

## Food For Thought Diabetes On the Rise

According to the U.S. Centers for Disease Control and Prevention (CDC), rates of type 2, or adult onset, diabetes have tripled in the last 30 years. This is due largely to the global epidemic of obesity, a major risk factor for developing type 2 diabetes. The connection is so strong that some health experts have coined a new term, “diabesity.”

Some populations are at an even higher risk of diabetes. Compared with Caucasians, African Americans have a 60 percent higher rate of developing diabetes and Hispanics have a 90 percent increased risk. Currently, the American Diabetes Association recommends that high-risk individuals get a fasting blood sugar test beginning at age 45. However, the American Association of Clinical Endocrinologists (AACE) and the American College of Endocrinology (ACE) have new recommendations<sup>1</sup> that say individuals at high risk for diabetes may need to be screened as early as age 30. The new, stricter recommendations are consistent with world-wide standards. High-risk individuals are those who:

- Have a relative with diabetes;
- Are overweight, defined as Body Mass Index (BMI) greater than 25;
- Have heart disease, high blood pressure, high triglyceride levels or low high-density lipoprotein (HDL) levels -the “good” cholesterol;
- Have had gestational diabetes or have delivered a baby weighing more than 9 lbs;
- Have polycystic ovarian syndrome; or
- Have impaired glucose tolerance detected by a blood sugar test.

## BENEFITS OF LIFESTYLE CHANGES

Recently there has been some good news about type 2 diabetes—people who are at high risk of developing this disease can reduce that risk by more than half with small but substantial changes in diet and exercise.

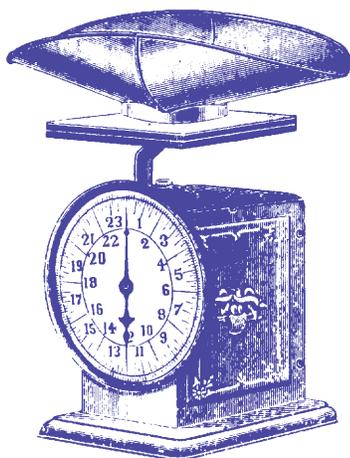
The good news comes from a landmark Diabetes Prevention Program clinical trial funded by the U.S. National Institutes of Health.<sup>2</sup> Scientists selected a group of participants who were at risk of developing type 2 diabetes to receive diet and exercise counseling. The group reportedly exercised at least thirty minutes a day and ate 1200-

1800 calories with 25% from fat. The goal was to increase physical activity and shed pounds. These relatively simple lifestyle changes caused a 58 percent drop in risk of developing diabetes in this group.

<b>INSIDE...</b>		<b>PAGE</b>
	Attacking Diabetes Risk Factors	2
	Glycemic Index of Common Snacks	4

# ATTACKING DIABETES RISK FACTORS

## LOSE WEIGHT



Being overweight is one of the biggest risk factors for developing type 2 diabetes. Researchers at Harvard School of Public Health and Brigham and Women's Hospital in Boston have found that three times as many people were able to stick to a healthy moderate fat weight loss diet than those following the traditionally recommended low fat diet. Furthermore, they were able to keep the weight off for over 18 months, had better nutritional intakes and were more satisfied because they could eat some of their favorite foods each day such as peanut butter, nuts, peanuts, and unsaturated fat oils, in a healthy Mediterranean-style eating pattern<sup>3</sup>.

Recent research from Purdue University<sup>4</sup> shows that snacking on peanuts and peanut butter is an effective way to control hunger without leading to weight gain. Subjects who snacked on peanuts and peanut butter self-adjusted their caloric intake spontaneously and did not add extra calories to their daily diets. These findings support previous long- and short-term studies that indicate that regular consumption of peanuts does not promote weight gain.<sup>5-7</sup>

## CONTROL BLOOD SUGAR (GLUCOSE) LEVELS

Whether you have type 2 diabetes or you are trying to prevent it, the goal is to keep blood sugar levels in check. With type 2 diabetes, the body loses the ability to use insulin properly. When this happens, blood sugar levels rise and damage blood vessels, which can lead to kidney damage or vision loss.

To determine the effect of foods on blood sugar levels, both the glycemic index and the glycemic load must be considered. The glycemic index (GI) of a food indicates how quickly the carbohydrate in that food will turn to sugar in your body. GI was originally developed as a tool for research scientists. Glycemic load (GL) is a newer term that takes GI into consideration and gives us a better picture of a food's overall effect on blood sugar levels. By definition, glycemic load is the amount of carbohydrate in a food multiplied by the glycemic index of that carbohydrate. In other words, glycemic load takes both the type and amount of carbohydrate into consideration, making it a better measure when examining foods in the context of healthy diets.



A study from the Harvard School of Public Health<sup>8</sup> looked at the diet and exercise patterns of over 65,000 women from the Nurses Health Study who were free of cardiovascular disease, cancer and diabetes. The researchers found that eating low glycemic index foods such as peanut butter, broccoli, yogurt and beans along with a diet higher in complex cereal fiber can significantly reduce the risk of developing type 2 diabetes. Similar results were found in men.<sup>9</sup>

More recent studies examine the effects of glycemic load. Researchers at Harvard<sup>10</sup> found that women who consumed high glycemic-load diets (heavy in both high GI foods and total carbohydrates) had lower high density lipoprotein (HDL) cholesterol levels and higher triglycerides, two risk factors for both diabetes and heart disease.

## REDUCE TRIGLYCERIDES AND MAINTAIN GOOD HDL CHOLESTEROL

A low-fat diet was once recommended for most people. However, the American Heart Association<sup>11</sup> has recognized that a low-fat, high carbohydrate diet may actually increase triglycerides in some people, which can promote diabetes and increase the risk of heart disease. Newer studies have shown that replacing some of the carbohydrate in your diet with poly- and monounsaturated fat will actually lower triglycerides and maintain good high density lipoprotein (HDL) cholesterol levels, which may decrease the risk of heart disease.

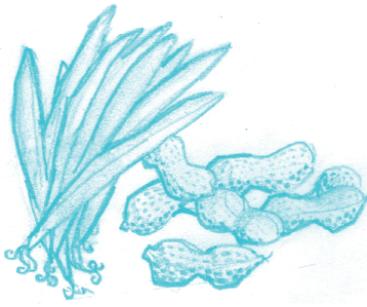
A study in the American Journal of Clinical Nutrition<sup>12</sup> compared a calorie-controlled diet that was higher in monounsaturated fat (MUFA) and included peanuts/peanut butter, olive oil, or peanut oil, with a calorie-controlled low-fat diet. The higher monounsaturated fat diet and the low-fat diet all lowered total cholesterol by about 11% and LDL cholesterol by 14% within a month. However, the peanut diet and olive oil diet had the added benefit of reducing triglycerides by 13% (vs. an 11% increase with the low-fat diet) and maintaining HDL cholesterol (vs. a 4% decrease with the low-fat diet).

The study found that overall, the diet that included peanuts/peanut butter lowered cardiovascular disease risk by 21%, whereas the low-fat diet decreased the risk by only 12%.



# Glycemic Index (GI) of Common Snacks

You won't see the glycemic load, or even the glycemic index, of foods on the nutrition label but there are some general steps you can take to lower the overall glycemic load of your diet.



Replace highly refined carbohydrates (found in many snacks like pretzels and chips) with whole grains, lentils, legumes, nuts or peanuts. Include more fruits, vegetables, low-fat dairy, peanuts, and peanut butter in your diet, all of which are relatively low in both glycemic index and glycemic load.

## Low GI Foods

Peanuts	14
Non-Fat Yogurt	14
Soybeans	18
Cherries	22
Apples	38

## High GI Foods

Pretzels	83
Corn Chips	72
Vanilla Wafers	77
Graham Crackers	74
Saltines	74



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