

Carol Rees Parrish, R.D., M.S., Series Editor

## The Gluten-free Diet: Can Your Patient Afford It?



Pam Cureton

**Currently, the only treatment for celiac disease (CD) is a strict gluten-free diet (GFD) for life. This means the elimination of products containing wheat, rye and barley. Following a GFD presents significant challenges and many barriers to compliance. One of the most significant challenges patients face is the cost of certain components of the diet. Great tasting gluten-free alternatives are essential to help patients comply with the diet, but come at a much higher cost than their gluten containing counterparts. Helping patients manage the cost of the diet is as important as understanding the basic concepts of the GFD.**

### INTRODUCTION

**R**emoving wheat from the diet for the rest of one's life becomes a major challenge as wheat is a major staple of the American diet. In 2004, Americans consumed 133 pounds of wheat per person (1). Wheat is a basic grain used in most prepared foods in the United States (US), Europe, and many other parts of the world. As the number of people diagnosed with celiac disease increases, the market for gluten-free foods also increases. From July 2004 to July 2005, consumers spent over \$600 million on gluten-free foods, a growth of 14.6% since the previous year (2). These gluten-free products are selling successfully in

---

Pam Cureton, RD, LDN, University of Maryland School of Medicine, Center for Celiac Research, Growth and Nutrition Clinic, Baltimore, MD.

both natural food stores and conventional food stores. The market for gluten-free foods and beverages in the US currently stands at almost \$700 million, and is projected to reach at least \$1.7 billion by the year 2010 (3). Additionally, as more people are diagnosed, the quality and cost of gluten-free substitutes will improve. In a survey conducted by The Gluten Intolerance Group, patients indicated that taste and cost were important factors when making purchasing decisions for gluten-free products (4).

Currently, however, gluten-free foods are considerably more expensive than their gluten-containing counterparts and are not easily accessible in many mainstream grocery stores. Additionally, creating safe foods by replacing wheat with gluten-free grains can increase the production costs for manufacturers. Alternative grains are often more expensive for manufac-

**Table 1**  
**Cost comparison between wheat product and gluten-free products\***

Wheat flour	\$0.34/lb
Brown rice flour	\$1.89/lb
Wheat bread	\$1.09/loaf
Gluten-free bread	\$6.00/loaf
Wheat pasta	\$0.87/lb
Gluten free pasta	\$3.69/lb
Chocolate chip cookies	\$2.69/lb
Gluten free chocolate chip cookies	\$12.83/lb
Wheat crackers	\$1.63/lb
Rice crackers	\$9.12/lb

\*Based on US Department of Labor, Bureau of Labor: Consumer Price Index

urers. Additional ingredients (i.e. xanthan gum, guar gum, etc.) or extra preparation steps that are needed to produce an equivalent product also add to the cost. Table 1 compares the cost of some gluten-containing products to gluten-free products.

**FIRST STEP IN AFFORDABILITY: GLUTEN-FREE DIET BASICS**

Patients can obtain the majority of their groceries from their regular supermarket by shopping for foods that are naturally gluten-free. It is important that the initial diet instruction focus on what a person *can* eat instead of what to avoid. These foods include:

- Fruits
- Vegetables
- Rice
- Beef, pork, lamb, and veal
- Poultry
- Fish
- Nuts
- Milk, most cheeses, most yogurt
- Oils, butter and margarine
- Herbs and spices

When discussing the diet with patients, it is helpful to provide a gluten-free shopping list (Table 2), simple menu ideas (Table 3), a week's menu (Table 4)

**Table 2**  
**Gluten-Free Shopping Guide**

**Produce**

- All fresh fruit (in season for cost savings)
- All fresh vegetables including: lettuce, potatoes, carrots, corn

**Dairy**

- Unflavored fresh, dry or evaporated or condensed milk, cream, whipping cream, half and half, aged cheese, most yogurts, butter, margarine, cottage cheese, sour cream, pudding

**Packaged And Canned**

- Plain fruits and vegetables, canned tuna and chicken, canned beans and lentils, spaghetti sauces (check label)

**Beverages**

- 100% Fruit juices, instant and ground coffee, tea, soft drinks, formulas (Pediasure, Boost, Ensure, Carnation Instant Breakfast, no malt flavors)

**Fats And Oils**

- Vegetable, canola and olive oils, shortenings, pure mayonnaise, salad dressing (without gluten containing grains)

**Meat And Meat Substitutes**

- All fresh beef, poultry, fish and shellfish, eggs, dried beans and peas, plain nuts, peanut butter, tofu, hot dogs and luncheon meats (check label for wheat or barley added)

**Cereals And Grains**

- Cream of Rice cereal, grits, cornmeal, Post cereals: Cocoa Pebbles and Fruity Pebble, General Mills cereals: Dora® and Neopets® (be sure to check label each time) Pastas made from rice or other gf grain, pure corn tortillas

**Frozen Foods**

- Plain fruits and vegetables, most ice creams and sherbets, popsicles

**Snacks**

- Most rice cakes, rice crackers, popcorn, plain potato and corn chips, Jello, hard candies

**Condiments**

- Vinegars (avoid malt vinegar), barbecue sauce (check label), mustard, ketchup, horseradish, jams and jellies, sugar, honey, maple syrup, salt and pepper, relish, pickles, olives, vanilla

(continued on page 78)

(continued from page 76)

#### Table 3 Menu Suggestions

##### Breakfast

- Cheesy grits and orange slices
- Cream of rice with nuts and dried fruit added
- Fruit and yogurt smoothies
- Cottage cheese with apples and cinnamon
- Egg, cheese and vegetable omelet with hash brown potatoes
- Frittata with corn, egg, sour cream and cheese
- Quesadillas made with corn tortillas filled with ham and cheese
- Scramble eggs and Canadian bacon and grapefruit sections
- Crustless quiche

##### Lunch and Dinner

- Loaded baked potato with broccoli and cheese
- Chef salads (no croutons)
- Stir-fry with meat, poultry or seafood and chopped vegetables served over rice
- Chicken or steak fajitas with nachos
- Beef or turkey chili served with corn chips and carrot and celery stick
- Meat, poultry or seafood and veggie kabobs served over rice
- Baked beans and franks (check labels)
- Taco salad
- Ground beef or turkey inside a green pepper or cabbage roll

##### Snacks

- Corn or potato chips (beware of flavored chips)
- Popcorn
- String cheese
- Taquitos (corn) and salsa
- Nachos
- Cheese on a rice cracker
- Peanut butter on a rice cake
- Celery stuffed with peanut butter or cream cheese
- Deviled eggs
- Jello, pudding, yogurt
- Nuts
- Hummus and carrot sticks

and gluten-free recipes (Table 5) that includes foods that can be purchased at their regular supermarket without the need for any special gluten-free products. Encourage patients to shop the ethnic food sections of the grocery store to find rice-based crackers and noodles, and corn-based bread and tortillas. Larger grocery stores often have a “natural food” or “organic food” section where a variety of gluten-free flours (e.g., buckwheat, teff, and millet) may be found. In this

section other gluten free specialties such as cookies, rice pasta, baking mixes, and cereal may be found. Store managers are often willing to order more (or specific) gluten-free items if asked, as they want to keep your business and attract new costumers.

Discount stores such as Wal-Mart and Costco are also good places to shop for lower cost gluten-free products. Many of these items can be found in the organic section of the store. Wal-Mart also carries a good selection of gluten-free cookbooks at discounted prices.

#### COOKING TIPS FOR SAVING MONEY

As patients adjust to the gluten-free diet, they may be ready to begin cooking or baking their own gluten-free substitutes. Helping patients find quality cookbooks and online resources to learn the art of gluten-free cooking will also reduce the cost of the GFD (Table 6). One important lesson is *never throw away a mistake* in the kitchen. In many cases the ingredients are too expensive to discard altogether. Instead, overcooked or crumbly bread can be used as gluten-free breadcrumbs in meatloaf, meatballs, or homemade chicken nuggets. Overcooked cookies can be used to make a pie or cheesecake crust. See Table 8 for other gluten-free cooking tips.

#### SAVE ON THE SPECIALTY ITEMS

Patients may choose to purchase certain gluten-free substitutes, as the homemade version is very time consuming and experiments may be expensive before, if ever, you get it right. Breads and pastas are in this category. Helping your patient find ways to reduce the expense associated with purchasing pre-made breads is important. See Table 7 for a list of vendors who carry gluten-free bread.

As a health care professional, you can contact the makers of great tasting, reasonably priced items and ask them to send you samples to give to your patients. This helps patients determine whether the product is to their liking before spending the money. Kinnikinnick Foods, Inc. (<http://kinnikinnick.com>, or 1-877-503-4466) will send new patient care packages that include samples of two of their mixes and two pack-

**Table 4  
Weekly Menu**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Cheese and ham omelet Hash brown potatoes Orange juice Coffee/tea	Dora® or Neopets® cereals from General Mills ^ Milk Banana slices	Cream of Rice with nuts and raisins Tomato juice	Breakfast Tortilla wrap • Eggs + cheese onions/pepper 1T salsa scrambled and wrapped in a corn tortilla Orange sections	Van's Frozen Waffles^ Frozen strawberries and whipped topping Milk	Yogurt fruit smoothie GF breakfast bar	Scrambled eggs Turkey bacon Grits
Hamburger patty on Lettuce leaf topped with sliced cheese, onion, tomato Oven baked French fries Peaches	Ham wrap: ham and cheese slices, lettuce, tomato, mustard rolled in a corn tortilla Applesauce	Chili stuffed baked potato topped with cheddar cheese Fruit cup Yogurt	Tuna salad Rice crackers Pickles Fruit and gelatin cup Milk	Convenient lunch: Amy's frozen black bean vegetable enchilada  Thai Kitchen Noodle bowl  Progresso canned soup: Chicken Rice or Garden Vegetable^ rice crackers and cheese  Frozen lunch: Stouffer's Glazed Chicken^ Smart Ones Santa Fe style rice and beans^	Fast Food Lunch McDonalds: Hamburger patty/no bun, small French fry, Yogurt parfait (no granola)  Wendy's: Southwestern taco salad mandarin orange cup  Chick-fil-A: Char grilled chicken filet, waffle potato fries, fresh fruit cup	Taco salad  Corn chips Fresh fruit Yogurt
Chili*+ Corn chips Carrot and celery sticks Milk	Oven baked Chicken Mashed potatoes Green beans Sliced peaches	No Noodle Lasagna+ Tossed green salad Broccoli Milk	Red beans and Rice^ Steamed carrots Ambrosia fruit salad (pineapple, mandarin oranges and banana topped with shredded coconut)	Spaghetti sauce over spaghetti squash^ Broccoli Milk	Tacos* Cheese nachos	One Pan Potato and Chicken Santa Fe+ Chi-Chi sweet corn cake Lettuce and tomato salad Milk
Ice cream	Peanut butter cookie+ Milk	Popcorn	Pudding	Peanut butter on apple slices	String cheese and rice Crackers	Trail mix of peanuts, raisins and M & M candies

\* Make extra of this item to use later in the week

\*\* Corn bread mixes can be found in the Mexican food isle of the grocery store

+ See recipe in Table 5

^ Note on product:

- Name brand products listed here were gluten-free at the time of printing. Ingredients can change, therefore, always check labels before purchasing.
- Beans provide an economical source of protein, low in fat and high in fiber. For more recipes for dried or canned beans, visit [www.americanbean.org](http://www.americanbean.org).
- Look for Van's waffles in the frozen food section with the regular waffles, If you cannot find them with the regular products, check to see if the store has a separate section for "organic" or "health foods." Discount store such as Wal-Mart Superstore, Sam's Club, and Costco carry this and other gluten-free products.

**Table 5**  
**Gluten-free recipes**

**Black Bean Chili**

- 1 cup dry black beans
  - 6 cups water
  - 1 medium onion, chopped (1/2 cup)
  - 4 cloves garlic, minced
  - 1 tbs cooking oil
  - 1 tbs chili powder
  - 1 tsp ground cumin
  - 1 tsp dried crushed oregano
  - 1/2 tsp paprika
  - 1/4 tsp salt
  - 4 cups gluten-free chicken broth
  - 1 14-1/2 ounce can tomatoes, cut-up
  - 1/4 cup water
1. Rinse beans. In a large saucepan combine beans and water. Bring to a boil; reduce heat. Simmer for 2 minutes. Remove from heat. Cover and let stand for 1 hour. (Or, soak beans overnight in a covered pan.) Drain and rinse the beans.
  2. In a large saucepan or Dutch oven cook the onion and garlic in hot oil until tender. Stir in chili powder, cumin, oregano, paprika, salt, and ground red pepper. Cook and stir for 1 minute. Add the beans, vegetable or chicken broth, undrained tomatoes, and sherry or water. Bring to a boil; reduce heat. Cover and simmer for 1 to 1-1/2 hours or until beans are tender.

Recipe adapted from:  
[http://lifestyle.msn.com/foodandentertaining/recipes/recipe\\_detail.aspx?t=k&q=beans&rid=2320&p=0&ps=10](http://lifestyle.msn.com/foodandentertaining/recipes/recipe_detail.aspx?t=k&q=beans&rid=2320&p=0&ps=10)

**Flourless Peanut Butter Cookies**

- 1 cup peanut butter, creamy or crunchy
  - 1 1/3 cups sugar
  - 1 egg
  - 1 tsp vanilla extract
- Preheat the oven to 350 degrees F. Grease a large baking sheet. In a mixing bowl, combine the peanut butter, 1 cup sugar, the egg, and vanilla, and stir well with a spoon. Roll the dough into balls the size of walnuts. Place the balls on the prepared baking sheet. With a fork, dipped in sugar to prevent sticking, press a crisscross design on each cookie. Bake for 12 minutes, remove from the oven, and sprinkle the cookies with some of the remaining sugar. Cool slightly before removing from pan.

Recipe adapted from: [http://www.foodnetwork.com/food/recipes/recipe/0,,FOOD\\_9936\\_30607,00.html](http://www.foodnetwork.com/food/recipes/recipe/0,,FOOD_9936_30607,00.html)

**One Pan Potato and Chicken Santa Fe**

- 4 medium potatoes cut into 3/4 inch cubes
  - 1 pound boned and skinned chicken breast, cut into 3/4 inch cubes
  - 2 Tbs olive oil
  - 1 cup tomato salsa
  - 1 can (8 3/4 ounce) whole kernel corn, drained
1. Place potatoes in shallow 1 1/2 to 2 quart microwave-safe dish. Cover with plastic wrap, venting one corner. Microwave on High 8–10 minutes until just tender.
  2. While potatoes cook, in a large nonstick skillet over high heat toss and brown chicken in oil 5 minute.
  3. Add potatoes; toss until potatoes are lightly browned.
  4. Add salsa and corn; toss until heated through.

**How to cook spaghetti squash**

Halve a squash lengthwise and scoop out and discard seeds. Place squash cut side in a microwave safe dish. Add 1/4 inch water and cover with plastic wrap. Microwave on High for 8-10 minutes or until squash is tender. The squash can also be baked. Place spaghetti squash, cut side down, in a baking dish; add water to the baking dish. Cover and bake spaghetti squash in a 375 oven for about 30 minutes, or until the spaghetti squash is tender and easily pierced with a fork. When cool enough to handle, scoop out squash, separating strands with a fork

**No Noodle Lasagna**

- 1 pound hamburger
  - 2 eggs
  - 1 jar spaghetti sauce
  - 1 C cottage cheese or ricotta
  - 1 T Italian Seasoning, no salt or sugar
  - 1/4 C parmesan cheese
  - 1 1/2 C mozzarella cheese
- Brown the hamburger in a skillet. Let it cool. Mix the eggs and spaghetti sauce until well blended in a bowl. Add the hamburger. Place this evenly on the bottom of a 9" square pan. Mix the ricotta and Italian Seasoning. Spread this evenly over the hamburger mixture. Sprinkle the parmesan and mozzarella over the ricotta mixture. Bake at 350 for about 30 minutes. Cut into 9 serving squares.

Recipe adapted from: <http://forum.lowcarber.org/archive/index.php/t-29207.html>

**THE CELIAC DIET, SERIES #8**

(continued from page 80)

**Table 6  
Gluten-Free Cookbooks**

<i>Title of Cookbook</i>	<i>Author</i>	<i>Source</i>
The Gluten-Free Gourmet Cooks Fast and Healthy	Bette Hagman	Henry Holt and Company, Inc.
Gluten Free 101	Carol Fenster, Ph.D.	Savory Palate Press, 2006
Wheat-Free Recipes and Menus Cooking Free		
Wheat-free Gluten-free Cookbook for Kids and Busy Adults	Connie Sarros	<a href="http://www.gfbooks.homestead.com/">http://www.gfbooks.homestead.com/</a>
Cooking Gluten-Free	Karen Roertson	<a href="mailto:celiacpublishing@earthlink.net">celiacpublishing@earthlink.net</a>
Nearly Normal Cooking for Gluten-Free Eating	Jules E.D. Shepard	Amazon.com; Borders.com
Incredible Edible Gluten-free Foods For Kids	Sheri L. Sanderson	Woodbine House

ages of cookies at no cost. They also include a coupon for free shipping on the first order. Annie’s Homegrown (<http://www.annies.com> or 1-800-288-1089) also sends boxes of their Rice Pasta and Cheddar for consumers to try before purchasing. Most gluten-free companies will send discounts or free coupons to

encourage orders from new customers, so it is a good policy to contact these companies and ask for samples or coupons.

Attending local support group meetings is a great way to save money. Support groups often ask area vendors to attend meetings and bring samples and products

**Table 7  
Vendors of gluten-free bread**

<i>Name of Vendor</i>		<i>Type of bread</i>	<i>Cost per loaf</i>
<a href="http://www.kinnikinnick.com">www.kinnikinnick.com</a>	877-503-4466	White or brown bread	\$4.65/loaf
<a href="http://www.wholefoodsmarket.com/products/bakery/gf_bakehouse.html">www.wholefoodsmarket.com/products/bakery/gf_bakehouse.html</a>	512-477-4455	Breakfast bread	\$4.95/loaf
<a href="http://www.ener-g.com/store/products.aspx?sn=BreadProducts&amp;cat=2">www.ener-g.com/store/products.aspx?sn=BreadProducts&amp;cat=2</a>	800-331-5222	Brown rice bread	\$4.69/loaf
<a href="http://www.glutenevolution.com/products.html#glutenfree">www.glutenevolution.com/products.html#glutenfree</a>	877-354-3886	Bread mix	\$6.50 for 2 loaves
<a href="http://www.mrritts.com">www.mrritts.com</a>	877-Mr-Ritts	Challah loaf	\$8.00 / 2# loaf
<a href="http://www.sillyybakery.com/glutenfree.html">www.sillyybakery.com/glutenfree.html</a>	608-833-5965	Classic rice bread	\$5.75/loaf
<a href="http://www.bobsredmill.com/gluten_free_info.php">http://www.bobsredmill.com/gluten_free_info.php</a>	800- 349-2173	Bread mix	\$3.95/loaf
<a href="http://www.celiacspecialties.com">www.celiacspecialties.com</a>	586-598-8180	White bread	\$5.50/loaf
<a href="http://www.inagardenfoods.com">www.inagardenfoods.com</a>	607-533-9102	Artisan style	\$5.95/loaf
<a href="http://www.enjoylifefoods.com">www.enjoylifefoods.com</a>	800-962-3026	Sandwich bread	\$4.51/loaf
<a href="http://www.glutenfreemall.com/catalog/index.php?cPath=22">www.glutenfreemall.com/catalog/index.php?cPath=22</a>	800-962-3026	Various companies and breads	Various prices
<a href="http://www.glutenfreepantry.com">www.glutenfreepantry.com</a>	800-291-8386	Sandwich bread mix	\$4.95/loaf
<a href="http://www.gilliansfoods.com">www.gilliansfoods.com</a>	781-586-0086	Sandwich bread	\$3.79/loaf
<a href="http://www.glutino.com">www.glutino.com</a>	800-363-3438	Corn flour sandwich bread	\$3.99/loaf
<a href="http://www.glutenfreebcg.com">http://www.glutenfreebcg.com</a>	801-263-6667	White French bread mix	\$3.93/4 small loaves

**Table 8**  
**Gluten-free Cooking Tips**

- For thickening sauces or gravy, substitute equal amounts of cornstarch for flour.
- Mashed potato flakes also make a great, inexpensive thickener and binder in place of breadcrumbs.
- Xanthan gum is used in many gluten-free recipes to serve as the “glue” to hold the product together; use 2 tsp. unflavored gelatin to replace 1tsp. xanthum gum in some recipes such as cookies. (xanthum gum can be purchased in bulk at lower cost from: <http://www.glutenfreebcg.com>)
- Cornmeal or crushed potato chips can be substituted when a recipe calls for a coating or crunchy topping.
- Sometimes purchasing a packaged gluten-free mix will save money. Buying several types of flours plus xanthan or guar gum adds up and if the product does not turn out as well as a mix, more money is wasted.
- Make your own flour mix substitute. No one gluten-free flour has been found to be a good substituted for wheat flour in all recipes. Learning about the different types of gluten-free flours and combining them effectively is important to gluten-free cooking/baking. There are several combinations used by the authors of cookbooks (Table 5). A gluten-free flour blend adapted from *Gluten-Free 101: Easy, Basic Dishes without wheat* by Carol Fenster, Ph.D. (6)

#### **Sorghum Flour Blend**

- 1 1/2 cups sorghum flour
- 1 1/2 cups potato starch or cornstarch
- 1 cup tapioca starch (also called tapioca flour)

The Land-O-Lakes web site offers this recipe:  
(<http://www.landolakes.com/mealideas/gluten-free-baking-recipes.cfm>)

- 2 cups rice flour
- 2/3 cup potato starch
- 1/3 cup tapioca flour
- 1 teaspoon xanthan gum

Combine all ingredients in a large bowl. Use mixture in baking recipes. Store in air tight container.

- Purchasing gluten-free product in bulk can also reduce cost of individual products. Gluten-free items are available from Gluten-free BCG (Blue Chip Group, Inc) at <http://www.glutenfreebcg.com>
- For tips on baking homemade gluten-free bread, visit: [http://www.wholefoodsmarket.com/specialdiets/overviews/gf\\_baking.html](http://www.wholefoodsmarket.com/specialdiets/overviews/gf_baking.html). More recipes are availed from Red Star Yeast Products, their toll-free Celiac recipe hotline number is 1.800.4.CELIAC (1.800.423.5422).

to sell. Patients can take advantage of visiting vendors by taste-testing new products, by ordering foods from visiting vendors ahead of time and taking delivery at the meeting, and by purchasing foods from the vendors at the time of the meeting. This way, patients save on shipping costs. Additionally, support groups often organize group orders in order to get discounts and share shipping charges. To locate a support group, go to [www.myceliacguide.com](http://www.myceliacguide.com) or [www.celiac.com](http://www.celiac.com).

Parents of newly diagnosed children often ask if the entire household should go on the GFD. While this may sound like a good idea at first (in order to reduce the risk of accidental gluten ingestion or cross-contamination), the practicality of this plan is limited. It may be economically challenging to have an entire family adhere to the diet, as the cost of the gluten-free items for everyone may be too much for most budgets. Professionals may choose to spend extra time with the family to help them find other ways to keep the celiac child from ingesting gluten at home. These ideas may

include:

- Setting aside a separate shelf in the pantry and refrigerator for safe, gluten-free foods
- Labeling gluten-free foods with fun stickers or the child’s initials
- Purchasing a separate toaster in a bright color to help remind others it is for gluten-free items only
- Making gluten-free items first and regular items last in order to avoid cross contamination
- Teaching children as early as possible to identify the word “wheat” on labels so they can actively monitor their own diets

#### **SHIPPING CHARGES**

The cost of some gluten-free substitutes is more than double the cost of their wheat-based counterparts, adding strain to even the most comfortable budget. Unfortunately, many of these items are only available through mail order (or internet order), the cost of these

items may be closer to triple the price of conventional products. To attenuate shipping costs, patients may place large orders, participate in group orders, or look for discounts on shipping (for certain dollar amounts or buying certain products). Additionally, some vendors offer flat shipping fees regardless of the purchase price (e.g., Kinnikinnick Foods), or waive shipping charges for larger orders.

Ordering one small item will cost more in shipping; for example:

#### Annie's Rice Pasta and Cheddar

1 box	\$2.69	shipping \$6.25	cost per box	\$8.94
1 case	\$27.44	shipping \$7.18	cost per box	\$2.89

(12 boxes)

#### Triple fudge brownie mix from Gluten-free Pantry

1 pkg	\$ 5.95	shipping \$8.99	cost per pkg	\$14.94
4 pkgs	\$23.80	shipping \$8.99	cost per pkg	\$8.20

### OTHER WAYS TO SAVE

The cost difference between gluten containing food products and specialty gluten-free alternatives is tax deductible for celiac patients, while the cost of other items (e.g., xanthan gum) is completely deductible. Shipping costs for these items are also tax deductible. However, in order to qualify, medical expenses must exceed 7.5 percent of the patient's adjusted gross income. A letter from the medical provider that states the diagnosis and that the diet is medically necessary is required. Finally, participating in a Flexible Spending Account program may be used to help with the cost of specialty foods.

### CONCLUSION

Compliance to the gluten-free diet yields the benefit of both disease prevention and improved quality of life. The diet is complex and expensive. The role of the health care provider to assist their patient in overcoming the many barriers to compliance includes keeping treatment obtainable for all income levels, by reducing the cost of the diet. In Europe, celiac patients are provided a subsidy to aid in defraying the cost of the diet. For example, in Italy patients with biopsy-proven CD are entitled to receive a monthly amount of commer-

cial gluten-free food that is free of charge (5). Health care providers in the US need to become patient advocates when working with health insurance companies and policy makers using the European system as an example. ■

### References

1. USDA Economic Research Service; Wheat: Market Outlook. Available at: <http://www.ers.usda.gov/Briefing/Wheat/2005baseline.htm>. Last accessed on 11/1/2006.
2. SPINS Participates in FDA Public Hearing on Gluten-Free Labeling. Available at: [http://www.spins.com/news/communications/glutenfree\\_fda.php](http://www.spins.com/news/communications/glutenfree_fda.php). Last accessed on 11/1/2006.
3. Food Navigator.com Gluten-free market set to boom, says report. Available at: <http://www.foodnavigator-usa.com/news/print-NewsBis.asp?id=68991>. Last accessed on 11/1/2006.
4. Personnel communication with Cynthia Kupper, RD, CD, Executive Director. Gluten Intolerance Group. October 10, 2006.
5. Catassi C, Fasano A, Corazza GR. The Global Village of Coeliac Disease. 2005:78. Pisa, Italy.
6. Fenster C. *Gluten-Free 101: Easy, Basic Dishes Without Wheat*. New York, NY, 2006.

## PRACTICAL GASTROENTEROLOGY

### R E P R I N T S

*Practical Gastroenterology* reprints are valuable, authoritative, and informative. Special rates are available for quantities of 100 or more.

For further details on rates  
or to place an order:

*Practical Gastroenterology*

Shugar Publishing

99B Main Street

Westhampton Beach, NY 11978

Phone: 631-288-4404

Fax: 631-288-4435

Or visit our Web site at:

[www.practicalgastro.com](http://www.practicalgastro.com)