

Health Office Training

School Year 2021-2022



Session Objectives

- 1) Learn how to safely administer medication**
- 2) Identify the signs and symptoms of asthma**
- 3) Develop an awareness of food allergy and anaphylaxis**
- 4) Review diabetes, hypoglycemia and hyperglycemia**
- 5) Learn how to recognize seizures**
- 6) Learn how to recognize concussions**

Medication Review

Purpose: This training is designed to review and refresh knowledge of how to safely administer medication.

Education code states that students who require medication during the school day may request that the school assist with the administration(California Ed Code 49423

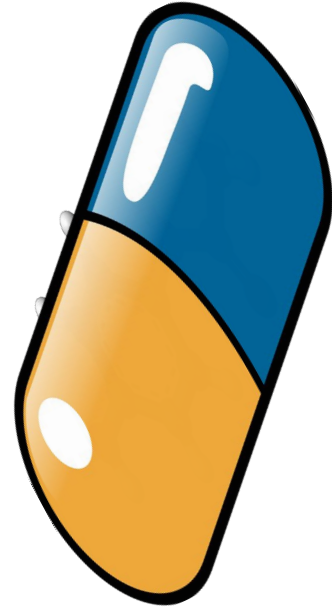
Medication



- 1) Obtain a physician order and physician signature on medication form.
Parent signature is needed.
- 2) Medication need to have pharmacy label
- 3) Medication needs to be in locked cabinet
- 4) Make certain that the student receives the medication---call student out of class if they do not show up. Medication should be given within 30 minutes of scheduled time as instructed in physician order.
- 5) Do not crush or cut an unscored medication pill.

5 rights medication administration

- 1) Right student
- 2) Right medication
- 3) Right time
- 4) Right route
- 5) Right dose
- 6) Right documentation



Steps in School Administration

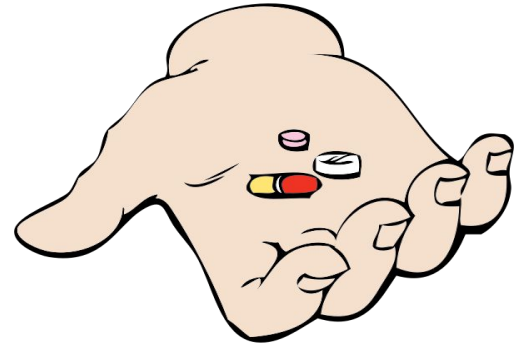
- 1) Gather necessary items with few distractions
- 2) Verify the physician authorization and parent consent
- 3) Check the 5 rights
- 4) Wash hands
- 5) Prepare the dosage without touching the medication or contaminate the inside of the lid
- 6) Do not leave medication unattended
- 7) **Count all narcotics and stimulants(pain meds and ADHD meds) before accepting the medication from parent**

Steps to Administration of Medication

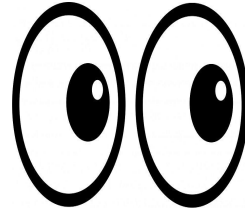
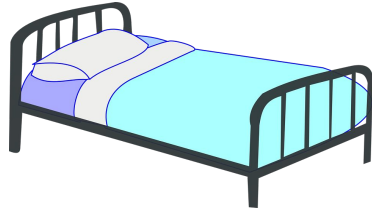
- 1) **Verify the right student and medication**
- 2) **Observe student for unusual behaviors prior to giving the medication.**
Do not give if you have concerns.
- 3) **Explain procedure to student**
- 4) **Position the student properly**



Medication procedure



- 1) **Pour medication out of container**
- 2) **Place medication in student's hand**
- 3) **Watch student take medication**
- 4) **Document your procedure**
- 5) **Note the physician order prior to administering the medication**
- 6) **Check the bottle that is the right medication**
- 7) **Look at the student**



Eye Drops:

- 1) Check order
- 2) Have student lay down or sit quietly
- 3) Gently open eye with finger
- 4) Place ordered number of drops in the eye away from the colored part of the eye

Eye Ointment

- 1) **Check order**
- 2) **Have student lay or sit quietly**
- 3) **Gently open eye with one finger by pulling down on lower lid**
- 4) **Gently place a line of ointment on lower lid**
- 5) **Student should close eyes for a few minutes**

Ear Drops

- 1) Check order
- 2) Have student lay on side
- 3) Gently drop in the ordered number of drops
- 4) Have student stay on that side for 5 minutes



Skin Ointments

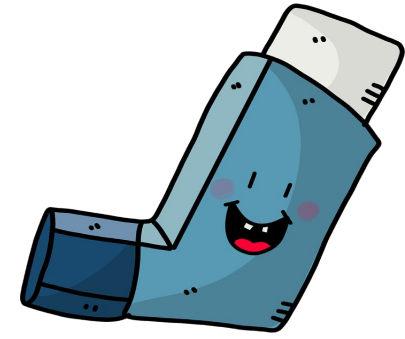
- 1) Check order
- 2) Remember universal precautions
- 3) Wear gloves
- 4) Apply prescribed medication

Inhalers

- 1) Follow the physician order for inhaler
- 2) Check for signs of respiratory distressions
- 3) Blue discoloration around lips and nailbeds
- 4) Noisy respirations



Inhalers



Rescue-Quick Acting

- 1) HFA=Proair,Ventolin, Proventil
- 2) Xopenex HFA=Levalbuterol
- 3) Spacers are preferred if ordered

Controller-anti-inflammatory

- 1) Flovent, Qvar, Pulmicort
Aerobid, Alvesco

Combination:

- 1) Advair, Diskus, Symbicort

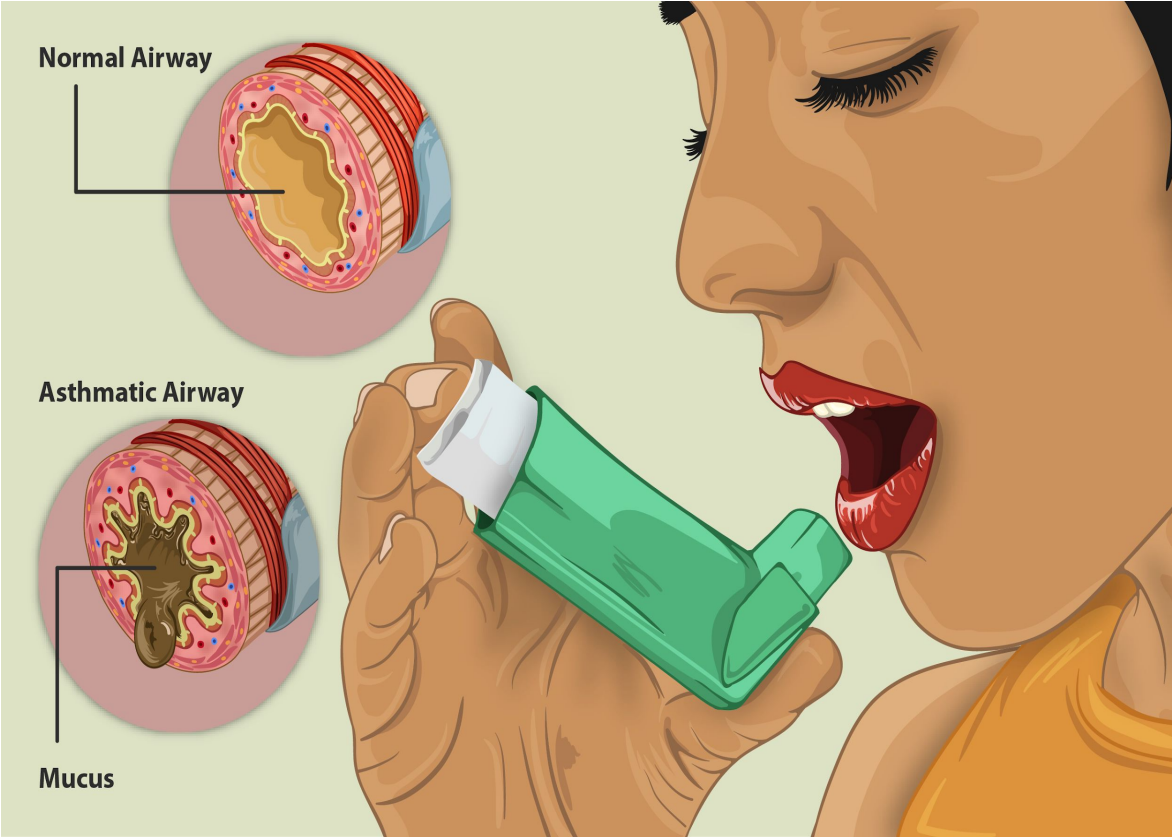
Administering Inhaler

- 1) **Position student**
- 2) **Remove the mouthpiece cap and shake**
- 3) **Prime the inhaler one dose if new**
- 4) **Instruct student to exhale fully**
- 5) **Insert in space if student has one**
- 6) **Have student place mouthpiece into his/her mouth and keep tongue out of way**
- 7) **Inhale medication**

Administering inhaled medication

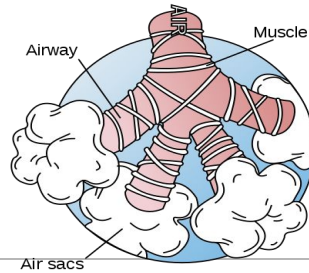
- 1) **Instruct student to begin to inhale and then activate the inhaler**
- 2) **Instruct to continue to inhale slowly for 3-5 seconds filling their lungs**
- 3) **Hold their breath 10 seconds as able, and then breath out**
- 4) **Wait 1 minute before second dose**
- 5) **Replace cap on inhaler-rinse the spacer mouthpiece with warm water shaking off excess water--allow to dry**
- 6) **Monitor students for change in respirations**

Asthma

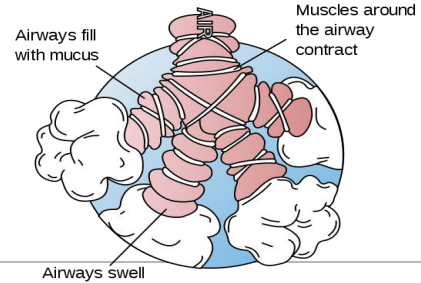


Asthma

Before an asthma episode



After an asthma episode



Chronic wheezing attacks that are triggered by many substances/activities.

Hypersensitive airways may become smaller, causing wheezes, cough, and difficulty breathing. Attacks may be mild, moderate, or severe. The airways produce thick mucus.

Response to Asthma

Sit person upright and comfort student.

Have student breathe slowly deeply through the nose and out of mouth

STAY CALM

BE REASSURING

Check physician orders-GIVE INHALER IF ORDERED

Signs and Symptoms of Breathing Difficulty

- 1) **Rapid shallow breathing**
- 2) **Not speaking in full sentences**
- 3) **Wheezing**
- 4) **Tightness in chest**
- 5) **Widening of nostrils**
- 6) **Increased use of stomach and chest muscles**
- 7) **Sleepy and fatigued**

Triggers

Infections such as upper airway/colds

Changes in the weather and temperature

Exercise

Physical expressions of strong feelings-crying, laughing hard, yelling.

A student vomits after taking medication-what should you do?

- 1) Note students name and age
- 2) Note medication and dosage
- 3) Note time interval between symptoms and taking medication
- 4) Call RN



Medication Errors

- 1) Omitted doses
- 2) Incorrect dose
- 3) Incorrect time of administration
- 4) Incorrect student
- 5) Improper injection technique
- 6) Incorrect route
- 7) Incorrect documentation-NO WHITE-OUT

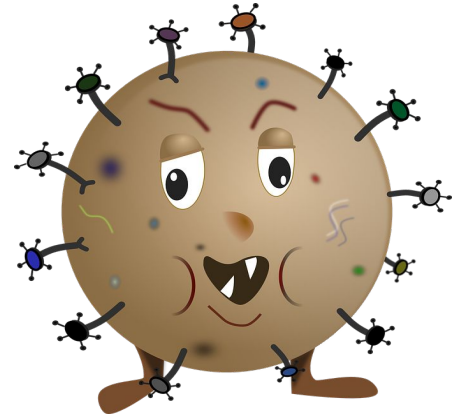


Medication Error



If medication error takes place, observe student for any signs and symptoms. Be sure to check level of consciousness and breathing. Call 911 if level of consciousness is altered, trouble breathing and/or seizures.

Allergy Objectives



Learn the signs and symptoms of anaphylaxis

Have the skills to give Epinephrine auto-injector

Review the use of emergency care plan in responding to a student health emergency.

Food Allergy

One in every 13 children has a food allergy--that is about 2 in every classroom.

CDC 2016- reports a 22% increase in food allergies in the US. since 2007.

Every 3 minutes someone is in ED with food allergy.

Food Allergy

A Food Allergy is a potentially serious immune response to eating or otherwise coming into contact with certain foods or food additives.

The signs and symptoms are caused by biologically active chemicals produced by the immune system in its attempt to protect the body from foreign invader.

Our immune system produces immunoglobulin E (IGE)-a type of protein

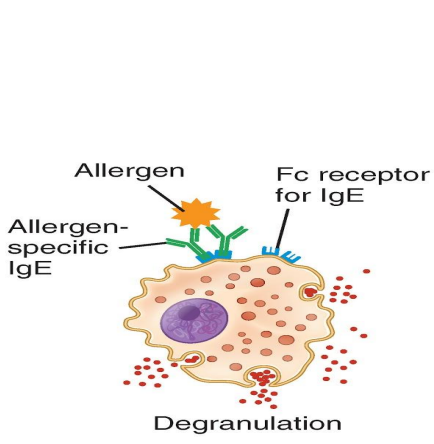
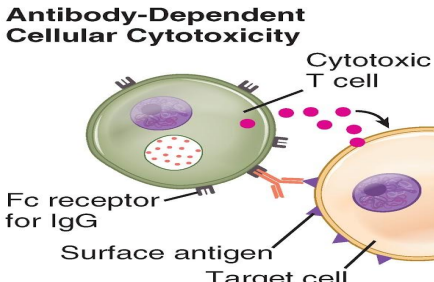
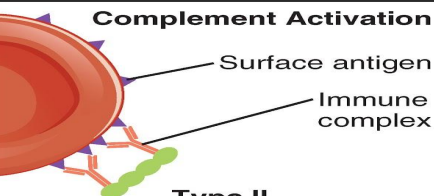
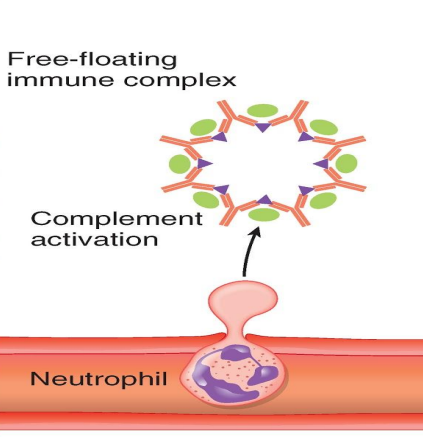
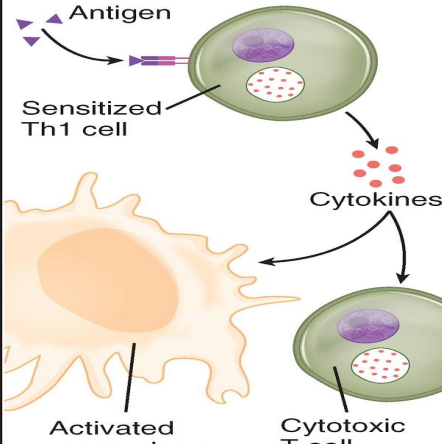
Mild vs. Major Allergic Reaction

MILD REACTION: Benadryl

- 1) Hives**
- 2) Itching**
- 3) Localized swelling**

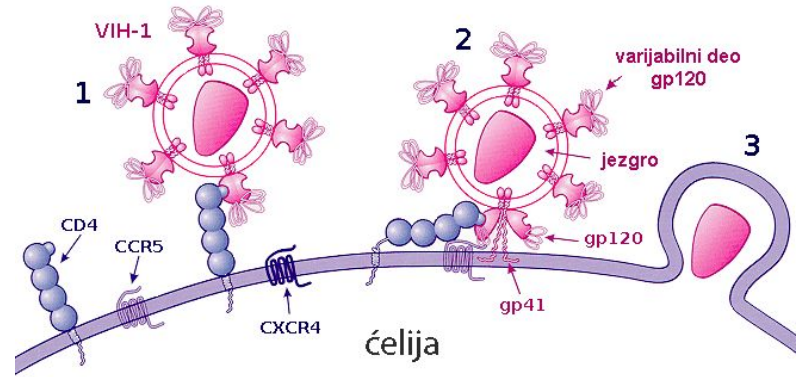
MAJOR REACTION:

- 1) Difficulty breathing**
- 2) Throat tightness**
- 3) Shock/fainting**
- 4) Vomiting**

 <p>Type I</p>	<p>Antibody-Dependent Cellular Cytotoxicity</p>  <p>Complement Activation</p>  <p>Type II</p>	<p>Free-floating immune complex</p>  <p>Type III</p>	 <p>Type IV</p>
<p>IgE-Mediated Hypersensitivity</p>	<p>IgG-Mediated Cytotoxic Hypersensitivity</p>	<p>Immune Complex-Mediated Hypersensitivity</p>	<p>Cell-Mediated Hypersensitivity</p>
<p>IgE is bound to mast cells via its Fc portion. When an allergen binds to these antibodies, crosslinking of IgE induces degranulation.</p>	<p>Cells are destroyed by bound antibody, either by activation of complement or by a cytotoxic T cell with an Fc receptor for the antibody (ADCC)</p>	<p>Antigen-antibody complexes are deposited in tissues, causing activation of complement, which attracts neutrophils to the site</p>	<p>Th1 cells secrete cytokines, which activate macrophages and cytotoxic T cells and can cause macrophage accumulation at the site</p>
<p>Causes localized and systemic anaphylaxis, seasonal allergies including hay fever, food allergies such as those to shellfish and peanuts, hives, and eczema</p>	<p>Red blood cells destroyed by complement and antibody during a transfusion of mismatched blood type or during erythroblastosis fetalis</p>	<p>Most common forms of immune complex disease are seen in glomerulonephritis, rheumatoid arthritis, and systemic lupus erythematosus</p>	<p>Most common forms are contact dermatitis, tuberculin reaction, autoimmune diseases such as diabetes mellitus type I, multiple sclerosis, and rheumatoid arthritis</p>

Anaphylaxis

Anaphylaxis



Anaphylactic reactions is a severe reaction of rapid onset that involves most organ systems(multiple organ failure that results in circulatory collapses and a drop in blood pressure.)

The first system usually are burning irritation of the lips, the inside of the mouth, and throat followed by gastrointestinal symptoms.

Auto Injector Epi-Pen

Usual progression:

- 1) Burning, itching and irritation of mouth and oral tissues and throat--obstructive swelling
- 2) nausea/vomiting, diarrhea, cramping
- 3) Feeling of anxiety, dizziness

Used to deliver epinephrine when anaphylaxis occurs



Food Allergy



- 1) Almost any food can cause an anaphylactic reaction
- 2) Some foods are more common than others:
---peanuts, tree nuts, shell fish, and eggs
- 3) children under 3 years=cows milk, eggs, wheat, chicken

NUTS:

- 1) Tree nuts
- 2) Almonds
- 3) Brazil nuts
- 4) Walnuts
- 5) Hazelnuts
- 6) Pistachios
- 7) Pecans
- 8) Cashews

LEGUMES:

- 1) Peanuts
- 2) Carob nuts
- 3) Soy nuts



Diabetes

Nearly 21 million adults and children in the US have diabetes

Diabetes is a chronic illness in which the body does not produce enough insulin(type1) or does not produce enough insulin properly(type2)

There can be long term health complications if not managed



Insulin is vital for everyday life because it converts the sugar, starches or other food into energy.

Diabetes occurs when the pancreas does not produce insulin

Diabetes Normal Blood Sugar(70-100)

Signs and Symptoms Type 1

Frequent urination

Excessive thirst

Extreme hunger

Dramatic weight loss

Irritability

Weakness and fatigue

Nausea and vomiting

Signs and Symptoms Type 2

Increase thirst

Frequent urination/night time urination

Blurry vision

Unusual fatigue

Dark skin-Acanthosis Nigricans

Severe Hypoglycemia

Inability to swallow

Seizure or convulsion

Unconsciousness

RESPONSE----Call 911--give GLucagon---Position on side---call RN



Glucagon



Used to help Diabetic students in severe Hypoglycemia reaction

Use Glucagon to treat insulin coma or insulin reaction resulting from severe hypoglycemia blood sugar.

Symptoms of low blood sugar include: disorientation, unconsciousness, and seizures and convulsions.

Give Glucagon if the student is unconsciousness and unable to eat sugar.

Glucagon Administration

Remove the flip-off seal from the bottle

Wipe the rubber stopper with alcohol

Remove the needle protector from the syringe and inject entire contents into the bottle

Insert the needle into the loose tissue under the cleansed injection site. **THERE IS NO DANGER OF OVERDOSE**

Turn student on his/her side



Hypoglycemia

Too much insulin administration

Skipping or delaying meal or snacks

Too much insulin for the amount of food

Exercising longer or harder

More likely to occur before lunch or at the end of the day or during or after PE

Never leave a student alone with signs or symptoms



Management with Hypoglycemia

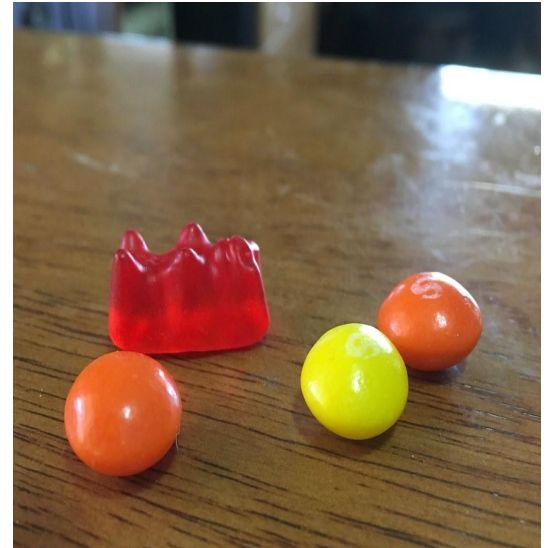
Quick acting sugar equivalent to 15 grams of carbohydrates

4 ounces of juice

½ can of regular soda

3-4 glucose tabs

Check sugar again in 10-15 minutes



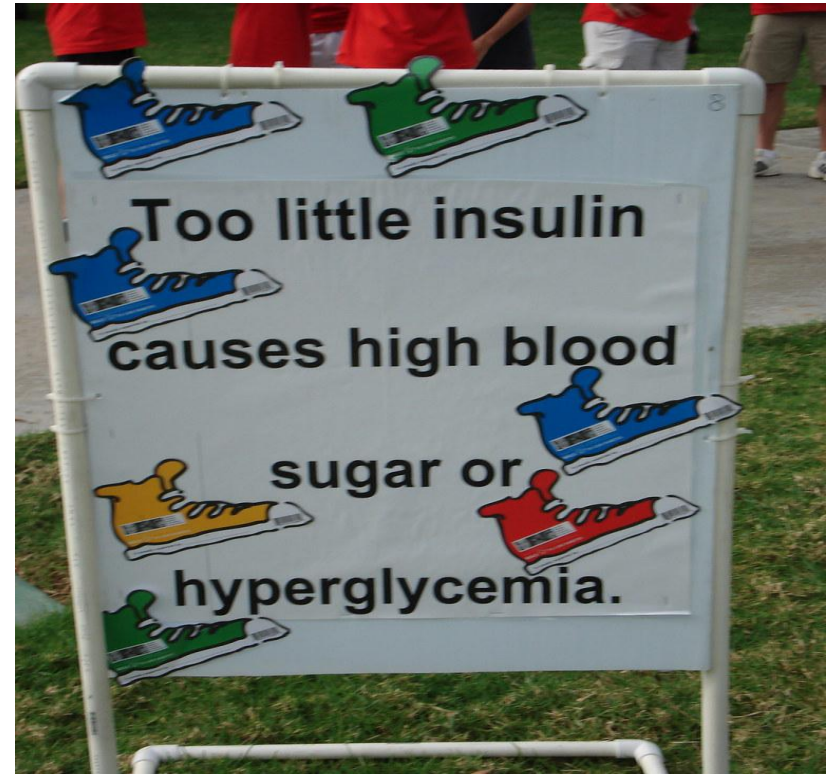
Hyperglycemia

Too little insulin

Illness, infections, or injury

Stress or emotional upset

Decreased exercise or activity



Signs of Symptoms Hyperglycemia

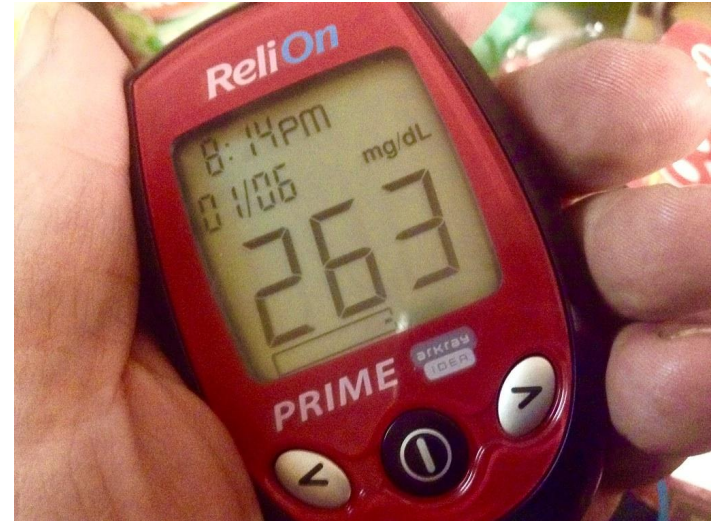
Increased thirst

Frequent urination

Nausea

Blurry vision

Fatigue



In the short term hyperglycemia can impair cognitive abilities and adversely affect academic performance.

In the long term, High blood sugars can be very dangerous.

Treatment of Hyperglycemia

Allow free and unrestricted access to liquids and restrooms

Allow student to administer insulin or seek trained staff to administer insulin.

Encourage water



Signs and Symptoms of both Hyperglycemia and Hypoglycemia

Hypoglycemia:

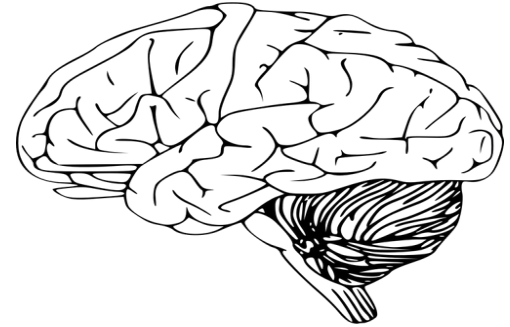
Shaky, weak, tired, and pale-give
quick acting sugar like juice, soda,
or glucose tablets

Hyperglycemia:

Increased urination, thirst, blurry
vision, and nausea.



Seizures



A sudden brief disruption of the normal functioning of the brain

An abnormal burst of electrical activity within the brain cells

The classification and seizure type are defined by the part of the brain that they affect.

Partial Seizures-**abnormal activity starts in one part of the brain**

Simple partial=consciousness is not impaired. Awareness is maintained. The student may have jerky, spasms, head-turning, unusual sensations.

Complex partial=consciousness is impaired during that time. It lasts 1-2 minutes. It begins with a blank stare. Automatism-lip smacking, chewing, fidgeting etc.

Generalized Seizure-produced by entire brain

Grand-Mal, Tonic-Clonic=unconsciousness, convulsions, muscle rigidity

Absence seizures=brief unconsciousness, the eyes may stare

Atonic seizures=sudden loss of muscle strength

Myoclonic seizures=sporadic (isolated)jerky movements

When to call 911 for seizures at school

First time seizure or Diastat

The person does not resume normal breathing

The seizure lasts more than 5 minutes

The seizure follows another without the person regaining consciousness

Seizure Medications

Depakote

Phenobarbital

Lyrica

Felbatol

Neorontin

Gabapril

Tegretol

Keppra

Trileptal

Lamictal

Topamax

Dilantin

Zonegran



Signs and Symptoms of Concussion in 4 Categories: emotional, physical, thinking, sleep



Thinking/Remembering

Difficulty thinking clearly

Feeling slowed down

Difficulty concentration

Difficulty remembering new information



Physical

Headache

Fuzzy or blurry vision

Nausea or vomiting

Dizziness

Sensitivity to noise or light

Balance problems



Emotional Mood

Irritability

Sadness

More emotional

Nervousness

Anxiety



Sleep

Sleeping more than usual

Sleep less than usual

Trouble falling asleep



When to call 911 for Head Injury/Suspect Concussion

Headache that gets worse and does not go away

Weakness numbness or decreased coordination

Repeated nausea and vomiting

Slurred speech

Assessment for 911 calls for Head Injury

Student looks drowsy or cannot be awakened

Has one pupil larger than another

Has convulsions or seizures

Are getting more confused, restless, or agitated

Unusual behavior/vomiting

LOSS OF CONSCIOUSNESS

General 911 calls

Person not breathing

Person has difficulty breathing, shortness of breath, choking

No pulse

Severe eye injury

Unconsciousness or unusual confused

Bleeding that will not stop

The person is coughing up or vomiting blood

DO NOT MOVE PERSON ON SCHOOL GROUNDS

Person has chest pain, or pressure persisting more than 3-5 minutes or had chest pain that goes away and comes back

Person has been poisoned or taken an overdose

First time seizure

Injuries to head, neck, or back with symptoms

The person has severe pain anywhere in body

Open wound over suspected fracture and/or limb is threatened-lack of pulse, color abnormal

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FERPA/HIPPA

HIPPA-The Health Insurance Portability and Accountability Act of 1996-Established rules to protect the privacy and security of individual identifiable health information and its transmission between agencies.

Need Authorization for Use to obtain medical information

FERPA=The Family Education Rights and Privacy Act of 1974-established regulations for the protection and release of personally identifiable student information.

Students and families have a right to expect that student health information will be kept confidential.

General Maintenance of Health Office

Wipe counters after each medical procedure

Wipe counters before you leave your shift

Replace paper towels on pillows after each use

Provide classroom with first aid kits

The health office serves as a the center for health assessments, counseling, screening, emergency care, and records. When an office is cheerful and attractive it puts the visitor at ease.