev Unger, RN April 2016

CAMPS SHOULD HAVE EMERGENCY PROTOCOLS IN PLACE THAT INCLUDE:

Identification of the person who is anaphylactic

Establishing relationships with family

Anaphylactic Emergency Plan

Raising Awareness

Staff Training

How to avoid exposure to an allergen

- Food Policies / Kitchen / Meal Time
- Maintenance

Program Considerations

- Activity areas
- Swim and Waterfront
- Out Tripping and Off Site Excursions

Bev Unger, RN April 2016

IDENTIFICATION

Identification of the allergic individual and the allergy should be on the :

- Camp Registration Form
- The Camp Health Card / Form
- Ana Poster
 - See Anaphylaxis Canada web site for sample posters

Identification of the Auto Injector:

- Label the auto injector if there is no pharmacy label
- Easily identifiable bag/ case/ fanny pack for camper to carry auto injector

Bev Unger, RN April 2016


ESTABLISH RELATIONSHIP WITH FAMILY

Health Staff should

- Meet with guardian before camp starts
- Review full medical history
- Obtain all details of allergy and management
- Ensure appropriate documentation is complete
 - Health form, ana poster, emergency contact info
- Review camp Anaphylaxis Emergency Plan
- Discuss how the camper will carry auto injector at camp
- Substitution of food if required for special events

Bev Unger, RN April 2016

ANAPHYLAXIS EMERGENCY PLAN


 138 Limestone Crescent, Toronto, Ontario, M3J 2S4
 416.736.4443 • 416.736.9971 Fax
 www.camprobinhood.ca

ANAPHYLAXIS ALERT POSTER

Name of Camper: _____

Registration Period/Clinic: _____ Section & Cabin Group #: _____

Camper has a potential life-threatening allergy (anaphylaxis)
to: (check appropriate boxes)

<input type="checkbox"/> Peanut	<input type="checkbox"/> Insect stings
<input type="checkbox"/> Tree Nuts	<input type="checkbox"/> Latex
<input type="checkbox"/> Egg	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Milk	<input type="checkbox"/> Medication: _____

Epinephrine Auto-Injector: expiry date: _____

Dosage: EpiPen® Jr. 0.15mg EpiPen® 0.30mg
 Twinject™ 0.15mg Twinject™ 0.30mg
 Auto-injectors are stored in the campers fanny pack.

RECENT CAMPER PHOTO

SIGNS & SYMPTOMS

Face Itchy eyes, itchy nose, flushed face, swollen lips, swollen tongue

Airway Trouble breathing or swallowing, hoarseness, choking, coughing, wheezing

Stomach Pain, cramps, nausea, vomiting, diarrhea

Skin Rash, itchiness, swelling, hives – anywhere on the body

Heart Pale/blue colour, weak pulse, light headedness, dizziness, shock

General Weakness, headache, sense of doom, loss of consciousness
Anaphylaxis can lead rapidly to unconsciousness and death

EMERGENCY PLAN – A.C.C.T.
 Administer auto-injector immediately!
 Camp nurse/designated other will be contacted immediately and will have the second epinephrine auto-injector and the camper's health history ready for transportation, with the camper, to Markham Stouffville Hospital. Camp Robin Hood transports campers having an anaphylactic reaction to the hospital as the camper can arrive at the hospital faster than it would take an ambulance to get to camp. A camp driver and a staff member who is trained in the care of an anaphylactic reaction will accompany the camper. The camper's second epinephrine auto-injector will be with them in the unlikely event the reaction does not improve or becomes worse in which case a second dose would be required after 10 – 15 minutes. While the above is taking place a camp nurse will contact the parents. **CAMP SITE PROTOCOL**
 Call 911 or your local emergency number – advise dispatcher that a child is having an anaphylactic reaction. If an ambulance has not arrived in 10-15 minutes and symptoms have re-appeared, or have not subsided administer a second dose of epinephrine if necessary, **OFF-SITE PROTOCOL**.

Transport child to hospital immediately even if symptoms subside.

Parents/Guardian: _____ Date: _____
 Telephone #'s Home: _____ (signature) Cell: _____ Business: _____

A poster with clear instructions on how to treat symptoms and strategies to reduce risks.

The plan should have a photo of the individual

A list of allergies

Emergency contact information

*See Food Allergy Canada Web site for a sample form

Bev Unger, RN April 2016

RAISING AWARENESS

Communicate with your camp community
(all families, all staff, bus drivers)
and inform them of anaphylactic allergies

- **Ask all families to:**
 - read labels before sending food to day camp
 - Avoid sending food to overnight camp
 - Have campers wash hands before and after eating
 - Talk to campers about not sharing food

Bev Unger, RN April 2016

STAFF TRAINING SHOULD INCLUDE

- ✓ Everyone - counsellors, kitchen, bus drivers, life guards, program specialists, senior staff
- ✓ Identify who has the anaphylactic allergies
- ✓ What the allergy is
- ✓ Precautions for avoiding exposure
- ✓ S & S of an anaphylactic reaction
- ✓ How to initiate the camps emergency plan
- ✓ Location of epinephrine auto injectors
 - ✓ campers should carry their own!
 - ✓ camps supply
- ✓ When and how to administer an epinephrine auto injector
- ✓ When to deliver a second dose of epinephrine
- ✓ What to do after an Auto injector is given
- ✓ The unknown allergic reaction

Bev Unger, RN April 2016

AVOID EXPOSURE TO AN ALLERGEN

Food policies should include:

- allergy “aware” or “safe” - NOT “free”
- no sharing of food
- no food from home (overnight camps)
- eat only food from own home (day)
- read labels - know all the names
- connect with food suppliers for lists of ingredients
 - share with parents so they can substitute where necessary
- knowledge of food and ingredients:
 - Is it a nut or a seed?
 - sesame seeds, poppy seed, sunflower seeds, pumpkin seeds, nutmeg and coconut are all considered seeds and are NOT in the tree nut family.
 - Pesto - may have pine nuts

Bev Unger, RN April 2016

AVOID EXPOSURE TO AN ALLERGEN

Kitchen and Meal Time

- Avoid cross-contamination in kitchen
 - different utensils
 - different sponges and cloths
- No “peanut free tables” - just eliminate nuts!
 - peanut is extremely potent and often hidden
- Watch open juices and straws for insects
- Staff supervision during meals and snack time
- Meal supervision = active observation
- Hand washing is a must
 - hand sanitizer is not substitute

Bev Unger, RN April 2016

AVOID EXPOSURE TO AN ALLERGEN

Maintenance

- Removal of hives or nests = immediate!
- Keep lids on garbage cans to avoid insects
- Weed and grass control to decrease bees
- Good hand washing done by all

Bev Unger, RN April 2016

PROGRAM CONSIDERATIONS

Activity Areas

- be aware of food and other products used
 - i.e.: eggs, pine cones, marshmallows (fish gelatin in kosher marshmallow), bird seed often contains nuts etc...
- Wash all surfaces well - dish soap is not effective
- Avoid food related prizes or rewards

Bev Unger, RN April 2016

PROGRAM CONSIDERATIONS

Swim and Waterfront

- Make sure the “fanny pack” is
 - hung or held in a secure location
 - central
 - easy access to everyone

- Keep the auto-injector
 - Dry
 - Out of direct sunlight

- Pick up of the “fanny pack” at the end of the period

Bev Unger, RN April 2016

PROGRAM CONSIDERATIONS

Out Tripping and Off Site Excursions

- Who administers the auto injector?
 - Anyone who is trained
 - Individual themselves - IF able!
 - Must know where auto-injectors are stored

- Must carry back ups / spare auto injectors
 - A second dose may be necessary

- Safe Storage
 - Separate auto injectors into 2 different areas
 - if one is lost still have one
 - To keep from overheating:
 - pack in middle of packs
 - bottom of canoe so cooled by water

- Access to doctor or health staff by phone

- After administration - **immediate EMS!**

Bev Unger, RN April 2016

REVIEW.... Remember.....

- ☑ Ana anaphylactic reaction is scary.
- ☑ The person may be afraid or confused and unable to self-administer their epinephrine auto-injector on their own - you may need to do it for them!!
- ☑ Epinephrine is the first-line medication for anaphylaxis.
 - ☑ Antihistamines and asthma meds can be used after epinephrine, if needed
 - ☑ A second dose of epinephrine may be given as early as 5 minutes after the first dose if symptoms do not improve or become worse.
- ☑ Call 911 as soon as an allergic reaction is expected
- ☑ Persons feeling faint or dizzy due to possible shock should lie down and if vomiting, they should be turned onto their side.
- ☑ After receiving epinephrine transport to hospital is necessary (ideally by ambulance)
- ☑ Call emergency contact person!

Bev Unger, RN April 2016

REVIEW....

Keeping Camps Safe for Campers With Anaphylaxis

- ☑ Have up to date allergic protocols
- ☑ Hang and distribute ana posters!
- ☑ Make sure staff can identify the S & S
- ☑ Make sure all who are anaphylactic carry their epinephrine auto injectors
- ☑ Make sure every one knows how to administer auto injectors!

These steps May SAFE A LIFE!

Bev Unger, RN April 2016

ALL REFERENCES MODIFIED FROM:

Anaphylaxis in Schools & Other Settings - Anaphylaxis Canada

AAIA Anaphylaxis Reference Kit Allergy/Asthma Information Association

Web sites:

On line training module and certificate:

Allergyaware www.allergyaware.ca

EpiPen® www.epipen.ca

www.epipen101.ca

Food Allergy Canada (formerly Anaphylaxis Canada)

www.allergysafecommunities.ca

www.safe4kids.ca

www.whyriskit.ca

Food Allergy and Anaphylaxis Network www.faanteen.org

Allergy/Asthma Information Association (AAIA) www.aaia.ca

Sabrina's Law (anaphylaxis) and Ryans Law (asthma)

<http://www.edu.gov.on.ca/eng/healthyschools/anaphylaxis.html>

Health Canada

<http://www.hc-sc.gc.ca/>

Bev Unger, RN April 2016