

ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle



Carb Q&A

Understanding wise food choices

To carb or not to carb is still a hot topic after weight loss surgery. Questions remain and additional research is needed to explain the complex interactions between carbohydrate intake, appetite, caloric intake, satiety and weight control. Scientists are looking into these questions and providing us with more information to use as we choose the diet that leads to improved health. It is important that we base our health decisions on science and common sense rather than hearsay and fads. So, we'll start with a basic review of nutrition, then look at what the latest research is showing us and finish up with some common sense recommendations.

Carbohydrates or carbs are classified as simple or complex based upon the size of the molecule. Simple carbs provide energy quicker. Their small molecules are broken down and absorbed quickly. Examples of simple carbs are sugar, honey, syrup, sweets, fruit, fruit juices, and the sugar in dairy products. Foods containing highly processed carbohydrates (which have had the fiber removed and have lost many other nutrients along the way) are also absorbed quickly by the body (think white bread, white rice, fruit snacks).

HIGHER GLYCEMIC INDEX

- Simple carbs
- More processed, refined, finely ground
- Less fiber
- Ripe fruit, fruit juice
- Low fat content
- Low protein content
- Cooked or prepared food
- Foods/beverages consumed quickly

LOWER GLYCEMIC INDEX

- Complex carbs
- Less processed, refined, coarsely ground
- More fiber
- Younger whole fruit
- Higher fat content
- Higher protein content
- Raw food
- Foods/beverages consumed slowly

Complex carbs are composed of strings of simple carbohydrates. They provide energy to the body more slowly than simple carbs and have a less dramatic impact on blood sugar levels. Complex carbohydrates are found in whole grain breads and cereals, pasta, beans, potatoes, and vegetables. If you eat more carbohydrates than your body immediately needs, some are stored within the muscle cells and liver as glycogen, which the body can rapidly convert to energy as needed. The rest is converted to fat and stored in the fat cells.

In addition to simple or complex, another way to classify carbohydrates is the glycemic index. The glycemic index measures the impact that a food or beverage containing carbohydrates has on blood sugar. Glycemic index values

range from 1-100: the higher the number, the faster the impact. Simple carbs and highly processed foods typically have a higher glycemic index. Complex carbs and less-processed foods typically have a lower glycemic index. Other factors, such as speed of consumption and food preparation, can also impact the rate and degree to which foods/beverages cause blood sugar levels to rise.

Protein is mainly used for protein synthesis—needed in many different forms in the body. It can be converted to glucose (blood sugar), if needed, through a process called gluconeogenesis. This process provides a slower, steadier energy source than carbohydrates. Protein is found in meat, fish, poultry, dairy products, and legumes.

Cont. from page 1

Fat in the diet is also used for energy. It provides the slowest, longest-sustaining form of energy. It can also be converted to ketones in times of starvation or if adequate carbohydrates are not consumed. Fat is found in butter, oil, margarine, salad dressing, meat, fish, poultry, and some dairy products.

Recent research indicates that it may be prudent to consider the types and amounts of carbohydrates consumed after bariatric surgery.

- A retrospective study conducted at the University of Brasilia, Brazil found that patients consuming a higher amount of carbohydrates (measured in grams) and a higher glycemic load (a number taking into account the glycemic index of a food, and the portion size consumed) lost less weight than those with a higher protein intake in the year following gastric bypass.¹

- A small study published in the October 2007 issue of the Journal of Surgical Research found no significant weight loss difference in gastric bypass patients following either a low fat diet or a low carbohydrate diet in the first year following surgery.²
- Researchers in Brazil found that nutrition and lifestyle intervention was effective at reducing weight in a small study of those with previous weight gain post gastric bypass surgery. The nutrition interventions included a low glycemic load (45% of calories from carbohydrates—emphasis on whole grains), higher protein (80 grams for women / 100 grams for men) and low fat (20% of calories) diet. It also included 3 servings of dairy foods, a fiber supplement, an omega-3 supplement and additional vitamin / mineral supplementation. Physical activity was highly encouraged.³

- “Timing is everything,” concluded a study by Purdue University. They found that when people ate food high in protein (eggs and lean Canadian bacon were used in the study) for breakfast, they maintained a greater sense of fullness throughout the day, compared to when more protein was eaten at lunch or dinner.⁴
- Eating two eggs for breakfast, as part of a reduced-calorie diet, helps overweight adults lose more weight and have more energy than those who eat the same number of calories from a bagel, according to a study published in the August 2008 issue of the International Journal of Obesity.⁵

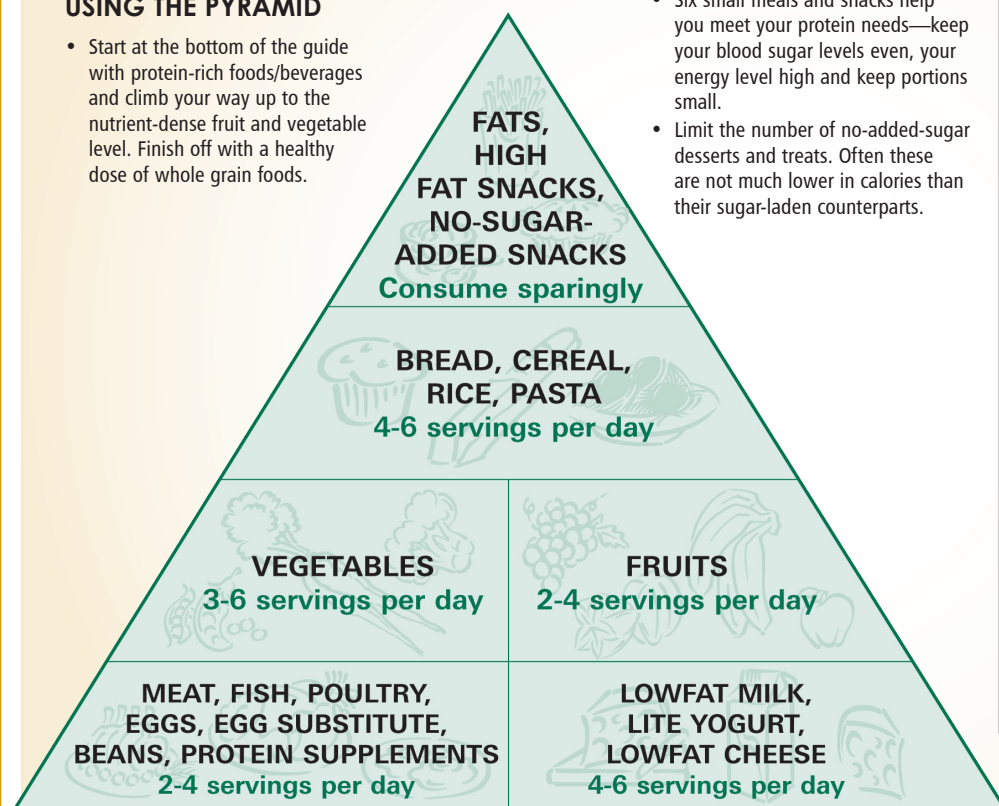
(Continued on page 3)



BARIX NUTRITION GUIDE

USING THE PYRAMID

- Start at the bottom of the guide with protein-rich foods/beverages and climb your way up to the nutrient-dense fruit and vegetable level. Finish off with a healthy dose of whole grain foods.



- Six small meals and snacks help you meet your protein needs—keep your blood sugar levels even, your energy level high and keep portions small.
- Limit the number of no-added-sugar desserts and treats. Often these are not much lower in calories than their sugar-laden counterparts.

SERVING SIZES

Meat, Fish, Poultry, Eggs, Egg Substitute, Beans, and Protein Supplements:

Meat, Fish, Poultry	2 oz
Eggs	2 each
Egg Substitute	1/2 cup
Beans	1/2 cup
Protein Supplements	1 scoop

Lowfat Milk, Lite Yogurt, Lowfat Cheese:

Lowfat Milk	4 oz
Lite Yogurt	4 oz
Lowfat Cheese	1/2 oz

Bread, Cereal, Rice, Pasta:

Bread	1/2 slice
Bagel	1/4
Pasta	1/4 cup
Rice	1/4 cup

Vegetables:

Fresh or Frozen	1/4 cup
Raw Leafy Greens	1/2 cup

Fruits:

Fresh, Canned or Frozen	1/4 cup
-------------------------	---------

Fats, High-Fat Snacks, No-Sugar-Added Snacks:

These foods are a concentrated source of calories and provide few other nutrients. Consume sparingly.

FOOD	SERVING SIZE	GLYCEMIC INDEX	GLYCEMIC LOAD
Meat/Fish/Poultry	2 oz	0	0
Broccoli	1/2 cup	0	0
Almonds	17 each	0	0
Carrot, raw	1 large	92	1
Grapes	1/2 cup	43	3.2
Peas	1/2 cup	48	3.4
Watermelon	1/2 cup	72	3.6
Cantaloupe	1/2 cup	65	3.9
Pineapple, raw	1/2 cup	66	6
Sweet Potato	1/2 cup	54	6.2
Apple, with skin	1 med	39	6.2
Oatmeal, instant	1/2 cup	65	6.8
Pinto Beans	1/2 cup	39	6.8
Rice Krispies cereal	1/2 cup	82	12
Orange Juice	1 cup	57	14.25
Prunes	1/2 cup	29	17.1
Corn Bread	1 pc	110	30.8
Corn, yellow	½ cup	55	31
Potato	1 med.	104	36.4

COMMON SENSE RECOMMENDATIONS

Foods from the dairy, vegetable, fruit and grain groups contain significant amounts of carbohydrates and important vitamins and minerals essential to good health. Drastically cutting carbs from the diet means healthy foods from these groups are eliminated from the diet—leaving out fiber, vitamins, minerals and nutrients essential to good health.

Although drastically cutting carbs from the diet is not supported as an effective or healthy method of weight loss, it makes sense to consume carbohydrates wisely.

- Include a good source of protein with each meal and consume it first.
- Limit portions to ¾ cup of food per meal.
- Start your day with a high protein breakfast.
- Choose foods with little or no processing.
- Choose foods with a lower glycemic index or low glycemic load.
- Remember—not all carbs are created equal: there is a big difference between a Twinkie® and a serving of steamed asparagus.
- Follow the Barix Food Guide shown on the previous page, to help you choose a balanced diet that will promote good health and that can be sustained for a lifetime.



The glycemic index measures how quickly foods break down into simple sugar and impact your blood sugar level. In general, choose foods with a glycemic index of 55 or less.

The glycemic load combines the amount of carbohydrates in each serving and the glycemic index of the food. For example, a raw carrot has a very high glycemic index of 92, but there are not a lot of carbohydrates in a carrot, so it does not have a great impact on your blood sugar level. It has a glycemic load of only 1. Yellow corn, on the other hand, breaks down quickly to simple sugar; there is a lot of carbohydrate in a serving, so it will have a fast and a big impact on your blood sugar level. It has a glycemic load of 32 for a ½ cup serving. Consume 1 cup of yellow corn and the glycemic load is 62. Choose most foods with a glycemic load of 10 or less.

To put it all in balance, fat has an important place in a healthy diet. Choose the source of fat carefully to get the health-promoting effects. Increase your intake of fish and plant-sourced omega-3 fatty acids and omega-9 fatty acids. Decrease your intake of saturated fat, trans fat and omega-6 fatty acids.

Just as with most things in life, moderation (of even the healthy fats) is important. Fat is a concentrated source of calories; over-consuming it will derail your goals for weight loss and maintenance.

Resources:

¹OBES SURG (2009) 19:708-716

²*Journal of Surgical Research* (2007) 142:308-313

³OBES SURG (2010) 20:135-139

⁴*British Journal of Nutrition* (2009) 101:798-803

⁵*International Journal of Obesity* 32, 1545-1551 (2008)

SUBSCRIBE

to

On Track With Barix

[www.barixclinicsstore.com/
newsletter_sign_up.html](http://www.barixclinicsstore.com/newsletter_sign_up.html)

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

RECIPES

CHICKEN DRUMSTICKS

Adapted from Hungry-Girl.com

- 6 raw chicken drumsticks, skin removed
- 1/2 tsp. salt, divided
- 1/2 cup Special K High Protein cereal
- 1 1/4 tsp. black pepper
- 3/4 tsp. garlic powder
- 3/4 tsp. onion powder
- 3/4 tsp. dried oregano
- 1/4 tsp. chili powder
- 1/4 cup egg substitute

Preheat oven to 400 degrees. Spray a baking sheet with nonstick spray and set aside. Season chicken with 1/4 tsp. salt and set aside.

Grind the cereal to a breadcrumb-like consistency with a blender or food processor. Put the crumbs in a large sealable plastic bag. Add remaining 1/4 tsp. salt and all other seasonings. Seal bag and shake to mix. Set aside.

Two at a time, coat drumsticks in egg substitute, gently shake to remove excess liquid and place in the bag with the crumbs. Seal and shake to coat. Transfer crumb-coated drumsticks to the baking sheet and repeat with remaining drumsticks.

Bake in the oven for 20 minutes and then carefully flip. Bake for another 15–20 minutes, until crispy and cooked through. Makes 3 servings.

NUTRITION INFORMATION

PER SERVING: calories 184, protein 28 grams, fat 5 grams, carbohydrate 11 grams, sodium 567 mg.

TOMATO MOZZARELLA SALAD

- 1/2 cup Kraft® Light House Italian dressing
- 1 15-ounce can black beans, organic
- 1 15-ounce can Great Northern beans, organic
- 1 small cucumber, quartered lengthwise and sliced (1 cup)
- 8 ounces round- or log-shaped fresh part-skim mozzarella, thinly sliced
- 2 red and/or yellow tomatoes, thinly sliced
- 4 green onions, thinly sliced (1/2 cup)

Fresh basil sprigs (optional)

Drain and rinse beans; drain thoroughly. Combine beans, cucumber, and dressing in a large bowl; toss. Divide among four dinner plates. Arrange cheese and tomato slices alternately atop bean mixture. Sprinkle with sliced green onion. Garnish with basil sprigs, if desired. Makes six servings.

Note: Organic canned beans are recommended for the convenience of canned beans without added sodium.

NUTRITION INFORMATION

PER SERVING: calories 296, protein 18 grams, fat 7 grams, carbohydrates 29 grams, sodium 485 mg.



CONSIDERING SURGERY

Before Surgery Jitters

Adapted from posts on the Barix Connection Message Boards.

The message boards are full of support. A patient recently posted about his pre-surgery jitters—a very normal experience. Follow part of the thread here and log on to see it in its entirety.

Well, only 2 days before my surgery and I'm feeling very nervous. How many of you guys and gals have had this experience? Sometimes I feel like I am going to back out of it, but then I say to myself, why did I go through the process if I think this way? My heart knows this is going to be a good thing for me, but my logical mind is saying what are you doing, are you crazy or something?
—Eric

Hey, Eric — you're feeling probably what most of us felt right before surgery — scared, anxious, elated, relieved, nervous, calm, happy, perplexed. I mean how many emotions can we go through in the space of 5 minutes when thinking about the surgery! I am 2 and a

half months out and have ZERO regrets. I wish I had done it 10 years ago and every day I wake up and am thankful this procedure was available to me and I went through with it.
— JerseyCindy

It wasn't until the night before my surgery that I wanted to back out but I knew by then I couldn't. Even in pre-op, if I could have jumped off that table, I would have but I would have disappointed too many people and I had too many people praying for me and we had driven that far and prepared for this so much so I couldn't back out.
— Swirg53

Eric, what you are feeling is very NORMAL! I felt that way, too! You will do just fine!
— JoyBells

Eric, it is normal to have last minute jitters!!! Remember why you decided to go down this path in the first place. It's going to be 5 months for me in a couple of days and believe me....I am SO glad that I went through with my surgery!!!
— Sunno

IN THE NEWS

It has become clear over the last several years that for most people, type 2 diabetes resolves after gastric bypass surgery. The remarkable thing is that this often happens before significant weight loss occurs. Researchers at University of California Davis have identified biochemical changes in the body following gastric bypass that may be responsible.

They found that the modifications in the small intestine that occur with gastric bypass surgery increase the production of GLP-1 (glucagon like peptide-1), the hormone that improves insulin secretion and insulin sensitivity.

Research is bringing us closer to understanding the complexities of type 2 diabetes. With understanding may come new treatments and eventually new ways to prevent the disease.



"People are always blaming their circumstances for what they are. I don't believe in circumstances.

The people who get on in this world are the people who get up and look for the circumstances they want, and, if they can't find them, make them."

—G.B. Shaw—

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, 2010. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at dhart@foresthealth.com.

REQUEST
A FREE
BROCHURE
for you
or a friend
at 800-282-0066,
or www.barixinfo.com

