

Gluten: bad for us all!

“All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident.”

Arthur Schopenhauer, German philosopher (1788 - 1860)

Here we present you with the evidence of the universal harm of gluten

Gluten: ZERO global.

By this I mean a worldwide change to a gluten-free diet.

Is there really enough evidence to demand such a massive changes to everyone's diet, farming practices and food manufacturing?

Growing numbers in the medical profession have come to the conclusion that gluten is a universal toxin.

Gluten! What is the fuss all about?

Is this gluten-free idea just a craze? Is it a fad that will soon pass by? Or is it for real?

The disturbing answer is that gluten is bad for us all. You, me and everybody else should be gluten-free. Furthermore, gluten should be eliminated from the entire human food chain.

These are extraordinary statements to make. However the latest medical research supports this stance. The predictions are that in another generation, gluten will be avoided by all reputable food processing companies.

This truth is difficult for anybody to comprehend. That is because bread and other wheat products have been the foundation of our diet for thousands of years. So, to suddenly find out that our basic food is harmful is almost impossible to believe. Hence, the quote from Arthur Schopenhauer, stating that: *“All truth passes through three stages. First it is ridiculed ...”*

Rapid changes in understanding

Twenty years ago, hardly anyone even knew the existence of word gluten. Nowadays, most people have heard that gluten is a substance in wheat and some other grains. But most people remain unaware of the harm that gluten could be doing to them. Most people think that gluten-disease happens to someone else. This is dangerous thinking.

I am a pediatric gastroenterologist and run a busy clinic in Christchurch, New Zealand. As part of my medical training, 40 years ago, gluten and celiac disease were considered “fine print” stuff. Hardly anybody was diagnosed with a gluten problem, and in America, any thought of gluten-disease was strenuously denied by the medical community.

However, things have radically and rapidly changed. Research now shows that the intestinal damage of celiac disease occurs in at least one in 100 people and the numbers of celiac-affected people has quadrupled over the last 50 years. Moreover, increasing numbers of physicians have come to the conclusion that gluten is potentially harmful for **everyone**. Yes that is “everyone”, including you and me.

I too have adopted a strict gluten-free diet for the last 5 years, this follows my ongoing research into the serious harmful effects of gluten. I will have ZERO gluten, lifelong.

Professor Alessio Fasano, a leading researcher in celiac disease, is asked in an interview: “Should anyone eat gluten?” He answers that no one can digest gluten and that gluten sensitivity – the gluten syndrome – affects millions and millions. He goes on: “We also now know that 18 million people have a newly discovered immune response called “gluten sensitivity.” People with this condition can have up to 100 symptoms, many similar to Celiac Disease. The difference is that Gluten Sensitivity does not involve the immune system attacking the intestinal wall of the patient.”

<http://www.tenderfoodie.com/blog/2011/12/19/interview-w-dr-alessio-fasano-part-1-should-anyone-eat-glute.html>

The crucial gluten questions

These are the questions that we need answers for, before we can demand global gluten-free:

- Should we modify our bodies?
- What diseases have been linked to the eating of gluten?
- How big is the gluten burden?

- What is the evidence that shows we are all disturbed by gluten?
- Is the disease burden of gluten big enough to justify a global ban on gluten-foods?
- Is there really enough evidence to demand such a massive change to everyone’s diet, farming and manufacturing industry?
- Can our Planet survive without gluten?
- Can we accept the gluten status-quo? (We say “No!”)

Should we modify our bodies?

Before we launch into the reasons why gluten is so harmful to our bodies, we first must respond to the idea of “why not modify our immune systems to tolerate gluten, rather than have to avoid gluten?”

Will you modify your body ... or ... modify your food?

There are two schools of thought about celiac disease: 1) Modify the food and avoid gluten (lifelong), or 2) modify the people so that they can tolerate gluten. The default option is do nothing – just leave millions upon millions to suffer unknowingly from the deleterious effects of wheat/gluten.

Modify your body

The first approach is to use drugs and/or vaccines to modify your immune response to gluten. The idea is to force your immune system to react differently to gluten, so you will not get sick.

Prof Bob Anderson (http://www.wehi.edu.au/faculty_members/dr_bob_anderson), a celiac disease researcher in Australia, has set up “The Coeliac Research Fund” (CRF) which he says is the first organisation in the world to actively seek to solve the problem of celiac disease. He believes that to do this, it is just a matter of working out the molecular basis for celiac disease, which will then revolutionize treatment and prevention.

I understand this to mean giving us drugs and vaccines, and making alterations to our immune systems so that we are able to tolerate a potentially toxic food (that is the gluten and other wheat proteins) that without this immune-protection make us sick.

I am totally opposed to such an interventionist research program. This research is centered on the idea of creating commercially successful new pharmacology products. Many patents have already been applied for. Vaccines are already in the early testing phases. The pharma-commerce machine is already being created.

Should we give drugs and vaccines to smokers? This is like saying that smokers should be given drugs and vaccines to allow them to continue smoking, rather than making it easy for them to quit. And it would be easy to quit smoking if we lived on a tobacco-free planet.

One of the CRF researchers, Dr Jason Tye-Din, wrote in the Coeliac Link magazine (2011): “As to why people with coeliac disease get symptoms is not well understood ... we believe that certain chemicals are released by the body after eating gluten, and these can lead to adverse symptoms.”

This is such a vague comment to base the drive to create a vaccine. It is my hypothesis that the main pathway for gluten-harm is through the neurologic pathways.

Or ... modify your food

The other approach is to modify your food. This is the current and only way that people with celiac disease have been able to manage their gluten-sensitivity. This has been the standard approach for the last 60 years.

This has meant eliminating every speck of gluten from our diets, and replacing it with other (more) nourishing foods. The gluten-grains of wheat, rye and barley have to be completely avoided. However, our big problem is that of cross-contamination. In this food-processing-world, wheat and wheat derivative are either purposefully added to foods, or it creeps in by accident. Consequently, this makes it difficult to completely eliminate gluten from our lives.

Thus, if all foods and food-manufacturing activity could be transformed into being gluten-free, the problem would be solved.

Over the last decade, there has been exponential increases in the availability of excellent gluten-free products. It has never been easier to adopt a gluten-free diet. But the cross-contamination problem remains unsolved, and is likely to be getting bigger.

What diseases have been linked to the eating of gluten?

If gluten were only affecting a handful of people, then so what! This issue would not be important.

But if gluten is found to affect the entire population, then gluten needs to be eradicated from the human-food-chain. So the argument for “Gluten: ZERO Global” rests on the calculation of size and degree of gluten/wheat harm to the world population.

The Gluten Syndrome

As stated previously, the gluten-illness-problem is a much bigger problem than just celiac disease. A few years ago I described what is called “The Gluten Syndrome” <http://www.smashwords.com/books/view/58338> . This documents the wide range of sickness in children triggered by adverse gluten reactions. At that time, the calculations indicated that about 10% of children currently suffered symptoms from gluten. However, this estimate was on the conservative side, and now looks more likely to be around 20%. Many other gluten-researchers agree with this figure, whilst others say the problem is even bigger. More research is needed to come to a final figure. Gluten sensitivity was an unknown entity 20 years ago, and now it is recognized as a leading cause of sickness and morbidity (see next section for more details).

Autoimmune diseases:

Gluten is an important trigger of “Auto Immune Disease”. There are over 100 different types of autoimmune disease, such as: Ulcerative Colitis, Hashimoto’s thyroiditis, Rheumatoid Arthritis and Diabetes. Celiac disease is also classified as an autoimmune disease.

Estimates are that one in four (25%) of the population suffers from one or more auto-immune diseases. However, what proportion of this illness is caused by gluten is not yet known. Although currently it is difficult to quantify the amount of autoimmune disease that is triggered by gluten - the potential prevention of such debilitating diseases is a strong argument to eliminate gluten before you develop any of these disorders. Because once they strike, it is usually too late to get any benefit by going gluten-free.

The Chicago University website says, “any individual who has a related autoimmune disorder, regardless of celiac symptoms, should be tested for celiac disease and if negative the test should be repeated on a periodic basis.”

This has been evaluated in detail by Fasano (2006, Systemic Autoimmune Disorders in Celiac Disease: Celiac Disease Comorbidity with Other Autoimmune Diseases. *Curr Opin Gastroenterol.* 2006;22(6):674-679). He states:

“the co-morbidity between celiac disease and other autoimmune disorders has been clearly established. Celiac disease is an immune-mediated disorder clinically characterized by a multitude of symptoms and complications”. He goes on to suggest that autoimmune disease is more than molecular mimicry. It is likely that the continuous stimulation by non-self antigens (environmental triggers) appears necessary to perpetuate the process.

The ingestion of gluten is of course is one such “continuous stimulation by non-self antigens”.

Brain, nerve and mental illness:

Frighteningly, evidence is rapidly accumulating that shows gluten can severely affect our brains, nerves and minds. The links between gluten-and-the-brain has been extensively reviewed in Dr Rodney Fords book “Full of it! The shocking truth about gluten” -

http://www.drrodneyford.com/shop/e-books/eclinic-guide.html?page=shop.product_details&flypage=flypage.tpl&product_id=30&category_id=6

Disturbingly, many neurological diseases are associated with gluten sensitivity. Also, schizophrenia, and other mental health illness have been shown to be associated with gluten (The gluten connection: The association between schizophrenia and celiac disease. Acta Psychiatr. Scand 2006;113:82-90. Full Text:

<http://www.bmlab.no/filestore/Forskningsartikler/KalaydijanAEetal.Theglu...>). In addition, many gluten-symptoms are caused by gluten damaging the autonomic nervous system: “The gluten syndrome: A neurological disease” (www.medical-hypotheses.com...).

So there is ample evidence that gluten can be a troublemaker in the brain both with and without celiac disease. This is now called gluten-sensitivity. Hadjivassiliou (1999) first put it like this: “It remains controversial whether gluten-sensitivity (a state of heightened immunologic responsiveness to ingested gluten) without intestinal involvement should be considered the cause of cerebella degeneration in ataxia of otherwise unknown cause.”

However, his research over the last decade had made this an established fact

([http://www.thelancet.com/journals/laneur/article/PIIS1474-4422\(09\)70290-X/abstract](http://www.thelancet.com/journals/laneur/article/PIIS1474-4422(09)70290-X/abstract)).

Many others agree, for instance, Hernandez-Lahoz (2011, [Rev Neurol](#), 2011 Sep 1;53(5):287-300. <http://www.ncbi.nlm.nih.gov/pubmed/21796607>) wrote a paper “Neurological disorders associated with gluten sensitivity”. He concludes: “Gluten sensitivity is a systemic autoimmune disease. Neurological manifestations of gluten sensitivity, with or without enteropathy, are also frequent, their pathogenesis including an immunological attack on the central and peripheral nervous tissue accompanied by neurodegenerative changes. The clinical manifestations are varied, but the most common syndromes are cerebellar ataxia and peripheral neuropathy. The early detection of cases of gluten sensitivity with neurological manifestations and subsequent treatment with the gluten-free diet could provide remarkable benefits to the patients.”

As for the autoimmune disorders, once your nervous system is damaged by gluten, it can be too late to get any relief by going gluten-free. So the only prevention is to eliminate gluten from your diet before you get diseased.

The health burden of gluten

“There is none so blind as those who will not see” Jeremiah Chapter 5: verse 211

How much illness can be attributed to gluten? Well the answer to this depends on how hard you look for it. You will not be able to answer this question if you are not looking for all the

evidence of gluten-harm. It requires an active strategy to diagnose the wide-ranging gluten-associated diseases.

Most gluten-harm not recognized

Currently, most health professional still deny the concept of gluten-harm but without evidence. Celiac disease diagnosis remains locked in a time-warp.

Most gluten-harm is not recognized because most people who are unwell are still eating gluten-based foods. And, to make a gluten-related diagnosis, it requires doing blood tests and/or trialing a strict gluten-free diet, for at least a few months (and maybe for years). Without purposely doing this, you cannot know if you have a gluten-related disease.

There are three big questions to answer:

- What is the evidence that links the eating of gluten to getting sick?
- What is the proportion of our Earth inhabitants that gets sick from gluten?
- What is the level of gluten-harm that would warrant changing the way that the world eats? ... by abandoning gluten grains.

Without compelling answers to these questions, we cannot declare a worldwide-war on gluten.

Throughout the medical world, the more gluten-illness has been looked for, the more it has been found. It is only over the last decade that the search has started in earnest. Predictions are that over a third of the population is already significantly affected by gluten ... and the speculation is that the remainder is at risk both from gluten and other detrimental properties of wheat.

Wheat is consumed world-wide, not because of its health and nutrition qualities, but through tradition and convenience. Wheat is a happenstance grain.

The gluten curse

For thousands of years nobody had any idea that gluten-grains could be a cause of illness. For centuries, wheat-gluten had been prepared in Asian cuisine and valued by bakers, without any concept of gluten-harm. Wheat has been a valued crop for ten thousand years, and bread has become one of our staple foods.

60 years of gluten-harm knowledge

This trust in the healthy nature of wheat was first challenged 60 years ago. It is now an established fact that gluten does make some people sick. This fact (that gluten causes classical celiac disease) was first muted by Prof W Dickie, published in 1953 (<http://www.cfmedicine.com/history/topics/coeliac%20disease.htm>).

Fifty years ago, celiac disease was thought to be a very rare disease, afflicting 1:5000 people. However, recent epidemiology research has found that about 1:50-100 people are afflicted with celiac disease (that is between 1-2% of the population). In the USA, the famous number

of 1:133 of the population affected by celiac disease was presented by Fasano in 2003 (<http://www.ncbi.nlm.nih.gov/pubmed/12578508?dopt=Abstract>). Since then they and other research groups have noted the steady increase in the prevalence of celiac disease.

Celiac disease is now recognized as one of the most common lifelong disorders worldwide (2011, <http://www.ncbi.nlm.nih.gov/pubmed/21787227>). But, most of these celiac sufferers have yet to be diagnosed. For example, an estimated four out of five Australians with celiac disease remain undiagnosed (Anderson 2011, <http://www.ncbi.nlm.nih.gov/pubmed/21426277>). The undiagnosed celiac burden is much higher in other countries.

Explosion of celiac disease

The undiagnosed celiac burden is much higher in other countries. There is great concern in other countries that this gluten-disease explosion will hit. In India for instance, Ramakrishna, writes, “Public health authorities may well want to examine both infant feeding recommendations and wheat varieties cultivated in the country, for opportunities to avert the epidemic of celiac disease which is impending in our country.” A very high prevalence rate of 5.6% has been found in the Saharawi people. (2011), <http://www.ncbi.nlm.nih.gov/pubmed/10466670>.

Yes, celiac disease is indeed on the rise. Doubling over the last two decades, and set to go a lot higher, likely to affect 2-5% of the population in the future, unless we change what we are eating (that is stop eating gluten-grains).

300 symptoms and diseases caused by gluten

The University of Chicago Celiac Disease Center website states: “Celiac Disease presents with as many as 300 different symptoms, many of them subtle and seemingly unrelated. Yet a significant percentage of people with celiac disease have no symptoms at all. People without symptoms are at the same risk for the complications associated with Celiac Disease.” (<http://www.celiacdisease.net/symptoms>).

Yes, celiac disease affects people differently. And the “classic celiac”, with diarrhea and malnutrition, is seldom seen. Symptoms may include one or more of the following:

- Abdominal bloating/pain
- Diarrhea/ constipation/ pale, foul-smelling stool
- Vomiting
- Liver and bile disorders
- Weight loss/ poor growth (failure to thrive) /short stature
- Iron-deficiency/ anemia
- Chronic tiredness/ fatigue
- Delayed puberty
- Joint pain
- Tingling numbness in the legs
- Mouth ulcers
- Skin rashes / Dermatitis herpetiformis (DH)/ eczema
- Tooth abnormalities/ discoloration/ enamel loss

- Infertility, recurrent miscarriage
- Thin bones /osteoporosis
- Neurological diseases/ neuropathy/ ataxia
- Psychiatric disorders / depression

Disturbingly, celiac disease is only the beginning of the scourge of gluten. Most people with any of these symptoms will not have celiac disease, but are likely to have an illness caused by gluten-harm.

A typical story

Heidi, in her blog, writes about her life-long struggle to get a meaningful diagnosis for herself and for her family. She says that testing for celiac disease and gluten sensitivity should be the first diagnosis to think about - not the last!

<http://www.adventuresofaglutensfreemom.com/2011/05/dermatitis-herpetiformis-and-other-atypical-symptoms-of-gluten-sensitivity/>

Heidi says:

“I also believe that the “atypical” symptoms are one of the major reasons why 95% of the estimated 3 million Americans living with celiac disease are undiagnosed. Add to that, the fact that you can go into any medical specialist’s office in this country and no doubt find patients whose underlying health problem is gluten, whether in the form of celiac disease or non-celiac gluten sensitivity. If doctors would stop being so eager to treat any of the [300+ signs, symptoms and conditions caused by gluten sensitivity](#) (often with dangerous medications that will only perpetuate the problem), and take the time to practice medicine by seeking out the underlying root cause of the symptom, what a different world it could be!”

Dermatitis Herpetiformis (DH)

Dermatitis herpetiformis is a very itchy skin condition. It can start suddenly. It tends to affect the elbows, knees, buttocks, scalp, and back. It begins as little bumps that change in little blisters.

This skin disease is caused by tiny clumps of gluten molecules under the skin. These clumps are made up of a combination of IgA-antigliadin and gluten (these are called immune-complexes). These occur as a result of eating gluten.

These deposits can take a very long time to clear up once you start on a gluten-free diet. It can take years and years, perhaps up to ten years, for a full recovery.

Interestingly, most people with dermatitis herpetiformis do not have troublesome gut symptoms. But most do have some damage in their intestines. About 5% of celiac patients develop dermatitis herpetiformis. Sometimes, it can even develop *after* starting the gluten-free diet. This is probably due to the long lasting nature of the IgA immune-complex deposits.

Beyond celiac disease.

The chilling news is that gluten-harm reaches far beyond the concept of celiac disease. Gluten has now been recognized to cause a widespread spectrum of illness, over and above celiac disease.

The two questions to answer in this context are:

- How many other diseases does gluten cause?
- How many people are adversely affected by gluten over their lifetime?

Last century, gluten-illness was synonymous with celiac disease. But, by the turn on the millennium, this concept radically changed. It was discovered that gluten intolerance was *not* limited to celiac disease.

The Gluten Syndrome

The eating gluten-grains is associated with a lot of other serious illnesses. Collectively this is known as the Gluten Syndrome. This includes:

- Brain and nerve damage
- Auto immune disease
- Mental illness
- Skin disease
- Gastroenterological disorders

The various names are now in use for gluten-related illnesses include:

- Non-celiac gluten sensitivity (NCGS)
- Gluten intolerance
- Gluten sensitivity
- Gluten Syndrome.

Gluten-related diseases are being identified by more and more research groups. The realization of this widespread gluten-harm is so recently that adequate clinical studies have yet to be done. Therefore, the true extent of the problem remains unknown, although meaningful estimates can be calculated.

Experts in the field of gluten sensitivity, such as Dr. Stephen Wangen (author of "Healthier Without Wheat"), Dr Ron Hoggan (author of "Dangerous grains: why gluten cereal grains may be hazardous to your health") Dr Vikki Petersen (Author of "The Gluten Effect"), Dr Rodney Ford ("The Gluten Syndrome"), Dr Sayer Ji ("The Dark Side of Wheat") have all found that hundreds of their patient's health problems are connected to wheat/gluten reactions. We have all observed that well over 10% of the population has some degree of gluten/wheat intolerance. Consequently, about 30 million Americans are affected. But the size of the problem is likely to be very much bigger when many other factors are considered.

Calculating the size of the gluten problem

We all know is that gluten is associated with a far-ranging list of common conditions/diseases, but we do not know what proportion of these illnesses can be attributed to the harmful effects of gluten. The purpose of the following table is to start to work this out.

- **Column#1** lists the commonly associated gluten-diseases.
- **Column#2** gives the lifetime prevalence of these conditions.
- **Column#3** provides an estimate for the contribution that gluten sensitivity makes to these conditions. This is the hardest number to come up with, as it is an unknown for many of these conditions. However, the 20% guesstimate is based on many conversations with doctors working in the gluten sensitivity area. This figure is likely to be an underestimate. The work of gluten-sensitive research over the next decade is to firm up these numbers.
- **Column#4** is the mathematical calculation that works out the percentage of the total population that is affected by gluten for each of these conditions/diseases.

Column#1 Condition/ diseases	Column#2 % Population prevalence of these conditions	Column#3 % Gluten attributed to cause these conditions	Column#4 % of population affected by gluten
Mental disorders: depression/ psychiatric disorders*	40	20	8
Gastric reflux/ heartburn*	30	20	6
Auto immune disorders*	30	20	6
Irritable bowel	20	20	5
Headache / migraine	15	20	3
Chronic fatigue	10	20	2
Eczema in children	10	20	2
Learning / behavior problem	10	20	2
Neurological disease	6	20	1
Celiac disease	1	100	1
Heart disease*	6	?	?
Cancers*	0.5	?	?

Notes regarding some of the numbers used in this table:

***Mental disorders** are common in the United States with 46.4% affected over a life-time. neuropsychiatric disorders (http://www.nimh.nih.gov/statistics/1ANYDIS_ADULT.shtml).

***Functional gut disorders:** “More than half of gut disorders encountered by gastroenterologists and primary care doctors are functional.” (Dr W. Grant Thompson 2006, <http://www.romecriteria.org/pdfs/p1552RoadtoRome.pdf>),

***Autoimmune disease :** One in three people (about 33% of the population) will suffer from auto-immune disease over their lifetime. There are over 80 types of autoimmune disease

listed, with the most commonly known syndromes: type I diabetes, multiple sclerosis, lupus, and psoriasis ... and of course celiac disease. The concern is that a large proportion of these diseases might be triggered by gluten. Fasano writes: “the co-morbidity between celiac disease and other autoimmune disorders has been clearly established. Celiac disease is an immune-mediated disorder clinically characterized by a multitude of symptoms and complications”. (2006, <http://www.ncbi.nlm.nih.gov/pubmed?term=17053448%5Buid%5D>).

***Heart disease:** although associations between celiac disease and cardiomyopathy have been noted. A larger study has failed to find a connection (2008, <http://www.ncbi.nlm.nih.gov/pubmed/18609114>). However, these studies have not looked at gluten sensitive subjects and heart issues. The data is not available.

***Cancers**– not enough data to calculate risk. But there could be an association.

Death: gluten can kill you

As Dr Tom O'Bryan comments: “You've heard me say it before. Celiac Disease and Gluten Sensitivity kills people! So get tested!”

Yes, if you continue eating gluten, and if it is making you ill, then you might die early. This is similar to the smoking literature, once you have developed significant health problems from tobacco smoke, going smoke-free will probably too late to save you. It is the same for gluten: once you have become seriously ill from gluten, going gluten-free will probably too late to return to “normal” health again. Obviously, prevention is better than cure under these circumstances.

There are many research papers that show the celiacs die earlier than the standard population. For instance, “the risk of death among patients with celiac disease, inflammation, or latent celiac disease is modestly increased.” (2006, <http://www.ncbi.nlm.nih.gov/pubmed/19755695>).

In a large Swedish study (2003, <http://www.ncbi.nlm.nih.gov/pubmed/12860579>) a higher mortality risk was found for all causes of death in celiacs. The reason for this was mostly from disorders of immune dysfunction.

An article published in the Journal of the American Medical Association (2009, <http://www.ncbi.nlm.nih.gov/pubmed/19755695>) looked at mortality related to gluten disease. Over 29,000 patients were included, with data was collected from 1969 until 2008. The divided into three groups: the patients either

1. Those with celiac disease.
2. Those with intestinal inflammation but not full-blown celiac disease.
3. Those with latent disease.

So, the death risk was increased in gluten-related disease. Compared with the normal population, patients with full-blown celiac disease had a 39% higher risk of death. The risk was 72% for those with intestinal inflammation, and 35% for those with gluten sensitivity.

Lectins, phytates, and wheat allergy

Unfortunately, gluten is just the beginning of the wheat catastrophe. The unhealthy nature of wheat: more than gluten. This topic is covered in detail by Sayer Ji "[The dark side of wheat](#)". He describes in detail the inherent unhealthy nature of wheat, which contains a lot of substances that we would be very much better off avoiding completely. Wheat contains:

- The alcohol soluble protein component of wheat known as gliadin, the toxin responsible for causing celiac disease and the gluten syndrome.
- Wheat Germ Agglutinin (WGA), a glycoprotein known as lectin, which can cause direct (that is non-immune mediated) damage to our intestines. It also has the capacity to get into the bloodstream, damage to distant organs in our body. It stimulates inflammatory activity even at very small concentrations. It also has neurotoxic potential.
- The exorphine known as gliadomorphin/ glaidorphin which can get into your brain. This can activate your brain opioid receptors that causes disruption to your brain function.
- Very high levels of aspartic and glutamic acid (which are so called non-essential amino acids). These amino acids acid can cause an over-activation of the nerve cell receptors, a reaction called "excitotoxicity". This is a pathological process leading to calcium-induced nerve and brain injury.

Consequently, wheat has adverse effects on both celiac and non-celiac populations.

Phytates block mineral absorption

Phytates in gluten-grains are also a problem: they are the naturally occurring substances that store phosphorus in the plant and seeds (1999, <http://jn.nutrition.org/content/129/7/1434.full.pdf>). They tightly bind phosphate. But they also bind onto the crucial minerals, calcium, magnesium, zinc, manganese and iron. Consequently, these phytates reduce the availability many of these important minerals to us human when we eat them.

Also, when we eat a combination meal that contains phytates (that is grain-based foods), some of the minerals in the other foods that we are eating at the same time will also rendered unobtainable. This can lead to deficiencies, especially if our gut is sick.

Wheat allergy

Wheat allergy is an allergic reaction to foods that containing wheat. It's one of the more common food allergies in children, with about 1:100 (1%) having this problem. It is mediated through the IgE allergy immune pathway. It is not related to gluten sensitivity, although some children can have both types of wheat/gluten reactions. Fortunately, it is usually transient so that by 3-4 years of age, most have developed tolerance.

Can our Planet survive without gluten?

Is "Gluten: ZERO global" possible?

Can the concept of a totally gluten-free world be turned into a practical and sustainable idea? If gluten harms so many people (the majority), and if we are persuaded that we would all be better eliminating gluten (both for health reasons and preferring to a higher quality food) – then the answer is surely “yes!”

What then are the hurdles that need crossing? We will give credible solutions to these major questions:

- How can we feed the world populations without wheat?
- How can we replace gluten-breads?
- How can a gluten-free world be affordable?
- How can we persuade agriculture business to change from gluten grains?

- The improvement in the quality of your food intake when gluten-foods are exchanged for better quality nutrition.

Have another look at the table of possible gluten-related-illness. There is likely to be a substantial overlap between these conditions/diseases. The table shows that a large proportion of the population has conditions that could be caused, or triggered by gluten.

From these rough calculations, at least a third of the population is adversely affected by gluten. But the size of the problem is dependent upon the accuracy of the numbers in Column#3. Although the numbers are estimates, it is likely that they are under-estimates. Significant symptoms, for people of all ages, are systematically ignored or considered “normal” or regarded as psycho-somatic (functional). So the estimates of illness and the proportion of gluten-related-illness are likely to be very much higher. Gluten might well contribute to 50% (or more) of all of these “undiagnosed” illnesses.

Can we accept the status-quo? No!

Although a small group of celiac-doctors want to modify the people (that is to pharmacologically change their immune systems to tolerance gluten), we argue that we need to modify the food-chain to suit the people.

Much more detail about these concepts are being put forward in the ebook “Gluten: ZERO global” – see webpage for progress details.

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Web: <http://www.drrodneyford.com/extra/zeroglobal.html>

Facebook, Gluten Free Planet: <https://www.facebook.com/groups/100433633347630/>

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January 2012