

# PASTA IS...

## YOUR PARTNER FOR GOOD HEALTH



# INSIDE

## PASTA IS...

*...a nutritious food*

*....a low-Glycemic-Index food*

*...the cornerstone of one of  
the world's healthiest diets*

*...an excellent delivery system  
for other nutritious foods*

*...a good source of energy  
for athletes*



If you love to eat pasta, you'll love this fact even more: pasta is a nutritious food and a great partner that can actually help you maintain your good health.

In this booklet, you'll learn why pasta provides you with great nutrition, how it can best work in your diet, and some of the healthiest ways to eat it. And, be sure to try the great-tasting, healthy pasta meal recipes.

*Buon appetito!*

## ...YOUR PARTNER FOR GOOD HEALTH

## PASTA IS...

### *a nutritious food.*

Foods made from grains (wheat, rice, and oats) help form the foundation of a nutritious diet. They provide vitamins, minerals, carbohydrates (starch and dietary fiber), and other substances that are important for good health. The Food Guide Pyramid created by the U.S. Food and Drug Administration (USDA) recommends that people eat 6 to 11 servings of grain-based foods every day, with three of those servings coming from whole grain foods.<sup>1</sup> The remaining 3 to 8 daily servings can come from a variety of grain products, including pasta.



#### **Pasta is a great way to get grain-based food into your diet.**

If you eat a reasonably sized portion of cooked pasta—1 to 2 cups\*—you'll be getting 2 to 4 of the USDA recommended daily servings of grain-based foods. And that's just the beginning.

A 1-to-2-cup serving of cooked pasta is **low in calories** (200), **low in fat** (1 gram, with no saturated fat), **cholesterol-free**, and **sodium-free** (unless you add salt to the cooking water). Pasta is a **good source of thiamin, iron, riboflavin and niacin**, and provides 2 grams of **dietary fiber** and 7 grams of **protein** per serving. And as a carbohydrate, pasta is a great energy source for your body and your brain.

In addition, pasta is enriched with **folic acid**, a form of folate, an important B vitamin that reduces the risk of some serious types of birth defects when consumed before and during early pregnancy. (Studies are underway to clarify whether folate decreases the risk of coronary heart disease, stroke, and certain types of cancer.)

A 2-ounce serving of dry pasta supplies the equivalent of about 100 micrograms a day of folic acid, or 25 percent of the recommended daily intake.

So when you eat pasta in reasonably sized portions and with healthy accompaniments (for a list, see page 5), you've got great taste and great nutrition—all in a single meal.

\*2 oz. uncooked dry pasta yields 1 – 2 cups cooked pasta, depending on the pasta shape.

<sup>1</sup>"Dietary Guidelines for Americans," Home and Garden Bulletin No. 232, USDA, available at [www.nal.usda.gov/fnic/dga/dguide95.html](http://www.nal.usda.gov/fnic/dga/dguide95.html), accessed 6/11/04.



## PASTA IS...

### *a low-Glycemic-Index food.*

The **Glycemic Index** sounds complicated, but it's simple: it's one way that nutritionists measure how carbohydrates affect the body. The Glycemic Index (GI) ranks carbohydrates based on how quickly they affect a person's blood glucose (blood sugar) levels.

*The slower the blood sugar response, the lower a food's GI value.<sup>2</sup>*

Why is this important? Studies show that **a slow, gradual glucose response after a meal is better for you than a fast one.** A slower response delays hunger pangs, provides fuel for working muscles long after meals are eaten, causes less stress on the pancreas, and improves coronary health.

*"Pasta, with its dense compact structure, is a low-Glycemic-Index food. And, it's even lower if it's eaten with beans, chickpeas and other low-Glycemic-Index vegetables."*

— PROFESSOR DAVID JENKINS, CHAIR OF NUTRITION AND METABOLISM AT THE UNIVERSITY OF TORONTO, FOUNDER OF THE GLYCEMIC INDEX AND CO-CHAIRMAN, "HEALTHY PASTA MEALS" CONFERENCE

#### Glycemic Index Values of Some Common Foods

Glutinous rice	98
Potatoes	90
Cornflakes	84
Bran flakes	74
White bread	70
Wholemeal bread	69
Oatmeal	50
"Grainy" breads	40s
Pastas	40s
Legumes/beans	30s
Barley	25

Due to the special protein structure of pasta dough, **all pasta has a low GI value, ranging from 30 to 60.** That's true for pasta of any shape or size, and for pasta that's made from either soft or hard wheat.<sup>3</sup>

**Eating low-GI-value foods—such as pasta—may help you stay healthier and live longer,** and may play a key role in preventing chronic diseases, such as obesity, diabetes, coronary heart disease, and certain cancers.<sup>4</sup>

(Source: Dr. Jennie Brand-Miller, Professor of Human Nutrition, School of Molecular Biosciences, University of Sydney)

<sup>2</sup> "What is Glycemic Index?," [www.glycemicindex.com](http://www.glycemicindex.com), University of Sydney, accessed 6/11/04.

<sup>3</sup> Brand-Miller J, Wolever T, Foster-Powell K, Colagiuri S, *The New Glucose Revolution*, New York: Marlowe & Company, 2003, p. 5.

<sup>4</sup> "About Glycemic Index," [www.glycemicindex.com](http://www.glycemicindex.com), University of Sydney, accessed 6/11/04.

## PASTA IS...

### *a good source of energy for athletes.*

When they're in training, endurance athletes—cyclists, soccer players, skiers, triathletes—often load up on “carbs” (usually a pasta meal) in advance of the big race, game, or run. Why do they eat this way?

Carbohydrates supply the body with its key energy source—glucose—that is stored in the muscles. So when athletes take advantage of “carb-loading,” they're storing up energy in their bodies. During long, tiring exercise, the glucose energy is then released as needed. Carb-loading can help improve performance in a high-intensity exercise for 90 minutes or longer, such as long-distance running and swimming, soccer, canoe racing, and triathlons.<sup>5</sup>

Most everyday athletes don't need to worry about “carb-loading.”<sup>6</sup> But, dieticians and sports nutritionists recommend that **carbohydrates, such as pasta, should make up the largest portion of an athlete's diet.**

According to the President's Council on Physical Fitness and Sports, athletes should get 55 to 60 percent of their daily calories from carbohydrates (10 to 15 percent from sugars and the rest from starches), no more than 30 percent of calories from fat, and the rest (about 10 to 15 percent) from protein.<sup>7</sup> These recommendations are the same for all athletes, regardless of their level of physical activity.

After exercise, you should drink plenty of water and eat a nutritious meal high in carbohydrate-rich foods, such as pasta, grains, potatoes, fruits, and vegetables, to help replace depleted glucose and ensure rapid recovery. Eating protein after exercise provides your body with amino acids to build and repair muscle tissue.<sup>8</sup>



<sup>5</sup> Mayo Clinic, [www.mayoclinic.com](http://www.mayoclinic.com), accessed 4/19/04.

<sup>6</sup> *Ibid.*

<sup>7</sup> “Winning Nutrition for Athletes,” [www.fitness.gov/nutrition.html](http://www.fitness.gov/nutrition.html), accessed 4/19/04.

<sup>8</sup> J Am Diet Assoc. 2000;100:1543-1556, available at [www.eatright.org/](http://www.eatright.org/), Web site of the American Dietetic Association.



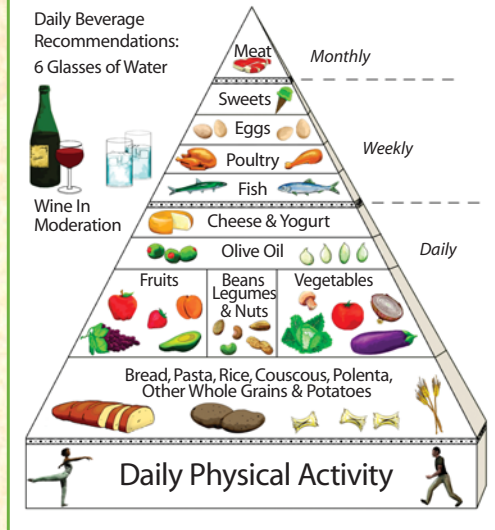
# PASTA IS...

## *the cornerstone of one of the world's healthiest diets.*

In Italy, pasta is eaten regularly as part of the country's "**Mediterranean diet**," which nutritionists consider to be one of the world's healthiest ways to eat. The Mediterranean diet is not a weight-loss plan or a meal plan of specific foods, but a pyramid of recommended food groups. The people who live in the 15-plus countries that border the Mediterranean Sea adapt these food groups according to their individual cultures, dietary habits, and the types of food their country produces. The Mediterranean diet is made up of:

- **abundant plant foods** (fruit, vegetables, breads, pasta, other forms of cereals, potatoes, beans, nuts, and seeds)
- **olive oil** as the main source of fat
- **fresh fruit** as the typical daily dessert
- **dairy products** (principally cheese and yogurt) eaten in low to moderate amounts
- **fish and poultry** eaten in low to moderate amounts
- **eggs**, zero to four weekly
- **red meat** eaten in low amounts
- **wine** consumed in low to moderate amounts, normally with meals.

### The Traditional Healthy Mediterranean Diet Pyramid



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At “Healthy Pasta Meals,” a conference held in early 2004 in Rome, Italy, a group of 38 nutrition scientists from around the world released a consensus statement that noted: “[*The*] **traditional Mediterranean eating pattern includes many of the nutritional principles related to good health**, which state that each macronutrient (carbohydrate, fat, and protein) is essential for good health.” In recent years, studies have shown that following a Mediterranean diet may reduce the risk of death from heart disease and some types of cancer.<sup>9,10</sup>

*“The people of Italy and other Mediterranean countries have known about the health benefits of the pasta meal for more than a thousand years, and their long life spans and vibrant health are testaments to pasta’s role in a healthy, balanced diet.”*

– JOHN FOREYT, PH.D., PROFESSOR OF MEDICINE;  
DIRECTOR, BEHAVIORAL MEDICINE RESEARCH  
CENTER, BAYLOR COLLEGE OF MEDICINE



9 Trichopoulou A, Costacou T, Bamia C, Trichopoulos D. Adherence to a Mediterranean diet and survival in a Greek population. *N Engl J Med.* 2003 Jun 26;348(26):2599-608.

10 de Lorenzo A, Andreoli A, Sorge RP, Iacopino L, Montagna S, Promenzio L, Serrano P. Modification of dietary habits (Mediterranean diet) and cancer mortality in a southern Italian village from 1960 to 1996. *Ann N Y Acad Sci.* 1999;889:224-9.



## PASTA IS...

### *an excellent “delivery system” for other nutritious foods.*

Pasta is one of America’s favorite foods. But, did you know it’s also one of the healthiest? This good carbohydrate is a nutritious energy source that can help make your diet balanced *and* delicious.

Pasta meals are easy to prepare, economical, and always delicious. And something more: They’re a great way to get many healthy, nutritious foods into your diet. Try these three easy steps to get the most nutrition from your pasta meals:

## 1 CHOOSE HEALTHY “PARTNERS”

When you combine pasta with healthy “partners”—such as vegetables, fish, olive oil, tomato sauce, beans, and lean poultry or meat—you’re providing your body with nutrients that are essential for your good health, such as **fiber, protein** and **vitamins**.

Here are some examples of how to make the most of your pasta meal:

- 3 ounces of cooked extra-lean ground beef is only 137 calories and a good source of iron
- 3 ounces of cooked chicken breast provides 26 grams of protein

Choose healthy pasta “partners” that are **high in fiber or protein** and **low in unhealthy fats**, such as:

- Vegetables
- Fish
- Olive oil
- Tomato sauce
- Legumes (beans)
- Lean cuts of poultry and meat
- Low-fat cheese





- 1/2 cup of legumes adds fiber, magnesium, potassium and folate to your pasta meal
- Add a tablespoon of cheese for 2 grams of protein and calcium for stronger bones
- 1 cup of most raw vegetables provides vitamin C



## WATCH 2 PORTION SIZES

Eating carbohydrates, such as pasta, will not make you fat. But if you consistently overeat calories—whether they're from carbohydrates, fat, or protein—you'll gain weight.

Considering how pasta is often served in America, it can be easy to eat too much of it and take in too many calories. In a typical restaurant, a pasta entrée can be as large as five or six servings (based on a two-ounce serving size). That's 600 calories before you even add the sauce!

So, it's best to eat a reasonable portion of pasta—about 1 to 2 cups cooked, which has around 200 to 400 calories, and little or no fat. Dress it up with a tomato- or olive oil-based sauce and toss in some healthy “partners,” and you'll enjoy a good-for-you pasta meal.



# 3 CAREFUL WITH THE SAUCE

Many restaurants pair pasta with highly fattening sauces. If you're counting calories, try to enjoy sauces that are high in calories and saturated fats (such as cream-based sauces) only once in a while and only in small portions.



*“A pasta meal is very healthy if it uses vegetable or tomato sauce and/or accompaniments such as olive oil, fish and lean meat and small amounts of cheese. It is healthy because the fats are good—unsaturated—and the carbs are good—low GI—and you are getting lots of micronutrients from the accompaniments. You are getting a balance of carbs, fats and proteins.”*

— JENNIE BRAND-MILLER,  
PROFESSOR OF HUMAN NUTRITION,  
UNIVERSITY OF SYDNEY

## Anatomy of a Healthy Pasta Meal

<b>1-2 Cups Cooked Pasta</b>	<b>Calories 450 or less</b>
<b>Fiber</b>	<b>2 grams or more</b>
<b>Total Fat</b>	<b>10 grams or less*</b>
<b>Protein</b>	<b>10 grams or more</b>
<b>Sodium</b>	<b>Less than 600 milligrams</b>
<b>Sugar</b>	<b>7 grams or less</b>
<b>Cholesterol</b>	<b>200 milligrams or less</b>

\*No more than 2.5 grams of saturated fat; no trans-fat.





## RIGATONI ALLA AMERICANA

Serves 8

- 1 garlic clove, peeled
- 1/2 teaspoon red pepper flakes (or to taste)
- 1/4 cup extra virgin olive oil
- 2 medium onions, finely chopped
- 2 oz. prosciutto, cut into thin strips
- 3/4 cup dry white wine
- 1 lb. plum tomatoes, peeled, seeded and chopped  
(or, 14 1/2 oz. can of Italian plum tomatoes, drained  
and chopped)
- 16 oz. rigatoni
- 1/2 cup Romano cheese, grated



Cook garlic and red pepper flakes in oil in a large skillet over moderately low heat until garlic is just golden, about 5 minutes. Remove and discard garlic. Add onions to skillet and cook until lightly browned, about 8 minutes. Add prosciutto and cook, stirring for about 2 minutes. Add wine and bring to boil. Reduce the heat and simmer until all the wine is evaporated, about 3 minutes. Add tomatoes and freshly ground pepper to taste, and simmer until slightly thickened, about 5 minutes.

Cook the pasta in a large pot of boiling water just until al dente—about 10–13 minutes. Drain and toss with prepared sauce. Divide among 8 plates (1.5-cup servings) and top each with 1 tablespoon Romano cheese.

### Nutrition Analysis (per serving):

Calories:	345
Protein (g):	12
Carbohydrates (g):	47
Total Sugar (g):	3
Total Fat (g):	10
Saturated Fat (g):	2
Cholesterol (mg):	11
Sodium (mg):	375
Fiber (g):	2

Nutritional information obtained through  
First DataBank Nutritionist Pro™

## SPAGHETTI WITH FENNEL AND SHRIMP

Serves 8

- 16 oz. spaghetti
- 1/4 cup olive oil
- 3 cloves garlic, sliced very thin
- 1 fennel bulb (about 12 oz.) sliced very thin
- 2 lbs. shrimp, cleaned, deveined and cut in half
- 1/3 cup chicken broth, low sodium
- 1/2 teaspoon dried oregano leaves
- 2 cups marinara sauce
- 14 fresh basil leaves, torn



Cook spaghetti in boiling water, according to package directions.

In the meantime, prepare sauce. Place olive oil and garlic in large skillet over medium heat. When oil is hot, add fennel. Sauté for 2 minutes, or until fennel just begins to soften. Add shrimp, oregano and chicken broth. Sauté for 2 minutes, or until shrimp is just cooked. Add marinara and basil, stirring until heated.

Drain spaghetti and return to pot. Stir in sauce; mix well to serve. Makes 8 servings (approx. 2 cups each).

### Nutrition Analysis (per serving):

Calories:	441
Protein (g):	32
Carbohydrates (g):	54
Total Sugar (g):	6
Total Fat (g):	10
Saturated Fat (g):	1.5
Cholesterol (mg):	172
Sodium (mg):	585
Fiber (g):	4

Nutritional information obtained through  
First DataBank Nutritionist Pro™



## PENNE WITH CHICKEN & BROCCOLI

Serves 8

- 1/4 cup extra virgin olive oil
- 4 garlic cloves, peeled and minced
- 1/2 large onion, chopped
- 8 cups raw broccoli florets
- 1 lb. skinless chicken breast, cut into 1-inch cubes
- 16 oz. penne
- 2 tablespoons Romano cheese, grated
- black pepper to taste
- 1/2 teaspoon salt



Bring a large pot of water to a rolling boil over high heat.

In the meantime, take medium-size saucepan and heat olive oil over medium heat. Sauté garlic and onions until translucent, careful not to brown. Add chicken pieces and thoroughly cook. When chicken is cooked, remove from heat and set aside.

In the large boiling pot, add broccoli and cook until firm, yet tender. Using a slotted spoon or skimmer, remove broccoli and add to the saucepan with garlic, onion and chicken. Cook broccoli until it is completely broken down, yet still green.

Return the large pot of salted water to a boil and add penne — cook according to package directions. When pasta's ready, reserve 1 cup of pasta water and add to broccoli mixture. Drain penne and toss into the broccoli mixture. Add grated cheese and mix.

Serve immediately on individual dishes and top with fresh ground pepper to taste. Approximately 2 cups per serving.

### Nutrition Analysis (per serving):

Calories:	378
Protein (g):	23
Carbohydrates (g):	51
Total Sugar (g):	3
Total Fat (g):	9
Saturated Fat (g):	1.5
Cholesterol (mg):	34
Sodium (mg):	231
Fiber (g):	4

Nutritional information obtained through  
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## ROTINI WITH SEA BASS AND PEAS

Serves 8

- 4 tablespoons extra virgin olive oil
- 12 oz. diced sea bass  
(about 1/3–1/2-inch size dice)
- 4 plum tomatoes, peeled, seeded and diced
- 1/2 medium onion, chopped
- 2 cups of fresh or frozen defrosted peas\*
- 2 cups of vegetable broth, low sodium
- 16 oz. rotini or fusilli
- A pinch of chopped parsley

\*Note: Fava beans can be substituted for peas.

Heat 3 tablespoons of oil in a large skillet over moderate heat: add sea bass and sauté, stirring until almost cooked through, about 2 minutes.

Using a slotted spoon, remove sea bass to a bowl. Add tomato to skillet and cook for 5 minutes. Return sea bass to the skillet, season with salt and pepper to taste. Remove from heat and set aside.

In separate saucepan, cook onion in remaining tablespoon of oil over moderately low heat until softened, about 3 minutes. Add peas and vegetable broth; bring mixture to boil and simmer for 5 minutes.

Working in 2 batches, transfer peas and liquid to a blender or food processor and puree. Return to the pan and season with salt and pepper to taste.

Cook rotini in a large pot of boiling water for 8 minutes or until al dente. Drain and toss with fish mixture. To serve, ladle some of the warm pea sauce into each serving dish and mound some of the sea bass and pasta on top of the sauce. Garnish with parsley. Each serving is approximately 1 1/2–2 cups.

### Nutrition Analysis (per serving):

Calories:	359
Protein (g):	18
Carbohydrates (g):	51
Total Sugar (g):	5
Total Fat (g):	9
Saturated Fat (g):	1
Cholesterol (mg):	17
Sodium (mg):	521
Fiber (g):	4

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## LINGUINI TOSSED IN LIGHT PARMESAN CREAM SAUCE

Serves 8

- 16 oz. linguini
- 2 teaspoons extra virgin olive oil
- 1 tablespoon of flour
- 3 cups 1% low-fat milk
- 1/2 teaspoon salt
- 1/4 teaspoon white ground pepper
- 1 cup Parmesan cheese, grated



Boil large pot of water; add linguini and prepare pasta according to package directions.

In the meantime, heat olive oil and flour in saucepan over medium heat and simmer for 5 minutes. In a separate saucepan, bring low-fat milk to a boil. Pour the milk into the olive oil/flour mixture and whisk smooth. Season with salt and pepper and continue cooking for 3 minutes. Add cheese and thoroughly mix.

Drain linguini and place back in pot. Pour cream sauce over linguini and mix evenly. Serve immediately—makes 8 one-cup servings.

### Nutrition Analysis (per serving):

Calories:	304
Protein (g):	14
Carbohydrates (g):	48
Total Sugar (g):	6
Total Fat (g):	6
Saturated Fat (g):	2.5
Cholesterol (mg):	12
Sodium (mg):	377
Fiber (g):	2

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The American Academy of Family Physicians Foundation has favorably reviewed this material through 2007. Favorable review means that medical information is accurate, but does not imply endorsement of any conclusions presented.