

What's Up with Gluten Free?

2017 Leader Lesson

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Gluten



At a Glance:

Gluten-free is a major health trend these days. We see it on the news daily – and there are even whole aisles in the grocery store dedicated to gluten-free foods. So, what's up with all this talk about Gluten-Free? What does it actually mean and who does it affect?

Objectives:

Participants will gain:

- An understanding of gluten sensitivity, celiac disease and their symptoms
- An understanding of gluten and some gluten-free foods
- An understanding of some gluten-free recipes

Materials Needed:

- Variety of bread and pasta food labels.
- Copies of gluten-free recipes.
- Examples of gluten-free foods found at the grocery store.
- Plates and spoons for tasting the "Apple Crisp."

Time Required:

Approximately 20 minute

Teaching the Lesson:

Read or present the program. Then prepare one of the recipes at the end of the lesson and let everyone sample.

The Lesson:

Introduction

Celiac disease and gluten intolerance is a genetic disorder that affects 1 in every 300 people in the United States. It causes the small intestines to lose their ability to absorb nutrients in food, leading to malnutrition and other complications.

A gluten-free diet is a diet that excludes gluten, a protein composite found in wheat, barley, and rye. Gluten-free diets are essential for controlling symptoms in patients with these diseases.

So, why is Gluten-free so popular?

Many people today have the mindset that gluten-free diets are healthier but this is not the case. The diet is hard to follow and may pose nutritional drawbacks when people have no reason medically to be on it.

A decade ago, few Americans had heard of gluten. Today, one survey says, almost a third are trying to avoid the element found in grain. In growing numbers, the world's biggest food makers and restaurant chains are retooling recipes and labels to tap into the concern, creating a multibillion-dollar business out of gluten-free products.

Yet gluten-free lovers of the world may be in for a surprise. Many health experts say there is no proven benefit to going gluten-free except for those who can't process the protein. Indeed, according to nutritional food labels, many gluten-free foods contain fewer vitamins, less fiber and more sugar. It is a point some food makers don't dispute, saying they are simply responding to consumer demand without making health claims.

So, Who Needs It?

Who really needs this diet? Long before its popularity, the gluten-free diet was a medical staple – a proven treatment for celiac-disease. Perhaps someday, new research will show that gluten-free diets will benefit other health problems.

What are the symptoms? Symptoms may include bloating, abdominal discomforts, pain, or diarrhea or it may be present with headaches and migraines, lethargy and tiredness, attention-deficit disorder and hyperactivity, muscular disturbances, as well as, bone and joint pain. Left untreated, people can develop further complications such as osteoporosis, thyroid disease and cancer.

So, what is gluten?

Gluten is a protein found in foods processed from wheat and related species, which include barley and rye. It gives elasticity to dough helping it to rise and to keep its shape. It is found in bread, pasta, but may be hidden in many other foods such as cold cuts, salad dressings, beer, some medicines, vitamins, and even glue on stamps. Therefore, it is essential that you check with the pharmacist to make sure that each medication you are taking is gluten-free.

Gluten also traps starch between its layers and as the bread bakes, the starch gelatinizes. Together the gluten and gelatinized starch gives bread its structure and texture. Flours made from hard wheat contain the most protein and so can develop the most gluten. Durum wheat is the hardest of all the wheat, meaning that it's highest in protein. The harder the wheat, the more gluten it will have. Dough made from semolina is high in protein, which gives it the resiliency and strength to stand up to the mechanical pasta-making

process and to hold its shape during cooking.

Other types of grains can produce gluten, but not to the extent wheat can. Rye, the next best gluten producer, is a poor second to wheat. Breads made solely from low-gluten flours will be dense and heavy. As a result, most raised breads contain at least some wheat flour.

So, what is Gluten Sensitivity?

Gluten sensitivity, also known as gluten intolerance is a range of disorders, including celiac disease and wheat allergy, in which gluten has an adverse effect on the body

Celiac disease cannot be cured, but it can be controlled through the diet. This genetic disorder may occur in children as well as adults. Approximately one in 133 people may have the disease but 97% remain undiagnosed. This means that almost three million Americans have celiac disease and only about 10,000 know they have it. Gluten sensitivity can develop at any point in life. It develops as a consequence of genetics, meaning that it runs in families. Blood tests can help your doctor find out if you have the disease.

So, What is Gluten-free?

Gluten-free foods are dietary foods consisting of or made only from one or more ingredients which do not contain wheat, rye, barley, oats and the gluten level does not exceed 20mg/kg in total,

The most cost-effective and healthy way to follow the gluten-free diet is to seek out these naturally gluten-free food groups, which include: fruits, vegetables, meat and poultry, dairy, seafood, and grains that are

naturally gluten-free such as rice, corn, quinoa.

Grocery stores today have half to an entire aisle devoted to gluten-free products. It's important to read labels carefully if you are trying to go gluten-free. Many gluten-free processed foods are not as healthy. It is also important to remember that "wheat-free" does not necessarily mean "gluten-free."

Show and Tell

Show the label comparison and pass around samples or advertisements for gluten-free foods found at the grocery store. You can pass around bread and pasta labels and ask club members to look at the kind of flour listed on the ingredient label.

Ask club members to discuss these and any experiences they have had with people on Gluten-free diets.

In summary

Adjusting to a gluten-free diet can seem overwhelming and greatly affect quality of life at first. However, a dietitian, doctor and support group can help those newly diagnosed with menu planning, shopping, and even dining out. Over time, this change in lifestyle becomes second nature.

Source of Information:

Womenshealth.gov

Celiac Disease Foundation
<https://celiac.org/live-gluten-free/glutenfreediet/>

Nebraska Extension

<http://www.wsj.com/articles/how-we-eat-the-gluten-free-craze-is-it-healthy->

Compare Gluten-Free Food Labels

Weighing In

Gluten-free products aren't always healthier on some levels than their glutenous counterparts.



Barilla Gluten-free Spaghetti			Barilla Whole Grain Spaghetti	
2 oz. (56 g)		SERVING SIZE		2 oz. (56 g)
200		CALORIES		200
1 g		FAT	MORE	1.5 g
0 mg		SODIUM	MORE	10 mg
44 g	MORE	TOTAL CARBS		41 g
1 g	LESS	FIBER		6 g
0 g		SUGARS	MORE	2 g
4 g	LESS	PROTEIN		7 g



Betty Crocker Bisquick Gluten-Free Pancake & Baking Mix			Betty Crocker Bisquick Original Pancake & Baking Mix	
1/3 cup mix (40 g)		SERVING SIZE		1/3 cup mix (40 g)
140		CALORIES	MORE	150
0.5 g		FAT	MORE	4 g
340 mg		SODIUM	MORE	410 mg
31 g	MORE	TOTAL CARBS		27 g
< 1 g		FIBER		< 1 g
3 g	MORE	SUGARS		1 g
0% of RDA*	LESS	FOLIC ACID		10% of RDA

Following are some recipes made with sorghum flour suitable for someone with celiac disease. Though gluten is commonly associated with wheat, foods made with barley and rye must also be avoided. The use of oats is questionable at this time. For a comprehensive list of all the grains and flours currently considered consistent, questionable or not consistent with a gluten-free diet, check on the CSA website at <http://csaceliacs.org>.

In substituting sorghum flour for what flour in recipes, a combination of flours is often used. It is possible to purchase already-mixed all-purpose gluten-free baking flours. Or you can mix your own—following are three substitution possibilities which include sorghum flour.

Because sorghum does not contain gluten, a “binder” such as xanthan gum, must be added when gluten is needed to create a successful product. Add ½ teaspoon xanthan gum per cup of sorghum flour for cookies and cakes or one teaspoon per cup of flour for breads. Other ingredients used as binders in some recipes include egg whites, unflavored gelatin, cornstarch and guar gum.

Storing Sorghum Flour:

Store sorghum flour in moisture-vapor-proof, air-tight glass or metal containers or plastic freezer bags. Keep in a cool, dry, dark place if it will be used within a few months; store in a refrigerator or freezer for longer storage.

Cookie Mix (makes 2 cups)

¼ cup chickpea flour
1 ¾ cup sorghum flour
¼ cup sweet rice flour
*Sources: CSA website

Four Flour Bean

General Baking Mix (makes 3 cups)
¾ cup garfava bean flour
½ cup sorghum flour
1 cup cornstarch
1 cup tapioca starch/flour

Carol’s Sorghum Blend

1 ½ cups sorghum flour
1 ½ cups potato starch or cornstarch
1 cup tapioca flour

Whisk together and store, tightly covered, in a dark, dry place.

**1,000 Gluten-Free Recipes by Carol Fenster*

Apple Crisp

This recipe is provided courtesy of Twin Valley Mills, LLC (<http://twinvalleymills.com>)

4 cups sliced apples
½ teaspoon cinnamon

Slice apples into an 8x8-inch greased pan.
Sprinkle with cinnamon

Crumble topping:

1 stick (1/2 cup) margarine
¾ cup of sugar
¾ cup sorghum flour
Bake at 350°F for approximately 1 hour or until topping turns light brown.

NOTE: For the crumble topping, you may substitute butter-flavored Crisco and brown sugar