

# ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle

## The Type 2 Diabetes Crisis

The numbers are climbing...1 in 10 adult Americans have type 2 diabetes mellitus (T2DM); about 1/3 of these are undiagnosed and untreated. One in 3 adults have pre-diabetes or metabolic syndrome—most will progress to T2DM. And things are even less promising for the younger generation with T2DM continuing to rise with no end in sight.

In T2DM, the body's ability to move glucose from the bloodstream into the cells to be used for energy becomes impaired. The process begins when we eat and much of the food is broken down and converted to a form of sugar called glucose—the main source of fuel for the body. The glucose or blood sugar flows through the bloodstream to reach the cells. Blood sugar requires insulin, a hormone produced by the pancreas, to enter the cells. When food

is consumed, the pancreas is directed to produce the right amount of insulin to move blood sugar from the bloodstream into the cells where it can be used for energy. When cells become resistant to insulin, the pancreas secretes more insulin in an effort to maintain blood sugar within a normal range. This extra production of insulin can hide the fact that there is a problem for years because

blood sugar doesn't spike out of control. Eventually though, there comes a point when the pancreas can no longer keep up with the demand and blood sugar levels rise above normal. [Check your risk now.](#)

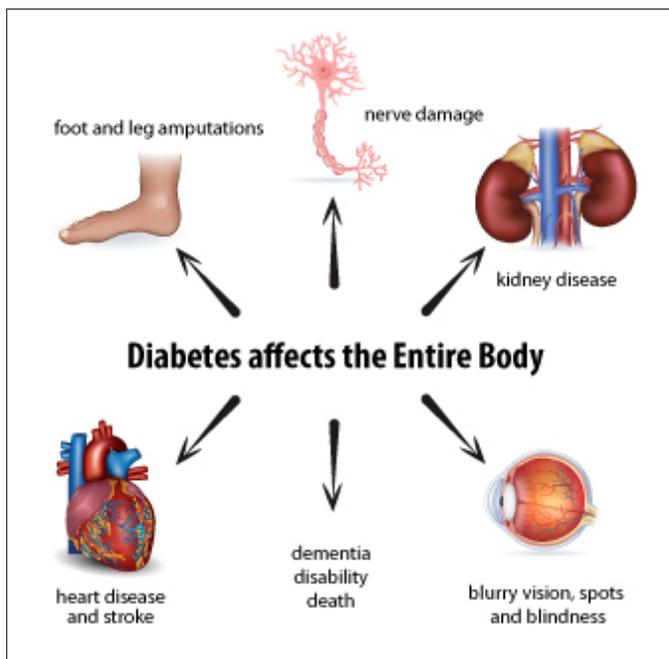
Fueling the increase in T2DM is the steady rise in obesity and an aging population. Diabetes is widely recognized

amount of insulin, resulting in high blood sugar levels. Someone who has type 1 diabetes must take insulin to live. Type 1 diabetes accounts for only about 5-10% of the cases of diabetes. It most often develops in children or young adults.

**Type 2 Diabetes** occurs when the cells become resistant to insulin and are unable to properly use the insulin that is produced. It is the most common type of diabetes and is associated with older age, obesity, sedentary lifestyle, family history of diabetes, history of metabolic syndrome or gestational diabetes. Type 2 diabetes may go undiagnosed because the symptoms of fatigue, nausea, unusual thirst, frequent urination or the slow healing of wounds can develop gradually, or there may be no symptoms at all.

**Gestational Diabetes** develops in 4% of all pregnancies. The hormonal changes that take place during pregnancy require the pancreas to secrete about three times the normal amount of insulin. If the pancreas is not able to produce the additional insulin, or if the cells become resistant to the insulin that is produced, blood sugar levels rise. Blood sugar levels usually return to normal within a few weeks after delivery, but women with gestational diabetes have a 60% chance of developing diabetes later in life.

**Pre-Diabetes** occurs when blood glucose levels are higher than normal but not high enough for a diagnosis of type 2 diabetes. There are twice as many Americans who have pre-diabetes than diabetes.



as a leading cause of death and disability. It causes long-term complications that impact almost every area of the body, including blindness, heart disease, stroke, kidney disease, nerve damage, and the need for amputations.

### DIABETES TERMINOLOGY

**Type 1 Diabetes** occurs when the pancreas fails to produce an adequate

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*Continued from page 1*

**Metabolic Syndrome** increases the risk for type 2 diabetes and cardiovascular disease. It is characterized by obesity in the middle section of the body, insulin resistance, often high triglyceride levels in the blood, low HDL (good) cholesterol, high blood pressure, polycystic ovary disease, and impaired glucose tolerance.

### PREVENTION IS KEY

The good news is that there are steps you can take to keep from getting T2DM.

**Weight:** If you are in a healthy weight range, stay there. If you are overweight, a modest weight loss can prevent you from developing diabetes. If you are not able to lose weight, try not to gain weight. If you have a BMI of 35 or higher, consider bariatric surgery.

**Activity:** 30 minutes a day of brisk walking or other forms of exercise reduces your risk significantly.

**What You Eat:** Avoid sugary drinks (including 100% fruit juice, pop, and other sweetened drinks)—just one serving a day can increase your risk of diabetes by 20-30%.

Love your java? Just 2-3 cups a day (8 oz each) can decrease your diabetes risk by 11%. Drink black or use non-calorie sweetener and sugar-free creamers or syrup to keep sugar and calories to a minimum.

Low-fat dairy products, green leafy vegetables and magnesium-rich foods; whole grains, leafy greens, beans, and nuts, are linked to lower diabetes risk and are part of an overall healthy diet.

Higher levels of vitamin D may decrease your risk of developing diabetes. Have your vitamin D level checked and if necessary follow your doctor's recommendation for supplements.

### SEVERE OBESITY AND DIABETES

As weight increases so does the likelihood of T2DM. Not surprisingly, reaching and maintaining a healthy weight is the most effective treatment for T2DM. If only it were that simple—most find that diet, exercise and even prescription

medications are not effective for long-term weight loss. Fortunately, there is a safe, long-term treatment for both severe obesity and T2DM—bariatric surgery.

**Metabolic and bariatric surgery is the most effective treatment for T2DM among individuals who are affected by obesity and may result in remission or improvement in nearly all cases.**

— ASMBS —

Bariatric surgery can have a dramatic impact on T2DM and pre-diabetes. In fact, studies show that more than 80% of type 2 diabetics having the roux-en-y

gastric bypass (gastric bypass) no longer have elevated blood sugar levels. Blood sugar levels improve almost immediately in many people—even before significant weight is lost. Ongoing research is seeking to explain

this, with the reduction of caloric intake and changes in gut hormones being at least part of the puzzle. Gastric bypass is a surgery that causes food to bypass most of the stomach and the top portion of the small intestine.

Another surgery, the gastric sleeve (also referred to as sleeve gastrectomy or vertical gastrectomy), involves the removal of a large section of the stomach, leaving a thin banana or sleeve-shaped stomach. This procedure also has high T2DM remission rates—more than 60%.

**For the first time in diabetes history we have a concrete chance to create a major shift in treatment goals: from improving life with diabetes to the hope of a life without it.**

— Francesco Rubino —

Type 2 diabetes is a health problem that touches many of us. Take steps today to reduce its impact.



## Crispy Lemon Garlic Chicken

Cooking spray  
 1/2 cup Italian-style bread crumbs  
 1/2 teaspoon garlic salt  
 1 teaspoon lemon pepper  
 1/4 cup lemon juice  
 2 tablespoons olive oil  
 1# chicken breasts, boneless, skinless

Preheat oven to 375°F. Spray shallow baking pan with cooking spray. Combine bread crumbs, garlic salt and lemon pepper in reclosable food storage bag. Combine lemon juice and oil in another reclosable food storage bag.

Add chicken to bag with lemon juice mixture; toss to coat. Place chicken breasts one at a time in the bag with the crumb mixture; shake to coat and then place in single layer in baking pan. Sprinkle remaining crumbs over chicken.

Spray tops of chicken with cooking spray. Bake 20 to 25 minutes or until chicken is no longer pink in centers (165°F). Makes 4 servings.

**Nutrition information per serving:** 202 calories, 27 grams protein, 6 grams carbohydrate, 7 grams fat, 306 mg sodium.

## Spicy Kale Chips

4 cups curly kale leaves, torn and stems removed  
 2 tablespoons olive oil  
 1/2 teaspoon salt  
 1/2 teaspoon chili powder and/or ground cumin

Preheat oven to 300 degrees F. Line two large baking sheets with parchment paper. Arrange kale in a single layer on prepared baking sheets, allowing space between the leaves. Brush with oil; sprinkle with chili powder and/or cumin. Bake for 20 to 25 minutes or until crisp. Cool for 30 minutes before serving. Makes 6 servings.

**Nutrition information per serving:** 63 calories, 2 grams protein, 5 grams carbohydrate, 5 grams fat, 217 mg sodium.



## In the News



### Stress and High-Fat Diet Slows Metabolism

**W**hat do you tend to reach for when you're stressed? If it is high-fat comfort foods, be aware that your food selection could cause your metabolism to slow and promote weight gain.

Researchers found that women who reported a stressful event on the previous day responded differently to a meal consisting of 930 calories and 60g of fat than those who didn't report a stressful event. The scientists measured metabolic rate, blood sugar, triglycerides, insulin and the stress hormone cortisol.

On average, the women in the study who reported one or more stressors during the previous 24 hours burned 104 fewer calories than non-stressed women in the seven hours after eating the high-fat meal, a difference that could result in weight gain of almost 11lbs in one year.

This study may raise more questions than it answers. Don't you wonder what would have happened if high-carbohydrate foods would have been used in the study in place of high-fat foods, and whether some type of stress management technique would have changed the outcome? The study does point out the impact that stress can have on weight gain and how very important it is to develop good coping and stress-management skills—because whether we like it or not, stress happens.

## Reward Yourself

*This month, you could earn a SPECIAL GIFT for your "It Worked For Me" tips or recipes! Just submit as many recipes and "It Worked For Me" tips as you like. The most original and creative will be awarded a special gift from our online store. Include your name and contact info with your entry – make sure your recipes follow Barix nutritional guidelines.*

*Tips must be submitted by August 31, 2014. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at [dhart@foresthealth.com](mailto:dhart@foresthealth.com).*