Teach Patients to Build a Personal Carb Counts Database to Maximize Carb Counting Accuracy

by Hope Warshaw, MMSc, RD, CDE

When it comes to carb counting, CPTs face an enigma: Never before has there been 24/7 access to carb counts from mobile apps and websites, and easy-to-carry books. Consider Lance Armstrong's "The Daily Plate" (http://www.livestrong.com/thedailyplate/), which boasts the data for over 1.3 million foods, or Calorie King's online database (www.calorieking.com), which lists thousands of foods including those served by popular chain restaurants. Calorie King's popular book also contains 17,000 foods.

While we may be wowed by these massive, at-our-fingertips resources, our patients still depend on the "wild guess" method of carb counting far too often. This is very understandable, as culling through these vast resources is time consuming and overwhelming. The downside of all this guess-timating is inaccurate carb counts, which can result in inaccurate bolus doses and contributes significantly to the one of many causes of less than ideal control. This is particularly unfortunate as today's insulin pumps can deliver extremely precise bolus doses!

With the goal of improving the accuracy of your patient's carb counting, consider a new twist – actually a 180 degree turn – teach your patients to build their PERSONAL CARB COUNTS DATABASE.

The Premise:

The reality is that most of us are creatures of habit when it comes to the foods we buy at the supermarket and put together as meals and snacks at home. The same is true when we eat restaurant meals – we frequent the same restaurants and tend to order similar meals.

If you don't initially buy this premise, take a minute and think about your food habits. Do you agree that about 80 percent of the time you purchase and eat a similar repertoire of foods and meals?

People are especially on "auto-pilot" with breakfast and lunch during the Monday–Friday school or work week. Dinner tends to be chosen from a wider horizon of foods, but again, people often prepare and eat a similar combination of foods each night.

While this "Build Your PERSONAL Carb Counts Database" concept can initially seem time consuming, over time it saves time by minimizing the need to constantly search for foods and their carb counts. Children and adults make subtle changes in their food choices over time, so working through this process two to three times a year is sufficient for most.

Putting it into Use:

Here are the steps to helping your patients "Build Your Personal carb Counts Database" and put it into action in order to maximize their carb counting accuracy.

Step 1: Brainstorm a list of the 50–100 foods you regularly eat. Observe foods in your pantry, refrigerator and freezer. Next list the common restaurant foods you eat (see Table 1 – Sample Food Lists/Carb Counts).

Step 2: Fill in the amount of these foods you usually eat. To be precise, weigh and measure the common amounts you eat or at least estimate portions carefully. For produce, such as apples, bananas, potatoes, etc., weigh them in the supermarket produce aisle or on a food scale at home.

Step 3: Find the carbohydrate counts of these foods in the amounts you eat them. Use the Nutrition Facts labels if available (it's the most accurate data). If not, search for a reliable database for the carb counts. The USDA Nutrient Data Laboratory is a trusted and free database: http://www.ars.usda.gov/nutrientdata. It's searchable, downloadable, calculates based on varied servings and includes approximately 8,000 basic and packaged foods. The OmniPod PDM contains the nutrition data for 1,000 foods from this database based on the FDA reference servings.

For restaurant meals from large chain restaurants look for the nutrition data on the restaurants' websites. This assures you have the most current and accurate data. Complete this task over a couple of weeks as you put meals together and eat them.

Step 4: Next, think about the combination of foods you incorporate into home-based meals and snacks, as well as for meals and snacks purchased/eaten at restaurants. List these using a format similar to that in Table 2 – Total Carb Counts for Sample Meals.

Step 5: Add up your total carbohydrate counts for your commonly eaten meals and snacks.

Step 6: Put this data in a useable and portable format for you. Be as simple or high tech as you want – for example, a few small index cards in your wallet or a spread sheet you can access from your Smartphone.

One more tip for OmniPod users: Put the total carb counts in carb or bolus presets. Name these so they're easy to identify, such as Breakfast – cold cereal, Breakfast – eggs, Lunch – turkey sandwich, etc. Your PDM allows you to set up 36 carb, bolus presets.

Give this carb counting teaching twist a try. Let me/us know if it helps your clients improve their carb counting accuracy. Please share twists you think of to enhance it further or share the techniques you use with your patients to maximize carb counting accuracy. Let's learn from each other.

Table 1 – Sample Food Lists/Carb Counts

Food	Amount I Eat	Carbohydrate Count (grams)
Bran Flakes	¾ cup	23
Honey Nut Cheerios	¾ cup	17
Milk, fat free	1 ¼ cups	15
Banana	1 small/6" long	21
Apple, Granny Smith	1 small/6 oz.	23
Whole wheat bread – Arnold	1 slice	18
American cheese slices – 2% milk, reduced fat	1 slice	2
Tomato soup – Campbell's	1 can/8 oz., prepared with 1 container of fat–free milk	31

Table 2 – Total Carb Counts for Sample Meals

Meals	Amount I Eat	Carbohydrate Count (grams)
Breakfast #1 – *Cold Cereal*		
Bran Flakes	¾ cup	23
Honey Nut Cheerios	¾ cup	17
Milk, fat free	1 ¼ cups	15
Banana	1 small	21
		Total: 76
Breakfast #2 – *On the Run*		
Whole wheat bread – Arnold	2 slices	36
American cheese slices	2 slices	2
Apple	1 medium	23
		Total: 61

Hope Warshaw, MMSc, RD, CDE, is co-author of Complete Guide to Carb Counting, 3rd ed and Practical Carbohydrate Counting: A How-to-Teach Guide for Health Professionals, 2nd ed. Both books are published by the American Diabetes Association. Warshaw is an OmniPod CPT who occasionally contributes to the CPT Corner.