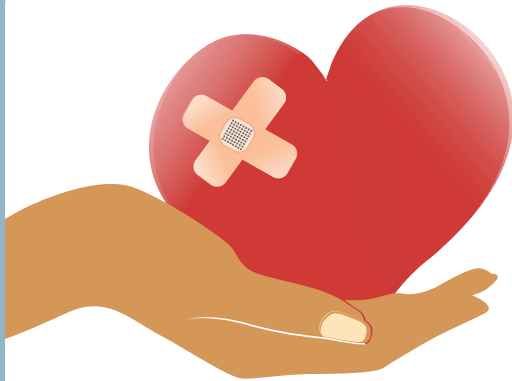


ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle



Bariatric Surgery & Diabetes

The statistics are staggering...A child born in the year 2000 has a 1 in 3 chance of developing diabetes in his or her lifetime. Twenty-four million people in the United States and over three million people in Canada have diabetes. It is estimated that 25% of those with diabetes are undiagnosed and untreated. Even more concerning are the 90 million people with pre-diabetes or metabolic syndrome — sure to progress to diabetes if lifestyle habits are not changed. Diabetes increases in prevalence with age; however, the number of young adults and children with diabetes is also growing at an alarming rate. Diabetes is widely recognized 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 amputations.

Diabetes occurs when the body does not produce or properly use insulin. This process begins when we eat and most of the food is broken down and converted to a form of sugar called glucose—the main source of fuel for the body. Glucose flows through

the bloodstream to reach the cells. Glucose 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 glucose from the bloodstream into the cells where it can be used for energy. When the pancreas secretes little or no insulin or when the cells are resistant to the insulin that is produced, blood sugar levels rise. The body is unable to utilize its main fuel source, glucose, despite its abundance in the bloodstream.

Diabetes is a complex disease with both genetic and environmental factors. It has been divided into different types.

Type 1 Diabetes is when the pancreas fails to produce an adequate 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, a sedentary lifestyle, a family history of diabetes, a 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 of 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.

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Metabolic Syndrome increases the risk for type 2 diabetes and cardiovascular disease. It is associated with 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.

Bariatric surgery can have a dramatic impact on type 2 diabetes and pre-diabetes. In fact studies show that more than 80% of type 2 diabetics having the roux-en-y gastric bypass no longer have elevated blood sugar levels. The blood sugar level improves almost immediately—even before significant weight is lost. Studies have found this works because the food does not pass through the first section of the small intestine (the duodenum) and diabetes is sent into remission. Scientists are also looking at the negative energy balance and changes in gut hormones following surgery to understand the mechanism of this extraordinary ‘cure’ for type 2 diabetes.

“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

In a small study (60 patients), adjustable laparoscopic banding was found to resolve type 2 diabetes. In this study, 87% of those who had mild diabetes and lost at least 10% of their body weight were able to stop taking all diabetic medications within a year of surgery. The mechanism here is simple; adjustable laparoscopic banding helps people to lose weight, and weight loss resolves type 2 diabetes.

RECIPES

TACO CASSEROLE

Submitted by JoAnn M.

- 2 lbs lean ground turkey
- 1 pkg taco seasoning mix
- 1 16oz can fat free refried beans
- 2 oz taco chips
- 2 cups fat free sour cream
- 1 cup salsa
- 8 oz low fat shredded cheddar cheese

Preheat oven to 350 degrees F. Cook and drain ground beef. Add taco seasoning to ground beef according to directions on package. Mix in refried beans. Spray the bottom and sides of a 9 x 13 pan. Crush taco chips and place 1/2 in the bottom of the pan. Layer 1/2 of meat/bean mixture, 1/2 of sour cream, 1/2 of salsa and 1/2 of cheese. Repeat layering. Top with remaining crushed taco chips. Serve with chopped lettuce, tomato, onion and green pepper if desired. Makes 8 servings.

NUTRITION INFORMATION PER SERVING: 392 calories; 28 grams protein; 15 grams fat; 30 grams carbohydrate; 1116 mg sodium. *Note: consider using low sodium taco seasoning, unsalted taco chips and low sodium refried beans to lower the sodium content.*



CHICKEN OR TURKEY FRUIT SALAD

Submitted by JoAnn M.

- 4 cups cooked chicken or turkey, chopped
- 1 cup apples, chopped
- 1 cup seedless grapes
- 1 cup pineapple tidbits (packed in juice), drained
- 1 cup chow mein noodles
- 1/2 cup fat free Miracle Whip

Place cookies in a plastic bag and combine all ingredients. Refrigerate until ready to serve. Makes 8 servings.

NUTRITION INFORMATION PER SERVING: 253 calories; 28 grams protein; 5 grams fat; 22 grams carbohydrate; 464 mg sodium.

The roux-en-Y gastric bypass may be an answer for those who are obese and diabetic, but what about those with type 2 diabetes who are not 100# or more overweight? The National Institute of Health guidelines for the roux-en-y gastric bypass require that a person be severely to morbidly obese to qualify for the surgery. Those with type 2 diabetes who are only mildly obese do not qualify for surgery. Clinical trials on diabetics who are not obese have begun. For these patients with a lower body mass index, the focus shifts to a diabetes specific procedure, often leaving the stomach intact, but bypassing the first section of the small intestine. In

Brazil, Ricardo Cohen has performed surgery on 65 non-obese diabetics and produced a full remission in 65% and a partial remission in 12%.

Several diabetes experts acknowledge that the procedure shows promise, yet stress that more controlled clinical trials are needed to validate the effectiveness and safety for diabetics with lower body weights. Others are looking to understand the exact mechanism that causes the surgery to alleviate diabetes so that medications can be found to mimic the effects. Very promising treatments or cures are likely to result from these exciting findings.

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RECONSTRUCTIVE SURGERY

To receive a **FREE RECONSTRUCTIVE SURGERY** guide, call 800-282-0066 or send us an email at rc@barixclinics.com with your name and contact information. Our reconstructive surgery program is currently performed at our centers in Michigan, Ohio, and Pennsylvania. *Call us today for more information!*

OTHERS CARE PLEASE SHARE

Please tell us about the lives that have changed because you shared your weight-loss story. Submit your story to http://www.barixclinicsstore.com/share_your_story.html. What you have to say may be printed in this publication or on our website and can serve as inspiration to all.

QUESTIONS ABOUT FINANCING YOUR SURGERY?

Call a **Barix Patient Service Representative** at 800-282-0066

IN THE NEWS

RA recent study in Montreal



found that gastric bypass surgery reduces the risk of developing cancer by 80%. In this study, the incidence of breast cancer was reduced by 85%, colon cancer by 70% and there was also a reduction in the incidence of pancreatic cancer, skin cancer, uterine cancer and non-Hodgkin's lymphoma.

Obesity is a well-known risk factor for many types of cancer. This study indicates that weight loss through gastric bypass reduces this risk significantly.



Have a question? Need to talk to someone who really understands? Want to find accountability? Need support? The **Barix Message Boards** are a great place to meet all these needs. There are 988 registered users and a lot of activity. That's great news for you. Just link over (<http://www.websitoolbox.com/mb/barixclinicsstore>) and learn as you read the posts. Then register and post your own questions, experiences, replies and support. A positive place to get the answers and support you need from other Barix patients. Join us!

IT WORKED FOR ME

Excerpts from the Barix Clinics Store Message Board

QI was wondering if anyone else is having a problem with missing the yummy summer time drinks — like real lemonade, Dairy Queen Mr. Misty's, Kool-Aid with real sugar, cold kids' juice boxes, Starbucks iced coffee summer drinks etc. I do not like fake sweeteners. So I just go without and continue to drink my water.



A Summertime No Added Sugar Drinks:

- Iced tea
- Crystal Lite Lemonade
- Diet Hawaiian Punch packets for water bottles
- An electric ice machine (Wal-Mart) and sugar free syrups
- Ocean Spray Diet Grape Juice— make into ice cubes and blend for a slushy treat
- 100% juice boxes
- Make your own juice
- Strong coffee, chilled, ice and sugar free coffee cream (hazelnut, vanilla) blended for a yummy frozen latte
- Sweeten drinks with 100% fruit juice frozen concentrate
- Diet root beer and a small scoop of no added sugar ice cream
- Minute Maid diet drinks in cans (look in the pop section)

CONSIDERING SURGERY

You've made the decision to reach your weight loss goals through bariatric surgery—now is a great opportunity to get your body in the best shape possible prior to surgery. You will decrease fatty stores, improve your recovery time, and begin healthful habits for a lifetime. Work with your family physician to find a safe plan for your specific needs.



Vitamin and mineral supplementation is a necessity following surgery due to the limited food intake.

Daily vitamin supplementation also gives you a boost prior to surgery. Take a multiple vitamin and mineral supplement daily.

Regular exercise is essential to good health before and after surgery. Walk or find another activity that you enjoy.

Eat right. It's never too soon to choose foods that will nourish your body and get you in a weight loss mode. Choose lean meat/fish/poultry, low fat dairy, fresh fruits, vegetables and whole grains. Keep your portions small. Find healthy substitutes for high sugar and fat snacks. Losing weight prior to surgery will shrink your liver, making your surgeon's job easier. Some surgeons will ask you to lose a specific amount of weight or follow a pre-surgery diet—check with your surgeon for specifics.



The Barix Nutritionists look forward to meeting with you at your pre-admission testing—usually about a week before your surgery. If you have any questions or need additional guidance prior to that time, please contact us.



"The notion that a surgical procedure for diabetes is very foreign to how **diabetes has been treated** for 100 years. It has been treated with **shots and pills**. The idea of surgery sweeping in and rendering 80% of patients with a **virtual cure** is a very radical concept."

Dr. Schauer
Cleveland Surgeon



REWARD YOURSELF

This month, you could earn a \$25 GIFT CERTIFICATE 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 \$25.00 gift certificate. Include your name and contact info with your entry—make sure your recipes follow Barix nutritional guidelines. Tips must be submitted by July 31, 2008. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at dhart@foresthealth.com.

YOUR RECIPE RESOURCE

We're working hard to put all of our recipes in one spot on the website. All of the recipes from the 56 issues of *On Track With Barix* and *Guide to Good Health* will be in one easy to use location. You will be able to search for an ingredient and print a single recipe. This area will be available, but "under construction" for the next few weeks.

If you need a new breakfast idea, something to take to your family reunion or a new way to dress up chicken, check it out at http://www.barixclinicsstore.com/recipe_main.html.



"Clearly, **more work** needs to be done before everyone rushes to bariatric surgery to get their **diabetes fixed**."

Myrlene Staten
of the National Institute
& Digestive and Kidney
Diseases



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