



## ***SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS***

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SCFCL website: <http://www.scfcl.com>

### **Leader Training Guide**

#### **Gluten Intolerance / Celiac Disease**

##### **Objectives:**

- Define Gluten Intolerance / Celiac Disease
- Understand how gluten affects people with Gluten Intolerance / Celiac Disease
- Describe symptoms of those suffering with Gluten Intolerance / Celiac Disease
- Learn basic approaches to maintaining a gluten-free diet

##### **Lesson Overview/Introduction:**

After eating, do you feel satisfied and well? Or soon after you eat, do you experience abdominal pain or diarrhea? Does eating a thick piece of pizza, or doughy piece of bread taste delicious, but leave you feeling ill soon after consumption? It may be possible that your body cannot tolerate gluten. Today, you will learn about Gluten Intolerance, also known as Celiac Disease.

##### **Lesson:**

What is gluten? Gluten (from Latin gluten, "glue") is a protein composite found in foods processed from wheat and related grain species, including barley and rye. Gluten gives elasticity to dough, helping it rise and keep its shape and often gives the final product a chewy texture. Gluten is a protein that is found in grains, wheat, rye, and barley.

Celiac disease is an autoimmune digestive disease that damages the villi (microscopic finger-like projections that line the inner wall of the small intestine) and interferes with absorption of nutrients from food. What does this mean? Essentially the body is attacking itself every time a person with celiac consumes gluten.

It doesn't matter how well you eat – if your villi have been destroyed by untreated celiac disease you're almost certain to be malnourished, and be deficient in these specific nutrients: Iron, Vitamin D, Calcium, and Magnesium, Folate, Vitamin B12, Fatty Acids, Vitamin A, E, and K. If your body isn't absorbing these essentials, it puts you at risk for anemia, weight loss, osteoporosis, infertility, cancer, severe neurological and psychiatric illness, and even death.

There are more than 300 symptoms of celiac disease, and symptoms may vary among different people. One person might have diarrhea and abdominal pain, while another person has irritability or depression. Some patients develop gluten-intolerance symptoms early in life, while others feel healthy far into adulthood. Some people with celiac may have no signs or symptoms. These differences can make diagnosis extremely difficult, resulting in an estimated 95% of celiacs undiagnosed or misdiagnosed with other conditions.

Accurately diagnosing celiac disease can be quite difficult largely because the symptoms often mimic those of other diseases, including irritable bowel syndrome (IBS), Crohn's disease, intestinal infections, lactose intolerance and depression. Blood tests are the first step in a diagnosis. A doctor will order one or more blood tests to measure your body's response to gluten. Also, an endoscopic biopsy may also be required. An endoscope is a medical device consisting of a long, thin, flexible (or rigid) tube, which has a light and a

video camera. The doctor will gently maneuver the endoscope through the patient's mouth, esophagus, stomach, and into the first part of the small intestine. Images of the inside of the patient's body can be seen on a screen. The doctor will then take some small tissue samples from the small intestine, which will later be examined under a microscope.

If you are gluten-intolerant, or diagnosed with Celiac disease, the only treatment is a lifelong gluten-free diet. The first step in managing the gluten-free diet is to understand which foods contain wheat, rye, and barley so that they can be eliminated from the diet and intestinal healing can begin. (It takes 6 to 18 mos. for complete intestinal healing, and even longer in order adults)

It may seem overwhelming at first, but there are a wide variety of foods that are naturally gluten-free, including:

- FRUITS: apples, grapes, oranges, melons, berries, cherries, peaches, plums
- VEGETABLES: lettuce, tomatoes, carrots, broccoli, corn, red & green peppers, potatoes
- DAIRY products: eggs, milk, cream cheese, cottage cheese, swiss, cheddar, mozzarella, plain yogurt
- MEATS: fresh poultry, fresh fish/shellfish, fresh beef, beans, lentils, peas
- MISC.: peanut butter, jelly/jam, ketchup, mayonnaise, almonds, rice, flax seeds, risotto, sunflower seeds, canola & olive oil

Gluten-Free Meal/Snack Ideas:

Breakfast Ideas:

- Gluten-free cereal mixed with fruit & milk (add some ground flax seed for additional fiber)
- Yogurt mixed with fresh fruit & nuts
- Homemade French toast prepared with gluten-free bread, made with egg, and topped with gluten-free syrup and fruit
- Fruit smoothie made with yogurt and fresh/frozen fruit (check ingredients on frozen packaging)
- Cooked cereal mixed with chopped dried fruit such as raisins or dates, mixed with brown sugar or cinnamon.

Lunch Ideas:

- Sandwiches made with gluten-free bread (choose ones with more than 3g fiber per slice) topped with vegetables, gluten-free lunchmeat
- Homemade pizza with gluten-free crust topped with gluten-free pizza sauce, cheese, and fresh vegetables.
- Leftovers (casseroles, gluten-free pasta, meat, potatoes, chicken, rice, quinoa)
- Wraps made with lettuce or corn tortillas stuffed with rice noodles, meat, vegetables, or cooked rice)
- Rice cakes topped with peanut butter, bananas or cheese
- Baked potatoes topped with cheese, vegetables and chili
- Gluten-free hot dog with gluten-free bun
- Gluten-free crackers, humus, raw vegetables, and fresh fruit

Dinner Ideas:

- Gluten-free lasagna
- Meatloaf made with lean turkey or beef, gluten-free bread crumbs, egg, and herbs/spices
- Barbecue chicken, beef, pork, seafood, fish with rice pilaf, quinoa or buckwheat salad
- Gluten-free tacos made with corn tortillas
- Oriental stir fry made with fresh vegetables, gluten-free soy sauce, served over rice

Snack Ideas

- Yogurt
- Gluten-free pretzels with peanut butter or cheese

- Fruit / Vegetables
- Popcorn
- Homemade gluten-free trail mix (gluten-free cereal, raisins, nuts)

Many healthy and delicious foods are naturally gluten-free: beans, seeds, nuts in their natural, unprocessed form, fresh eggs, fresh meats, fish and poultry (not breaded, batter-coated or marinated), fruits and vegetables, most dairy products. It is important to make sure that they are not processed or mixed with gluten-containing grains, additives or preservatives. Many grains and starches can be part of a gluten-free diet: amaranth, arrowroot, buckwheat, corn, cornmeal, flax, gluten-free flours (rice, soy, corn, potato, bean), hominy (corn), millet, quinoa, rice, sorghum, soy, tapioca and teff.

Avoid all food and drinks containing the following: barley (malt, malt flavoring and malt vinegar are usually made from barley), rye, triticale (a cross between wheat and rye) and wheat. Avoiding wheat can be challenging because wheat products go by numerous names. Consider the many types of wheat flour on supermarket shelves — bromated, enriched, phosphated, plain and self-rising. Here are other wheat products to avoid: bulgur, durum flour, farina, graham flour, kamut, semolina, spelt.

In general, avoid the following foods unless they are labeled as gluten-free or are made with corn, rice, soy or other gluten-free grain: beer, breads, cakes, pies, candies, cereals, cookies, crackers, croutons, french fries, gravies, imitation meat or seafood, matzo, pastas, processed luncheon meats, salad dressings, sauces (including soy sauce), seasoned rice mixes, seasoned snack foods, such as potato chips, tortilla chips, self-basting poultry, soups, soup bases and vegetables in sauce

A dietitian can also help you learn how to begin a gluten-free lifestyle. (Find a registered dietitian: <http://www.eatright.org/programs/rdfinder/>). Here are some more helpful tips to living gluten-free:

- Every time you buy a packaged food, read the ingredient list on the food label to find out if it contains a problem ingredient. CHECK LABELS!
- Before eating out, do your homework on Web sites of restaurants. Order carefully, asking about all ingredients used in preparing foods. Tell restaurant employees, friends and others who serve you food that you have a food allergy and must know what is in your food so you don't get sick. Don't be shy!
- Pack food from home if you are not sure about the food that will be served at a restaurant, day care or someone's home.
- Teach children with food allergies not to eat foods that friends and classmates give them. Role-play about what to do when someone unknowingly offers them food to which they are allergic.

### **Lesson Summary:**

When people with gluten intolerance / Celiac disease consume gluten, their body essentially begins attacking itself. The only treatment is a lifelong gluten-free diet. Although it can be a challenge to learn how to eat gluten-free, for people with Gluten Intolerance or Celiac Disease, the benefits far out way the inevitable health problems from eating gluten. Receiving a diagnosis of a health problem can seem frightening, but knowing what is wrong and educating yourself on how to handle it can give you a new lease on life.

### **Suggested Activities:**

- Bring food packages (soup, bread, spaghetti sauce, candy, any others you choose) and have participants identify gluten-containing ingredients. They may include wheat (bran, germ, gluten, malt, sprouts); flour; pasta; bread crumbs; spelt; bulgur; couscous; cracker meal; durum; farina; kamut; matzoh; semolina; soy sauce; starch; surimi; hydrolyzed protein and flavoring; barley

(malt, malt flavoring and malt vinegar are usually made from barley); rye; Triticale (a cross between wheat and rye).

- Ask if participants know someone who is gluten Intolerant or has celiac disease. Ask those who are willing to share how this person deals with it.
- Prior to the lesson, make one of the attached gluten-free recipes and enjoy taste-tasting it during the lesson.

**Suggested Materials:** Assorted food packages including those for gluten-free foods (soup, bread, spaghetti sauce, candy, any others you choose) for reading labels

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**Sources/References:**

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9. <http://101cookbooks.com/archives/no-bake-chocolate-cake-recipe.html>

Optional Leader Activity: Make one of the following gluten-free recipes for sampling

**“No Bake Chocolate Cake” Serves 12**

Ingredients:

8 ounces (225 g) 70% well chopped chocolate,	2 teasp finely ground espresso (optional)
8 ounces (225 g) heavy cream	1/4 teasp fine grain salt
1/2 teasp allspice (optional)	cocoa powder, to serve

1. Lightly butter a 6-inch (15 cm) springform pan or equivalent - I typically use little loaf pans but many small pans will work here. Line with parchment paper and set aside.
2. Barely melt the chocolate in a double boiler over gentle heat.
3. In a separate medium pan heat the cream over gentle heat. Stir in the allspice and the espresso, if using. When the cream is very warm/hot to the touch, remove from heat and stir in the salt.
4. Pour the chocolate into the cream, and very slowly and steadily stir until everything comes together smoothly. Make sure the components are not at all separate. Pour into the prepared pan, cover with plastic wrap and refrigerate until chilled throughout - a few hours, or overnight.
5. When ready to serve, remove from the pan, let set at room temperature for ten minutes or so, dust with a bit of cocoa powder, and slice. Alternately, slice and serve from the pan.

Source: <http://101cookbooks.com/archives/no-bake-chocolate-cake-recipe.html>

**Sorghum Applesauce Oatmeal Muffins** Yields 12 muffins.

Ingredients:

1/2 cup butter (1 stick) 3/4 cup brown sugar, firmly packed 1 egg 1/4 cup milk 1 cup sorghum flour 2 teasp. xanthan gum 3/4 tsp. cinnamon	1 teasp. baking powder 1/4 teasp. baking soda 1/4 teasp. salt 1 cup applesauce 1/2 cup golden raisins 1 cup quick rolled oats (gluten-free)
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Streusel Topping:

1/4 cup butter 1/2 cup sugar Pinch of salt	1/2 cup sorghum flour 1 tsp. xanthan gum (or Knox gelatin)
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1. Heat oven to 350°. Cream the butter; gradually add the brown sugar; cream until light and fluffy. Add the egg and milk and beat well. Mix the dry ingredients and add alternately with the applesauce to the creamed mixture, stirring well.
2. Add remaining ingredients and mix well. Spoon into well-greased muffin cups. Top with streusel topping.
3. Mix streusel ingredients to a crumble and sprinkle on batter in muffin pan. Bake muffins 20 to 30 minutes or until done. Cool on a rack.

Credit: By Barbara Kliment, Executive Director, Nebraska Grain Sorghum Board

This recipe is designated as "Celiac Sprue Association Members Only". Originally published in the Make It With Sorghum for Goodness Sake! Recipe Collection.

[http://www.csaceliacs.info/recipe\\_index.jsp?rcpe\\_catg\\_id=6&rcpe\\_id=356](http://www.csaceliacs.info/recipe_index.jsp?rcpe_catg_id=6&rcpe_id=356)