NUTRITIONWORKS NEWS
530 WILSHIRE BLVD., SUITE 310 • SANTA MONICA, CA 90401 • (310) 395-4822 • www.muchmorethanfood.com

More Americans have diabetes than ever before. A recent CDC report noted steady increases in diabetes diagnosis between 1980 and 1994, with NIDDM accounting for 90% of all cases. While the low fat (high carbohydrate) diet is a conventional component of treatment, is our love affair with refined sugars and starches part of the problem?

Insulin Resistance:
Diabetes is just the tip of the iceberg

Insulin resistance (IR) is getting more and more attention in the medical and scientific arena. On a practical basis, it is heartening to hear from the legitimate scientific community. The American Diabetes Association sponsored a consensus conference November 5th and 6th in Los Angeles on Insulin Resistance. I left the conference both exhilarated and frustrated.

The scientists are confirming every sign and symptom of insulin resistance that I have observed in myself and my clients over the past six years. The physiology behind these symptoms is fascinating. Here's a sample:

SYMPTOM	PHYSIOLOGICAL PHENOMENA
insulin resistance	a syndrome with both genetic predisposition for 25% of normal weight individuals; can be acquired with specific environmental insults: weight gain, stress, poor diet, lack of activity ***insulin resistance in the population is plotted on a continuum—there is a 10-fold difference of insulin sensitivity in normal weigh populations; obese individuals are 2X as likely to be insulin resistant BUT NOT ALL OBESE PERSONS ARE INSULIN RESISTANT
weight gain	preferential synthesis of fat secondary to excessive intake of carbohydrates whick contribute to elevated glucose levels
fatigue	first two actions of elevated insulin is to block lipolysis (fat metabolism) and glycogen synthase activity
hypoglycemic-like symptoms	see above—the body doesn't use glucose for fuel effectively and is unable to significantly tap into fat stores for fuel; in addition, glycogen synthesis is depressed, contributing to an intermittent or chronic sense of fatigue

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My frustration? Out of 20 presentations only one mentioned diet in anything other than a single word. This particular presenter observed that people eating a diet higher in fat (30-35% mostly USFA) enjoyed lower triglycerides that those with a conventional high carbohydrate, low fat diet.

In the meantime I continue to see remarkable results from a different dietary approach. In my experience moderating carbohydrate intake to less than or equal to 50% of total Calories has been profound: effective fat loss, normalization of serum lipids, better glucose control (when applicable), and improvement in general energy levels and well being. For those individuals who are more apt to be IR the effect of eating well and meeting specific nutrition, fitness or health goals is especially rewarding.

Despite the increased attention to IR in the literature, too many health care providers primarily associate IR with Type II diabetes (NIDDM). While an advanced state of IR can lead to NIDDM, it doesn't always. In addition, early states of IR have no known medical markers, but patients can have plenty of signs and symptoms.

The researchers made clear that serum insulin level is a mediocre reflection of insulin resistance. One speaker noted that intralab errors for fasting insulin tests averaged 50%; interlab discrepancies ranged up to 300%. Clearly, a better clinical test needs to be developed.

The good news is that appropriate diet therapy and adequate physical activity effectively address most of the signs and symptoms of IR. The irony here is that despite a lack of reliable diagnostic tests there already exists effective diet therapy. Diet, along with adequate physical activity plays a tremendous role in decreasing the fatigue, weight gain, and dislipidemia associated with IR. What and how people eat can make a profound difference in how they look and feel.

WHAT TO LOOK FOR: *ASSESSING A PATIENT FOR NUTRITION REFERRAL*

The classic signs of IR include android obesity, elevated triglycerides, LDL-C, sometimes total cholesterol, and depressed HDL-C levels. Less tangible are patient complaints of fatigue, poor stamina, poor concentration, or dizziness. Many patients complain of a chronic sense of hunger, food cravings—especially for starches and refined sugars, and creeping weight gain—even when eating "right" and exercising regularly.

If you find yourself evaluating a patient with similar complaints but everything looks "normal," consider referring your patient for a nutrition assessment. The true benefit of individual dietary assessment is the opportunity to establish a food plan and orientation towards eating that compliments your patient's lifestyle. The goal is to provide people with tools they can use over time to help them reach and maintain their fitness and health care goals. *