



**GLUTEN INTOLERANCE GROUP**  
of East Central Wisconsin

# GLUTEN-FREE NEWSLETTER

*Educate / Motive / Advocate*

## In This Issue

.....

Gluten-Free Thoughts..... 1

Easter Candy Lists .....2

GF Cheerios.....3

Camino Journey .....5

Looking Beyond GF .....8

Recipes..... 18

## Meetings

When: Third Saturday of odd numbered months (Jan, Mar., May, July, Sept., Nov.)

9:00 am to 11:00 am

Where: Ripon Medical Center in the Ripon/Princeton Rooms.

Spouses and loved ones are also encouraged to attend.

Alan Klapperich, Branch Manager

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[www.facebook.com/GIGofECW](http://www.facebook.com/GIGofECW)

So, what’s with the new look? I thought I’d try a different layout for this newsletter, using different software, at the eleventh hour before it’s due. Never claimed to be sharpest tool in the shed.



I was getting bored with the old layout; time to go a new direction. Is it the right direction? I don’t know, but I’ll hop on this path and see where it goes.

Life is funny. We set off in a particular direction, thinking it’s the right direction, but some where down the road we find our route getting “Recalculated”. We are taken down roads we never expected to travel. I guess that’s the magic and mystery of life.

I never would have thought I’d be taking on leadership roles, writing newsletters, or helping others navigate the gluten-free lifestyle.

It’s all about the journey, my friends!



Cynthia Kupper, Executive Director of Gluten Intolerance Group of North America shares her experiences on a recent 500 mile - 32 day trek on [The Camino de Santiago](#) (The Way of St. James) in Spain.

In “GIG’s Camino Journey”, Cynthia describes GIG’s 40 year journey.

“Looking Beyond Gluten-Free” from Anita Bermann, MS is another important article I received permission to share. For those who



### Gluten-Free Thoughts Continued

have been strictly gluten-free but still don't feel 100%, this article might help you figure out the missing piece of the puzzle.

Both of these articles are from the Winter 2015 edition of [Gluten Intolerance Group of North America's "Celebrate Gluten-Free"](#). To receive this publication, [become a GIG of North America member](#) (\$35 per year). I highly recommend it!

Stay strong. Be well. Happy Spring!

Alan Klapperich

GIG of ECW Branch Manager

## Easter Candy Lists 2015

As with any publish list of gluten-free items, please verify the products yourself. Make sure to read the ingredient lists. If you are unsure about a product, put it back until you can verify its status.

CeliacDisease.About.com

Jane Anderson (updated March 2015)

<http://abt.cm/iLwBpx2>

Celiac Sprue Association List

<http://bit.ly/ix2M4cg>





## The Scoop on Oats

Looking for more detailed information on oats? Check out the articles below. They offer a lot of information so you can make an educated decision if oats are right for you.

CeliacDisease.About.com  
Nancy Lapid:

<http://abt.cm/1HZsDSD>

CeliacDisease.About.com  
Jane Anderson:

<http://abt.cm/1F2Qwuk>



## Gluten-Free Cheerios

Starting in July, five varieties of gluten-free Cheerios will begin to appear on grocery store shelves. The five varieties will include: Original, Honey Nut, Multi-Grain, Apple Cinnamon, and Frosted. General Mills announced this news in February in a blog post that included an advertising video: <http://bit.ly/1xe9Imy>

Many are excited about this news, but let's dig a little deeper before we get too carried away. The main ingredient in Cheerios is oats.

First a little background information on said main ingredient. Oats have been controversial for over 20 years. Are they acceptable on a GF diet or not?

*See Nancy Lapid's article (left side bar) for summaries of all the North American celiac/gluten free organizations and treatment centers recommendations on oat consumption.*

Currently, most medical professionals say gluten-free oats can be tolerated in limited amounts [up to a 1/2 cup per day for adults]. Many in the gluten-free community would beg to differ with that recommendation.

Regular followup testing is also advised to make sure intestinal damage is not occurring. For those newly diagnosed, it's suggested to restrict the use of oats for up to one year.

Also be aware that some (less than 1%) will react to the protein found in oats [known as avenin] just as they react to the proteins in wheat, barely, rye and oats.

Bottom line here, if you know they cause you discomfort, do not eat them.

The experts that recommend oats all agree that only certified gluten-free oats be used - **no commercial oats allowed** (think Quaker oats). Why? Cross contamination with gluten [wheat, barley, rye].

Often times oats are grown in rotation with wheat, so there can be left over wheat that gets harvested with the oats. Harvesting, transporting, and processing of oats use the same equipment as gluten-containing grains.



## More Thoughts On Oats

Find out what others in the gluten-free community are saying about Gluten-Free Cheerios. Each of these articles contain very interesting information.

**Gluten-Free WatchDog**  
**Tricia Thompson, RD:**

<http://bit.ly/1MPw0fZ>

**Gluten-Free Living**  
**Amy Ranter:**

<http://bit.ly/193Oa01>

**The Savvy Celiac**  
**Amy Ledger:**

<http://bit.ly/1BXOZmQ>

## Gluten-Free Cheerios Continued

Back to General Mills. With everything we [the gluten-free community] know about oats, we'd expect companies to use certified gluten-free oats in their gluten-free labeled products. Surprisingly, not all manufacturers source their oats from certified gluten-free oat producers - General Mills included.

*[Tricia Thompson's article - link found in the side bar - has a lot of excellent information regarding oats - don't overlook it!]*

However, General Mills is confident that their top-secret proprietary sorting method offers greater consistency over certified gluten-free oats. They're not willing to disclose too many details about their new technology because it has taken them several years and millions of dollar to develop it.

Amy Ranter of Gluten-Free Living spoke with Steven L. Taylor, Ph.D., co-director of the Food Allergy Research & Resource program at the University of Nebraska about this situation. *[See link in sidebar]*

Taylor, one of the world's experts in gluten testing has stated, *"If General Mills indicates that Cheerios are gluten free, then I would believe that they are indeed gluten free". "I also personally know that General Mills is a very cautious company and that they would be unlikely to take any chances with the labeling decision."*

What to do? What to do? This is going to be one of times where we need to make personal decision. Hopefully all of this information will help you decide.

Myself, I will be waiting for independent testing results from Gluten-Free Watchdog before [if] I try them.



## The Way of St. James

*Above: Alto del Perdon is a sculpture dedicated to the pilgrims who walk the path of the Camino de Santiago*

El Camino de Santiago - "The Way of Saint James" is the pilgrimage to the Cathedral of Santiago de Compostela found in northwestern Spain.

The Way of St. James has been Christian and Pagan pilgrimage for over 1,000 years. This pilgrimage was one of three that could free the Christian pilgrim from the penance due for their sins.

While we may never get to Spain to travel the Camino, we all walk our own paths here at home. Sure, the locations may be different, but a journey is a journey. I think Cynthia points out some universal truths that can be applied no matter what path we are on.

Big thanks to Cynthia Kupper, RD and Gluten Intolerance Group of North America for allowing me to share this story!

Al Klapperich

# GIG's Camino Journey

By Cynthia Kupper, GIG Executive Director

At one time, I described becoming the executive director of GIG as trying to walk in the shoes of a big legend – Elaine Hartsook. Dr. Hartsook founded GIG in 1974, out of seeing a need not being met. From the start she had a vision of a national organization. She was internationally recognized as the Voice for consumers and the leading expert and author of the first gluten-free diet guidelines. She was a GIANT!

She set a path for GIG I thought I was unworthy of following.

I recently returned from Spain, where I walked 500 miles in 32 days. The Camino de Santiago is a popular trek that thousands of people walk every year. Some for religious or spiritual reasons, others for exercise, the sheer joy of walking, and others to find companionship. I learned a number of lessons on my journey across Spain. Lessons that apply to my personal story and also to GIG's story.

First, I learned

"I can do it!"

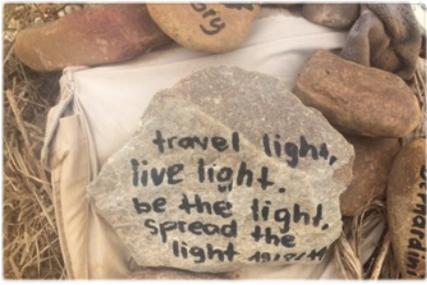
"Keep the main thing the main thing"

and "Take one step at a time...Make it a good one."

These mantras I repeated on the hardest parts of the trail that came at the end of a long day, as we crossed the Pyrenees mountains, or rugged sections of the trail. And I cheered my success knowing I CAN DO IT!!!

GIG continues to live this mantra every day. The mission of GIG from the beginning has focused on consumers. It remains "the main thing" that we focus on. Every program, every decision for 40 years has been made to benefit people living a gluten-free lifestyle. Even when GIG struggled, we maintained a Can Do attitude. Look at us today! We Can Do This!!

The second lesson I learned is that Community is important. On the Camino, there were 2 noticeable communities we encountered daily. The Camino community – the pilgrims that walked the walk; and the village communities, that pulled



**“travel light,  
live light,  
be the light,  
spread the light.”**

*“All along the Camino are cairns, memorials, etcetera where pilgrims place mementos, words of wisdom and more. This one was very poignant for the Camino Journey and our life journey”*

~ Cynthia Kupper

## *Journey Continued*

together to survive, support each other and thrive during hard economic times, then celebrate life! The Camino community knows no discrimination. Even without a common language, we were a community. We bandaged other people’s wounds, celebrated the end of the day and the ones to come, and provided each other support. Sometimes we led and sometimes we followed. The best relationships were built on a shared language of love – not our native languages – we knew what was meant by the actions of others.

On the Camino, we sometimes had choices of routes. We always chose the high road, the original way of St. James. The road may have been the tougher road, but it always provided us with the most inspiring vistas, and the pride of knowing we did not compromise.

GIG believes in being supportive and putting the community first, while maintaining the highest standards and ethics. GIG believes in the value of working together for the good of everyone, not just GIG.

Sometimes things are more difficult when taking the high road, but it hasn’t stopped us from believing in community and each other. Just as my fiancé and I walked hand-in-hand every day on the Camino and inspired those around us, GIG holds hands every day with the GF community. This simple act builds belief, hope, and trust in a shared vision and goals.

I learned you can’t get lost if you just follow the arrows! They point the way. The yellow arrows and scallop shells were our map and our constant companion. They gave us options but always led us to our destination each night and to the end of the trail.

The gluten-free community has road markers too. There are a number of signs to follow, things to be done, and choices along the way. GIG has always focused on those things that make living gluten-free easier. Our work is diversified and provides well-rounded support by working directly with consumers and the food industry. All of this is to make a gluten-free life easier for you, your loved ones, friends – and me.

I learned there is power and endless possibilities in stepping



**“Press forward. Do not stop, do not linger in your journey, but strive for the mark set before you.”**

**-George Whitefield**

## *Journey Continued*

outside your comfort zone. My journey was truly amazing. GIG’s journey is no less amazing! 40 years ago Elaine Hartsook had a vision of a national organization and for 20+ years she established GIG as a leader and the voice of those living a gluten-free lifestyle. When she handed me keys to the office, I took a deep breath and stepped outside my comfort zone, to lead GIG to where it is today.

Today, I am proud to say that GIG walks the same path we started down 40 years ago. We walk it with the same purpose but with a different stride. The path has been full of decisions – do we take the low road that may be easier, or do we stick to the path chosen for us 40 years ago? We have chosen the high road. It’s been hard work, but each time we reach a destination, we celebrate the milestones accomplished for the community and look forward to the next milestone that leads to the final destination. We never forget who we serve or why we are doing what we do.

Another lesson I learned on the Camino is “You will know you are there when you get there.” We knew immediately when our adventure was over.

GIG is not there yet. Our work is not done. We are just beginning and GIG has a long way to go. We look forward to our continued work for the gluten-free community and hope that you will support our efforts for everyone living gluten-free for another 40 years.

I believe that Elaine is smiling down on GIG. I am sure she is proud that the organization she founded continues to grow and that globally GIG is making a difference.



## When GF isn't enough

Sometimes, going gluten-free isn't a "magic bullet". It's simply not enough to clear up the myriad of health issues one may have.

Dr. Tom O'Bryan continually talks about "putting out the fire in the belly" and "healing the gut".

Hippocrates said "*All disease begins in the gut*". Now, 2000 years later, science is beginning to prove just how correct he was.

I know this is a long and detailed article, but I feel it holds important information that people should know.

Big thanks to Gluten Intolerance Group of North America and Anita Bermann, MS for allowing me reprint her article.

# Looking Beyond Gluten Free: Choose a Gut-Supportive Diet for Long-Term Health with Celiac Disease

By Anita Bermann, MS, Bastyr University Dietetic Intern

You thought you had the gluten-free diet down. You expanded your diet beyond meat and bananas; you found gluten-free bread that doesn't taste like cardboard, learned how to incorporate weird ingredients like tapioca and xanthan gum into your holiday baking, and most importantly of all, are feeling much better. The world has felt friendlier in the days since your diagnosis: whenever you have a craving, whether for pizza, cake, or beer, a gluten-free product is finally there to fill it. All in all, you're doing well, and indeed, you've come a long way. Following a gluten-free diet, reading all those labels, fighting all those crumbly breads, can certainly be hard work but you're getting it figured out.

But. For some reason, even though you're doing everything right, you may not feel completely well, completely normal. If you are like many patients with celiac disease, you might have some persistent symptoms that could range from annoying to debilitating. Maybe you still experience frequent gas and bloating, or irritable bowel symptoms like constipation and diarrhea. Perhaps you've discovered that you are more prone to infections than those around you, or more exhausted, or some other mystifying complex of symptoms. Maybe your intestinal biopsy still shows signs of inflammation despite years on a gluten-free diet.

When you talk to your primary care doctor about this, he or she may suggest that somehow gluten is continuing to get into your diet, even though you know that's not the case. Or maybe you're just told there's nothing more you can do, because the gluten-free diet is the only treatment for celiac disease. Is it all in your head? Is it hopeless? There's got to be something else to try, you think.

Yes, there is more you can do that may help heal your gut and re-align your immune system after a diagnosis of celiac disease. Although research doesn't have all the answers yet, scientists are beginning to discover that treatment for celiac disease may not

*Beyond Gluten-Free Continued*

stop at a simple gluten-free diet. Avoiding all gluten-containing foods and foods cross-contaminated with gluten is the gold standard for treatment, but in order to support long term health, many celiac disease patients may benefit by also addressing a few other lingering issues, namely: leaky gut, dysbiosis, and inflammation.

In order to understand what's happening, let's review some celiac disease physiology:

*Down in the Small Intestine*

Our digestive system is not only a way to absorb beneficial nutrients into the body; it is also an active player in the body's immune system. Because this hollow tube is open to the outside world, it is our first line of defense against foreign invaders like viruses and toxins. The whole system relies on adjustable gaps between the intestinal cells (enterocytes) called "tight junctions." By opening and closing selectively, tight junctions regulate what we allow past our defenses and into the bloodstream. The idea is that toxic foreign invaders will be kept on the outside, and good nutrients let in.



Unfortunately, this system is delicate and doesn't work perfectly in everyone. Sometimes the tight junctions open too wide, allowing bad things in, including pathogens and undigested food particles that are too large for our body to process. When this happens, we refer to it as increased intestinal permeability, or "leaky gut syndrome." Leaky gut causes the body to recognize food particles as invaders and results in persistent inflammation and subsequent damage to tissues. Leaky gut syndrome has been associated with celiac disease, as well as other autoimmune disorders like type I diabetes, rheumatoid arthritis, and irritable bowel disease. When your gut is leaking, your entire immune system is out of balance, and a range of problems is possible.

Let's look at how this happens in the context of celiac disease:

1. For patients with celiac disease, gluten is indigestible. The gluten found in wheat, rye, and barley contains certain protein strands called prolamines (i.e. gliadin in wheat, hordein in barley, and secalin in rye, but we'll use gliadin to refer to all in this article) that we don't have the enzymes to process. The intestinal cells of individuals with celiac disease view the gliadin as an invader.
2. When gliadin interacts with the intestinal cells, they release chemicals (called inflammatory mediators) to ramp up the immune response and try to fight the invasion. This means that white blood cells start rushing out of the bloodstream towards the fight in the gut.
3. Meanwhile, gluten also increases levels of an intestinal compound called zonulin. This recently discovered alien-sounding particle is responsible for regulation of intestinal permeability. Higher

## *Beyond Gluten-Free Continued*

levels, found in celiac disease and other autoimmune disorders, mean wider gaps between the intestinal cells.

4. So now we have an undigested particle facing a wide open gate between tight junctions. And through the gate is exactly where the gluten particle goes. This is called “paracellular translocation,” which basically means that the enemy is inside the walls, i.e., the gut tissue. The immune system isn’t programmed to deal with food particles here, and it goes into overdrive, releasing even higher numbers of white blood cells as well as inflammatory mediators that cause the tight junctions to open even further.
5. The white blood cells and inflammatory mediators involved in the fight release toxic chemicals that damage not only the foreign particles but also the gut tissue itself. The villi on the outside of the enterocytes that we use to absorb nutrients get the brunt of the attack, and are worn down to stubs.
6. In the end, the result of the gluten ingestion is damaged tissue and malabsorption, often accompanied by the familiar cramping, diarrhea, and bloating symptoms, as well as lingering leaky gut syndrome.

Researchers led by Alessio Fasano of the Center for Celiac Research and Treatment at Massachusetts General Hospital have found that three things are required to develop celiac disease: ingestion of an environmental trigger (gluten), genetic predisposition (HLA DQ2/DQ8 genes), and increased intestinal permeability.

This last finding is a key development in the understanding of celiac disease. Intestinal permeability doesn’t only worsen in celiac disease, it partially causes celiac disease. Patients with celiac and other autoimmune diseases have a predisposition to a leaky gut. This could explain in part why autoimmune diseases sometimes occur together. Whether this is because of higher zonulin levels, or pre-existing inflammation, or something else, we aren’t sure, but we do know that stopping the leakiness is an important factor to consider.

Conventional celiac disease wisdom says that once gluten has been removed from the diet, zonulin levels will normalize, the immune system will calm down, and tight junctions will close, returning a patient to health. In practice, however, this doesn’t always happen.

### *Inflammation Can Linger for Years*

Studies have shown wide variability in healing of gut tissue after a diagnosis of celiac disease. By some estimates, 60% of adults never completely heal, despite following a gluten-free diet. One study showed complete small intestine recovery in only 34% of patients following a gluten-free diet for two years. Many studies show some amount of persistent white blood cell infiltration, the hallmark of inflammation, as well as higher levels of inflammatory chemicals, even years later. Celiac disease patients tend to have higher levels of zonulin and greater gut leakiness than people without celiac disease, whether eating a gluten-free diet or not.

## *Beyond Gluten-Free Continued*

Apparently, it's harder than we thought for the body to recover from immune and inflammatory imbalance in the gut, and some people may be pre-disposed to have a harder time of it. But in order to truly understand the problem, we must discuss one more condition: dysbiosis.

### *Let's Talk About Bacteria*

Remember the entire inflammatory cascade caused by gluten that we discussed above? There's another thing that can also have a significant effect on opening tight junctions, and that's bacteria. When levels of bad (pathogenic) bacteria overgrow in the small intestine (referred to as either dysbiosis or small intestine bacterial overgrowth [SIBO]), this can trigger zonulin release and lead to leaky gut syndrome. The body is trying to open the gates to let white blood fighter cells out to attack the bacteria, but meanwhile, food particles can pass through, causing tissue damage and triggering an auto-immune response in some people.

Researchers have found a high incidence of dysbiosis in both symptomatic and "recovered" celiac patients, to the point that it looks like overgrowth of bad bacteria and leaky gut seem often to go hand in hand in initiating and continuing symptoms in celiac and other autoimmune disease patients. In one study, biopsies from children with celiac disease showed overgrowth of thirty types of bacteria not found in the intestine before. Other studies have shown lower levels of the healthy Bifidobacteria and overall diminished biodiversity among good bacteria, making it easier for bad bacteria to overgrow.

When bacterial imbalance occurs in the small intestine, toxic byproducts from the bad bacteria irritate the intestinal cells, causing damage that worsens leaky gut. The bad bacteria also feed on undigested carbohydrates (they love sugar), releasing high levels of gas like hydrogen and methane. This can result in bloating, diarrhea, and constipation.

Bacterial imbalance is becoming more common in everyone, due to the preponderance of refined starches in the standard American diet, environmental toxins, lack of fermented foods, and, ironically, better hygiene practices.\* However, it is usually found in much higher numbers in patients with celiac disease, even after gluten withdrawal.

\*Note: the "hygiene hypothesis" says that there is a correlation between people who live in "sanitary" countries (with low incidence of childhood infection and parasites from dirt) and higher levels of autoimmune disease. Researchers think that one possible explanation is that our immune systems need to be "trained" by these invaders to differentiate a true threat from our own bodies.

So even years after becoming gluten-free, many people with celiac disease show a tendency to struggle with dysbiosis, leaky gut, and lingering inflammation, with all the side effects and future pathologies this may involve.

## *Beyond Gluten-Free Continued*

The important thing, then, is to consume a healthy gluten-free diet that will help to relieve these problems. Unfortunately, the gluten-free diet followed by many patients with celiac disease is just the opposite.

### *How the Gluten-Free Diet Can Worsen Inflammation, Dysbiosis, and Leaky Gut*

The gluten-free diet may be the gold standard, but for many patients, its implementation results in less than treasured results.

For one thing, many gluten-free grain products are higher in sugar and simple starch than their gluten-containing counterparts. Gluten-free goods often need extra sugar to make them taste good or bake properly, and common gluten-free grains are often less nutritious than wheat. Too much sugar can feed bad bacteria and worsen gut inflammation.

Let's compare whole wheat and rice. Whole wheat is higher in protein, fiber and minerals than many gluten-free grains. For example, two slices of whole wheat bread contain about 8 g protein, 7 g fiber, 1 mg iron, and 30 percent of your daily value for thiamin (a B-vitamin needed for energy). Conversely, a half-cup serving of brown rice contains only about 3 g protein, 2 g fiber, 10 percent of your daily value for thiamin, and a trace amount of iron.

All grains lose vitamins, minerals, protein and fiber when the outer hull is removed in refining, but rice and corn lose more than wheat. White rice flour has scant protein, while all-purpose wheat flour still contains 6 g per half-cup. Wheat Chex, for example, has 6 g fiber and 5 g protein per serving, while Rice Chex only contains 1 g fiber and 2 g protein. Wheat flour products are often enriched after refining, which means iron and crucial B-vitamins like folate, niacin and thiamin are restored. This doesn't always happen for gluten-free products, which leaves many deficient in certain nutrients and high in simple carbohydrates.

In addition, many patients with celiac disease just don't eat the recommended amount of whole grains. One study found that 38% of meal intake by people with celiac disease may not include grains, which could lead to inadequate fiber, iron, folate, niacin, and zinc intake. In fact, another study showed that about half of celiac patients on a gluten-free diet show signs of poor vitamin status. Folate, iron, B-vitamin, potassium, magnesium, calcium, zinc, and vitamin D deficiencies are especially common in celiac patients.

The upshot of all this is worsened dysbiosis (the lack of fiber especially plays a role), which in turn worsens inflammation. One study found that people fed a refined gluten-free diet experienced a decrease in healthy and increase in unhealthy gut bacteria after only one month.

So, in order to optimize health, diet should go beyond gluten-free. Celiac patients should strive to eat in a way that provides ample nutrition, reduces inflammation, reduces pathogenic bacterial overgrowth, and as a result, addresses gut leakiness.

*Beyond Gluten-Free Continued**A Healthy Gluten-Free Diet: The Basics*


A smart gluten-free diet focuses on whole foods rich in fiber, protein, vitamins and minerals. This means ample servings of real whole grains and smaller amounts of high sugar dysbiosis-promoting refined and processed substitute products. Choose a variety of grains like amaranth, buckwheat, wild rice, quinoa, millet, teff, and brown rice, and rotate your grains to ensure a

balance of nutrients. Be careful to choose gluten-free grains that have not been cross-contaminated, to ensure that you don't aggravate your gut immune system further. If you plan well, you can end up with even more fiber and minerals than when eating a gluten-containing diet. For example, amaranth and quinoa are high in protein and can contain 9 g and 5 g fiber per half-cup, respectively, as well as B-vitamins. Don't forget about nuts, beans, fruits, and vegetables, which are also high in fiber, vitamins, and minerals to help your gut heal. Sea vegetables are especially useful, because of the high proportion of iron, potassium, and other minerals, as is broth made from animal bones (see recipe p. 52)

Some people find additional benefits in soaking gluten-free grains overnight. Soaking before cooking can help make the grains more digestible and render minerals more bio-available.

In addition to food, celiac patients often need supplementation because of the continued difficulty in absorption. Ask your doctor to check iron, vitamin D, bone density, and B-vitamin measurements to make sure a few additional vitamins and minerals aren't necessary. Vitamin D is especially important in ensuring that the immune system functions normally without excessive inflammation.

Even with a balanced diet, however, most people with celiac disease may benefit by going further to address dysbiosis and inflammation.

*Beyond the Basics Part 1: Cultivate Healthy Gut Bacteria*

The first step to cultivating a healthy bacterial population that supports closing of tight junctions is to minimize foods that increase bad bacteria: gluten of course, but also refined sugar, food additives in processed foods, and for some people FODMAPs, certain short chain carbohydrates that can be poorly digested and thus become food for bad bacteria.\* The second step is to eat the whole foods, high fiber diet described above at least 80% of the time, which provides the fuel for good bacteria to grow.

\*For more on FODMAP foods, see the GIG educational bulletin entitled "[The Low FODMAP Diet](#)" at [www.gluten.org](http://www.gluten.org).

Beyond this, probiotic foods and supplements might be helpful. Research is not conclusive in the area of probiotics as an adjunctive treatment in celiac patients, but preliminary results look promising.

*Bifidobacterium lactis*, one probiotic strain, for example, has been shown to inhibit gut leakiness, as have

## *Beyond Gluten-Free Continued*

some *Lactobacillus* strains. In one study, 93% of children had faster remission of gut inflammation symptoms with probiotic treatment.

Not enough is known to customize a probiotic supplement for celiac disease, but natural probiotic sources like sauerkraut, kimchi, kefir, sourdough, miso, tempeh, and kombucha contain a wide enough variety of bacterial strains that you're likely to ingest a helpful one when consuming wild-fermented foods. In one study of gluten-free sourdough bread, for example, the sourdough fermentation was shown to produce *Bifidobacteria* that have been shown to help reduce gut inflammation.

Including probiotic foods and/or supplements in a balanced gluten-free diet may help increase the speed and depth of healing from celiac damage.

### *Beyond the Basics 2: Combat Inflammation*

Probably the most important thing a person with celiac disease can do, besides avoid gluten, is to pick a diet that is as naturally anti-inflammatory as possible. This will help the white blood cells and inflammatory mediators leave the gut tissues and return to the bloodstream, ceasing their damaging attack. This will also help close tight junctions, which can help pretty much any autoimmune or inflammatory condition. Luckily, everything discussed previously—choosing whole grains, ensuring adequate intake of all vitamins, minerals, and fiber, as well as re-growth of beneficial intestinal bacteria—already has an anti-inflammatory effect on our gut.

There are a few important steps to take the anti-inflammatory benefits further, however:

The most important is to strive for 7-10 servings of fruits and vegetables a day. Fruits and vegetables are considered cooling to inflammation because they contain a rainbow of phytochemicals that can down-regulate the inflammatory response. Green leafy vegetables, cabbage family vegetables (brassicas), berries, cherries, pomegranates, garlic and onions are particularly rich in these beneficial compounds. Herbs and spices can contain concentrated forms of some of the same compounds as fruits and vegetables, so don't forget to spice it up! Garlic, ginger, turmeric, rosemary, thyme, cinnamon, dill, and basil are a few options with known anti-inflammatory effects.

Choosing omega-3 fat sources is also important. Omega-3's are considered the "anti-inflammatory" fats because they turn off inflammatory signaling molecules. This is in opposition to omega-6 fats, which can increase inflammation when eaten in excess. Cold water fish, grass-fed meat, walnuts, extra virgin olive oil, flaxseed, and fish oil supplements are all great sources of omega-3's. Try to avoid excessive amounts of



## *Beyond Gluten-Free Continued*

corn, soybean, safflower, and sunflower oils, the omega-6 dominant fats. Avoid hydrogenated (trans) fats as much as possible, as they are extremely inflammatory.

When choosing a drink in addition to water, choose tea whenever possible. Herbal as well as black, green, and white teas have high levels of anti-inflammatory polyphenols. Alcohol is fine in moderation (usually 1 glass/day for women and 2 for men, with red wine a better choice because of polyphenols in the grapes) but too much alcohol is highly inflammatory.

For cooks ready to go a step further, making your own bone broth could help heal gut mucosa damaged by inflammation. Bone broth is an ancient healing food: it is simply animal bones boiled in water for 12-48 hours until they soften and release minerals and collagen. Collagen is very easy to digest and bone broth also contains minerals like calcium and magnesium to help nourish the body with the nutrition it needs. Sub-clinical magnesium deficiency, for example has been linked to higher levels of circulating inflammatory molecules in the body.

Finally, reducing inflammation goes beyond diet. One of the most potent triggers of inflammation that we haven't discussed yet is stress. Stress can cause an increase in pathogenic bacteria, which can worsen leaky gut, and can also increase the levels of damaging inflammatory molecules. The brain-gut connection is particularly well-developed, and stress hormones released by the neurological system cause immediate inflammatory changes in the gut. Daily stress reduction techniques are key to calming the gut as well as the brain. Find a practice that works for you: yoga, meditation, walking, biofeedback, etc., and try to make time in the day for stress reduction no matter how busy you are.

Healing the damage from celiac disease and restoring the immune system back to a state of normalcy may improve many lingering symptoms in those with celiac disease. It is not a quick process, but with a truly healthy gluten-free diet, it is possible. Choose one diet change from the list below, and make it a habit before moving on to the next, taking one step at a time towards lasting wellness.

### *Summary*

- As you can see, healing a gut damaged by celiac disease goes beyond simply choosing a gluten-free diet. The major recommendations discussed in this article include:
- Increase high fiber, high vitamin-and-mineral-containing fruits, vegetables, and gluten-free whole grains to support the growth of good bacteria and turn off inflammatory molecules.
- Minimize refined grains, sugars, and processed gluten-free products that can feed bad bacteria and worsen dysbiosis.
- Include naturally fermented foods and probiotic sources like miso, kimchi, kombucha, kefir, sauerkraut, or supplements in your diet to support the growth of good bacteria.

*Beyond Gluten-Free Continued*

- Aim for a rainbow of 7-10 servings of fruits and vegetables (that's ½ cup cooked or 1 cup raw per serving) a day to cool inflammation.
- Spice up your life! Herbs and spices help to cool inflammation further. Garlic, ginger, turmeric, rosemary, thyme, cinnamon, dill, and basil are a few great choices.
- Choose anti-inflammatory fat sources such as fish oil, walnuts, flax, and olive-oil whenever possible.
- Try anti-inflammatory liquids like tea and bone broth.
- Practice stress-reduction techniques to calm pathogenic bacterial overgrowth.

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*Beyond Gluten-Free Continued*

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**Notes:**

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## GF Baking 101

Confused when it comes to gluten-free baking? Check out this collection of beginning GF baking sites.

**Beth Hillson**  
Gluten-Free Makeovers  
Baking Basics

<http://bit.ly/1MOEqWL>

**Beth Hillson**  
Gluten-Free Makeovers  
Cookies 101

<http://bit.ly/1bjp3YW>

**Carol Fenster**  
Savory Palate  
Bread 101

<http://bit.ly/1Ex2Due>

**LynnRae Ries**  
Living Without GF & More  
101 Bread Basics

<http://bit.ly/1Ly7eWd>

# Recipes

*If you are making these recipes for a gluten-free guest, please read our Guide to Gluten Cross Contamination:*

[http://bit.ly/GIGECW\\_GlutenContamination](http://bit.ly/GIGECW_GlutenContamination)

## Paula's Cookies

submitted by Laurie & Don P.

Printer friendly version: <http://bit.ly/1FncB73>

### Ingredients:

- 1 cup almond flour (Honeyville)
- 3 Tbsp softened butter
- 3 Tbsp powdered sugar
- 1 tsp cinnamon
- 1/8 tsp salt
- 2 tsp maple syrup
- 1/2 tsp vanilla.
- 1/3 c. chopped pecans

### Lemon Variation:

- 1 tsp lemon extract
- 1 tbsp fresh lemon zest
- 2 tsp honey
- 1/3 c. powdered sugar
- 1 - 2 tbsp lemon juice

### Chocolate Variation:

- 1/4 cup semi-sweet chocolate chips

### Directions:

Beat the ingredients together on low speed until a dough forms. Add chopped pecans and mix until just combined.





## Grain-Free

Many people feel best when they remove all grains (even gluten-free grains) from their diet. A Paleolithic lifestyle is inherently gluten-free because all grains are removed.

Elana Amsterdam  
Elana's Pantry  
Grain-Free Recipes

<http://bit.ly/1bjwzmv>

Elana Amsterdam  
Elana's Pantry  
Paleo Recipes

<http://bit.ly/1FHBOb1>

Dr. David Perlmutter  
"Grain Brain" Author  
Grain Brain Recipes

<http://bit.ly/1Fboe0K>

## Paula's Cookies Continued

Place a piece of plastic wrap on the counter. Transfer the dough to the plastic wrap and form it into a log shape.

Fold the plastic wrap around the dough and shape again to form a roll about 7-8" long and 2" in diameter. Place in fridge to chill for at least 60 minutes.

Remove it from fridge and place on a flat surface. Preheat oven to 350. Line a baking sheet with parchment paper.

Unwrap the cookie dough and slice into 1/4" discs.

Bake about 12 minutes or until slightly brown on edges. Remove from oven and let them cool for 10 minutes before putting them to a rack to cool completely.

Lemon Variation:

Omit cinnamon. Replace vanilla with lemon extract. Add fresh lemon zest. Replace maple syrup with honey - equal parts.  
Glaze: Mix powdered sugar and lemon juice and drizzle over top of cooled cookies.

Chocolate Drizzled Variation:

Omit cinnamon. Increase vanilla to 1 teaspoon.  
Drizzle: Melt chips and spoon into plastic bag. Snip corner and drizzle over cooled cookies.

## Cauliflower Crust Pizza

Original recipe from [dearcrissy.com](http://dearcrissy.com): <http://bit.ly/1ObdrGp>

Printer friendly version: <http://bit.ly/1BGaWlr>

### Ingredients:

- 1 cup cooked & riced cauliflower
- 1/2 cup shredded mozzarella cheese
- 1/2 cup grated parmesan cheese
- 1 egg, beaten
- 1 tsp Italian seasonings





## *Cauliflower Pizza Crust Continued*

1/2 tsp crushed garlic

1/2 tsp salt

Favorite pizza sauce & toppings

### Directions:

Roughly chop cauliflower and place into food processor.

Pulse until you have rice-like bits. Don't over-process. Cheese grater will also work to rice the cauliflower.

Microwave riced cauliflower in a microwave safe bowl for 5 to 8 minutes. Don't add water.

Place the hot cauliflower in a fine meshed strainer and drain well. Gently press out excess water. Be careful - the water is hot - you might let it cool for a bit before the next step.

Dump strained cauliflower on to a clean dishtowel. Wrap towel around cauliflower - twist and squeeze out as much excess water as possible. Drying is important.

Preheat oven to 450 degrees. Spray cookie sheet with non-stick cooking spray or line sheet with parchment paper. I lined pizza stone with parchment paper.

Combine 1 cup of rice, cooked cauliflower, 1 egg and cheeses in a bowl. Add seasoning, garlic, salt. Mix well.

Place "dough" on cookie sheet/pizza stone and pat out a 9" round crust. Don't press it too thin - it's easy to create holes.

Bake crust at 450 for 15 minutes.

While crust is baking, sauté your topping veggies until soft. This helps to remove moisture - which helps reduce soggy crust.

Remove crust from oven. Add a layer of cheese, return to oven long enough to melt the cheese. The cheese adds moisture barrier between the crust and veggies - minimizes the soggy crust factor.

Remove from oven and add toppings. Place under broiler until cheese melts. Don't let it burn!

*Recipes Continued***Chocolate Crackle Cookies**

Original recipe from [Krusteaz](http://bit.ly/1EBufkk): <http://bit.ly/1EBufkk>

**Ingredients:**

1 package Krusteaz Gluten Free Double Chocolate Brownie Mix

1 egg

1/3 cup vegetable oil

3/4 cup powdered sugar

**Directions:**

Preheat oven to 350°F. Lightly grease cookie sheet.

Place brownie mix, eggs and oil in medium bowl.

Stir until blended. Place powdered sugar in separate bowl.

For each cookie, scoop 1 rounded tablespoon dough and place in powdered sugar.

Roll dough gently into balls, coating thoroughly with powdered sugar.

Place 2 inches apart onto prepared cookie sheet. Bake 11-13 minutes.

Makes 2 1/2 dozen cookies.