



Health Matters

Great Smokies Medical Center of Asheville

A small, occasional publication

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Diabetes, Statistically Speaking

In the January 1, 2003 issue of the *Journal of the American Medical Association (JAMA)*, statistics from the Centers for Disease Control and Prevention (CDC) revealed that the incidence of diabetes in the United States increased by 61 percent since 1991. An estimated 17 million Americans (6.2 percent of the population) now have diabetes. Alabama had the highest rate of diagnosed diabetes (10.5 percent of the population) and Minnesota the lowest (5.0 percent). North Carolina came in slightly above the national average at 6.4 percent, with 36 more million North Carolinians at risk for developing diabetes. CDC Director Dr. Julie L. Gerberding called these statistics "disturbing and likely even underestimated."

Five to 10 percent of all diabetics are Type I (childhood onset), while 90 to 95 percent are Type 2 (adult onset). The



American Diabetes Association places the direct medical annual costs at \$92 billion, with an additional \$40 billion in indirect costs (disability, work loss, early death).

Poorly-managed diabetes has a serious health downside including a 200 to 400 percent increase in stroke and heart attack risk, a sixty percent occurrence of high blood pressure, and blindness

of an estimated 12,000 to 24,000 people. In addition, in 1998 nearly 100,000 people were on kidney dialysis or had a kidney transplant due to diabetes, 82,000 amputations are performed annually on U.S. diabetics, and periodontal disease is prevalent in diabetics.

Well-managed diabetes need not result in these complications. A diagnosis of diabetes need not seal your fate. See *Living Healthy With Diabetes* on page 2.

Diabetes Defined

Defining diabetes by listing all of its potential complications is common but can be psychologically defeating, resulting in diabetics' wondering why they should even bother to modify their diet and lifestyle.

We have developed a simple working definition of diabetes that emphasizes the hope found in sound diabetic treatment. And there's a bonus: a solution is hidden in the definition.

Diabetes defined: *Diabetes is the inability to burn carbohydrates efficiently for energy.* Ten words.

This inability to burn carbohydrates is the *only* basic difference between a person who has diabetes and a person who doesn't. It puts diabetes squarely in the category of nutritional illnesses, and nutritional illnesses require nutritional treatment. The solution hidden within the definition is: If you aren't able to burn carbohydrates for energy, don't depend on carbs for your energy needs.

"Leave your drugs in the chemist's pot if you can heal the patient with food." - Hippocrates

Pre-Diabetes: IFG and IGT

Diabetes is diagnosed by either an overnight fasting blood sugar greater than 125 milligrams per deciliter (mg/dL) or by a blood sugar of 200 mg/dL or greater two hours after an oral glucose tolerance test (GTT).

Two terms are used to describe what used to be called "borderline diabetes".

Impaired Fasting Glucose (IFG) is a condition in which the fasting blood sugar is elevated between 110 and 125 mg/dL after an overnight fast but is not high enough to be true diabetes.

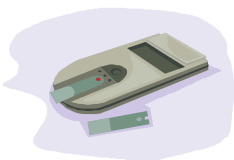
Impaired Glucose Tolerance (IGT) is a condition in which the blood sugar is elevated between 140 and 199 mg/dL

after a two-hour oral glucose challenge.

Among U.S. adults 40-74 years of age, 16 million (15.6 percent) have IGT and 10 million (9.7 percent) have IFG.

If you are diagnosed with IFG or IGT, consider yourself lucky as it is an early warning, a wake up call. Ignorance of diabetes is anything but bliss.

We screen for diabetes with a 4 hour Glucose Insulin Tolerance Test (GITT). It gives the extra advantage of knowing your insulin *and* sugar levels. If you're over 40, obese, have high blood pressure, a family history of diabetes, low energy, excessive thirst or urination, or have slowed healing of skin injuries, ask your doctor if you need diabetes screening.



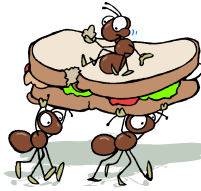
What are Carbs?

Carbohydrates consist of starches, called complex carbohydrates, and sugars, called simple carbohydrates. All carbohydrates turn to glucose through the process of digestion. Starches are found in all grains (wheat, rice, corn, rye, oats, barley, spelt), all hot and cold cereals, pasta, white and sweet potatoes, breads, crackers, bagels, etc. Sugar is found in many beverages including tea, sodas, alcoholic drinks, and sports drinks; plus desserts, fruit juices, fruit, cakes, cookies, muffins, candy, ice cream, and many processed foods.

Q/A: Pass or Bypass the Bread? by Dr. Wright

Q: I am a Type 2 diabetic and want to know what you think about my eating the bread I love and just taking extra insulin to cover it. It would really make my life a lot easier.

A: Thanks for your great question. While Type 1 diabetics make very little or no insulin, Type 2 diabetics can make very large amounts of insulin. Their insulin is ineffective in lowering blood sugar for a variety of reasons but still circulates in the blood stream where it causes other problems. If you are already making too much insulin and eat bread (or pasta, corn, cereal, potatoes, and desserts), your body will make more insu-



lin, resulting in even higher, more harmful levels of insulin. Some oral diabetic drugs in a class called sulfonylureas also result in increased insulin production. (The popular oral diabetic drugs Glucophage and Amaryl are not in this category.) Excess insulin, whether it is “homemade” or taken by syringe, has been shown in studies to directly contribute to obesity, high blood pressure, cancer, heart attacks, and strokes. These medical conditions would in no way make your life easier.

The best way to support good health is to avoid the bread *and* the resulting insulin excess. Instead, maintain normal blood sugars with the least amount of insulin possible by restricting carbohydrates.

Diabetic Recipe

Sticky Buns?

Mix 4 cups of sugar with 6 cups of white flour. Cut in 2 sticks of margarine with a TV remote control. Slowly stir in 265 pounds of obesity. Moisten with a liter of a soda of your choice mixed with an equal volume of fruit juice. Finely chop 2 of your favorite candy bars and add to mixture. Sprinkle a few years of sedentary lifestyle over the entire mixture, stirring again with a remote control. Add a tincture of aging. Allow to sit on a 72 degree couch for 5 to 10 years.

Makes: One Type 2 diabetic

“You can dig your grave with a fork.”—Common knowledge

Diabetes Solution



Living Healthy with Diabetes

The best book to guide a diabetic in using scientific dietary principles to treat or reduce complications of diabetes is written by a medical doctor and Type 1 diabetic, Richard K. Bernstein. [Dr. Bernstein's Diabetes Solution](#) is one of a handful of books we have available at GSMC for our patients. It is a great gift for diabetics who want to optimize their health.

Drs. Wilson and Wright advise the following changes and additions to enhance Dr. Bernstein's program:

- Avoid NutraSweet (use Stevia)
- Avoid preserved meats (eat fresh)
- Avoid intake of “bad” fats, including partially hydrogenated oils on food labels (eat butter, olive oil, cold pressed nut & seed oils)
- Use nutritional supplements to optimize treatment results.

There is one non-negotiable rule for living as healthy a life as possible with diabetes: *maintaining normal blood sugar of 80-100 before meals*. Here's how:

Diet: Eat an abundance of green vegetables, eat ample “good” fat, eat fresh protein sources, and avoid all sugar and fruit juice in addition to starchy cereals, breads, pasta, and potatoes.

Exercise: Exercise lowers blood sugar, increases sensitivity to insulin, helps control obesity, and buys some dietary freedom a diabetic would otherwise not have.

Weight reduction: When are losers not losers? When they are losing excess weight. Lowered insulin resistance, increased metabolism, and improved self esteem are the benefits of weight loss.

Education: Read [Dr. Bernstein's Diabetes Solution](#) to learn the extent of recovery possible for diabetics by applying a sound dietary approach.

Drugs: Type 2 diabetics should use diet first and then drugs as needed to increase sensitivity to insulin, maintain normal blood sugars, and keep the amount of insulin needed to a minimum.

Checkups: Get ongoing medical monitoring to learn the best use of a gluco-meter and to get feedback about the effectiveness of your diabetic treatment regimen.

Heal yourself: Each year, most diabetics spend a few minutes with their doctor. Imagine the healing potential in the remaining half million minutes!

All content in this newsletter is intended to be informational and is not to be taken as medical advice or to replace medical care.



The Carb/Mood Trap

Are carbs *really* comfort food? “Yes,” temporarily, but “no” in the long run. Eating carbs can quickly result in increased serotonin, a neurotransmitter known for its role in depression. Your body associates the resulting “high” with eating carbs, but doesn't associate carbs with the “low” that occurs a couple of hours later. A carb craving is born as your body simply tries to recreate the high, and you are in for a ride on the mood roller coaster. The solution? Cut the carbs! Ask your GSMC physician for strategies to increase serotonin naturally for a more stable mood.

Q/A: Diabetes and Cholesterol by Dr. Wilson

Q: Won't eating all the cholesterol in meat and eggs cause heart disease?

A: For diabetics, carbohydrates act like a metabolic poison. Fats, however, provide an excellent energy source for diabetics. The notion that cholesterol causes heart disease is one of the biggest medical misconceptions around. Ongoing analysis of the 53-year long Framingham Heart Study consistently reveals that heart disease risk is lower in individuals who eat more cholesterol. We do know, however, that excess insulin and consis-

tently elevated blood glucose levels directly contribute to heart disease.

Again and again I have seen total cholesterol, triglycerides, and HDL (“good”) cholesterol improve beautifully on diets high in cholesterol. A high HDL cholesterol is associated with a lower risk of heart disease. Avoid “bad” fats, including margarine, commercial vegetable oils, and deep fried foods. Eat more “good” fats, including olive oil, cold pressed nut and seed oils, and butter. Honor your Mom's advice and “Eat your vegetables!”