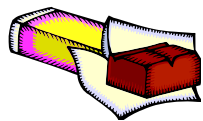


*DIABETIC TRAINING FOR
SCOTT COUNTY SCHOOL PERSONNEL
AND BUS DRIVERS*

THINGS THAT AFFECT BLOOD SUGAR:

❖ FOODS



❖ ACTIVITY



❖ STRESS



❖ ILLNESS

❖ MEDICATION



TARGET BLOOD SUGARS

Age 0-6 years

After meals 100-200

3 am should always be above 80

Age 6-13 years

Before meals 100-150

After meals 100-170

3 am should always be above 70

Adolescents

Before meals 80-120

After meals 80-140

3 am should always be above 70

HYPERGLYCEMIA (HIGH BLOOD SUGAR)

- BLURRED VISION
- FREQUENT URINATION
- THIRST
- DRY MOUTH
- TIRED
- SLOW TO HEAL
- FLUSHED CHEEKS
- EMOTIONAL



CAUSES OF HIGH BLOOD SUGAR

- TOO MUCH SUGAR/CARBS EATEN
- STRESS (TESTS, PEER PRESSURE, SCARED)
- ILLNESS
- LACK OF INSULIN GIVEN
- INACTIVITY

Hyperglycemia

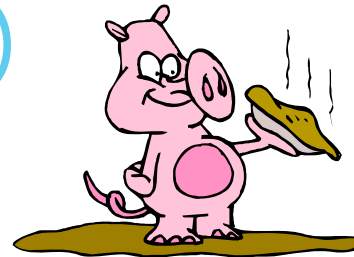
- ▶ Over a long period of time, even moderately high blood glucose levels can lead to serious complications, such as heart disease, blindness, kidney failure, and amputations.
- ▶ In the short term, it can impair cognitive abilities and adversely affect academic performance.
- ▶ Need to check for ketones in the urine when BG is greater than 250, two times in a row
- ▶ If moderate to large ketones are found, activity needs to be restricted and/or child sent home. Increase water intake to avoid dehydration.

WHAT TO DO?

CHECK BLOOD SUGAR, If High.....

- ❑ ENCOURAGE FLUIDS...WATER IS BEST
- ❑ CHECK FOR KETONES IN URINE ACCORDING TO DR'S ORDERS. IF MOD-LARGE, RESTRICT ACTIVITY AND CALL PARENTS
- ❑ MAY NEED SLIDING SCALE INSULIN
 - *SCHOOL STAFF: (CHECK DR ORDERS)
 - *BUS DRIVER: (CHECK WITH STUDENT OR CALL PARENT)

HYPOGLYCEMIA (LOW BLOOD SUGAR)

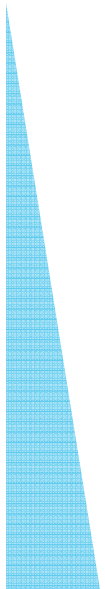


- SHAKINESS
- HUNGER
- GROUCHY/CRYING/IRRITABLE/AGGITATED
- SWEATING
- WEAK
- BLURRED VISION
- SLEEPY



CAUSES OF LOW BLOOD SUGAR:

- PHYSICAL ACTIVITY (TOO MUCH)
- SKIPPING MEALS OR SNACKS
- TOO MUCH INSULIN
- DEHYDRATION
- OTHER SICKNESS



Hypoglycemia

- ▶ Hypoglycemia is more likely to occur before lunch, at the end of the school day, or during or after physical education class.
- ▶ It is the **greatest immediate danger** to students with diabetes.
- ▶ School personnel should be familiar with symptoms and treatment so that life threatening complications are avoided.

WHAT TO DO?

NEEDS IMMEDIATE ATTENTION!!

*CHECK BLOOD SUGAR, IF **LOW**....*

- ❑ TREAT WITH FAST SUGAR: 15 GRAMS OF CARBS SUCH AS 4OZ JUICE OR 4OZ REGULAR SODA, SMALL TUBE OF CAKE GEL, 3 GLUCOSE TABS, 1 CUP SKIM MILK
- ❑ REPEAT BLOOD SUGAR UNTIL >70 (Q 15 MIN.)
- ❑ FOLLOW UP WITH MEAL OR SNACK SUCH AS PEANUT BUTTER CRACKERS OR CHEESE CRACKERS, OR ½ CUP MILK AND GRAHAM CRACKER SQUARE

IF LOW BLOOD SUGAR IS LEFT UNTREATED.....

- ❖ COULD LEAD TO SEIZURE
- ❖ COULD LEAD TO LOSS OF CONSCIOUSNESS
- ❖ COULD LEAD TO COMA
- ❖ COULD LEAD TO DEATH

GLUCAGON

- ▶ WHAT IS IT?
 - ▶ IT IS AN INJECTION THAT IS TO BE ADMINISTERED TO A PERSON WHO HAS PASSED OUT FROM LOW BLOOD SUGAR. IT'S A HORMONE THAT WORKS DIRECTLY ON THE LIVER TO EXCRETE STORED GLUCOSE
 - ▶ IT IS INJECTED INTO THE OUTER THIGH OR UPPER ARM, INTO THE MUSCLE.
 - ▶ MUST MIX SOLUTION IN SYRINGE WITH POWDER IN VIAL. DRAW UP MIXTURE BACK IN SYRINGE. INJECT INTO DIABETIC STUDENT @ 90 DEGREE ANGLE. HOLD IN PLACE FOR 3 SECS. WITHDRAWL NEEDLE AND DISCARD INTO SHARPS CONTAINER.
 - ▶ PLACE CHILD ON HIS/HER SIDE IN CASE OF VOMITING
 - ▶ CALL EMS AND PARENTS



GLUCOSE METERS

USING UNIVERSAL PRECAUTIONS

- ❑ WIPE FINGER WITH ALCOHOL
- ❑ LOAD LANCET DEVICE
- ❑ INSERT STRIP IN METER
- ❑ STICK FINGER
- ❑ WIPE OFF FIRST DROP, THEN
- ❑ APPLY 2ND DROP OF BLOOD TO STRIP

Checking Blood Sugar

- ❑ Students usually check blood sugar before meals, snack time, and afternoon before leaving school.
- ❑ **NEVER** send a diabetic on the bus if blood sugar is low and hasn't reached >70 before time for bus.
- ❑ It is highly recommended that a diabetic with an extremely high BG (>400) be picked up by parent/guardian.

INSULIN PUMPS

HOW THEY WORK....

- ❑ THEY DELIVER A CONTINUOUS SUPPLY OF INSULIN ALL DAY AT A BASAL RATE WHICH IS EVERY 3-5 MINUTES.
- ❑ A BOLUS OF INSULIN IS GIVEN WITH A MEAL OR SNACK USUALLY BASED ON # OF CARBS EATEN. IT CAN ALSO BE GIVEN ACCORDING TO STUDENT'S SLIDING SCALE.
- ❑ NEED TO CHECK WITH STUDENT OR SCHOOL NURSE TO LEARN HOW TO BOLUS FOR HIGH BLOOD SUGAR.
- ❑ DIFFERENCES IN METERS: WATERPROOF, SIZE/SHAPE, BUTTON FUNCTIONS, SUPPLIES
- ❑ SIMILARITIES: BASAL RATES, BOLUS RATIOS, BASIC PRINCIPLES
- ❑ COMPLICATIONS: OCCLUSION IN TUBING, OR AIR IN TUBING. NEED TO GIVE INSULIN SHOT AND CHECK TUBING.

SUGGESTIONS

- ❑ SEAT DIABETICS WITHIN EYE VIEW IN CLASSROOM.
BUS DRIVERS: PREFERABLY ON FRONT SEAT OF BUS OR EYE VIEW.
- ❑ MOST DIABETICS CAN TELL YOU IF THEY FEEL HIGH OR LOW. TRUST THEM.
- ❑ MOST DIABETICS CAN CHECK THEIR OWN SUGAR AND GIVE THEIR OWN INSULIN.
- ❑ ALWAYS BE ALERT AND AWARE OF YOUR DIABETICS.
- ❑ BE SURE TO NOTIFY SCHOOL NURSE OF ANY CLASSROOM PARTIES. DIABETICS WILL NEED TO RESTRICT THEIR CARB INTAKE AND THE NURSE CAN HELP DECIDE WHAT GOODIES ARE BEST

SUGGESTIONS CONTINUED...

- ❑ IF YOU NOTICE ANY SIGNS/SYMPTOMS, SEND TO CLINIC ASAP WITH ANOTHER PERSON, SEND FOR NURSE
FOR BUS DRIVERS: PULL OFF ROAD AND CHECK BS.
- ❑ KEEP WATER, CRACKERS, CAKE ICING, AND GLUCOSE TABS/GEL IN CLINIC. SOME STUDENTS MAY KEEP WITH THEM.
- ❑ KEEP GLUCAGON INJECTION IN SECURE PLACE IF PROVIDED BY DIABETIC.
- ❑ FOR TESTING/SOLS, SEE SCHOOL NURSE FOR SUPPLIES TO BE KEPT IN THE CLASSROOM.

WHEN TO CALL EMS



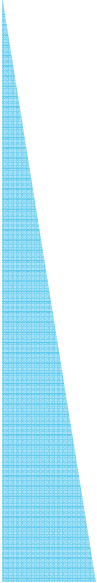
- ❑ IF YOU FIND CHILD UNRESPONSIVE/UNCONSCIOUS
- ❑ IF YOU HAVE TO ADMINISTER GLUCAGON INJECTION
- ❑ IF GLUCOSE METER READS "HIGH" AND NOT AN ACTUAL NUMBER, AND PARENTS CAN'T BE REACHED



CONGRATULATIONS! THIS COMPLETES
THE DIABETIC TRAINING!

PLEASE COMPLETE THE FOLLOWING
TEST AND SEND TO

RACHEL BURKE, RN
SCHOOL NURSE COORDINATOR
AT SCCTC



TEST - part I

Name: _____

Date: _____

1. Things that may affect blood sugar include:

- A. Foods and medication
- B. Activity
- C. Stress and Illness
- D. All of the above

2. Low blood glucose occurs when.. ?

- A. Too much insulin is given
- B. Skipping meals
- C. Intense exercise
- D. All of the above

3. High blood glucose occurs when.. ?

- A. Too little insulin given
- B. Illness
- C. Stress
- D. All of the above

4. If Blood glucose is low (<70) you should..?

- A. Give insulin
- B. Call EMS
- C. Give 4 oz. juice & recheck in 15 minutes
- D. None of the above

5. If you find a diabetic student unconscious, you should?

- A. Shake them until they wake up
- B. Call EMS
- C. Let them rest
- D. None of the above

Test- part II
True or False

Name: _____

Date: _____

6. True or False: Most diabetics can tell you when they feel high or low
7. True or False: Glucagon is the shot given when a diabetic is unconscious
8. True or False: If low BG is left untreated, it will eventually increase on it's own
9. True or False: A low BG of <70 needs IMMEDIATE attention
10. True or False: If BG is high, you should check doctor's orders and administer insulin as prescribed