

# Diabetes and Celiac Disease (often called wheat allergy)

Betty Wedman-St Louis, PhD, RD, LD, CNS

1 March 2003

Only since the early 1950s have medical doctors in the United States recognized that celiac disease (also called gluten enteropathy) requires a lifelong commitment to a gluten-free diet.

When our family doctor told my mother that I "probably had celiac disease," he predicted that I'd outgrow it by age 7. Consequently, she never told me that I had this condition until 20 years later, after numerous medical tests finally confirmed the diagnosis.

I can't help but wonder how different things would be today if I had followed a gluten-free diet all my life!

## What Is Celiac Disease?

Living with both diabetes and celiac disease can be a challenge, but it is not an impossible task.

Celiac disease is associated with the gluten protein in wheat, oats, barley and rye. The gluten damages the nutrient-absorbing lining of the small intestine (called villi). This damage causes diarrhea, weight loss and vitamin deficiencies—particularly deficiencies in B vitamins and especially folic acid. Poor digestive absorption leads to abdominal distention or bloating, muscle wasting and fatigue.

Once a gluten-free diet is started, the small intestinal villi, where nutrients are absorbed, begin to return to normal, a process that can take anywhere from one to six months, according to Dr. Dean Metcalfe and colleagues ("Food Allergy: Adverse Reactions to Foods and Food Additives," 2d ed. [Blackwell Science, 1997]).

In children, the trigger for celiac symptoms might be overeating wheat-containing foods at a party, sleepover or birthday splurge. Add a dose of emotional stress or a viral/bacterial infection, and gastrointestinal complaints can continue past the usual one to two days.

We do not yet fully understand why some people do not tolerate wheat and other gluten-containing foods. Further research is needed to solve this question of causation.

## Nutrition Therapy for Celiac Disease

Steroid medication can suppress the intestinal symptoms that result from gluten consumption. However, most people with celiac disease will need to avoid all sources of wheat, rye, oats and barley until researchers gain further knowledge about how to customize nutrition therapy.

Corn and rice are the usual starch substitutes in the meal plan. Pasta products made from these sources are available. Millet and buckwheat do not contain gluten, although E.M. Haas argues that they are often processed on the same grinding devices as wheat and therefore should be omitted from the diet because of cross-contamination ("Grains: Staying Healthy With Nutrition" [Celestial Arts, 1992]).

A healthy diet for individual blood-glucose management can easily be made into a gluten-free diet with adequate freezer space and a list of reliable gluten-free food suppliers.

Many health food stores have numerous gluten-free items in the freezer case and snack food aisle. Twenty-five years ago, we had only rice cakes. Now rice cakes are a dieter's snack food, and people with celiac disease can get frozen waffles, cookies and crackers.

Pizza crusts, breads and muffins might be difficult to find, but mail-order suppliers can provide what can't be purchased locally.

## **Basics of Living Gluten-Free**

That brings us to how much gluten is too much.

Diets containing as little as 2 to 5 grams of gluten per day (one slice of white bread may contain 1 gram of gluten) have been reported to cause gastrointestinal changes. In one case, an 8-year-old boy whose only apparent exposure to gluten was a Holy Communion wafer once a week exhibited poor growth and partial villi atrophy.

Individual tolerances vary, but the rule of thumb is total avoidance if possible.

Because the United States has no mandatory government-labeling program for gluten-containing products and does not enforce the use of the gluten-free symbol, each individual needs to be an informed consumer.

Learning the foods to avoid on a celiac diet is a lot like learning how to drive a car. Many foods can be hazardous to your health—just as road hazards can impair your driving. You need to stay alert, but you soon get used to it.

Here are some basic tips:

- When ordering food in a restaurant, request that bread items be left off the plate.
- A simple way to avoid gluten is to follow a straightforward meal plan that also works well for managing diabetes: for example, a serving of protein (broiled or baked), a starch such as a baked potato, steamed vegetables and fruit for dessert.
- Snack on gluten-free foods later if you are still hungry.
- Birthday cake can be a big challenge—especially for the parents of a young person with celiac disease and diabetes. Today, gluten-free baking mixes make it possible to create a special cake for the occasion. A flourless chocolate cake recipe can be found in my book "Living With Food Allergies" (NTC/Contemporary Books, 1999).