$25 \%$ of New Zealanders I've toxin tested are gluten intolerant.
Toxin Testing yourself for gluten intolerance and others, is quick and easy, and if done correctly, is accurate. Chris Rhodes (See Human Health Specialists.) can do it with his unique equipment in a minute, and also give the degree to which gluten affects you. There are about 70 symptoms of gluten intolerance (See pages $3 \& 4$. .) from diarrhoea to constipation, with nerve damage, tingling and numbness in feet, confusion, memory loss, dizziness, loss of balance and vision abnormalities. These sometimes occur without other gluten intolerance symptoms. One person can have diarrhoea and abdominal pain, while another person has constipation, irritability, depression and a rash. Many ailments that people suffer are because of gluten damage to their intestine villi, the tiny fingers in intestines, which then cause poor digestion and other unhealthy problems. Another person might not suffer villi damage, but have other damages in other parts of the stomach, body and brain. This makes it very difficult for medical doctors to diagnose it, based on symptoms.

More than 55 diseases are accentuated by gluten, which is the protein in wheat, rye, and barley. It is estimated that $99 \%$ of the people who are gluten intolerant have not been diagnosed and that as many as $15 \%$ in USA and $20 \%$ in Australia, are gluten intolerant. I tested our family, grazinginfo.com members, and visitors and found that $25 \%$ are intolerant to gluten. There is no cure. Avoidance is the only way.

People who are allergic to gluten and say, 'A little gluten won't be a problem', and don't realise that the very slightest amount of gluten damages intestines, digestion and bodies, so all gluten should be avoided.

If you are gluten intolerant and eat foods containing even a minute amount of this 'poison to some', it can damage the villi in your small intestine or cause other ill-effects. Over time, this damage can prevent the absorption of nutrients from what is consumed, affecting your health badly, so every grain of gluten must be avoided. Celiac sufferers have a higher risk of cancer, and that's possibly one reason why sufferers die three to five years sooner than average. If they used Toxin Testing (Read about it) on all foods they could live longer. A wife said she was not affected by gluten, but when very sick and checked for all, was found to be adversely affected by gluten, and other things and died a few months later.

When you are suffering gluten intolerance, i.e., diarrhoea, so losing a lot of liquid, you should drink enough, mostly water, provided it is good clean water, which is what we now drink from Kaiapoi called NZNatural Pure Water of New Zealand.
It must be explained that many people are confused about how erratic gluten toxicity seems; for example some wheats are worse than others. The USA figures below explain that glyphosate (Roundup) in wheat (and barley) sprayed before cultivation or to dry them before harvesting, can cause even worse human health symptoms. Spraying speeds up drying, so allows earlier harvesting. Some sugarcane is sprayed to dry the leaves that are then burned. We have measured glyphosate in sugar, so now eat none,


Figure 1. Hospital discharge diagnosis (any) of celiac disease ICD-9 579 and glyphosate applications to wheat ( $\mathrm{R}=0.9759, p \leq 1.862 \mathrm{e}-06$ ). Sources: USDA:NASS; CDC. (Figure courtesy of Nancy Swanson).
and nothing containing sugar such as biscuits. Maple syrup is a safe sweetener with copper which softens bones so reduces breakages. Read Copper in Minerals. Glyphosate should be banned in NZ as it is in Holland, Peru and some other countries. Animal farmers can use cattle on sacrifice paddocks to reduce pugging the grazed paddocks or can power harrow or rotary hoe to kill pasture for growing maize or other crops, and then chisel plough. Chisel ploughing after spreading LimeMagPlus and/or reactive phosphate for phosphate, based on a grass analysis, produce up to $50 \%$ higher maize yields. See Soils Cultivation and Forage Crops. If growing maize for silage, don't spray before it because grass growing with the maize improves the feed value and yield, and saves money. Read Forage Crops.

## How I discovered my gluten intolerance

In 1996, I woke up to my first attack of vertigo - caused by gluten in wheat. I thought I was dying. Both the room and I were going round, even with my eyes closed. I thought it was possibly from not drinking enough liquid the day before. I have low blood pressure so need a lot of liquid to keep my blood thin, or I get dizzy. My blood pressure was 110/70. The day before my first vertigo attack, I had been to a barbecue so ate bread, rather than too much of the sausage meat, then lunch (mostly bread) with a friend, and that night went to a restaurant and enjoyed two slices of garlic bread, before the meal. The next day I had severe vertigo and could not get out of bed. I was diagnosed by a doctor who came, to have benign positional vertigo and was told it would get worse and be more frequent and that there was no 'Western' orthodox cure, but two possible alternative cures. One is Vertigo Heel from Bio Medicines and Chris Rhodes made by the brilliant and very large 'Alternatives' Heel Company in Germany. Years later, I learned that vertigo (dizziness, giddiness, light headedness) is a symptom of consuming a lot of gluten, if gluten intolerant.

After 14 years of tummy upsets and no help from several doctors and two specialists, by chance I read a Celiac Disease article and realised that I suffered the gluten intolerance symptoms it described. I avoided wheat and all glutens completely, and after two months felt much better than I had for ages, and lost 8 kg ( 75 to 67 kg ) and my paunch, because wheat is so fattening.

After going off gluten, vertigo decreased and after months ceased. I then didn't need my blood thinner, and if I ever feel a need now, I just drink more, or if severe, I take a Vertigo Heel tablet. Three Vertigo Heel pills, each 15 minutes apart, stops dizzinesses in minutes and stops all motion sicknesses from road and sea travel.

I was so fortunate that my wife Auriel was outstanding in supporting, helping and feeding me. In 2002 on the first Christmas day after diagnosing myself (doctors and specialists had not done so for eight years), when our 16 family members ( 3 daughters and husbands and 8 grand children) were at the long table loaded with goodies, I whispered to (the late) Auriel next to me, "What can I eat?". "Everything she replied." I wanted to cry with joy and kindness towards Auriel and still do now when I think of it (and the many other things she did for me.)

Five years ago our stores had no gluten-free food, now they have everything from bread to biscuits and Christmas cakes.

## Original and Subsequent Causes of Gluten Intolerance

Not getting colostrum (first milk) after birth or not being breast fed for long enough, can both increase the chance of celiac disease later. I read this and asked my older sister about my birth. "Mum was very sick," she said, so I may not have had much colostrum or milk later, and I could then have been put on wheat too soon, which is documented as another cause of being gluten intolerant. The allergy to wheat is now much greater because in many countries wheat is sprayed with a glyphosate to desiccate it and make harvesting easier. I and some health specialists have found that wheat is toxic to people who are not gluten intolerant.

The dangers of calves missing out on cows colostrum is known by all farmers. The first milk's antibodies protect babies against viral and bacterial attacks, and prepares babies for a healthy life.

## Gluten Intolerance

Since being gluten intolerant and talking about it I've been surprised at how many people are also affected and how many others have some symptoms without knowing the cause. Decades ago, gluten intolerance was hardly known and was thought to affect only about one in 1,500 people in the UK. Better tests then showed that it could be one in 300. In 2008, a UK "Dr Gluten" found it in 1 in 10. In Australia,
the figure quoted in 2000 was one in 1,000 then by 2005, one in five. In Italy, where large amounts of pasta is consumed, it is close to one in two.

Celiacs should treat gluten the same as they would treat a poison. Some celiacs can ingest small amounts of gluten without noticing symptoms; however, the small intestine and/or other parts could still be getting slightly damaged.

If I were a doctor, the first thing I would do would be to test for gluten using a wheat biscuit and then have them do a Metabolic Food Type test. See Human Health. Some people who don't discover their body metabolic type, go through life with intermittent digestive disturbances. There are three types of food, protein, mixed and carbohydrates. See which is best for you. Some fat is necessary for most people.

An infallible gluten test is two or three weeks with absolutely no gluten, followed by a few slices of wheat bread, or wheat biscuits and or wheat cakes. If you are gluten intolerant, your tummy will tell you with a bang.

Too many are paying for advice and getting the wrong answers. Dr Arden Anderson from USA, consulting for farmers in New Zealand, recommended strongly that I send blood to a USA clinic for an accurate analysis to improve my health. It cost $\mathrm{N} Z \$ 500$ and they wrongly recommended the exact foods I should take for each meal, most of which included gluten, so they were wrong, as was other information they and he recommended. They should all be ashamed of themselves, as should many others selling books on gluten with incorrect information.

## Mental Function and Gluten Intolerance

Some researchers are convinced that gluten intolerance, whether or not it results in celiac disease, can impact mental functioning in some individuals and cause or accentuate autism, Aspergers syndrome, attention deficit disorder (ADD), and schizophrenia. Some of the damage may be healed or partially repaired after time on a gluten-free diet, for example, problems with infertility can be repaired. Indiscriminate, repeated gluten consumption may eventually cause serious physical and neurological (brain) damage/psychiatric symptoms, and one study indicated higher mortality rates.

Some researchers and professionals believe the brain and nervous system are particularly susceptible to gluten damage and that some nerves may be badly affected by the damage, causing stress.

## Symptoms \& bad effects caused or accentuated by gluten (alphabetically)

Gluten can cause or accentuate any of these below, but some can be from completely different causes, as described in 1 .

1. Abdominal discomfort, bloating, gas and distention, particularly in children. Eating too fast and drinking too much water with meals, or too soon after, or allergies to other foods such as lactose in dairy and/or bad metals in milk, which are increasing (Read Milk Profit \& Quality in Dairying.) and/or linseed because its skin gets damaged at harvesting so starts oxidising immediately.
2. Anaemia from folate and/or iron deficiencies or unknown items.
3. Arthritis - Rheumatoid. Joint swelling and pain can occur within hours of ingesting gluten.
4. Attention deficit disorder.
5. Autism.
6. Balance loss.
7. Benign positional vertigo.
8. Bird fanciers' (avian) lung.
9. Bone mass low and or brittle.
10. Bone pain.
11. Bottom sore, requiring an ointment.
12. Brain damage.
13. Calcium and other mineral deficiencies.
14. Cancer of some types more likely, especially intestinal lymphoma.
15. Carcinoma (cancer) of the Oropharynx, Oesophagus, and Small Bowel.
16. Celiac Disease.
17. Concentration difficulty.
18. Children can fail to thrive, not grow and form muscle, be quarrelsome and irritable, and have severe diarrhoea which can lead to dehydration.
19. Constipation.
20. Cramps, which can be from the inability to absorb magnesium.
21. Dermatitis Herpetiformis, a terrible itching. Dapsone reduces it, but can have very severe side effects. Also called a "Gluten rash".
22. Diabetes Type 1.
23. Diarrhoea.
24. Digestion problems that can accentuate acid refluxes which can be prevented by ending meals with fruit, all of which are acids so tell the stomach to release alkali. Eating or drinking something acid before lying down prevents it.
25. Dizziness.
26. Down Syndrome. I was questioned about this so googled for Down Syndrome + gluten, which confirmed it.
27. Dry and itchy skin can get blamed on gluten, but the wide variety of ailments caused by gluten can make it blamed for things it doesn't cause. An example is cadmium poisoning from the elastic band in Van Heusen underpants, which wrecked my waist after wearing them for two years. The itch spread and took a year to control, but despite regular treatment it still has not gone. Google for Van Heusen + itch and then Van Heusen + formaldehyde and you'll see other problems from their clothing. For more on this read Human Health > Allergies.
28. Easily fractured bones, which can be from the inability to absorb minerals, especially copper.
29. Enteropathy-Associated T-cell Lymphoma.
30. Epilepsy (with calcification in the brain) can decrease when gluten is fully removed.
31. Eye pain, itch or soreness.
32. Failure to thrive.
33. Farmer's lung from dust and mould.
34. Fibromyalgia and polymyaligia.
35. Fingernails have white flecks possibly from low zinc absorption.
36. Flatulence excessive.
37. Fuzzy-mindedness after gluten ingestion.
38. Gas excessive.
39. Headaches.
40. Heart problems.
41. Hypertransaminasemia.
42. Indigestion
43. Impotency.
44. Infertility.
45. Ichy skin.
46. Irritable Bowel Syndrome and other tummy problems are quite common. Some doctors diagnose and treat IBS, but don't look for or treat the actual cause which can be gluten intolerance.
47. Joint pain, a typical gluten problem.
48. Kidney Disease.
49. Leaky gut syndrome. Some doctors diagnose and treat this, but don't look for or treat the cause which can be gluten.
50. Liver Disease.
51. Malnourishment.
52. Microscopic Colitis / Collagenous Colitis.
53. Mineral absorption failure, from gluten damaged villi, resulting in mineral deficiencies.
54. Mouth ulcers.
55. Muscle and joint pains - common Celiac symptoms.
56. Nerve Disease. While suffering after eating oats, (oats do not naturally contain gluten), I took two Itrazole tablets twice a week to reduce nerve end tickles. Harraways whole grain Organic Oats have now guaranteed that their oats are not polluted with gluten in growing, transport, storage or processing and without any possible additives. However, companies do change their staff and policies from time to time. Some bought on 29 October 2013 was not at all allergic to me, which proves it had no gluten, to which I am highly allergic. I am so pleased to now be able to buy New Zealand grown oats, rather than imported, but some can still be polluted by wheat in the same truck, silo or room.
57. Oedema.
58. Osteoarthritis. Allergic reaction can contribute to arthritis symptoms. Targeting and eliminating food allergens has been shown to reduce arthritis symptoms by as much as 30 percent for some people. The most common trigger is gluten, or for some people, wheat itself. Other possible triggers include corn, dairy, beef, eggs, onions, chocolate, coffee, tea, citrus, potatoes, soy, peanuts, yeast, pork chops, and oats. You may have an allergic reaction to more than one of these foods. The other concern may be for those people who have symptoms from eating foods in the nightshade family. The nightshade foods are tomatoes, potatoes, eggplant, bell pepper and tobacco. Some people improve significantly after avoiding these foods for 6-9 months.
59. Osteoporosis, because digestion is so damaged that minerals are not absorbed. Researchers concluded that the number of people newly diagnosed with coeliac disease who had osteoporosis is high enough to justify routine gluten screening of those with osteoporosis. Unfortunately, the medical diagnosing is slow, expensive and not accurate, hence a large number of people have gluten intolerance, but don't know it. See Diagnosing on page 6 to do your own very accurate muscle test in a minute to check for gluten allergy and other allergies.
60. Paleness.
61. People newly diagnosed with coeliac disease who had osteoporosis.
62. Peripheral Neuropathy (tingling).
63. Pins and needles.
64. Pot belly and painful bloating. Large paunch (tummy).
65. Recurrent Aphthous Stomatitis, Sprue, Disease (Auto-immune).
66. Sinusitis - celiacs are more susceptible to sinus problems.
67. Skin rash or red spots, burning, prickling, itching or tingling skin.
68. Stomach wind and bubbling.
69. Stools float rather than sink, can be pale and foul smelling.
70. Throat has burning sensation possibly from acid refluxes.
71. Tooth discolouration, loss of enamel.
72. Untreated celiac disease patients often have elevated levels of homocysteine, causing folate and/or cobalamin deficiency.
73. Vomiting.
74. Vertigo, sometimes diagnosed as benign positional vertigo. It was my first obvious severe symptom.
75. Vitamin deficiencies, possibly due to poor absorption through damaged intestine villi.
76. Weakness and fatigue.
77. Weight loss, or gain, to be over-fat. Most gluten sufferes don't know that they are affected by gluten, which could be another reason for the increase in obese people.

Some researchers now believe that gluten also damages other body tissues, organs, nerves and even nerves in the gut, beside the intestine villi, but not always, including the villi. In these cases a villi biopsy could be negative.

A 'Spring Water' with no source shown on the bottle, is bad. Muscle test everything you eat and drink. Otherwise, a dizziness or a light headed feeling can occur, for which some who have been prescribe Cartia or other blood thinners. A lack of exercise can cause high blood pressure, which just knee lifting at a chair can reduce. See Exercise.

Two Imodium tablets, from a chemist, followed by one each time looseness repeats, helps my mistakes of eating something containing gluten.

There is no permanent cure or medicine that I know of that can stop the gluten intestine damage and the diarrhoea. My intestines became badly damaged.

In today's New Zealand standard overall health tests, gluten is not included, when it should be first on the list!

## Gluten intolerance and general health

As far as is known, only gluten causes villi damage that makes them tear, which can cause leaky gut syndrome, which can be serious and lead to further health problems.

Keep healthy in all respects. Lots of specific illnesses occur because of others, so keep yourself healthy in all respects by avoiding simple things such as alcohol, smoking, drugs, etc., which can cause a 'double
whammy' effect - or two allergies, two faults, two illnesses.
I found that simple health problems were affecting me because of other, larger health problems.
Vertigo is caused by gluten and low liquid intake.
Mineral deficiencies of any kind can be another problem. Are you taking a supplement to avoid mineral deficiencies?

One Good Health Premium Vision tablet a day with food, has Ginkgo for memory, bilberry for eyesight, copper for strong, soft bones that are less likely to break, chromium, zinc for bones and prostate, and selenium with vitamin E to make selenium work, vitamin C, antioxidants. I've had it checked and it has no mercury or cadmium.

Good Health Magnesium Ultra is the best magnesium supplement I can find at present.
Most borons now have mercury, so must be avoided. Avoid all supplements from Norway, and now many from USA, because all their 300 rivers have mercury pollution from burning oil and discarded cell phones and electronic items. There are water purification systems, but removing all heavy metals is almost impossible. We get Kaiapoi spring water ( NZ natural) from Canterbury, which is $90-0-0-0-0$, which means highly compatible and with none of four main heavy metals. See Human Health > Minerals.

## Misinformation

This is a major problem with gluten. For example, many write that oats contains gluten when it doesn't, however it often becomes contaminated by the gluten grains - wheat, rye or barley, grown on the same farm, transported in the same vehicle, stored in the same silo or container, or stored or handled in the same bakery or room, as gluten products.

A Celiac publication wrote, "Some people with coeliac disease get symptoms if they eat oats", showing that the writer didn't know about oats pollution from gluten polluted grains.

A lack of accurate information, and the poor identification of the dozens of symptoms, even by doctors and specialists, lead to more misinformation. Why should the medical profession from doctors to chemical companies producing expensive drugs they sell, worry about getting factual information out when ignorance internationally about gluten earns them all millions of dollars collectively pretending to fix illnesses by treating any of the symptoms below without success, making it a continuing source of income.

It is important to learn about all the sources of gluten, which are not just food. Some capsule supplement material contain gluten.

Soy and monosodium glutamate (MSG) can include or be extracted from a gluten source and are examples of food products that some celiacs have trouble with.

Small amounts of wheat, malt or barley are in many foods. A minute amount can adversely affect gluten intolerant people. After avoiding gluten completely, it can take three months (longer for older people) for the villi to grow again fully. Villi are the finger-like fronds inside the intestines, to increase the absorption surface area.

## Foods containing gluten

A problem that people have is that many foods are made with minute amounts of gluten from wheat and/or malt from barley. These include some ice creams and some jellies. When avoiding gluten, all labels must be read. Unfortunately not all are correct, partly because of ignorance about gluten.

New Zealand authorities have admitted that they have rules regarding labelling, but don't police them. The result is that labelling can be wrong. Imagine if speed limits were not policed.

Dairy products may not be a problem to you to eat, but can be a secondary one until you are free of the gluten ill-effects. After completely avoiding gluten, dairy allergies can cease, but as with most things, excesses can cause intolerance, which I've experienced with both too much dairy produce (which I like) and too much rice milk, which I also like.

## Examples of ingredients that contain gluten

Ale
Anti caking agents (wheat)
Baking powder can have wheat starch or corn starch added, so be careful to read the ingredients before buying and avoid the brands that use wheat starch.

Barley (flakes, malt or pearl)
Beer

Burghul/Bulgar/Bulghur
Bran (wheat, rye, barley, infected oats)
Brewers' yeast
Breadcrumbs
Carthamus extract (wheat)
Cereal (wheat, rye, barley, oat)
Cornflour (wheat)
Couscous (wheat)
Croutons
Dinkle/Spelt/German wheat
Durum wheat
Flavours (wheat)
Flour (barley, wheat, graham, malt, oat, pharaoh, rye, self raising, wholegrain)
Humectant (wheat)
Hydrolysed (wheat)
Hydrolysed plant protein (wheat)
Hydrolysed grain protein (wheat)
Hydrolysed vegetable protein meal (wheat)
Icing sugar mixture (wheat)
Job's tears (barley)
Kamut/Korasan/Polish wheat
Lager
Nuts - dry roasted (wheat)
Oats (bran, fibre, flour, gum, meal, rolled) Oats has no gluten, but is often polluted by wheat grown on the same farm, or harvested, transported or stored with wheat.

Pasta (bucatini, macaroni, orzo, spaghetti, vermicelli, etc)
Peanuts - dry roasted (wheat)
Porter
Pregel starch (wheat)
Rye (flour, kibbled, meal, sour)
Semolina (wheat)
Soy Sauce (wheat)
Textured Vegetable Protein (wheat)
Thickeners can contain wheat starch.
Triticale
Vegetable extract (wheat, barley malt)
Vinegar (malt)
Wheat (bran, cracked, dextrin, extract, fibre, flakes, germ, kibbled, protein, puffed, starch)
Again, if a product contains gluten, wheat, barley or rye it must be written on the label. Read the labels, and avoid these products.

If glyphosate infected sugar is added, the list is longer and would include biscuits, etc.

The following ingredients are questionable and should not be consumed unless you can verify and measure that they don't contain gluten in any form -

1. Brown rice syrup (frequently made with barley).
2. Caramel colouring.
3. Dextrin (usually corn, but can be derived from wheat).
4. Flour or cereal products.
5. Hydrolysed vegetable protein (HVP), vegetable protein, hydrolysed plant protein (HPP), or textured vegetable protein (TVP).
6. Malt or malt flavouring (usually made from barley, but alright if made from corn.
7. Modified food starch or modified starch.
8. Mono- \& di-glycerides (in dry products only).
9. Natural and artificial flavours. Soy sauce or soy sauce solids (many soy sauces contain wheat).
10. Vegetable gum (may be made from gluten polluted oats).
11. Canola oil.
12. Foods made from wheat like alcohol, chocolate and tobacco.

## Five Tips

1. Use a separate toaster for gluten and gluten-free bread, or one half exclusively.
2. It helps to remember that we usually don't have to take expensive medications as treatment for gluten sensitivity, and most of the good wheat-free foods we now eat have no side effects, and have a higher nutritional value. We can also stop taking expensive medications for our previous symptoms.
3. Buy a bread machine. When you bake your own bread, it is ultimately cheaper than any ready-made bread. Plus it usually tastes better, and will be free of whatever your choose!
4. Not everyone can do this, but it helps to avoid processed food. Even when you investigate products over the phone or get a letter from the manufacturers or consult some of the commercial product listings that are available, you cannot be totally sure the product is safe. Life is simpler and safer when you avoid processed foods, or eat them as infrequently as possible.
5. Remember that Europe is well ahead of USA and NZ in dealing with celiac disease. We know physicians there who have been diagnosing celiac disease for a longer time and celiacs have been on a GF diet for longer in Europe than here. Yes, several European countries do allow a small amount of wheat starch in international products, but their research has not shown an increased morbidity or mortality rate in their celiac population.

## Oats - update

The Harraway's oats section in Version 1.3 is now wrong so please dispose of your Version 1.3.
I later phoned the Harraway's newish general manager. He sounded young and typical of mangers - not receptive until the end of my explaining to him about gluten, which he admitted, he knew nothing about. He didn't realise that oats can't be claimed to be organic and on the same label explain that it could be polluted by wheat - in the smallest print. I asked if all the polluting wheat was also organic!? Would his oats claim of being organic apply if Roundup polluted it? He had not thought that gluten was a problem until I explained that a higher percentage of people are gluten intolerant than are Roundup intolerant, and gluten causes more severe and more prolonged ailments than Roundup.

Anyway, a manager should know that their packaging stated 'ORGANIC' in large print on both sides and could be polluted by wheat which was only once on the bottom side in the smallest print.

Organic farmers sometimes have to grow their own seed to ensure it is pure and not polluted with even one grain of wheat that can then grow and produce wheat grains with oats. The Harraway oats could have been polluted by wheat in transit, in silos or in factories, or just by wheat flour dust in a factory or bakery.

The word "organic" doesn't make things perfect in all respects, especially when the rules are not obeyed. Harraways Rolled Organic Oats currently has gluten in it which makes it highly toxic to gluten intolerant people ( $25 \%$ of New Zealanders) so it is impure, so not organic, because oats does not naturally contain gluten.

## Wheat

Race horse and racing pigeon owners don't feed wheat because its fat would prevent winning races. Pigeons getting only a little too much wheat don't always make it home from distant races because of the fat build up in their bodies (especially around hearts). In a long race of 800 km , pigeons can lose up to half their weight. If, after homing, they are fed protein in peas and beans with a little variety of other grains such as maize, whole linseed and whole sunflower seed, they regain their lost weight of mostly muscle in two days. If fed more than about $2 \%$ wheat, they may not get home from a race of 400 km , while my best one homed on the same day flying 800 km nonstop from 5 am to 9 pm from Dunedin to Hamilton.

In about 1950 USA was concerned about their people becoming fatter from eating too much wheat, so 'genetically' (before that term was used) modified theirs to increase protein (which is the gluten).

Some critics of modern wheat cite health risks associated with its high levels of the starch Amylopectin A, which has been linked to the development of insulin resistance (a precursor to diabetes, heart disease, and weight gain) in rats.

The benefits to high yielding crops are obvious, but we are now learning that there are some major downsides such as lower good mineral levels, and sometimes higher nitrates.

From 1843 until about 1960, the nutrients in wheat didn't change much.

However, from the year 1960, which coincides with the introduction of the modern wheat, the nutrient content started to move downwards.

Concentrations of Zinc, Copper, Iron and Magnesium were 19 to $28 \%$ lower in the years 1968 to 2005, compared to 1845 to 1967.

At the same time, there was no evidence that the soil had changed. So it is clearly something about the nature of modern wheat that makes it less nutritious than the older varieties.

Another study that also compared different strains of wheat found that the older varieties contained significantly more Selenium.

Given how incredibly widespread wheat consumption really is, it is easy to see how this may have contributed to nutrient deficiencies.

Bottom Line: Modern wheat is less nutritious than old wheat. The amount of minerals like Zinc, Copper, Iron and Magnesium have decreased significantly.

Modern Wheat is Much More Harmful to Celiac Patients
Celiac disease is the most severe form of gluten intolerance.
When people with this disease eat wheat, the immune system in the gut mistakenly assumes that the gluten proteins are foreign invaders and mounts an attack.

However... the immune system doesn't only attack the gluten proteins, it also attacks the gut lining itself, leading to degeneration of the intestinal lining, leaky gut, massive inflammation and various harmful effects.

Celiac disease is serious business... it has been on the rise for decades, increasing about fourfold in the past 45 years. Right now, about $1 \%$ of people have celiac disease.

Another condition, called non-celiac gluten sensitivity, is believed to be much more common.
Gluten is actually not a single protein, it is a family of different proteins and only some of them are recognised by the immune system of celiac patients. One of the gluten proteins that seems to be questionable is called Glia- $\alpha 9$. One study found that the amount of this protein is significantly higher in modern wheat. Therefore, many researchers have speculated that modern wheat, due to its higher amount of problematic glutens, may be worse for celiac patients than older varieties of wheat.

Interestingly, this has been tested in several studies. One study compared the effects of Einkorn (old) and modern wheat on intestinal cells from celiac patients. Compared to modern wheat, Einkorn didn't have any harmful effects. In another study in 12 celiac patients, gluten from Einkorn caused significantly less adverse reactions than modern gluten and was even better tolerated than rice - a gluten-free grain. What these studies DO suggest is that modern wheat has a unique ability to trigger an auto-immune reaction in the gut and is probably the main reason why celiac disease and gluten sensitivity are on the rise.

## Gluten and other allergies

I read that gluten intolerant people are often allergic to yeast, which I then avoided, and my digestion improved even more.

Gluten intolerant people seem to have more allergies. I had 30 (now 20 after removing heavy metal toxins) confirmed by Chris Rhodes (See Human Health > Introduction to Human Health). Five in our family have used Chris Rhodes (See Introduction) with success. One felt much better after three days of avoiding things Chris showed were incompatible for him. One was avocados (for him).

My high number of allergic items was not caused only by gluten, but also by heavy metals and other problems I had and didn't know about. Read the chapter on Allergies.

Wheat is bad for many people, and for some dogs, causing wind and a smell.
It is not the meat, cheese or salads in hamburgers that are the fattening 'junk' in USA, it is the wheat (bread). Wheat is fattening so is not fed by farmers to animals. It is low in protein and minerals. Wheat eating nations get fat and sluggish.

Dining out is a problem, unless you go to restaurants where you can choose your own, or those where the menu is marked for gluten and dairy intolerant people. Some staff don't know all the sources.

When the villi and small intestinal wall are damaged by gluten, nutrients are not absorbed adequately, which then leads to fatigue, blood sugar problems and vitamin and mineral deficiencies, and worse - leaky gut syndrome and irritable bowel syndrome. Either can indicate gluten intolerance.

Read Allergies in this Human Health chapter.

## Intolerances

Other allergies and intolerances can be brought on by suddenly consuming too much of a food not previously eaten. All new foods at all ages should be increased gradually over at least 10 days. These include ones that are seasonal. Farmers know this and change their animals from pastures to new feeds such as brassicas, and back again to pasture, very gradually over about ten days. Stomachs have to develop micro-flora (bacteria) to digest each food. Over-eating an item, even if good for you, for a long time (months or years) can change to be bad for you, showing that the body reacts against prolonged excesses, confirming moderation in all things.

Celiacs eating gluten are more likely to be afflicted with problems relating to malabsorption, including osteoporosis, tooth enamel defects, etc. Some claim that gluten intolerance is not as bad as celiac disease. It is only degrees. Both can affect the mental function and accentuate autism, attention deficit disorder, and schizophrenia.

Celiac disease can cause temporary lactose (a sugar in some dairy products) intolerance. A gluten-free diet can (not always) eliminate lactose intolerance. Pasteurised milk can make it worse, while unpasteurised raw milk may be OK, but risks getting Johne's disease like I did from an organic herd.

Mineral deficiencies occur in celiacs. As with others, magnesium deficiency is common. Eating more fat increases the absorption of magnesium. Firstly I took Olivani, but found it had a preservative which upset me, so changed to one of avocado, olive or fish oils with meals which definitely help my digestion.

Nutritionist Robyn Jackson ND (read Human Health > Introduction to Human Health) after doing exceptional blood and hair analyses for me, found that I needed more fat, protein, salt and fruit, and less typically sweetened fruit juices.

I'm a protein person. Read Human Health > Metabolic Food Type Test and check yours. It is very important to go with your body, not against it. We are all different.

## Be Careful

Celiacs eating gluten can cause fat and fat-soluble vitamins and minerals to be more difficult to absorb. Deficiencies can easily arise even with an otherwise adequate diet. Many individuals, in particular those who have a dry skin and difficulty in gaining weight, can have gluten-caused fat-malabsorption. A common cause is a sensitivity of the intestinal lining to gluten that results in the gradual erosion of the villi. With this condition fat-soluble vitamins and other nutrients, such as beta-carotene, are not well absorbed and deficiencies result. These cannot normally be corrected by just taking fat-soluble supplements, such as halibut oil capsules for vitamins A and D. Instead, try to obtain and take watersoluble forms of these nutrients, such as Thompson's Vit A and Vit E capsules.

Best of all, eradicate gluten. I thought we had done so, but an Amway Bilberry capsule had some and at one time, Harraway's Organic Oats was gluten contaminated for four months affecting some of us before we found out, and one batch of Orgran Gluten Free Biscotti was polluted, and their Wild Raspberry fruit within their BB date gave me diarrhoea. Some companies don't realise that fruit can be squashed, pealed or damaged in any way, without going bad, so being toxic to some people.

## Being Fleeced

Some gluten sufferers have been told that they had cancer or a strange form of leukaemia, were treated for non-existent ulcers, examined for a possible kidney problem, given expensive tests including CAT Scans, thyroid tests, ultrasound scans, gall bladder tests, for bacterial infections and parasites. One wrote that luckily he ended up reading something about celiac disease in a book on nutrition, which led him to ask his doctor to organise a biopsy of his small intestine.

Gluten can thicken the blood. I was put on Cartia blood thinner which reduced my dizziness. One person was put on Warfarin, but was gluten intolerant.

I tell those with Celiac to be grateful that they now know their problem, can avoid gluten, and it is better than some health problems the causes of which are unknown.

Being celiac doesn't worry me, I'm glad to not be eating the modified wheat that most eat, but it is a nuisance for Auriel checking all foods. She NEVER complains at all. When she buys a new item or batch, she always remembers to ask me to test it. I used to be allergic to 30 items. Since Chris Rhodes drained out my heavy metals the number has halved. They include oxides and chelates which are man made mixes, sometimes with no content information. Sometimes items are chelated using mercury (a cement or binder) to change them so they can patent a sulphate or other type and charge a lot more. If possible, avoid all
chelated human and animal supplements. Some contain toxins like mercury and/or manganese added. Mercury is a poison with absolutely no benefits. It gave me boils and pimples, bad rough skin, rosacea and ill health. See Amalgam and Mercury in Human Health Elements.

## Gluten-Free Foods

Don't complain about the 'apparent' higher cost of gluten-free foods. They may look to cost more, but are not much more. GF loaves of bread are smaller than wheat ones, but the weight is what counts, not air. A GF loaf is 650 grams, while the much larger brown wheat bread is 700 grams. Cut a slice of each and look at them. Gluten bread has a variety of goodies and seeds and is good for all people. Wheat bread, especially white, has almost no goodness. Gluten-free products are better than the cheap, poisonous-tomany, wheat based foods.

The manufacturers have to pay more to get supplies, pay more to process the food, and they have to pay more to market it because they don't have normal marketing avenues. We have to pay more because we have to order a lot by mail.

CuisAnn [inquiries@cuisann.co.nz](mailto:inquiries@cuisann.co.nz) www.cuisann.co.nz/ in Whangarei cooks and couriers most things which we keep a stock of. They can also tell you where to get them locally.

Then there is Lisa at the whole cake and caboodle at cakeandcaboodle@xtra.co.nz who shows on her website party cakes like you've never seen. One with our wonderful working dog Tip, driving a tractor, was made for my 80th. See Dogs in the farming section, where I wrote that Tip could do anything!

Sorghum makes a tasty thick rich porridge and some is gluten free - provided it is not polluted by it. It is usually grown in drier areas which have more minerals in their soil because they have not been leached out over millions of years of higher rainfall, which will grow the faster growing, more popular wheat.


## Measuring in Stores

In shops you can load a water or milk container of the required weight into your trolley and check foods before buying them. Measuring through plastic packaging is not as accurate, but works if the plastic is clear (virgin), but not if the plastic is white or of other colours from being recycled so containing toxic items from what they previously held which could be Roundup.

This system can also warn some people if food, water or drinks have heavy toxic metals, or for each one, whether it is an allergic item. With some people, green fruit will make it harder to lift, so delay buying the fruit, and certainly don't eat it until ripe.

An interesting test is comparing organic items against non-organic milk or vegetables. Chris Rhodes (See Human Health > Introduction to Human Health.) figures for me were organic milk 70 every time (A new organic milk is 90 . See Milk.) and ordinary foods between $12 \& 30.1$ is poison, or certainly highly toxic and 100 is perfect.

## Eating Out

When you select gluten-free food in cafes or restaurants, ask the staff to either clean the tongs thoroughly or use different ones or fresh gloves to put food on your plate. Anything that has touched gluten food can transfer it to your food.

## Be Careful of Deep Fried Foods

Chips or French fries are usually dusted with wheat flour to stop them sticking to each other, so check before buying them, and when cooking them at home use rice flour, or another safe one. If they have been cooked in the same oil as something that has been wheat crumbed, then you could be eating chips cooked in gluten-contaminated oil. The crumbs and gluten remain in the oil and still have gluten even after boiling, so could contaminate your fish and chips.

## Being gluten intolerant

It makes me, and many other sufferers, cross and appalled that we are paying doctors and some socalled specialists' high fees, but their ignorance shows when they can't identify problems which alternative specialists can and do, often in seconds.

It took ten years of suffering for me to discover my gluten intolerance, during which time I was
misdiagnosed with Benign Positional Vertigo, Irritable Bowel Syndrome, Leaky Gut Syndrome, eating too fast, swallowing air, etc. See Gluten. I was treated without success, simply because the cause (gluten) was not identified and stopped.

