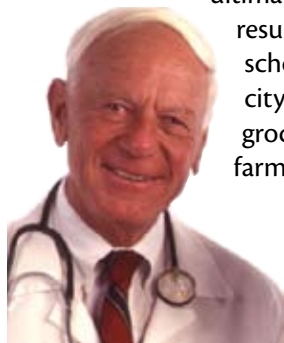


## Commonhealth and Diabetes

By Walter M. Bortz II, MD

In my new book, *Next Medicine*, I coin a novel term, “commonhealth.” In doing so, I hope to focus attention on the fact that health is not the result of a single, simple process but is the end result of the synergy of multiple domains. Good health is ultimately the



result of parents, schoolteachers, city planners, grocery stores, farmers, truck

drivers... working collectively. It is the combined result of all segments of society—importantly, but far from exclusively—involving doctors, nurses and pharmacists. These folks... my folks, certainly are contributors to the commonhealth but are only bit players.

My general contention, however, is that Joe and Jane People find false security in their presumption that the medical system and all that it entails is in charge of their well-being—the grand insurer. Such a presumption flaunts the reality.

Diabetes is the perfect case study for my invocation of the new term of commonhealth. Whereas Type 1 diabetes is clearly a condition in which the physician, nurse educator, pharmacist, insulin, A1C levels and the rest of the contingent technology are of paramount importance; Type 2 diabetes is an entirely different matter. Type 2 diabetes requires the involvement of all members of the commonhealth for adequate address.

A recent Reuters Internet report headlined “Global Diabetes Epidemic Blooms to 350 Million People.” The

Continued on page 8

## Your Medications and Your Health

By Richard R. Rubin, PhD, CDE

Recent research found that the average number of different medications a person with diabetes takes is nine. That includes pills to control blood pressure and cholesterol levels as well as medications to control blood glucose levels. And some of those medications are taken more than once a day, so it’s no wonder that many people feel burdened by their medication treatment regimen.

Many people don’t take their medication as prescribed. Lots of people never even fill their first prescription for some medicines. Many others, who start taking the medication, stop taking it after a while. On average, half of the people prescribed drugs to control blood

glucose, blood pressure, and cholesterol levels stop taking these medications within a year. And still others continue taking their medication, but they take it less often than prescribed. Studies show that only about two thirds of people with diabetes take at least 80 percent of their prescribed blood glucose-lowering medication, and even fewer take that much of their prescribed blood pressure and cholesterol medication.

Drugs don’t work if you don’t take them. The result – poor control of diabetes risk factors and higher rates of heart attacks, stroke, kidney, nerve, and eye disease. As the former Surgeon General C. Everett



### IN THIS ISSUE

Commonhealth and Diabetes.....	1
Your Medications and Your Health ...	1
Social Security Disability & Diabetes ...	2
How Much Carbohydrate?.....	3
Healthy Recipe .....	4
Choose My Plate .....	5
News to Muse.....	6
Healthy Options for Potlucks .....	7

Continued on page 2

Panic Button © Creative Images, Ribbon © Shutterstock

Koop once said, “Drugs don’t work in patients who don’t take them.”

Current medications are truly a good news, bad news story for people with diabetes. The good news: these drugs can help people live longer, healthier lives. The bad news: for a variety of reasons many people don’t take the drugs that could provide these benefits.

### Why don’t people take their medication as prescribed?

- Not understanding medication effects and benefits (lack of health care provider’s time to explain, the use of medical jargon in explanation, not knowing that some drugs—like blood pressure and cholesterol drugs—work without benefits a person can feel)
- Medication side effects (injection pain, gastrointestinal distress, hypoglycemia, and weight gain with some drugs)
- Medication beliefs (belief that taking medication doesn’t help, or that taking medication means health is getting worse)
- Medication costs (even if you have good insurance, managing diabetes costs about \$6,000 a year, with drug

costs making up a substantial part of the total)

- Complex medication regimens (taking medication several times a day, taking different drugs at different times of day)

### Ways to help you take your medication as prescribed

- Increase your understanding of medication effects and benefits (ask your health care provider, and be sure you understand by repeating back what you thought you heard)
- Talk about medication side effects (be sure you understand them before taking a drug, and let your health care provider know if you have any side effects you find troubling)
- Talk about your medication beliefs (taking medication doesn’t mean your health is getting worse, but it will get worse if you don’t get the medication you need)
- Talk about medication costs (be sure your health care provider knows if these costs are a burden. He or she could prescribe different drugs, if these are also right for you. Many older diabetes drugs are

available as generics and they often cost much less than newer brand-name drugs)

- Ask about simpler medication regimens (if you are burdened by the complexity of your regimen your health care provider might be able to help; some drugs can be taken once a day; some now come in combination pills, which makes things simpler. For example, there are generic combinations of metformin and other blood-glucose-lowering drugs. Your health care provider can help you weigh the pros and cons of various drug regimens)

### Working with your health care provider to keep you as healthy as possible

Your chances for living a long, healthy life go way up when your blood glucose, blood pressure, and cholesterol levels stay as close to normal as possible. That requires an ongoing partnership with your health care provider to create the treatment plan that’s best for you—incorporating medication options that provide the greatest benefit with the least burden.

## Social Security Disability and Diabetes

The Social Security Administration has removed endocrine disorders such as diabetes, hypoglycemia, and hormonal illness from the list when evaluating an individual for disability insurance. However, individuals may be able to obtain disability insurance using another listing. For example an individual with diabetic neuropathy may be evaluated based on their inability to use their hands or feet. Therefore, although diabetes is no longer a condition that may allow an individual to claim Social Security disability, the complications of blindness, amputation, and neuropathy may be used to qualify. An individual’s inability to work must have been in existence or expected to last for at least 12 months or expected to result in death. The Social Security Administration will continue to evaluate diabetes as a medically determined impairment that may result in a disability.



# How Much Carbohydrate Should I Eat?

By Debbie Berg, RD, CDE

“What can I eat?” This is the number one issue of greatest interest and concern for people newly diagnosed with diabetes. Even folks who have dealt with diabetes for years continue to struggle with diet-related issues.

Adjusting dietary intake can reap big benefits when managing diabetes—especially for persons who are newly diagnosed—but the how, why and what of dietary changes perplex many people. Carbohydrates are the primary dietary factor impacting blood glucose levels. While too much carbohydrate can cause hyperglycemia, how do you know how much is too much, too little or just right?

How much carbohydrate an individual needs is as unique as the person themselves. Age, sex, activity level and weight goals all impact a person’s calories and, therefore, their carbohydrate needs. Persons with diabetes should plan to include 40% to 50% of their caloric intake from carbohydrates. A gram of carbohydrate contains four calories. With the help of a dietitian or a diabetes educator, caloric needs for growth, fuel and weight management can be determined.

For example, a forty-year-old woman who has a desk job, is not regularly active, and is interested in losing 10 pounds may meet with a dietitian and find that a 1,400-calorie diet is the place to start. Six hundred calories provides 43 percent of her calories from carbohydrates. Six hundred calories would be 150 grams of carbohydrates per day. It is important that persons with diabetes consume their carbohydrates in a consistent fashion so the total carbohydrate count is divided somewhat evenly among their meals and snacks. While the number of meals and snacks is based on the individual, a dietitian or diabetes educator can give guidance on what might best suit an individual based on preference, activity and blood glucose levels throughout the day.

Why do we need to eat carbohydrates at all? The majority of foods we consume contain carbohydrates. Skipping carbs means also missing out on other nutrients—as only a fraction of food items contain glucose in isolation. Avoiding carbs means avoiding fruit, vegetables, legumes, milk, and whole grains. Avoiding carbs, therefore,

$$\begin{aligned} & 1,400 \text{ cal} \\ & \times 43\% (.43) = \\ & \hline & 600 \text{ cal} \div 4 = \\ & \hline & 150 \text{g of carbohydrate} \end{aligned}$$

means missing out on rich sources of antioxidants, fiber, B vitamins, potassium, calcium, vitamins A, C, D, E and many more essential nutrients.

Just as important, the primary end-product of carbohydrate digestion—glucose, is rapidly withdrawn by the cells of all body tissues to be used or stored as fuel. This energy is used to carry out the work of the body and provides the heat source necessary to maintain the body’s temperature. Glucose is the only form of energy used by the central nervous system. Muscles and the liver maintain storage of glucose as glycogen, to be used as needed by the body. Too little carbohydrate can cause hypoglycemia—resulting in the use of protein as an energy source by the body, the breakdown of fat-causing ketone production, and possible ketoacidosis or diabetic coma.

When it comes to blood glucose management, self-monitoring of blood glucose before and after a meal can help determine a food or meal’s blood glucose impact. Again, this may help determine “how much” carbohydrate—recognizing not just that the food has a carbohydrate content, but also that the portion sizes of those foods determine the impact. Keeping food diaries and being aware that fruit, starchy vegetables, milk/yogurt, grain-based foods and sugar-sweetened items contain carbs is an important beginning. Once the portion and, therefore, carbohydrate content, and pre- and two-hour post meal blood glucose is known then a person can assess if too much carbohydrate was consumed. Normal pre-meal glucose can range from 70 to 110 mg/dl, and post meal less than 140 to 180 mg/dl—depending on the goals you and your physician have determined. Consistent timing and content of meals helps make blood glucose levels more predictable.

**A follow-up question to “How much carbohydrate should I eat?” is “How much carbohydrate am I currently eating?”**

The answer to that question requires a few tools. First, if you’ve never measured your food portions before, it can be eye-



opening and quite revealing. Even people who have had diabetes for years should measure their cereal, milk, caloric beverages, and rice or pasta from time to time to determine how accurately they are assessing their carbohydrate intake. For people new to diabetes, the "Plate Method" helps visually assess whether enough or too much carbohydrate may be in a meal.

The Plate Method demonstrates a plate half full with low-carbohydrate vegetables joined by protein—that fills only one quarter of the plate, and the last quarter contains a starchy vegetable or a whole-grain serving. Adding a cup of milk and/or a serving of fruit makes for a balanced meal with what most would consider an adequate amount of carbohydrates. The carbohydrate content of various foods can be found online and in books. Many restaurants have their menu information available on their website. Without making an effort to look, would you guess that Yum Yum sauce—often used in Japanese restaurants—contains 24 grams of carbohydrates per quarter cup? Or that McDonald's oatmeal has 48 grams of carbohydrates without the brown sugar? While measuring, writing down, and looking up food information can seem like a chore; improved and more predictable outcomes in blood glucose and weight management are the rewards.

Persons with diabetes recognize the importance of being knowledgeable about carbohydrates. While diet has a major role in blood glucose management; stress, illness, medications, pre-meal glucose and physical activity are also major factors in glucose outcomes.

*Debbie Berg is a Registered Dietitian and Certified Diabetes Educator at the Diabetes Management Program for Valley Health in Winchester, VA*

## Healthy Recipe

### Baked Snapper with Fennel & Carrots

4 servings

#### Ingredients:

1 pound fresh or frozen snapper fillets or other white fish, skinned (about ½ inch thick)  
1 tablespoon vegetable or olive oil  
1 cup fennel bulb, sliced  
½ cup onion, chopped  
½ cup carrot, peeled and chopped  
2 cloves garlic, minced  
1 tablespoon fresh dill, snipped (or 1 teaspoon dried dill)  
¼ teaspoon salt  
¼ teaspoon fresh ground black pepper  
¼ cup dry white wine or water  
Fresh dill for garnish (optional)

#### Directions:

Preheat oven to 450° F.

Thaw fish, if frozen. Rinse fish then pat dry with a paper towel.

Heat oil in a large skillet over medium-high heat. Add fennel, onion, carrot and garlic then stir-fry for 5-6 minutes or until vegetables are tender and slightly browned. Remove skillet from heat then stir in dill, salt, pepper and wine.

Place 1 cup of the vegetable mixture in a 2 quart square baking dish. Place fish on top of vegetables then add remaining vegetables from skillet on top of fish.

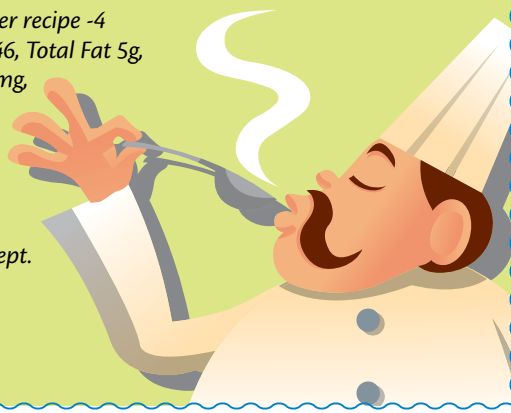
Bake fish uncovered for 5-6 minutes or until fish flakes easily with a fork.

Divide fish and vegetables evenly on 4 plates and serve garnished with fresh dill.

#### Nutrition Facts:

Serving Size ¼ recipe, Servings per recipe -4  
Calories 188, Calories from Fat-46, Total Fat 5g,  
Saturated fat 1g, Cholesterol 42mg,  
Sodium 237mg,  
Total Carbohydrate 6g,  
Dietary Fiber 2g, Protein 24g

Source: Public Health -  
Seattle & King County Health Dept.



© Shutterstock

# Choose My Plate

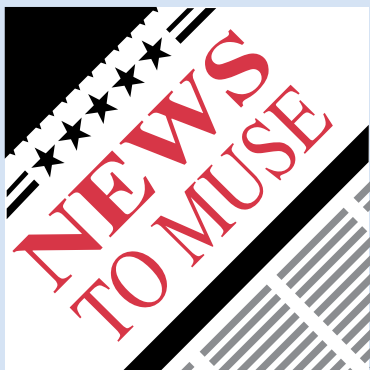
New guidelines for healthy eating were released on June 2, 2011; **Choose My Plate** will replace the **Food Guide Pyramid** to help individuals understand healthy eating. Visit [choosemyplate.gov](http://choosemyplate.gov) for more healthy eating tips.



## 10 Tips for Eating Healthy

1. **Balance calories** – find out how many calories YOU need a day. Go to [www.ChooseMyPlate.gov](http://www.ChooseMyPlate.gov) to find your calorie level. Being physically active also helps you balance calories.
2. **Enjoy your food, but eat less** – take the time to fully enjoy your food as you eat it. Eating too fast or when your attention is elsewhere may lead to eating too many calories. Pay attention to hunger and fullness cues before, during, and after meals. Use them to recognize when to eat and when you've had enough.
3. **Avoid oversized portions** – use a smaller plate, bowl, and glass. Portion out foods before you eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.
4. **Foods to eat more often** – eat more vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products. These foods have the nutrients you need for health—including potassium, calcium, vitamin D, and fiber. Make them the basis for meals and snacks.
5. **Make half your plate fruits and vegetables** – choose red, orange, and dark green vegetables like tomatoes, sweet potatoes and broccoli; along with other vegetables for your meals. Add fruit to meals as part of your main meal, as side dishes, or as dessert.
6. **Switch to fat-free or low-fat (1%) milk** – they have the same amount of calcium and other essential nutrients as whole milk, but fewer calories and less saturated fat.
7. **Make half your grains whole grains** – to eat more whole grains, substitute a whole-grain product for a refined product—such as eating whole-wheat bread instead of white bread, or brown rice instead of white rice.
8. **Foods to eat less often** – cut back on foods high in solid fats, added sugars, and salt. They include cakes, cookies, ice cream, candies, sweetened drinks, pizza, and fatty meats like ribs, sausages, bacon, and hot dogs. Use these foods as occasional treats, not everyday foods.
9. **Compare sodium in foods** – use the Nutrition Facts label to choose lower sodium versions of foods like soup, bread, and frozen meals. Select canned foods labeled “low sodium,” “reduced sodium,” or “no salt added.”
10. **Drink water instead of sugary drinks** – cut calories by drinking water or unsweetened beverages. Soda, energy drinks and sports drinks are a major source of added sugar and calories. *Center for Nutrition USDA*

For more information logon to [www.ChooseMyPlate.gov](http://www.ChooseMyPlate.gov).



## Survey Shows Lack of Understanding of Hypoglycemia in Individuals with Type 2 Diabetes

A survey of individuals with Type 2 diabetes found that over half of the participants had experienced a hypoglycemic episode. To determine people's understanding and experience with hypoglycemia 2,530 individuals were polled. Fifty-five percent responded that they had experienced the symptoms of hypoglycemia—42% while at work, 26% while exercising and 19% while driving. Approximately 20% of the sample required assistance from another person to treat the hypoglycemia.

Although individuals recognized the symptoms of the low blood glucose reaction, most were unable to identify the cause of the hypoglycemia. Since the greatest number of individuals with diabetes have Type 2 diabetes, it is important that this population is educated in order to understand the relationship of their food, physical activity, and medications as it relates to their diabetes care. Understanding of the timing of meals and medication peaks and duration is essential to good diabetes self-management.

If you have not attended a diabetes education program, ask your doctor for a referral today. If you are experiencing hypoglycemia and do not understand why or what may have precipitated the occurrence, ask your doctor to refer you to a diabetes educator. And most important—you should carry some form of diabetes identification with you at all times.



## Calcium Intake and Osteoporosis

The American Association of Clinical Endocrinologists' Annual Meeting offered a variety of presentations. New guidelines for the management of osteoporosis have raised the level of awareness of the importance of calcium in bone health. Guidelines from the Institute of Medicine (IOM) recommend that adults receive 1000-1200 mg of calcium per day based on their age and sex. Most individuals consume about 300 mg of calcium a day through their dietary intake of food;

however, many individuals are adding calcium-fortified foods into their diet or are taking a calcium supplement.

As a result, many people are actually ingesting more calcium than they need every day. In 2010, a meta-analysis of women with osteoporosis revealed that those taking more than 1500 mg of calcium a day may have an increased risk of having a heart attack.

If you are taking a calcium supplement, review the sources of calcium you routinely include in your diet to be sure that you are not consuming too much calcium.

## The American Academy of Neurology Releases Guidelines for the Treatment of Painful Diabetic Neuropathy

It is estimated that approximately 16 percent of individuals with diabetes suffer from neuropathy. In 2007, the American Academy of Neurology (AAN), the American Association of Neuromuscular and Electro-diagnostic Medicine, and the American Academy of Physical Medicine and Rehabilitation established an expert panel to review the research on treatment options for painful diabetic neuropathy. The results of this review were recently released by the AAN. The panel reported that a number of high-quality studies were available to support their recommendations.

The panel viewed research data on the efficacy and safety of antidepressants, anticonvulsants, opioids and non-pharmacological agents such as electric stimulation, magnetic field treatment, Reiki

massage, and low-intensity laser treatments.

There is strong evidence to support the use of the anticonvulsant pregabalin (Lyrica) at a dose of 300-600 mgm daily. Pregabalin may decrease pain, improve quality of life, and lessen sleep disturbances. Benefits may be marginal and each patient should be evaluated individually. Gabapentin (Neurontin) and valproate sodium (depacon) are also effective but should not be used by women of child-bearing age due to potential harmful effects to the fetus.

There is moderate evidence to support the use of antidepressants amitriptyline (Mylan), venlafaxine (Effexor) and duloxetine (Cymbalta). There is also moderate evidence to support the use of capsaicin (Qutenza) and isosorbide dinitrate spray (Isordil).

The use of opioids dextromethorphan, morphine sulfate, tramadol (Ultram) and oxycodone may be an acceptable treatment; however, there is the possibility of increased tolerance and rebound headaches. Percutaneous electrical stimulation therapy may also be effective.

Treatments that did not demonstrate effectiveness included oxcarbazepine (Trileptal), lamotrigine (Lamictal), lacosamide (Vimpat), clonidine (Clonidine Transdermal System), pentoxifylline (Trental) and mexiletine.

When discussing the treatment of your neuropathy with your health care professional, it is also important to consider the cost of the treatment and the potential harm of the medication.

Photo © Sebastian Kaulitzki / Shutterstock

## Healthy Options to Serve at the Office or a Church Potluck

With the current obesity epidemic that exists in America, we need to work to improve our eating in all venues. Two-thirds of adults are overweight or obese in the United States. We are frequently in situations where food choices can make a difference. Whether it is the church potluck or a business lunch, we can all contribute to a healthier lifestyle. For the most part, individuals don't intentionally eat unhealthy; they tend to eat what is easy and available. With a few simple changes we can make the meals at our work place and other social gatherings healthier. We have provided a listing of some healthy options that you can incorporate into your meal planning and event menus. Vending machines are another opportunity to offer healthy options for individuals. Do your part to make the world a healthier place.

### Beverages

- Bottled water (plain spring water or flavored, carbonated water without sugar)
- Coffees or teas (have decaffeinated coffee and herbal teas available)
- 100% fruit or vegetable juices (small containers only)
- Low-fat or skim milk

### Breakfast

- Fresh fruits, dried fruits, unsweetened juices
- Low-fat yogurt
- 3-1/2 inch or smaller bagels—include toppings of light margarine, low-fat cream cheese, jam or low-sugar fruit spreads.
- 2-1/2 inch muffins or smaller, mini muffins
- Low-fat granola bars
- Unsweetened cereals
- Lean ham or Canadian bacon
- Scrambled egg substitutes
- Vegetarian sausage

### Lunch and Dinner

- Fresh salads with low-fat dressings on the side
- Soups made with vegetable puree or skim milk
- Sandwiches on whole-grain breads
- Lean meats, poultry, fish, tofu
- Baked potatoes with low-fat toppings
- Ample portions of steamed vegetables
- Whole-grain breads and rolls
- Margarine without trans-fatty acids
- Low-fat desserts: fresh fruit, angel food cake with fruit toppings, fruit crisps, etc.

### Snacks

- Fresh vegetables with low-fat dip
- Fresh fruit
- Whole-grain, low-fat crackers
- Baked or low-fat potato chips, pretzels
- Baked tortilla chips and salsa



Picnic Dinner © BlueOrange Studio; Fruit © Marie C. Fields / Shutterstock

report was obtained from a scientific paper published in the British journal *Lancet* by Majid Ezzatid from the London Imperial College, and Goodarz Danaei from the Harvard School of Public Health. In their study, the workers looked at blood sugar levels of 2.7 million people over 25 years of age from all over the world. Their findings indicated that in 1980, the number of persons with diabetes worldwide was 153 million. In 2008, however, this number had risen to 347 million—almost 200 million more in just 28 years. Despite these huge numbers, it is certainly true that the true incidence is even higher because of the general underreporting of the diagnosis. Particularly uncounted are the vast numbers in China and India, which in some quarters is known as “the diabetes capital of the world.”

Almost all of this increase is due to Type 2. Type 2 is a complex disorder with a predominant contribution of lifestyle issues... enter the term *commonhealth*. If there were a worldwide health czar whose job it was to confront such crises such as a projected billion people with diabetes, what would she or he suggest as a first remedial step? The answer would certainly not emerge from a traditional medical package, but more likely invoke the commonhealth—a system-wide, all inclusively, involving process.

The commonhealth proposal is immensely complex and immensely uncertain. Yet complexity and uncertainty are the realities of our world. The reductive process of the clinical disease model does not apply to Type 2, which is inherently complex and uncertain and touches every part of society.

Just as it is appropriate to medicalize Type 1 diabetes, it is inappropriate to

medicalize Type 2, which is ultimately not amenable to the traditional medical strategies. Analyzing and confronting a world with a projected one billion diabetic citizens clearly demands a unique revolutionary global strategy—a commonhealth.

.....  
*Just as it is appropriate to medicalize Type 1 diabetes, it is inappropriate to medicalize Type 2*  
.....

It requires an awareness of personal responsibility for individual and community well-being. Health must derive and involve every segment of society. Addressing this epidemic

of catastrophic implications with anything less than a total commitment is not only immoral, but bankrupting.

No potential solution will emerge from a laboratory; no potion or surgery will cure. We know how to prevent Type 2 diabetes successfully, but we lack the fortitude to do it. We need the smarts and guts to create the commonhealth, which will soon be face-to-face with global Type 2. Even mentioning this term—global diabetes, gives me a shiver.

Help create a commonhealth forum to get rid of diabetes everywhere and always.

**Diabetes Wellness Helpline**  
Questions about your diabetes? Call the helpline toll free for any non-urgent medical questions:  
**1-800-941-4635 Monday through Friday 9am–7pm (EST)**

**Envoy Health Wellness Letter**

The Envoy Health Wellness Letter is published four times per year for free distribution to Envoy Health patients, and their family members and friends. The publication is produced on behalf of Envoy Health by the Diabetes Research and Wellness Foundation (DRWF).

For more information about the DRWF, please contact:  
Executive Offices  
Diabetes Research & Wellness Foundation®  
5151 Wisconsin Ave, NW, Suite 420  
Washington, DC 20016  
www.diabeteswellness.net • 202-298-9211

For more information about Envoy Health, please contact:  
Executive Offices  
Envoy Health  
14062 NW 82nd Avenue  
Miami Lakes, FL 33016  
www.envoyhealth.com • 800-337-4144

Envoy Health and The Diabetes Research & Wellness Foundation® take the utmost care to ensure that all articles, products and services referenced in the Envoy Health Wellness Letter or featured insert are accurately represented. It is advised that individuals exercise their own discretion as to whether any information provided is entirely appropriate for them. Envoy Health and DRWF always recommend that the advice of an individual's health professional team or diabetes clinic be sought before making any alterations or adjustments to medication, or before using any products or services featured in the Envoy Health Wellness Letter. It should not be accepted that published articles necessarily represent the view of Envoy Health or The Diabetes Research & Wellness Foundation®.