



Celiac Disease News



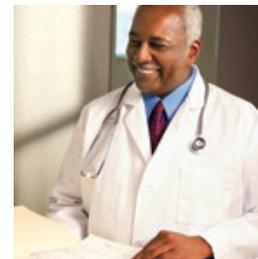
Celiac Disease Awareness Campaign • www.celiac.nih.gov

A service of the National Institute of Diabetes and Digestive and Kidney Diseases, NIH

Fall 2008

Dermatitis Herpetiformis

Not everyone with celiac disease has digestive symptoms. For some people, the only sign of the disease is an intensely itchy skin rash called dermatitis herpetiformis. Read a feature article about this skin manifestation of celiac disease at <http://celiac.nih.gov/dermatitis.aspx>. ■



Coming in 2009: New Health Care Provider Resource from the Celiac Disease Awareness Campaign

In early 2009, the Celiac Disease Awareness Campaign of the National Institutes of Health will unveil the first in a new series of reference sheets for health care providers.

Dermatitis Herpetiformis: Skin Manifestation of Celiac Disease will outline the symptoms of this blistering skin rash and briefly explain its causes, diagnosis, and treatment. Photographs of dermatitis herpetiformis (DH) outbreaks will show the classic presentation of DH.

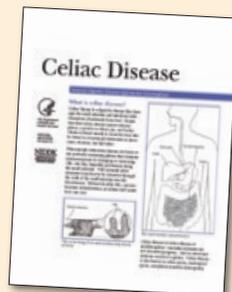
This professional series, called Provider Points, is designed to aid primary care physicians in recognizing the symptoms and complications of celiac disease. Most health care professionals must choose among multiple sources of information to keep up to date about the myriad conditions they see in their practices. Provider Points will allow health providers to access essential information in a concise and practical format.

Additional planned topics in the Provider Points Series include testing for celiac disease and the relationship of celiac disease to other autoimmune disorders. The series will be available for download at www.celiac.nih.gov. ■

Newly Revised

Celiac Disease

This newly revised fact sheet describes celiac disease and explains how it can disrupt the absorption of nutrients in the small intestine. The fact sheet also provides information about symptoms, diagnosis, and treatment. ■



Inside This Issue

Researchers Identify Key Gluten Receptor in the Intestine _____	2
Celiac Organizations Share Favorite Gluten-free Holiday Recipes _____	3
Featured in the NIDDK Reference Collection _____	6
Upcoming Meetings, Workshops, and Conferences _____	6



NIDDK
NATIONAL INSTITUTE OF
DIABETES AND DIGESTIVE
AND KIDNEY DISEASES

Researchers Identify Key Gluten Receptor in the Intestine

Researchers at the University of Maryland's Center for Celiac Research have identified a receptor in the intestine that plays a key role in the abnormal immune response of celiac disease. The same receptor may contribute to other autoimmune disorders such as type 1 diabetes and multiple sclerosis.



"For the first time, we have evidence of how the foreign antigen gains access to the body, causing the autoimmune response."

Alessio Fasano, M.D.
Medical Director, Center for Celiac Research

The receptor, called CXCR3, is the target receptor for gliadin—the component of gluten that is toxic to people with celiac disease. When gliadin binds to CXCR3, their interaction triggers the release of a protein called zonulin. In turn, zonulin loosens the tight junctions between cells of the intestinal lining, making it more permeable and allowing gliadin to enter the walls of the intestine.

In healthy people, the effect of zonulin is transient and reversible. In people with celiac disease, however, increased permeability to gliadin is long-term, leading to further immunologic reactions that ultimately destroy the villi and the intestine's ability to absorb nutrients.

The same process may occur in people with type 1 diabetes and multiple sclerosis, said Alessio Fasano, M.D., medical director of the Center for Celiac Research. The intestines may provide the gateway through which antigens—substances that trigger an immune response—get into the body.

"For the first time, we have evidence of how the foreign antigen gains access to the body, causing the autoimmune response," said Fasano. "Further study is needed, but this could allow us to intervene before the zonulin is either released or activated, preventing the immune response altogether."

The research results were published in the July 2008 issue of *Gastroenterology*. ■

Celiac Disease News



Celiac Disease News, an email newsletter, is sent to subscribers by the National Digestive Diseases Information Clearinghouse (NDDIC). The newsletter features news about celiac disease, special events, patient and professional meetings, and new publications available from the NDDIC and other organizations.

If you would like to subscribe, send an email to celiac@info.niddk.nih.gov. Please visit www.celiac.nih.gov/News.aspx to read or download a PDF version of the newsletter.

To meet the need for comprehensive and current information about celiac disease, the NDDIC, a service of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), launched the Celiac Disease Awareness Campaign. The Awareness Campaign is the result of the

combined ideas and efforts of the professional and voluntary organizations that focus on celiac disease, along with the NIDDK, the National Institutes of Health, and the Centers for Disease Control and Prevention.

Visit www.celiac.nih.gov to learn more about the Awareness Campaign.

Executive Editor: Stephen P. James, M.D.

Dr. James is the director of the Division of Digestive Diseases and Nutrition within the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). As director, Dr. James oversees planning, implementation, and evaluation of a national research effort focused on gastrointestinal, pancreatic, hepatobiliary, and nutrition diseases and conditions. Before joining the NIDDK in 2001, Dr. James directed the division of gastroenterology at the University of Maryland's School of Medicine for 10 years.



Celiac Organizations Share Favorite Gluten-free Holiday Recipes

The holidays are approaching and people with celiac disease are starting to plan their gluten-free menus. Several voluntary organizations devoted to celiac disease awareness offer some of their favorite holiday recipes.



Sticky Toffee Pudding with Hot Toffee Sauce

From the Celiac Disease Foundation

Toffee Pudding:

1 ½ cups dates, chopped
 1 ¾ cups hot tea
 1 tsp baking soda
 1 tsp pure vanilla extract
 1 tsp espresso coffee
 Sunflower oil
 1 cup rice flour
 1 cup tapioca flour
 1 ½ tsp gluten-free baking powder
 1 tsp xanthan gum
 1 stick unsalted butter
 ¾ cup superfine sugar
 3 eggs

Hot Toffee Sauce:

1 stick butter
 ¾ cup dark brown sugar
 ½ cup granulated sugar
 1 ¼ cups golden syrup
 1 cup light cream
 ½ tsp pure vanilla extract

Whipped cream

8-inch springform pan

Sticky Toffee Pudding Directions:

- Preheat the oven to 350° F.
- Soak the dates in the tea for 15 minutes. Add the baking soda, vanilla extract, and espresso coffee to the dates and tea.
- Brush the cake pan with sunflower oil and place a circle of oiled waxed paper on the base.
- Sift together the flours, baking powder, and xanthan gum.
- In a separate bowl, cream the butter and sugar until light and soft. Beat in the eggs, one at a time, and fold in the flour mixture. Add in the tea mixture. Turn into the prepared pan and cook for 1 to 1 ½ hours or until a skewer inserted into the center comes out clean.

Hot Toffee Sauce Directions:

To make the sauce, put the butter, sugars, and golden syrup into a heavy-bottomed saucepan and melt gently on low heat. Simmer for about 5 minutes, remove from heat, and then gradually stir in the cream and vanilla extract. Return to the heat and stir for 2 to 3 minutes until the sauce is smooth.

Pour a little sauce onto a serving plate. Put the sticky toffee pudding on top and pour more sauce otop. Put the remaining sauce in a bowl to serve, along with softly whipped cream.

Serves 8.

Pralined Pecans

From the Celiac Sprue Association

1 pound whole pecans—may substitute walnuts or peanuts
 1 egg white
 1 tsp water
 1 cup sugar
 ½ tsp salt
 1 ½ tsp cinnamon

Place pecans in a large bowl. Beat the egg white and water together until frothy. Pour over the nuts and mix until the nuts are well coated. Mix the sugar, salt, and cinnamon and pour over the nuts. Spread coated nuts on a large buttered or parchment paper-lined cookie sheet with tall sides to hold the nuts in. Bake in a preheated oven at 225° F for 1 hour, stirring every 15 minutes. Cool. Store in an airtight container. Preparation takes less time and less stirring when baked in a convection oven.

Quinoa Fiesta Salad

From the Gluten Intolerance Group

2 cups water
 1 cup quinoa, rinsed several times just before cooking
 1 pinch sea salt
 1 clove garlic, peeled and minced
 1 tsp cumin
 1 tsp sugar
 1 Tbsp fresh lemon juice
 2 Tbsp rice or raspberry vinegar
 1 red pepper, cored, seeded, and diced
 1 carrot, scrubbed, diced, and steamed for 4 to 5 minutes
 5 scallions, roots and dark green woody stem removed, minced
 ¼ cup cooked corn—optional
 2 Tbsp fresh cilantro, finely chopped—parsley can be substituted
 1 tsp sea salt
 ¼ cup currants

Bring water to a boil in a 2- to 3-quart saucepan. Add quinoa and salt, reduce to a simmer, and cook for about 20 minutes or until all the water is absorbed. Fluff with a fork, replace cover, and let sit off heat for 5 minutes. Place quinoa in a large mixing bowl to cool.

Saute the garlic over low heat in a nonstick pan for 2 minutes. Add cumin and saute another minute. Add the sugar, stir to mix, and remove from heat and allow to cool. Add the lemon juice and vinegar. Mix well and pour onto quinoa, along with all the vegetables, cilantro, sea salt, and currants. Mix gently but thoroughly and serve, or place in refrigerator to chill.

Serves 4 to 6.

Pumpkin Panna Cotta with Orange Sauce

From the National Foundation for Celiac Awareness

Panna Cotta:

4 tsp unflavored gelatin
¼ cup cold water
4 cups heavy cream, divided
¾ cup light brown sugar
1 Tbsp vanilla
1 can (15 ounces) solid-pack pumpkin
1 tsp ground cardamom or pumpkin pie spice
1 tsp orange liqueur—such as Grand Marnier—or orange flavoring, such as orange blossom water

Orange Sauce:

½ cup orange juice—freshly squeezed is best
1 Tbsp cornstarch
2 Tbsp melted butter
½ cup honey
½ cup marmalade
1 Tbsp orange zest

Whipped cream

Panna Cotta Directions:

- Lightly grease eight 6-ounce custard cups or fluted tins. Sprinkle gelatin over cold water in a small saucepan. Let soften 5 minutes and then melt over low heat.
- Bring 2 cups cream and brown sugar to a simmer in a medium saucepan over medium heat. Remove from heat and whisk in gelatin mixture, remaining 2 cups cream, vanilla, pumpkin, cardamom, and orange liqueur or flavoring. Allow mixture to cool slightly.
- Before gelatin mixture sets, divide among prepared cups. Chill at least 6 hours.

Orange Sauce Directions:

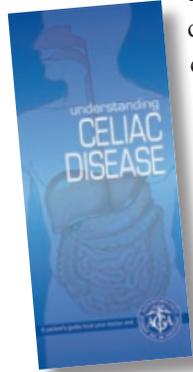
- Add orange juice to cornstarch and blend.
- In a saucepan, melt butter over medium heat.
- Add orange juice with cornstarch and stir until the mixture begins to thicken.
- Quickly add remaining ingredients.
- Stir continuously until thickened.

Unmold panna cotta onto dessert plate and drizzle with orange sauce. Top with a dollop of whipped cream.

Serves 8.

Featured in the NIDDK Reference Collection

Understanding Celiac Disease



This brochure from the American Gastroenterological Association (AGA) provides an overview of celiac disease and describes the biology of the disease, typical symptoms, diagnostic tests, and treatment with a gluten-free diet. The brochure explains some of the long-term complications people with untreated celiac disease may experience.

A partial list of allowed foods, foods to avoid, and processed foods that may contain wheat, rye, or barley provides a basic outline of the gluten-free diet. The brochure also features a drawing

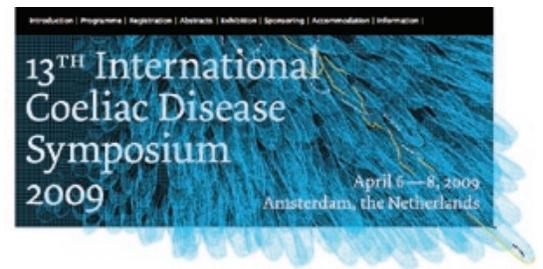
of the digestive system with its various organs identified.

The brochure is available free of charge and can be accessed through the AGA website at www.gastro.org/patient.

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Reference Collection is a free, online database that helps health care professionals, health educators, patients, and the general public find educational materials not typically referenced in most databases. The NIDDK does not control or endorse the information contained in this collection; the information is provided as a convenience to our visitors. To find more celiac disease resources, visit www.catalog.niddk.nih.gov/resources. ■

Upcoming Meetings, Workshops, and Conferences

The 13th International Coeliac Disease Symposium will be held April 6–8, 2009, in Amsterdam, the Netherlands. For more information, visit www.icds2009.org. ■



What is the main goal of the Celiac Disease Awareness Campaign?

The Celiac Disease Awareness Campaign seeks to raise awareness among health care professionals and the public about the

- prevalence of celiac disease in the United States
- availability and validity of blood testing as a diagnostic tool
- health consequences associated with celiac disease
- misperception that celiac disease is just a gastrointestinal disease ■