

Carbohydrate Counting

Carefully monitoring the amount and timing of carbohydrate-containing foods is an essential part of diabetes management. Delayed meals or snacks or eating too little carbohydrate can result in low blood sugar levels. Consuming too many foods with high carbohydrate content can result in high blood sugar levels.

Students may require assistance in determining carbohydrate content of various foods as well as determining appropriate choices when exchanging foods. Printed manuals, food labels, and district food services are all resources that can be used to determine the carbohydrate content of specific foods.

Successful delegation of carbohydrate counting is dependent on access to written materials and on the use of a Diabetes Medical Management Plan (DMMP) or Individual Health Plan (IHP) which clearly outlines the designated meal plan. The meal plan should include the recommended number of carbohydrate choices for each meal or snack.

A. General Guidelines

1. For daily carbohydrate counting of school lunches, check with the school district school lunch program manager/supervisor for the daily menu and individual carbohydrate counts.
2. Carbohydrate counting allows the student more flexibility in planning meals, making adjustments for special treats and snacks.
3. The school RN plays an integral role in assisting the student in achieving and maintaining nutritional goals as prescribed by the health care provider and established in the DMMP.
4. Calories from carbohydrates have a greater effect on glucose levels than those calories from proteins or fats.
5. Digestion of carbohydrates begins immediately after consumption with blood glucose levels peaking in one to three hours.
6. Consuming too many foods with high carbohydrate content can result in high blood sugar levels.
7. Delayed meals or snacks or eating too little carbohydrate can result in low blood sugar levels.
8. Carefully monitoring the amount and timing of carbohydrate-containing foods is an essential part of diabetes management.
9. The carbohydrate content of foods served in schools should be obtained from the supervisor of the food service department of the student's specific school district.
10. The student / parent should be provided a meal calendar in advance in order to allow the student opportunity to bring alternate food choices as needed.
11. Successful carbohydrate counting is dependent on access to written materials and on the use of a Diabetes Medical Management Plan (DMMP) or Individual Health Plan (IHP) which clearly outlines the designated meal plan. The meal plan should include the recommended number of carbohydrate choices for each meal or snack.

B. Purpose

- To assist student in determining amount of insulin bolus needed at each meal or snack to maintain blood glucose level within a certain range as per physician's order

PROCEDURE FOR CARBOHYDRATE COUNTING

Essential Steps	Key Points and Precautions
1. Determine serving size and total carbohydrate content of each food item (from food label or from information provided by school nutrition department).	If food is provided from home, the parent may indicate carbohydrate counts on an index card, etc.
2. Determine how many servings the student will eat.	It may be beneficial to calculate after the meal is consumed
3. Multiply number of or portion of servings by total grams of carbohydrates per serving.	
4. Cover anticipated elevation in blood glucose level based on carbohydrates consumed.	Follow instructions from DMMP
5. Report to school RN as indicated	

Carbohydrate Counting Skills Checklist

[] Initial [] Review

Student's Name: _____ Date of Birth: _____

Person Trained: _____ Position: _____

	Demo Date	<u>Return Demonstration</u>					
		Date	Date	Date	Date	Date	Date
A. Preparation							
1. States purpose of counting carbohydrates							
2. Verbalizes student's prescribed regimen for carbohydrate count							
3. Identifies nutrition label and / or carbohydrate counts from information provided by school nutrition department							
B. Steps							
4. Determines how many servings or portions of servings the student consumed (or will consume)							
5. Multiplies number of or portions of servings by total carbohydrates per serving							
6. Documents results on daily log							
7. Verbalizes action to take according to carbohydrate count – as per DMMP							
8. Reports concerns to school RN							

Student

Specific/Comments: _____

Overall Rating: **PASS** *Successful completion of a minimum of five demonstrations with 100% accuracy*

 FAIL *Practical must be repeated. Trainer must complete Summary of Skills Form and attach to this checklist.*

Date: School RN Signature Date Employee Signature

SAMPLE CARBOHYDRATE COUNTING CHART

	Food Item	PK-5th	6th - 8th	9th-12th
Breakfast	Biscuit	30	30	30
	Biscuit, Whole Grain	22	22	22
	Biscuit w/Jelly (1 Pack)	35	35	35
	Breakfast Bagel Pizza	15	15	15
	Breakfast Bar Sausage	15	15	15
	Breakfast Link & Bun	20	20	20
	Cereal, Honey Graham	48	48	48
	Chicken Biscuit	30	30	30
	Cinnamon Roll (ind. Wrapped 2.5oz)	34	34	34
	Graham Cracker, package (3 crackers)	15	15	15
	Granola for Yogurt	24	24	24
	Muffin	45	45	45
	Pancake & Sausage	15	15	15
	Pancake w/Cinnamon Glaze	35	35	35
	Sausage Biscuit	15	15	15
	Toaster Pastry (one pastry double if 2 are eaten)	35	35	35
	Toastie O's	29	29	29
	Yogurt	19	19	19
	Waffle	37	37	37
Lunch	Baked Turkey	0	0	0
Entrée	BBQ Rib Pattie on Bun	30	30	30
	Burrito, Bean, Beef, & Cheese	56	56	56
	Burrito, Vegetarian	35	35	35
	Chef Salad (including crackers, 1 Bread stick, melba toast)	20	20	20
	Chicken Fettuccini	7	15	15
	Chicken Jambalaya	11	22	22
	Chicken Smackers	14	17	17
	Chicken Strips, Breaded	15	15	15
	Chicken Strips, UN-breaded	0	0	0
	Chicken, Rings	15	15	15
	Corn Dog	27	27	27
	Fish Pattie	16	16	16
	Fish Strips	23	23	30
	Grilled Cheese	30	30	30
	Grilled Chicken on Bun	30	30	30
	Ham & Cheese on Bun	30	30	30
	Hamburger/Cheeseburger	30	30	30
	Lasagna	19	23	23
	Meat Sauce Spaghetti, whole grain noodles	15	15	15
	Pepperoni Pizza 4 x 6 Elementary	30	30	30
	Pig in a Blanket	30	30	30

	Pizza, Cheese 4x6 Elementary	30	30	30
	Pizza, Cheese Wedge High School/Jr High	40	40	40
	Pizza, Pepperoni Wedge High School/Jr High	39	39	39
	Pork Chip, breaded	16	16	16
	Pork Roast w/gravy	0	0	0
	Salisbury Steak or Meat Loaf w/ gravy	5	5	5
	Sloppy Joe on Bun	30	30	30
	Spicy Chicken on Bun	40	40	40
	Taco w/whole wheat tortilla	24	24	24
	Tacos w/ Shells	21	21	21
	Totally Taco	28	28	28
	Tuna Fish	0	0	0
	Turkey Ham & Cheese Sandwich	35	35	35
	Turkey & Cheese Sandwich	36	36	36
Vegetables	Baked Beans	25	25	25
	Black eye peas	15	15	15
	Broccoli w/Cheese	5	5	5
	California Mixed Veggies	5	5	5
	Candied Yams	35	35	35
	Carrots	5	5	5
	Cauliflower w/cheese	5	5	5
	Creamy Coleslaw	5	5	5
	Field Peas	15	15	15
	Green Beans	5	5	5
	Green Peas	15	15	15
	Leafy Green Salad w/Tomato Wedges	5	5	5
	Lima Beans	15	15	15
	Mashed Potatoes	15	15	15
	Mustard Greens	5	5	5
	Okra with Tomatoes	5	5	5
	Potato Wedges	15	15	15
	Potatoes Au Gratin or Cheesy Potatoes	15	15	15
	Red Beans	15	15	15
	Seasoned Spinach	5	5	5
	Sweet Potato Puffs	15	15	15
	Tator Tots	15	15	15
	Turnip Greens	5	5	5
	Vegetable Sticks (cucumber, carrot, celery)	5	5	5
	White Beans	15	15	15
	Whole Kernel Corn	15	15	15
Fruits	Apple/cherry/or peach Crunch	30	30	30
	Apricots	9	19	
	Cantalope	7	7	7
	Cantalope & Grapes	12	12	12
	Cinnamon Applesauce	15	15	15

	Dry Fruit Mix	25	25	25
	Fresh Fruit (apple, banana, orange, grapes)	15	15	15
	Fruit Cocktail	15	15	15
	Peaches	15	15	15
	Pears	15	15	15
	Pineapple	15	15	15
	Strawberries	15	15	15
	Watermelon	7	7	7
Bread/ Grains				
	Brown Rice 1/4 cup	11	11	N/A
	Brown Rice 1/2 cup	22	22	22
	Cheese Breadstick (serving size 1 stick/w salad)	15	15	15
	Cheese Breadstick (serving size 2 bread sticks)	29	29	29
	Corn Bread	18	18	18
	Dinner Roll	15	15	30
	Flat Bread	30	30	30
	Hamburger bun	30	30	30
	Mac & Cheese	7	15	15
	Rice Dressing	11	11	11
	Spanish Rice	11	11	22
	Garlic Bread	15	15	30
	Melba Toast, Garlic	15	15	15
	Apple Cinnamon Cake	32	32	32
Snacks/ Desserts				
	Brownie	35	35	35
	Cake w/ Icing	30	30	30
	Cinnamon Roll (home made)	30	30	30
	Cookie Pack	20	20	20
	Corn Muffin	21	21	21
	Crackers, Cheese	15	15	15
	Devil's Food Cake	30	30	30
	Fruit Sorbet	21	21	21
	Fruit Turnover	17	17	17
	Homemade cookie	15	15	15
	Honi Munchable Snack Mix	15	15	15
	Jell-O w/ topping	17	17	17
	Melba Toast, Caramel w/soynut butter	16	16	16
	Mini Loaf Snack	30	30	30
	Rips	30	30	30
	Soynut Butter and Jelly Sandwich	29	29	29
	Low Fat Ranch Dressing 1.5 Oz	5	5	5
Other	Juice 200ml	23	23	23
Beverages	Milk, skim	12	12	12
	Milk, White 1%	12	12	12
	Milk, Chocolate 1%	19	19	19
	Milk, Strawberry 1%	18	18	18