Simplified Carbohydrate Education Approaches
Advancements in Diabetes Webinar Series

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Kibbe Brown MS, RD
LCDR U.S. Public Health Service
Nutrition Consultant
IHS – Division of Diabetes Treatment and Prevention
Objectives

• Use visual cues to identify and count carbohydrates on sample plates to balance carbohydrates in meals.
• Learn to interact with clients to identify carbohydrates and demonstrate understanding of carbohydrate content of foods.
• Present an alternative approach for carbohydrate counting, adapted for numeracy and literacy.
Diabetes Education Standards

- Refer patients to an RD, whenever possible, MNT for diabetes and other health conditions (e.g., hypertension, dyslipidemia, kidney disease):
  - at diagnosis of diabetes
  - then annually, more often as needed

- Provide basic nutrition education to all patients with diabetes or prediabetes:
  - at diagnosis
  - then annually, more often as needed

- Refer patients for Diabetes Self Management Education and Support (if available)
  - Clinical Practice Recommendations: Nutrition
  - Clinical Practice Recommendations: DSME
Goals of Nutrition Therapy

• Improve A1C, blood pressure, and cholesterol levels
• Achieve and maintain body weight goals
• Delay or prevent complications of diabetes
• Address individual nutrition needs based on personal and cultural preferences
• Provide patients with practical tools for day-to-day meal planning

Consensus Report on Nutrition

“Strong evidence supports the efficacy and cost effectiveness of nutrition therapy as a component of diabetes care, including its integration into the medical management of diabetes; Therefore, it’s important that all members of the healthcare team know and champion the benefits of nutrition therapy and the key messages”.

https://doi.org/10.2337/dci19-0014

Nutrition Therapy for Adults with Diabetes, Pre-diabetes, Diabetes Care 4-2019
Carb Continuum

Identifying Carbs - Awareness

Basic – Consistent Carbs
Quantifying Carbs

Advanced – Carb/Insulin Ratio
What Are Carbohydrates?

Questions to ask:
• Have you heard the word carbohydrate before?
• What foods come to mind when you think about carbs?
• What are your preferred carbs?
• Can you think of any carb foods that were traditionally grown or eaten by your ancestors?
Things to Do – For Educators

- Have some visuals of carb foods:
  - Organize images into groups:
    - Grains: whole grains, refined/bleached
    - Starchy vegetables: corn, beans, potatoes, hard shelled squashes
  - Fruits
  - Dairy
- Have several visuals of sample plates
Basic Ideas About Carbs

- Carbohydrates (carbs) are the sugars, starch, and fibers found in foods and drinks.
- Carbs give your body energy.
- Carbs + Insulin (in your body) correlate to blood sugar levels.
- Include some carbs with meal/snack.
- Be consistent with meal/snack times.
Ancient Agriculture Methods

Corn, Bean, and Squash, aka “Three Sisters”, were among the first crops to be domesticated by the ancestors of American Indians

- Corn – carbohydrates
- Beans – high in protein, carbs
- Squash – carbs, antioxidants, vitamins and oil from the seeds
Examine Visual Qualities: Color, Texture

ask

What are some of the colors and textures you see in each of these groups of carbs?

Group 1

Group 2
Heritage Carbs – Starchy Vegetables

How does this group of carbs look different or the same as the previous group?
Using the color patterns of white, tan or brown, or colorful, find the carb from the grains and starchy vegetable.

[Link to My Native Plate Printable PDF]
Did you know the sweetness you taste in fruits is from natural sugars?

- The sugar in fruit is a source of carb and many essential nutrients:
  - vitamins C, A, potassium, fiber, and antioxidants
- Whole fruits are best: fresh, canned or frozen
- Try for at least 1 cup of whole fruit daily
Carbs in Dairy—Lactose

- Milk (fluid, dry, evaporated)
- Milk Substitutes
- Yogurt
- Dairy Desserts
Which Foods Have no Carbs or Are Low Carb?

- Non-Starchy Vegetables
- Animal Protein: Meat, Poultry, Eggs, Cheese, Fish
- Plant Protein: Soy, Meat substitutes
- Fats: Oils, Butter, Lard

[Link to My Native Plate, full color PDF]
Food Insecurity Across the U.S.
Added Sugars – A Risk for Obesity/Overweight

- Average 66 grams/day or 13% of total calories

- Recommended limits:
  - Dietary Guidelines for Americans
    - Added Sugars < 10% of calories/day
    - e.g., 2000 cal. < 50 grams/day
  - American Heart Association
    - Women & Kids – 25 grams or 6 tsp.
    - Men – 36 grams or 9 tsp.

- [https://www.dietaryguidelines.gov/](https://www.dietaryguidelines.gov/)
Added Sugars: Now Listed on the Nutrition Label

• Find It
  • Read labels
  • Set daily limits for added sugars

• Replace It
  • Drink plain or flavored water
  • Unsweetened tea, sugar-free beverages
  • Enjoy fresh fruit for dessert
  • Limit desserts to special occasions
References

• **Dietary Guidelines for Americans, 2020-2025**


• Nutrition Therapy for Adults with Diabetes and Prediabetes. Diabetes Care, 4-2019
  
  [https://doi.org/10.2337/dci19-0014](https://doi.org/10.2337/dci19-0014)

• **Clinical Practice Recommendations: Nutrition**
Thank you!