# Diabetes Wellness News

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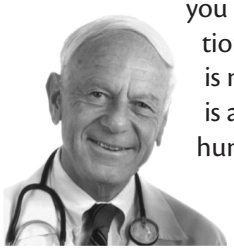
DIABETES WELLNESS NETWORK® YOUR INTERACTIVE DIABETES SUPPORT SYSTEM


# Will We EVER Get It?

**By Walter M. Bortz II, MD**

As one who is dedicated to the task of providing content for this column in the newsletter every month, my antenna is constantly tuned for something of real value… the breakthrough, truly newsworthy event.

Accordingly, when I saw the cover of the June 2015 issue of *Diabetes Care* that featured "Weight Management in Type 2 Diabetes: Current and Emerging Approaches to Treatment," I was hopeful. The authors were Van Gaal and Scheen from Belgium. Their contribution is centrally focused on drug issues. They acknowledge the desirability of prevention, but dismiss it as a fundamental strategy. This emphasis echoes the fatalism that pervades much of medical science. "You can't change human nature." This mantra precludes the big picture. If by "human nature" you mean the underlying genetic contribution—the point is conceded. But diabetes is not fundamentally a "nature" issue. It is a "nurture" issue, and you can change human nurture.



Dr. Bortz

This fact even applies to Type 1, which still evades understanding of the fundamental pathophysiology.

When eventually we grasp the features responsible for beta cell destruction, we will have a big leg up on preventing and curing Type 1.

But the overriding case is Type 2, which is clearly a nurture issue. The Diabetes Prevention Protocol for this was asserted 13 years ago (NEJM 346; 393, 2002.). You can change human nurture.

One of my top Stanford relationships is with Prof. Albert Bandura of the Department of Psychology. He is the most cited psychologist in the world. His thematic is "self-efficacy," which is absolutely central to my entire medical philosophy. To me self-efficacy lies at the heart of most medical encounters from cancer, to heart, to Alzheimer's, to diabetes.

Self-efficacy underlies them all. Self-efficacy is critical to personal behavior patterns. How we act determines our health directly. So it is clear that my personal orientation to the above article in *Diabetes Care* is a disappointment. Certainly—too crudely—I have earlier written that treating diabetes with drugs is kindred to amputating the fingers of the smoker to get him or her to stop. The answer to Type 2 is behavioral—not drugs, but there is

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# FOLLOW YOUR PASSION!

## What Passion and Why?

**By Joseph Napora, PhD**

*Life isn't about waiting for the storm to pass.*
*It's about learning how to dance in the rain.*
–Vivian Greene

What does passion mean? The definition I chose from many possibilities is *"a liking or desire for or devotion to some activity, object, or concept."* This is not about loving your family, or devotion to your church, or having a hobby you go to now and then. It is that "I can hardly wait to get to it" enthusiasm for doing something. From this perspective, do you have a passion for something? Is it playing bridge, knitting, or perhaps yoga or playing a sport? Whatever it may be, having a healthy passion will enrich your life.

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## Benefits of Having a Passion

Whether your passion is work-related, pleasure-based or the pursuit of self-fulfillment, it will enhance your quality of life. Having a passion is having a "fire in the belly." It is a source of excitement, a reason to wake up in the morning even on a bad day. The renowned philosopher, Friedrich Nietzsche, declared: "He who has a 'why' to live for can bear almost any 'how'." Passion provides the motivation to transcend obstacles… to find the "how," the way to succeed despite countless, frustrating misses. And each time a barrier is overcome, satisfaction and self-confidence increase.

## Potential Downside of Having a Passion

Researchers have distinguished two types of passion: harmonious and obsessive. A harmonious passion is consistent with one's good health and general well-being. An obsessive passion is destructive. The desire for or devotion to something that has consistently negative results can be extremely detrimental to one's health and overall well-being. Having an uncontrollable urge to gamble, or engaging endlessly in social media are examples of obsessive passions… compelling behaviors with unfavorable—often dire—consequences.

## Passion Can Help in Managing Diabetes

It is well known that stress can be a serious deterrent to managing diabetes (See *Stress, the Fourth Dimension of Diabetes Management*, June 2014). Being involved in an exciting and hugely gratifying activity can be a handy and effective stress buster. It is uplifting when feeling down; it is a distraction from discomfort; worry, anxiety and other stressors fade away.

The many challenges of diabetes, a contentious situation at work, or a financial hardship can be very stressful. Eliminating such stressors can be difficult, long-term endeavors—sometimes unachievable. Having a passion to pursue and celebrate each achievement can tone down life's trials and tribulations. Doing something that you love can be a pleasant distraction from those unavoidable woes of life, a respite from the concerns of diabetes. Whether it is playing a musical instrument, singing in a choir, writing poetry or knitting booties for a grandchild, when you are pursuing a healthy passion you are avoiding the potential for undue stress.

The combination of enthusiasm and devotion, and the ultimate satisfaction of following your passion, can be the medicine your doctor cannot prescribe. Piano was the passion of one patient coping with terminal cancer. Certainly she had an ardent devotion to her family; their support got her through some tough times. Furthermore, Anna found that her passion for playing the piano gave her much-needed comfort when she was alone and in pain. Becoming absorbed in the music she loved took mind and body to another plane. Even away from the piano, she was able to get the same relief by imagining she could see and hear herself playing a favorite composition.

## Finding Your Passion

A passion develops in one of three ways: you have it, you discover it, or you seek it. Some individuals develop a passion at an early age, often as a result of parental influence. The child of a musician may be drawn to playing a musical instrument just as the offspring of an artist might find painting or studying art a compelling activity or occupation.

Other individuals discover their passion during life's journey. Anna Mary Robertson Moses, nicknamed Grandma Moses, began painting in earnest at the age of 78, and became a renowned artist. Research indicates that senior adults who practice the arts tend to live longer. Grandma Moses lived to 101.

Some of us have to seek our passion. Initially, the pursuit can be frustrating. It may require overcoming old, haunting misbeliefs (*See CAUTION: What You Believe May Be Harmful to Your Health*, April 2015). If you have difficulty getting a hold on your passion, listen for those

self-defeating beliefs such as, "I'm not good enough" or "I never can …." These self-demeaning declarations are rarely true and need to be vigorously refuted.

Here are some ideas for finding your passion:

- **Explore the arts.** Take a class in painting, drawing or sculpting and see how it feels. Try writing poetry or short stories. If you enjoy singing, consider joining a choir or chorus. Did you play an instrument in childhood and stop for one reason or another? Playing again, in your current stage of life, may prove to be a lifetime joy.
- **Start a hobby.** If you are planning a trip to a foreign country, make learning the native language a hobby. Creating scrapbooks, cooking, baking, knitting and gardening are popular hobbies to do passionately.
- **Play a sport.** If you want to (or need to) be more active, make a sport a regular activity. Jogging, swimming and the martial arts, including the noncombatant tai chi, are popular and rewarding for many. If you prefer team play, consider joining a bowling, softball or volleyball team.
- **Become a volunteer.** There is nothing more rewarding than serving others in need. There are countless opportunities to do so. Volunteering at a school or hospital, working at a soup kitchen, or organizing a fundraiser for someone in need are examples of gratifying activities to pursue with passion.

Finally, three facts about pursuing your passion: When you find yours, you will feel it. And when you feel it, despite the struggle to get there, you won't regret it. Growing your passion is dancing in the rain.

news to muse

## United Healthcare offers Victoza at a lower co-pay

Novo Nordisk announces that Victoza will be at the lowest branded co-pay for those with United Healthcare Insurance for Commercial and PartD/AARP. Victoza 1.2 will move to the lowest branded co-pay and Victoza 1.8 will remain covered for use after 30 days of Victoza 1.2 mg. When choosing your Part D coverage for Medicare be sure to check the formulary to ensure that all of the medicines you take are on the lower tier and therefore have less expensive co-pays.

## Humalog U-200 KwikPen Approved by FDA

The Humalog U-200 KwikPen is a prefilled pen that holds twice the amount of rapid-acting insulin as Humalog U-100 pens– 600 units; the dose of insulin will have half the volume.

No conversion is necessary; the dose is dialed in and the pen delivers the correct amount. For individuals on large doses of rapid-acting insulin before meals, this will reduce the number of pens needed and lasts longer.

# UPDATE: ISLET CELL TRANSPLANTS

## Update on Islet Cell Research

The Diabetes Research Institute (DRI) at the University of Miami has received approval from the Food and Drug Administration to perform Phase I/II clinical trials to test using the omentum (the inside lining of the abdomen) as a new transplant site. Presently, islet cells are placed near the liver. These trials will determine if the omentum is a better home for islet cells than the liver. The research team, led by Dr. Rodolfo Alejandro, has screened hundreds of patients and is now waiting for matching organs to extract islet cells.

The team has also created a biodegradable scaffold consisting of the patient's own plasma and clinical-grade thrombin – a BioHub platform. Researchers will evaluate the two transplant sites by using the same anti-rejection drug therapy; however, DRI hopes in the future to totally eliminate the need for immunosuppression medication. Researchers will evaluate whether the severe hypoglycemia has ceased and if the recipient is able to maintain an A1C of ≤ 6.5%.

# EVALUATING YOUR KIDNEY FUNCTION

**By Dori Muench, MSW, LCSW, NSW-C**

I hope the information on diabetes' effect on kidneys was helpful. Now, I am sure you are wondering how to know if your kidneys have been affected. Are there any tests you can ask your doctor about? What type of doctor should you see for this? Fortunately, there are tests that can tell you how well your kidneys are working.

The first of these tests you are already doing—your daily blood sugars. Many individuals living with diabetes are required to test their blood sugar one or more times a day. The American Diabetes Association recommends a fasting blood glucose target of 80-130 mg/dl. It is important to make sure your blood sugars are not too high or too low. As we have mentioned before, blood sugars that are elevated can lead to kidney damage over time.

Another test is the **Hemoglobin A1c**. This test measures how well your diabetes is being controlled by providing an average of blood sugar control over the past 2–3 months. The ADA recommends maintaining these levels below 7% to prevent complications such as kidney disease.

In management of your diabetes, your doctor is continually monitoring for any kidney involvement through examination of your blood and urine. The following do not require any fasting and may be done in your healthcare provider's office.

A **urinalysis** is a routine dipstick urine test that can detect albuminuria—a type of protein—in the urine. Blood or protein in the urine may be an early sign of kidney disease.

**Urine Albumin to Creatinine Ratio (UACR)** is a test to detect the quantity of protein in your urine. This is determined by comparing the amount of albumin (normal is below 30) and creatinine (normal 14–26 mg/kg for men and 11–20 mg/kg for women) in your urine. A normal UACR is less than 30 mg/g. Once your UACR result is greater than this threshold, further testing may be recommended. The ADA recommends this test be done annually, both for those with Type 1 and Type 2 diabetes.

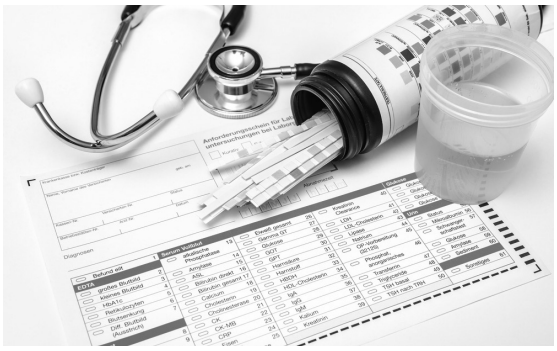
**A blood urea nitrogen** (BUN) test is a routine blood test that measures the amount of nitrogen in your blood. Normal protein breakdown in your body produces nitrogen wastes into products like urea. These products are ultimately removed from the body through the kidneys. High levels of urea may indicate kidney damage. A normal range for this test is 7–20 mg/dl, but may vary due to age and medications.

**Serum Creatinine** is a routine blood test done in the management of your diabetes. Creatinine is the chemical waste product that is produced by muscle metabolism. This test gives a rough estimation of your kidney function. The normal range for creatinine is 0.6–1.3 mg/dl, although it can vary with gender, age and body size. If this test is abnormal, you will likely require more frequent monitoring of your blood and/or be referred to a kidney specialist for further evaluation.

**Estimated Glomerular Filtration Rate (eGFR)** is the best test to measure your level of kidney function and to determine your stage of kidney disease. Your doctor can calculate it from the results of your blood creatinine test, as well as your age, body size and gender. If your eGFR is low, that is an indication that your kidneys are not working normally. The sooner kidney disease is detected and treatment begun, the better the chance of slowing or stopping its progression. Your eGFR tells your doctor your stage of kidney disease and helps the doctor plan your treatment. Individuals with diabetes, high blood pressure, a family history of kidney disease, the elderly and certain ethnic groups — African Americans, Hispanics, Asians or American Indians — have a higher risk of developing kidney disease.

A **Creatinine Clearance Test** or 24-hour urine creatinine collection may be ordered. This will provide an **actual glomerular filtration rate (eGFR)**. This test gives an estimated percentage of how much your kidneys are working by calculating the results of your blood creatinine test, the amount of urine collected, and creatinine in the urine—taking into account age, body size and gender. It can also indicate the stage of kidney disease you may be in, from stages 1-5. Once your eGFR falls below 60%, it will likely require more frequent monitoring. This may include a referral to a nephrologist, biannual eGFR testing; annual monitoring of electrolytes, bicarbonate, calcium, phosphorus, and vitamin D; as well as parathyroid hormone and dietary modifications. As your eGFR falls below 44%, monitoring will increase to quarterly and will also include albumin and weight checks. Once stage 4 (30%) is entered, you will be monitored by a kidney specialist or nephrologist, as is recommended by the ADA. When you enter stage 5 — kidney failure, renal replacement therapy will be required.

Once a nephrologist begins monitoring your condition, more specific tests will be ordered to diagnose the kidney



| GFR Stages | | | Albuminuria Categories: A1 Normal to mildly increased <30 mg/g <3 mg/mmol | A2 Moderately increased 30-299 mg/g 3-29 mg/mmol | A3 Severely increased ≥300 mg/g ≥30 mg/mmol |
|---|---|---|---|---|---|
| G1 | Normal or high | ≥90 | | | |
| G2 | Mildly decreased | 60-90 | | | |
| G3a | Mildly to moderately decreased | 45-59 | | | |
| G3b | Moderately to severely decreased | 30-44 | | | |
| G4 | Severely decreased | 15-29 | | | |
| G5 | Kidney failure | <15 | | | |

**Key to Figure:**

**Colors:** Represents the risk for progression, morbidity and mortality by color/shade from best to worst.

Low Risk (if no other markers of kidney disease, no CKD)

Moderately Increased Risk | High Risk | Very High Risk | Highest Risk

*Chart is from the National Kidney Foundation.*

abnormalities. An **ultrasound or CT scan** may be ordered to obtain an image of your kidneys and urinary tract. These tests look for the size and presence of a kidney stone or tumor that may be contributing to kidney function.

Finally, the nephrologist may order a **kidney biopsy**. This procedure is done by numbing the area with a local anesthetic. A small incision will be made and a long, thin needle will be inserted into the kidney. A device to help the doctor see where the needle is being inserted will be used. A small piece of the kidney is removed for analysis. You may feel a 'pop' from the tool being used while this procedure is taking place. Your doctor will request that you fast for 8–12 hours before the procedure. A biopsy is often completed as an outpatient procedure, so you are able to go home the same day. A biopsy can help to determine how quickly or how far the kidney disease has progressed, diagnose additional conditions that may be contributing, and help to develop a treatment plan for your kidney disease.

While these tests may seem overwhelming, they are very necessary and your doctors will perform only the ones you need. Please join us next time as we discuss treatment options for kidney disease.

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# WHAT TO EAT?... No Simple Answer

Are you confused about what you can eat if you have diabetes? For those with diabetes, it is important that you understand how different foods can affect your health and your blood glucose control. It is also important to meet with a Registered Dietitian and a Certified Diabetes Educator in order to gain an understanding of how food and your diabetes interact. Ask your healthcare provider for a referral; until then, below is some information to get you started.

You may find it helpful to keep detailed food records for a few days and test your blood glucose levels two hours after meals. This will provide you with valuable information about how the food you normally eat affects your blood glucose levels. Remember, well-controlled diabetes requires a blood glucose level of about 140-160 mg/dl two hours after a meal.

You hear about carbohydrates all the time, but do you know what a carbohydrate is? This is the first step in learning about healthy eating and diabetes. Carbohydrates are not bad, they are the energy source that provide fuel for our body. However, they are the foods that affect blood glucose levels; so you want to be sure you are choosing nutrient-rich carbohydrates and pay attention to the quantity or portion you take in on a daily basis.

Carbohydrates are found in dairy products such as milk, yogurt, ice cream; in fruits—whole fruit and fruit juices; in grains such as bread, rice, crackers and cereal; in pasta and dried beans, and in some soy products such as veggie burgers. They are also found in snack foods and sweets, i.e. juice drinks, soda, cake, cookies, candy and chips.

How much carbohydrate is in foods? This is important information to know and can be found on the nutrition label of foods. One serving of carbohydrate is equal to 15 grams—in the world of those living with diabetes.

**Examples of 15 grams of carbohydrate are:**

1 small piece of fresh fruit (4 oz.)

1/2 cup of canned or frozen fruit

1 slice of bread (1 oz.)

1 (6 inch) tortilla

1/2 cup of oatmeal

1/3 cup of pasta

4-6 crackers

1/2 English muffin or hamburger bun

1/3 cup rice

1/2 cup of black beans

1/4 of a large baked potato (3 oz.)

2/3 cup of plain fat-free yogurt or sweetened with sugar substitutes

2 small cookies

2-inch square brownie or cake without frosting

1/2 cup ice cream or sherbet

1 Tbsp. syrup, jam, jelly, sugar or honey

2 tbsps. light syrup

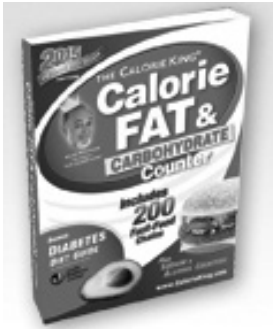
6 chicken nuggets

1 cup of soup

1/4 serving of medium French fries

Until you see a dietitian, a good rule of thumb is to eat between 45-60 grams of carbohydrate at a meal, and not more than 15 grams of carbohydrate for a snack. The dietitian will help you make adjustments based on your preferences and your blood glucose levels. This is where testing your blood glucose levels comes into play. By testing two hours after a meal, you will be able to

determine how that meal combination affects your blood glucose. It is not necessary to test after every meal, but when you are first learning it is a helpful exercise to help you make good choices. Keeping a food log for a short period of time will also help you gain a better understanding of how food and your blood glucose levels connect. Of course there will be those times when none of it seems to make sense, but looking at your overall pattern of blood glucose results throughout the day will help you to keep your blood glucose levels in good control.




Here are a few resources that may help in this effort.

*Calorie King* is a paperback book available at Amazon.com or any bookstore. It is a comprehensive listing of the carbohydrate content of most foods as well as restaurant fare. It is also available as a free app.

The Accuchek-360 tool offers a handy printout that allows you to track your blood glucose levels in order to determine a daily pattern. https://www.accu-chek.com/documents/360view/ACCU-CHEK_360_ViewForm.pdf?convID=3026

# Kick-Start Your Exercise Program


Are you putting off doing the physical activity that your healthcare provider is recommending—and that you know you should be doing? Here are some helpful tips that may help you to kick-start your exercise program.

1. Determine what it is you want to accomplish, i.e.—lose weight, lower your blood glucose levels, or be able to walk around the block or run a 5K. Now put it to paper; that makes it concrete and engages you in the process.
2. Look at your current activities. What is hard for you to do? Can you walk up a flight of stairs without resting? Can you get out of a chair without assistance? Can you run to the corner? Write these activities down on paper.
3. Are you ready to begin to be physically active? Do you have the proper shoes to wear? Do you have a diabetes identification necklace? Do you have a plan if your blood glucose level drops too low when you are exercising? Do you know where you are going to engage in this physical activity—at home, the gym, the park? In order to be successful you need to have a plan. Consider all the obstacles you may encounter and determine how you will deal with them so you can be successful in reaching your goal.
4. Start slow and grow gradually. If you have not been physically active for some time, it is important to take baby steps and gradually increase your physical activity.
5. Find a partner, someone you will have ownership to. You want someone who will encourage you. You may be surprised to find that many of your friends or peers are having similar struggles. Making physical activity fun and social will reduce the chances of you giving up.
6. Monitor your progress either by keeping a log or by using Fitbit. Make it fun by competing with family and friends. Don't forget to track how you are doing; this will help to keep you motivated… as you will see over time that you are able to exercise more intensely and work out more strenuously. There will be no denying you are becoming more physically fit and that is a great accomplishment!
7. Be active all day. Remember, you don't need to limit being active to just one hour a day in the gym; commit to being active throughout the day. Walk to your co-worker's desk, park in the far end of the parking lot, walk up the stairs, get up and move around every hour. Do some stretches while sitting in your chair. Adding all this extra movement will help keep your blood glucose levels in good control.

Will We Ever Get It?.....Continued from Page 1

little acceptance of this fact.

Also, a corollary to the centrality of this is the CDE—the certified diabetes educator, but again I see little acknowledgment in print of this fact. I personally would trade one CDE for ten stem cell biologists.

Whenever a journal article sets out to provide an overall perspective of progress in diabetes, it carries a responsibility to cover the field. The National Weight Loss Registry shows that you can change human nurture. This fact is not drug oriented, but it is not included in this cited article.

I will keep waiting for the moment when the scientific community gives adequate attention to the behavioral aspects of diabetes. John Gardner taught: He who would change human behavior cannot be of short wind.

For us students of diabetes… we must wait and stay in shape.

## Drug Discount Card: Up to 75% Savings


Individuals with Medicare often reach their donut hole at this time of year. If you are one of those individuals, the Diabetes Research &Wellness Foundation drug discount card may be of benefit to you. The card provides individuals with the opportunity to save up to 75 percent off the regular price of prescription medications. The card is accepted at over 54,000 pharmacies nationwide; there is no fee for the card, and registration is not necessary. Anyone can use this card regardless of income, insurance, state, age, residency, or diagnosis. Call for your free card today at 800-941-4635. *This card cannot be used with insurance.*

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