



## **Diabetes Basics**



Diabetes:

• is a disease where the body does not produce insulin or does not use insulin properly. It is an endocrine system disorder.

Insulin:

• is a hormone normally made by the body. It helps glucose(sugar) enter cells where it can be used for energy.

Without Insulin:

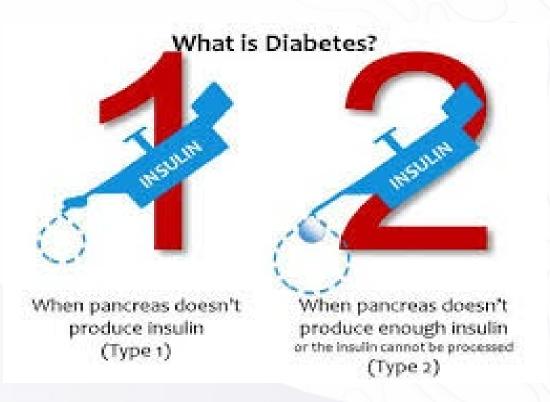
• glucose remains in the body stream and cannot be used for energy by cells.

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### **Diabetes Basics Cont....**



#### Two Main Types of Diabetes



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### **Diabetes Basics Cont....**



- Sometimes blood glucose levels are too high resulting in a condition called **hyperglycemia**.
  - If this happens, insulin must be administered to lower the blood glucose levels.
  - Insulin administration for children with Type 1 diabetes is essential for survival.

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# Symptoms of Hyperglycemia

- Dry mouth
- Thirsty
- Hungry
- Frequent urination
- Flushed
- Headache
- Nausea and vomiting
- Sweet smelling breath
- Seizures
- Coma

## Insulin



- Insulin is given by injection
- An injection can only be delegated to a UDA
- Overseeing a child who is giving themselves insulin via insulin pump or insulin pen is a delegated task
- Unopened insulin is stored in the refrigerator

### **Diabetes Care in Schools**



- **Emergency Care Plan/IEP**: Summarizes symptoms and treatments for hypoglycemia/hyperglycemia and provides emergency contact information.
- The school nurse is the most appropriate person to provide routine and emergency care when needed.
- However, a school nurse is not always available, and hypoglycemia can occur at ANY time.

# Hypoglycemia (Low Blood Glucose)



 Hypoglycemia poses the most immediate risk to a student with diabetes because onset is sudden, it is not always preventable, and may progress to unconsciousness and convulsions if left untreated.

# Symptoms of Hypoglycemia



- Hunger
- Fatigue
- Shakiness
- Weakness
- Rapid pulse
- Confusion
- Cold clammy skin
- Seizures
- Loss of consciousness



### Hypoglycemia Cont.... (Low Blood Glucose)

### Hypoglycemia – Possible Causes:

- Too much insulin
- Too little food or delayed meal/snack
- Extra physical activity
- Illness
- Medications
- May occur for no apparent reason

# Mild and Moderate Hypoglycemia



When mild or moderate symptoms occur, **immediate treatment** is required to prevent progression to severe hypoglycemia:

- Treat at onset of symptoms by having student eat or drink fast acting carbohydrates (if able to swallow)
- NEVER leave the student unattended

# Severe Hypoglycemia



If a student exhibits unconsciousness or unresponsiveness, seizures(convulsions), or is unable to swallow, this is an **EMERGENCY:** 

- Administer glucagon as prescribed
- Call 911
- Contact school nurse
- Contact parent
- Treat on the spot and NEVER leave the student unattended
- Emergency medication

## **Glucagon for Hypoglycemia**



 <u>https://www.google.com/search?q=gluca</u> <u>gon+use+video&rlz=1C1GCEU\_enUS968US9</u> <u>69&oq=glucagon+use+video&aqs=chrome</u> <u>..69i57.4728j0j7&sourceid=chrome&ie=UTF-</u> <u>8#kpvalbx=\_Ue0xY4bnEPLdptQPvtyFmAw\_2</u>

# **Gvoke for Hypoglycemia**

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<u>https://youtu.be/9RxvgQjFwl4</u>

# **Baqsimi for Hypoglycemia**



<u>https://www.baqsimi.com/how-to-use-baqsimi</u>

### **Next Steps**



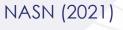
- Remain with the student until emergency medical services assumes control.
  - The student should not resume normal activities.
- Notify appropriate parties of the incident

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### Don't Be Surprised If.....



- The student does not remember being unconscious or is incoherent or lethargic.
- The student feels nauseated, vomits or has a headache.



## **Quick Review!**



- Mild to moderate hypoglycemia can be treated with a quick acting source of carbohydrate (15 grams).
- Signs of severe hypoglycemia include:
  - Unconsciousness
  - Seizures
  - Inability to swallow

# Quick Review! (Cont....)



- Severe hypoglycemia is a medical emergency.
- Administer the glucagon
- Call 911
- Treat, then follow the Emergency Action Plan.

## **Oral Hypoglycemia Agents**



- Oral hypoglycemia agents are used to treat Type II diabetes and sometimes are added to treatment of Type I diabetes.
- Give 30 minutes before a meal.
- Skip the dose if a meal is skipped

### References



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