

# ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle



## THE BRAIN ~ BODY CONNECTION

same dopamine sites in the brain; overweight people are correcting the deficit with food rather than alcohol or drugs.

Addictive behaviors do not simply provide pleasure. If that were the case, these people should be the happiest people walking around. The addictive behaviors seem to tell our bodies what to focus on. Nora Volkow, the director of the National Institute on Drug Abuse, is uncovering how the brain focuses on specific things. Dopamine is involved in learning, memory and motivation. It helps us to pay attention to information that we need to survive. Overeaters may compensate for a sluggish dopamine system by turning to the one thing that gets their neurons pumping—food.

Addictive behaviors like obesity are very complex. It would be too simplistic to assume that a depressed dopamine level is the only contributing factor. Dr Volkow states, “What motivates us to eat is clearly much more than hunger. We need to expand the way we think about eating.”

Following surgery, a sense of exhilaration abounds as rapid changes occur. The need for medications decreases quickly, health problems subside, and clothing is replaced with smaller and smaller sizes. There is an excitement and a confidence that once and for all the excess pounds that have been such a burden in so many ways will be shed. A more active lifestyle with healthy food choices is embraced. Life is good. But what about those who previously used food to impact brain chemistry?

After bariatric surgery, it is difficult to consume sufficient amounts of food to impact dopamine levels to the degree prior to surgery. Do people seek different means to raise dopamine levels? There have been estimates that from 5% up to 30% of post bariatric surgery patients develop new addictive behaviors. *Addiction transfer* is a term that became associated with those having undergone bariatric surgery a few years ago. Rather than a food addiction, people switch to other addictive substances or compulsive behaviors such as alcohol, drugs, gambling, or shopping. Most experts

**H**ave you ever felt that you have more food cravings than other people or that you need to eat to feel emotionally okay? Recent research may shed some light on that phenomenon. Researchers found abnormally low levels of the neurotransmitter dopamine in the brains of obese people. They found similarly low dopamine levels in people who abuse drugs or alcohol. They hypothesize that the depressed dopamine level may lead to cravings as the body attempts to boost dopamine to a normal level. People may seek to elevate the depressed dopamine levels with food, alcohol or drugs. Those who choose food as their method may end up obese. Studies have found that obese adults have a 25% lower likelihood for substance abuse. This makes sense if food, alcohol or other drugs trigger the

agree that bariatric surgery does not cause an addiction. Rather, the addictive personality traits or altered brain chemistry present prior to bariatric surgery remain after the surgery and once the weight is lost.

Alcohol use can be particularly troublesome after gastric bypass surgery. Because of the physical alterations to the digestive system, there is a faster, more profound, and longer lasting impact from alcohol. This occurs because alcohol empties out of the pouch into the small intestine almost immediately and is quickly absorbed. Bariatric surgery patients may be more sensitive to the effects of alcohol due to a lower caloric intake. To compound the effects, the liver may have a more difficult time clearing the circulating alcohol from the bloodstream resulting in a prolonged impact. Additionally, the post bypass patient is at greater risk for low blood sugar or severe hypoglycemia following alcohol consumption. Symptoms of hypoglycemia can be a loss of balance, slurred speech, poor vision and confusion. Because these could easily be mistaken for symptoms of alcohol intoxication, treatment may be delayed.

To sum it up, bariatric surgery provides a physical tool to enable people to reach and maintain a healthy weight. It does not cause addictions; however, it also does not change underlying factors that may lead to addictive behaviors. Work with your primary care physician and therapist if new addictive behaviors emerge following surgery.

As the researchers continue to put the puzzle pieces together, there are some things that you can do to boost your dopamine and serotonin (another neurotransmitter) levels, decrease your need for addictive behaviors and feel good. Rather than substituting another destructive behavior for a food addiction, fill your life with

healthful habits that support your weight loss. Dr. Volkow recommends stimulating your brain by connecting with your world in meaningful ways; learning and getting excited about the things around you—you'll be less likely to need an artificial boost.



**“Emotion always has its roots in the unconscious and manifests itself in the body.”**

*~Irene Claremont de Castillejo~*

### HEALTHFUL HABITS THAT POSITIVELY IMPACT BRAIN CHEMISTRY:

- Exercise increases dopamine and serotonin levels
- Stress reduction increases serotonin levels
- Adequate sleep increases serotonin levels
- Adequate nutrition increases serotonin levels
- An interesting life/stimulating job/active lifestyle increases dopamine levels



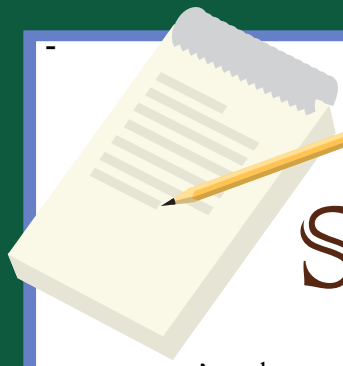
## HEALTHFUL TIDBITS

Consider adding more beans to your diet. They are versatile, tasty, full of fiber and do not cause spikes in your blood sugar level. If you substitute beans for meat at a meal, you will consume less fat. The fiber in beans causes them to be digested more slowly, keeping you satisfied longer.

Beans are also a good source of protein and antioxidants. If that isn't enough, research indicates that eating beans may help to protect you against certain types of cancer and heart disease.

Canned beans make quick and easy meals or snacks.

- Rinse black beans and add to salsa—eat with baked tortilla chips or flour tortillas.
- Mix fat free refried beans with taco seasoning and a small amount of fat free sour cream. Makes a great dip for vegetables, baked tortilla chips or pita bread.
- Add garbanzo beans (chick peas) to salads.
- Hummus makes a great lunch or snack.
- Make chili with extra beans and leave out the meat.
- Substitute a black bean burger for a hamburger.
- Take no-added-sugar baked beans to your next picnic or gathering. Substitute brown sugar with Splenda or sugar free syrup.



# Considering SURGERY

You've done your research, had a consultation, maneuvered through the insurance requirements and finally have a date! Congratulations! Only one thing left: pre-admission testing. The purpose of pre-admission testing is to make sure that you meet the requirements to safely proceed with surgery, to provide instructions and to provide an opportunity to ask questions. You will meet with people from several departments.

## Pre-admission testing includes:

- **Lab:** Both blood and urine specimens will be collected.
- **Radiology:** The technician will take a chest X-ray and an ultrasound of your gallbladder.
- **Respiratory Therapy:** The respiratory therapist will perform tests to insure that your lungs are functioning adequately and that the cells of your body are receiving adequate oxygen. They will instruct you on the use of the incentive spirometer—a device that

helps you to breathe deeply and greatly reduces the risk of developing pneumonia following surgery. An EKG will also be performed to determine heart function.

- **Nutrition:** The dietitian will provide information on how and what to eat after surgery. You will be provided with an opportunity to ask questions. Your family members are invited to participate in this aspect of pre-admission testing. The *Guide to Good Health* education binder will be provided.
- **Nursing:** The nursing staff will obtain vitals (height, weight, blood pressure), update your medical information and provide pre-surgery instructions. Many of the questions that you have can be answered by the nursing staff.
- **Physician:** The physician will conduct a physical exam and utilize all of the data obtained to determine if you meet the requirements to safely proceed with surgery.

# WHAT'S NEW?

Matrix 5.0 has come out with a new flavor—Cookies and Cream. For those of you who love ice cream, this tastes just like Cookies and Cream ice cream. It even has little bits of chocolate cookie. Try it by mixing with milk and freezing. What a great way to get in your protein. Matrix 5.0 also comes in Simply Vanilla, Perfect Chocolate and Orange Cream flavors. Available at your doctor's office or online at [www.barixclinicsstore.com](http://www.barixclinicsstore.com).



“Why do we pay for psychotherapy when massages cost half as much?”

~Jason Love~



## IT WORKED FOR ME

Marinate boneless, skinless chicken breasts in low fat Italian dressing. Cook on the grill. Slice and put portions into plastic storage bags. Use on salads, wrap sandwiches, heat up and eat with a side of veggies, or just snack from the bag. It's a great high protein, low sugar food to have on hand for your entire family.

“In a disordered mind, as in a disordered body, soundness of health is impossible.”

~Cicero~

**SUBSCRIBE to**  
**On Track With Barix**  
[www.barixclinicsstore.com/newsletter.html](http://www.barixclinicsstore.com/newsletter.html)

# 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 April 30, 2007. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at [dhart@foresthealth.com](mailto:dhart@foresthealth.com).

## 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/id190.html>. What you have to say may be printed in this publication or on our website and can serve as inspiration to all.

## REQUEST A FREE BROCHURE FOR YOU OR A FRIEND

at 800-282-0066, or [www.barixinfo.com](http://www.barixinfo.com)

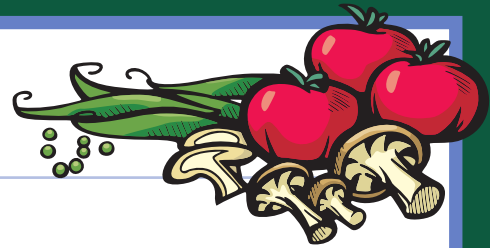
## QUESTIONS?

### ABOUT FINANCING YOUR SURGERY...

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



# RECIPES



## BLACK BEAN SALAD

- 2 (15 ounce) cans black beans – rinsed and drained
- 1 (2 1/4 ounce) can sliced ripe olives – drained
- 1 1/2 cups chopped seeded tomatoes (about 2 medium)
- 1/3 cup shredded cheddar cheese
- 1/4 cup chopped green onions (2 to 3 medium)
- 1/4 cup chopped fresh cilantro
- 2 tablespoons lime juice
- 1 teaspoon ground cumin
- 1/4 teaspoon pepper
- 4 cups chopped salad greens (about 6 ounces)

Mix beans, olives, tomatoes, cheese, green onions and cilantro. Mix lime juice, cumin and pepper; toss with bean mixture. Serve on chopped salad greens. Makes 4 servings.

**NUTRITION INFORMATION PER SERVING:** 256 calories; 16 grams protein; 4 grams fat; 37 grams carbohydrate; 816 mg sodium.

“It is confidence in our bodies, minds and spirits that allows us to keep looking for new adventures, new directions to grow in, and new lessons to learn – which is what life is all about.”

~Oprah Winfrey~  
Oprah Magazine  
May 2004

## BAKED BEANS

- 4 (15 ounce) cans navy beans
- 1/2 pound bacon, chopped
- 1 medium onion, chopped
- 1/4 cup medium mustard
- 1/3 cup Splenda®
- 2 Tablespoons molasses

Preheat oven to 350 degrees F. Drain navy beans and reserve 1 cup liquid. Fry bacon in large skillet. Remove bacon and reserve half of the bacon fat. Fry onion in the reserved fat and cook until translucent. Stir in beans and remaining ingredients. Pour into a 3-quart baking dish. Bake in preheated 350 degree F oven for 45 minutes. Makes 18 servings.

**NUTRITION INFORMATION PER SERVING:** 140 calories; 9 grams protein; 21 grams carbohydrate; 3 grams fat; 520 mg sodium.



## RECONSTRUCTIVE SURGERY

To receive a **FREE RECONSTRUCTIVE SURGERY** guide, call 800-282-0066 or send us an email at [rc@barixclinics.com](mailto: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!