

Diabetes

Life Lines



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Diabetes - the Medical Perspective

There are two types of bariatric surgery for weight loss. One is gastric bypass and the other is adjustable gastric banding or “lap banding”. Bypass surgery shrinks the size of the stomach by more than 90%, so less food can be comfortably eaten. This is good for reducing calories, but many vitamins and minerals are not absorbed as well. About 20% of patients who have the gastric bypass develop “dumping syndrome”. In these cases, cramping and diarrhea occur because too much undigested food quickly passes into the intestine.

In lap banding a fluid-filled belt is wrapped around the stomach to form two stomach pouches. The tightness can be adjusted. Tighter bands make the patient feel full, eating less. This

type of surgery is reversible and does not need to be permanent. Weight loss helps type 2 diabetes patients however it is achieved. It seems, however, that gastric bypass helps type 2 diabetes even before weight loss occurs. Scientists are not sure yet how that happens.

The American Diabetes Association recommends that only those people with type 2 diabetes and a body mass index of 35 or greater consider gastric bypass surgery. The type of long-term studies which might show other benefits or dangers from the surgery are not yet available. There is always a risk when surgery is involved. However, others feel that the opportunity to not need medications to manage their blood glucose is worth the risk.

More information is available from WebMD at <http://www.webmd.com/diet/weight-loss-surgery/weight-loss-what-happens-during-bariatric-surgery>. To calculate your own body mass index, visit the National Institutes of Health webpage at <http://www.nhlbisupport.com/bmi/>

Diabetes and Food

Food is made of carbohydrates, proteins, and fat. Each of these is digested and broken into smaller parts. Once broken down, these parts will affect blood glucose differently. How these parts affect blood glucose depends on how they are absorbed and how the body uses them. Almost all the carbohydrate eaten will be converted into glucose in the body. The only carbohydrates not changed to glucose are those that cannot be digested, like fiber.

Foods with carbohydrates include those in the fruit group, such as bananas, oranges, apples, and peaches. Dairy products such as milk, yogurt, and ice cream also have carbohydrates. Although part of the dairy group, cheese is not high in carbohydrate. Cheese is higher in protein and fat, and may be thought of as a protein food, such as meat. Breads, cereals, pastas, rice, and crackers are rich in carbohydrates. Vegetables have carbohydrates, but at low amounts.

Carbohydrates affect blood glucose, because carbohydrates are digested and broken into smaller parts that are primarily glucose units. Glucose is not bad for people with diabetes. Everyone, including people with diabetes, needs glucose for energy. We need energy to play, exercise, and work, but we also need it for everyday body functions, like breathing,

digesting, and making blood cells. Most of the glucose in our body comes from eating carbohydrates. People without diabetes are able to keep their blood glucose levels in a normal range regardless of the amount they eat.

For people with diabetes, it is harder to keep blood glucose in a normal range. For this reason, people with diabetes need to balance the amount of food that they eat (especially food that contains carbohydrates) with their medication and activity level.

Medication Update

Insulin is classified based on how quickly it takes effect. There are four categories:

Rapid acting should be taken just before or just after eating. It begins to lower blood glucose in less than 15 minutes.

Short acting should be taken 30 minutes before a meal. It begins to lower blood glucose within 30 minutes to 1 hour.

Intermediate acting has an effect for 14-20 hours, depending on the type, so it is typically only taken once per day.

Long acting has an effect for 20-30 hours, depending on the type, so it is only taken once per day.

Insulin can be packaged in vials, pens/cartridges, or inhaled.

Recipes to Try

Parmesan Dill Baked Cod

4 servings

1 pound cod

2 tablespoons Parmesan

Non-stick cooking spray

2 tablespoons canned green
chilies

Dried dill

1. Preheat oven to 425°. Divide cod into 4 servings. Spray with non-stick cooking spray. Place in oven-safe baking dish.
2. Sprinkle with dill and cheese. Add chilies evenly to each serving.
3. Cover with foil. Bake for 25 minutes covered, 5 minutes uncovered.

Nutrition facts per serving

Calories	425	Fat	6 grams
Protein	85 grams	Calories from fat	13%
Carbohydrate	2 grams	Cholesterol`	202 mg
Fiber	1grams	Sodium	553 mg

Preparation & cooking time 40 minutes

Banana Pineapple Pie

16 servings

1½ cups low fat graham cracker crumbs

1 package (4-serving size)

1/3 cup reduced-fat margarine

sugar-free instant vanilla
pudding

2 bananas (sliced thinly)

1 package (8-ounce) fat free cream
cheese, softened

1 can (20-ounce) crushed
pineapple, drained

1½ cups skim milk

4 ounces lite whipped topping

1. Mix graham cracker crumbs and reduced-fat margarine with fork or pastry cutter until margarine is cut into crumbs. Press mixture into bottom of baking dish.
2. Slice bananas and spread evenly over crumb mixture.
3. Beat softened cream cheese until very smooth and gradually add milk, beating until smooth. Add pudding mix and beat 1 minute or until mixture begins to thicken. Spoon evenly over bananas.
4. Spread drained crushed pineapple over the pudding layer. Spread whipped topping over pineapple layer, making sure to spread to edges of baking dish.
5. Refrigerate at least one hour, but refrigerating three or more hours is best. Cut into 16 slices and serve chilled.

Nutrition facts per serving

Calories	130	Fat	3 grams
Protein	3 grams	Calories from fat	19%
Carbohydrate	22 grams	Cholesterol`	3 mg
Fiber	1gram	Sodium	273 mg

Preparation & cooking time 3 ½ hours



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BREAKFAST	Amount/Portion
1 cooked eggs or egg substitutes	1 eggs
Waffles, low fat	2
Maple syrup, low calorie	2 tablespoons
Peaches, canned in water	1 cup
Skim milk	8 ounces
410 Calories, 67 Carbohydrates, 4.5 Carbohydrate Choices	
SNACK	
Ginger snaps	4
Skim milk	8 ounces
202 Calories, 33 Carbohydrates, 2 Carbohydrate Choices	
LUNCH	
Sandwich, lean roast beef, lettuce	2 slices whole wheat bread, 3 ounces beef
Baked potato chips	15 chips, 1 serving
Baby carrots	8
Banana pineapple pie [†]	1 slice
Iced tea	8 ounces
608 Calories, 99 Carbohydrates, 6.5 Carbohydrate Choices	
DINNER	
Parmesan dill baked cod [†]	1 serving
Brown rice	½ cup
Broccoli, steamed	1 cup
Lower fat margarine	2 teaspoons
Italian bread	2 slices
Skim milk	8 ounces
Banana pineapple pie [†]	1 slice
680 Calories, 97 Carbohydrates, 6.5 Carbohydrate Choices	
Total: 1900 Calories, 296 Carbohydrates, 19.7 Carbohydrate Choices	

[†] recipes from *Diabetes Lifelines* or *Recipes for Diabetes* at <http://urbanext.illinois.edu/diabetesrecipes/intro.cfm>