
*The Importance of
Nutrient Density
Grains vs.
Vegetables*

REBA WEBER

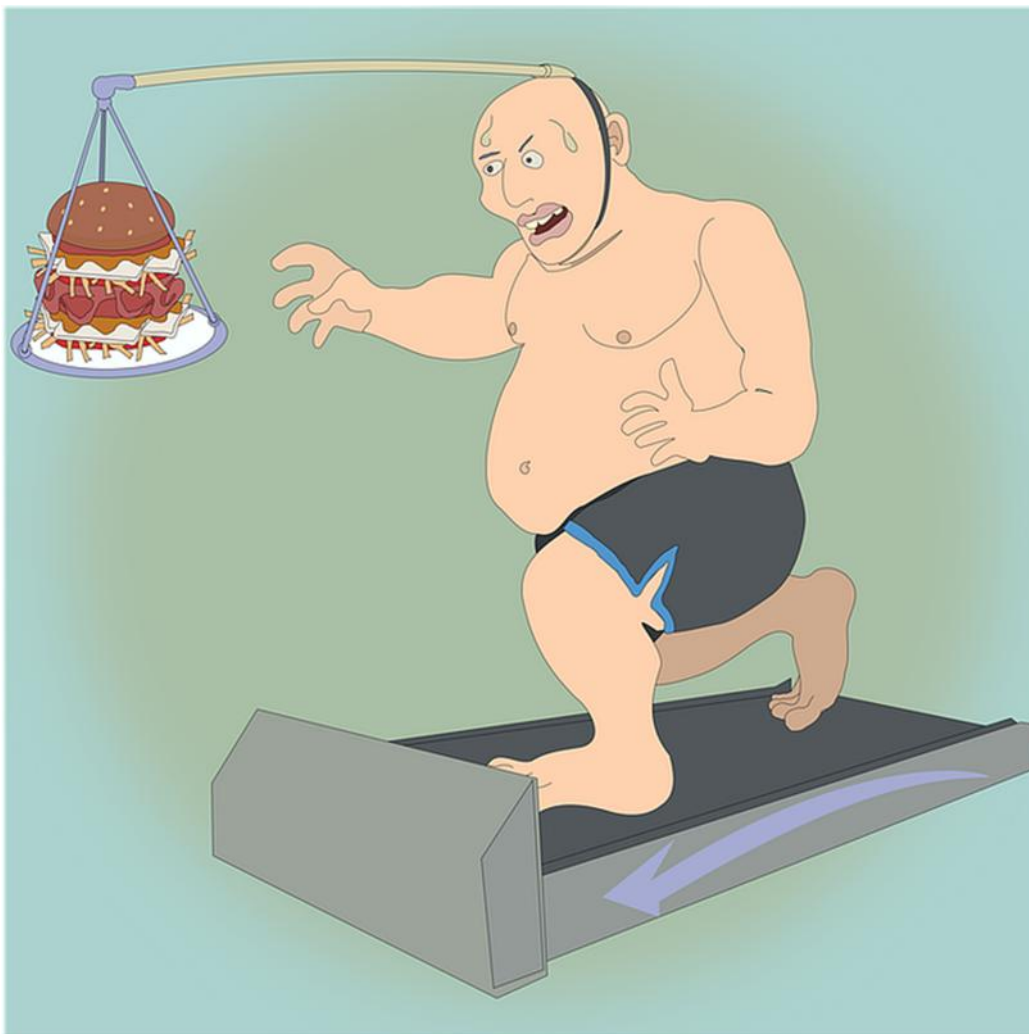
**INTEGRATIVE NUTRITION HEALTH COACH, AIP CERTIFIED COACH,
AUTOIMMUNE SURVIVOR, OUTDOOR ADVENTURER**



You've all seen the ads on TV for those diet and weight loss programs, right? You can eat anything you want, and still lose weight! But how come the celebrity spokesperson is back every year or so, to promote another "new and improved program" and they look no different than they did with the last program? Are these programs really helpful? Are they healthy? If they're so great and effective, why do you have to get a lifetime membership, and why do you have to keep going back?

Because everything they're telling you is wrong! Sure, you can still eat cupcakes. Or pizza. Or a plate full of pasta. You can count your points, and weigh your serving sizes, and maybe lose some weight. You can go to the gym 4 or 5 times a week and sweat on the treadmill for an hour each time, or take up jogging 5 miles a day, but is that even helping? Are you burning off stored body fat? Are you building muscle? And when you're done at the gym do you "reward" yourself with an ice-cream cone? Or do you punish yourself on Monday with 2 hours on the treadmill if you were weak and binged on pizza and beer over the weekend?

This is no way to live! You have better things to do with your time than alternately punish or reward yourself with, or because of food!



What if I told you that you don't have to live like that? That this is not how we were built to live? That our modern lifestyle and diet is so far removed from how we evolved, that this is why so many of us have chronic diseases like type 2 diabetes, cardiovascular disease, and autoimmune disease. We've done this to ourselves, under the supervision of well meaning doctors and scientists who have been telling us for the past 40 or 50 years that fat makes us fat, and all we need to do is eat less and move more. We've been doing that, and it doesn't work. So, we do it harder, and it still doesn't work! We go to the doctor and he says we're just not doing it hard enough, (doctors call this "non-compliance", their thought process is that patients are just not following their advice correctly, not that their advice may be wrong!) Eat less food, move more! And then we get sick, because we're starving, and over-exercising. It's a vicious cycle.

What's the definition of insanity?

What if I told you that all of those "health" foods that commercials, personal trainers, TV doctors, and even dieticians and nutritionists have been telling you to eat, are really what is making you sick? What if I told you the answer to your health questions is in the produce section, and at the farmer's market, and *not* from your doctor, or a grueling workout routine from your personal trainer?

Hippocrates, the grandfather of modern medicine said, *"let food be thy medicine, and let medicine be thy food"*. I'd love to have that tattooed on my arm, for everyone to see. He also said, *"all disease begins in the gut"*. If he could see what we're all eating these days, he'd be horrified!

We're all overfed and undernourished. Did you know that when governments first started recommending that we eat more whole grains, that people started getting sick with malnutrition? When they figured out what the problem was, is when grain based products started to be "enriched" with synthetic vitamins, 'round about the 1950s. If grains are so good for us, how come they have to be "enriched"? Oh, and by the way, you're not synthetic. So, neither should your vitamins be.

Did you know that the government's "RDA", or recommended daily allowance; sometimes also seen as RDI, where the I is for "intake"; is based on micronutrient levels to prevent starvation? That's it. These are the bare minimum levels of food nutrients we need in order to **not** starve to death. We really have no clue what **optimal** levels of micronutrients are for optimal health. But clearly, they are much higher than the current RDA/I! These are survival levels, not thriving levels.

Let's compare a typical Canadian's grain based diet, with a more nutrient dense, "paleo style" diet.

The typical Canadian wakes in the morning and has a cup of coffee, maybe a glass of orange juice, and a bowl of cereal, or a toasted bagel, smothered in cream cheese, or maybe peanut butter. If they have anything at all.



A typical paleo breakfast would include a serving of animal protein with a mound of vegetables. Perhaps a cup of coffee, or tea. Usually no juice, though it may be an occasional thing for some, and probably fresh squeezed, not mass produced.



Let's look first at the [nutrients](#) in the typical Canadian breakfast. That glass of orange juice has 25g of carbohydrate, but no fiber to slow its absorption into our blood stream. This causes a blood sugar spike, and our pancreas has to produce some insulin to deal with that. Then it will store the extra sugars in your fat cells. The juice might have as much as 130% of our daily recommended vitamin C, but no other vitamins to speak of. And without the fiber, we're not likely metabolizing it anyway, it's just going straight through, to be dealt with by our bladder.

Adult cereals are healthy though right?

On to that bowl of cereal. Let's assume we're having an "adult" healthy cereal, the front label says it's all natural, high in fiber and helps to lower cholesterol. These "adult" cereals can often contain more added sugars than children's cereals with marshmallow shapes in them, and really don't have that much fiber in them at all. Nor micronutrients. A popular whole grain cereal that I used to eat, because I thought it was healthy, contains 47g of carbohydrate, and only 6 grams of fiber per serving! The suggested serving on the nutrition panel is small, and probably less than half what we actually eat in the morning! So, let's add this up, so far, we've got 25g of carbs from the juice, and 41g from the cereal ($47 - 6 = 41$ net carbs. "net carbs" are the carbs that cause our blood sugar to go up, and makes our pancreas produce insulin to try to balance it). We've got a few micronutrients (vitamins and minerals), but not much to speak of. Total net carb intake is 66. The equivalent of [13.2 teaspoons of sugar](#). Would you just go and eat that much sugar for breakfast? There's really no difference, once it's in your mouth how your body is going to have to deal with it.



What kind of milk are you adding to your cereal? Healthy skim milk, because you don't want to get fat by drinking whole milk, right? Well...I bet you can guess what I'm going to say here. Yep, they were wrong about that too! Fat isn't the enemy folks! Our enemy is nutrient deficient foods, and our grain based diets. Go ahead, have some whole milk, but not on cereal! And if you can get it, get it raw, fresh out of the cow, goat, or sheep. And then ferment it. Overly processed anything, milk included, is

deficient in so many micronutrients! Which is why they fortify it with vitamin D. Food should be enjoyed in its whole form, like Mother Nature intended. Then we wouldn't have to fortify, or enrich our foods. When we remove naturally occurring nutrients, such as fat, the food is no longer natural. And really, we don't need milk in our diet anyway, if we get enough variety of vegetables, our calcium and bone health will be protected quite nicely.



Ok, you're in a hurry, and don't have time to sit over a bowl of cereal, so, you opt for the bagel with cream cheese, or peanut butter instead, and you dash out the door to eat it while you drive to work. Let's have a look....plain bagel, made with enriched white flour (they all are, because processed grains are inherently nutrient deficient) 56g of carbohydrate, and only 2g of fiber! And again, no micronutrients to speak of, even though it is "enriched". So instead of the 66 net carb hit as above with the cereal, you now have 79! Oh, but we forgot the cheese. Not much in the way of carbohydrates, so that's good! Lots of salt. Not much protein, only about .9g per tablespoon. A wee bit of calcium, and only Vitamin A of any significant amount. And that's only 4% of the RDA (recommended daily allowance). 4%! Wait! Peanut butter is surely healthier than cream cheese right!? You bought the low sodium, reduced fat, because it's good for you! Well, here's another 10g of carbohydrate, and only 1g of fiber. There's a little bit of vitamin E, and some niacin. Still, less than a body really needs to start their day though. And it takes our total carb count up to 88. We haven't even left the house yet! EEK!

CRASH!

The problem with this grain based diet, is that with that blood sugar spike, not too long after it, comes a crash. You've been there, done that! Right around 10 or 10:30. You're hungry again. Feeling a little sleepy and lethargic even. So, you dash off to the break room for another cup of coffee, and a "healthy" granola bar, full of oats (more grains!) and *6 different kinds of sugar* (go ahead, go read the ingredients label...I'll wait!) to hold you off until lunch time, only 2 hours away.

And I haven't even got to the part where all of these foods are actually **ROBBING** you of even the minimal nutrients that you are taking in!

By contrast, a typical paleo foodie's breakfast will look more like this. A piece of meat of some sort. Often leftovers from last night's dinner. Maybe a piece of steak, or a pork chop, accompanied by a mountain of vegetables, and maybe a small serving of fruit.

There's no carbohydrate in meats. None. Nada. Zip. Zilch. So, no worries of a blood sugar spike there. We've got a healthy serving of vitamin B12, and heme iron. A 3oz piece of lean steak is only about 23% of your RDA of fats (but we're not afraid of fats anymore, are we?), plus, lots of minerals and necessary amino acids that we get from animal proteins. (which btw, are more "bio-available" than plant based protein). What kind of vegetables shall we have for breakfast? My favourites for breakfast are Brussels sprouts and butternut squash. Vegetables should cover 2/3 of your plate. 1 cup of Brussels sprouts are about 11 g of carbohydrate, and 4 g of fiber. Net carbs = 7. We've got **274%** of your RDA of vitamin K, **162%** of your vitamin C, *more than the orange juice!* and 24% for both vitamin A and folate. Holy nutrient powerhouses Batman! I can't wait to see what's in the butternut squash!

1 cup of butternut squash contains 22g of carbohydrate, but not much fiber to measure. However, it's got **457%** of your RDA of vitamin A, another healthy dose of vitamin C, and some impressive amounts of minerals like calcium, magnesium, phosphorous, and potassium. Vitamin A is vitally important to your immune system. Moreso than vitamin C, and yet we never hear much about it.

If we add ½ cup of fresh raspberries to our meal, we'll have an additional dose of vitamins A, C, K, folate, and minerals, magnesium, potassium, and phosphorous. With a net carb count of only 3. Berries are great additions to a healthy meal or snack, packed with antioxidants, (helps to protect from cell damage), vitamins, minerals, and polyphenols (more protection from cell damage).



Bit of trivia for you here, did you know that the vitamins all got their letter indications because that's the [order in which they were discovered](#)? Now you know!

Let's tally this meal then. 32 net carbs on the paleo plate, vs. 88 for a bagel and glass of juice. We've got vitamin B12 and heme iron on the paleo plate, which are completely absent in the typical Canadian breakfast, not to mention the heaps of vitamins and minerals on the paleo plate, that just don't even bother to show up to a grain based breakfast. The paleo breakfast will keep you going much longer too, it'll be lunchtime before you know it, and even then, you may not even be hungry yet.

So, what's a person to do? All of the "conventional wisdom" tells us that we should be eating healthy whole grains, and we should reduce our meat and fat intake. What they *really* should be telling us is to ditch the grains, and manufactured Frankenfoods, and replace them all with vitamin rich, nutrient dense whole foods instead.



Still need convincing?

Not only are [grains inherently nutrient poor](#), they have a high glycemic load, and are low in fiber, but they also are highly inflammatory, (which means they cause pain!) they contain compounds that increase intestinal permeability (“leaky gut”) and feed the unfriendly bacteria in your intestines, causing an overabundance of them, and a reduction in the good guys. Then there’s the lectins! Prolamins and agglutinins particularly, which can impair digestion, and cross our (now leaky) gut barrier, almost fully intact! This causes widespread inflammation, and, if we’re genetically susceptible, can cause our immune system to go all crazy and create autoimmune diseases, like celiac, type 1 diabetes, multiple sclerosis, lupus, and more. For every autoimmune disease that has been tested, it has been determined that leaky gut is the precursor. Grains and legumes can cause leaky gut.

All grains!

And it’s not just wheat based grain products, like bread, pasta, and pizza. ALL grains, rye, barley, rice, corn, oats, and even pseudo grains like quinoa and buckwheat; which have added gut damaging saponins into the mix. Oh, and legumes too! Sheesh! What were people thinking when they first started growing this stuff and eating it?

Before the dawn of agriculture, [about 10,000](#) or so years ago in the fertile crescent, roughly what is now known as Egypt, and Iraq, agriculture made life marginally easier, because the food was just outside their door, they no longer had to forage. Domestication of some wild animals, the ancestors of our modern cows, pigs, goats, and chickens, meant that they no longer had to hunt for meat either.

But strange things started happening after humans started eating grains, and legumes, rather than their ancestral diet of fruits, vegetables, roots, shoots, and tubers. They started shrinking. And they started [getting chronic diseases](#). Diseases they'd never seen before. Diseases of malnutrition. Even though they were well fed. Stranger still, people started being born with blue eyes. [Blue eyes](#) are somehow a mutation that developed *after* the dawn of agriculture. Everyone had brown eyes before that. Weird right? Ok, ok! Correlation does not equal causation, it's just one of those things that makes you go "hmmm".

Life is tough, buttercup.

Life was tough for paleolithic hunter gatherers. Foraging for vegetables and fruits, and trying to hunt and kill big game. Sometimes there would be long periods of time without food. They didn't have refrigerators of course to store their big Costco hauls. They had to eat it when they caught it. There would be times when they had too much food! Mastodons are BIG! (insert wink emoji here) There would be times when a contagious disease would make its way through the tribe, and perhaps kill half the population, mostly children and the elderly. The same as a flu epidemic would today. But if a paleolithic person survived birth, disease contagions, rampaging sabretooth tigers, or infection due to injury, well then, they could be expected to live a long and happy life. Even as "old" as 60 or 70 years! I bet you didn't know that did you? You thought all the cavemen died by the time they were 20 or 30, didn't you? Comparatively speaking, our current life expectancy here in Canada is ~81 years. Not so much more than 70. And most people who reach that age only do because of medical intervention, not because we are a healthier race than paleolithic people. Genetically, we're pretty much the same. Except for the blue eyes, and lactose digestion mutations.

Paleolithic people did not die of cardiovascular disease. They didn't get type 2 diabetes. Or autoimmune disease. They didn't have ADD or ADHD, or autism spectrum disorder, nor did they struggle with obesity. They were tall and lean, with healthy bones and musculature. They had healthy teeth, even without the use of toothbrushes and without adding fluoride to their drinking water. They didn't eat sugar, other than honey, when they were brave enough to fight the bees for it. They ate vegetables, fruits, roots, shoots, tubers, nuts and seeds, and meat. All when they were in season. There were no trucks to transport oranges from Florida up to the Great White North. If they lived somewhere that has winter and snow, they dug through the snow, just like the caribou do, to find edible roots. And they ate the caribou.

Agriculture may have kept people in one place, so they no longer had to wander far and wide to find their food, but it didn't help their health any. With each passing generation, our health has continued to decline. Massive cities have grown out of [those first small farming](#) areas, cities so dense, that no food can be grown at all anymore. Soils have been depleted of nutrients, so our food is also depleted. We're cropping on land that should be grazed, and grazing on land that should be cropped. The world is totally backwards, and getting sicker and sicker each generation. Children who were born in the early 2000s are expected to live shorter lives than their parents. The first ever generation to receive that prediction. But why? Because they're the first generation that are eating more than 90% of their daily food intake from processed, and manufactured Frankenfoods, rather than any real, whole, natural foods. The only reason it's said that people today get *any* vegetables, is because of the one lettuce leaf and the slice of tomato that comes on their fast food burger that they pick up at the drive-thru on the way home!

Who makes your food? Where does it come from? Do you have to read a label? Does it come out of a box, or a shiny crinkly package? How often do you get a cold, or the flu? Twice a year? Three times a year? More? How many prescription medications do you take? Or even non-prescription medicines, like pain relievers, muscle relaxants, something for heartburn, or something for flatulence, or diarrhea? Did cavemen die younger because they didn't have these pills? Or are we taking all of these medications, because we have strayed so far off our ancestral path?

There is a lot of very wrong, and misleading information available out there regarding diet and our health. Most doctors have no clue that diet has anything to do with our health, because it is not taught in medical school. Wait! What? So then how come my doctor keeps telling me what to eat, if they don't learn it in medical school? What DO they learn then?

They learn about medicine. Pills. Injections. They learn how to re-set broken bones, and suture gaping wounds. They learn about acute infections and how to treat them, they don't know what to do with, or about, our growing population with chronic disease. They just tow the company line, and regurgitate the Canada Food Guide, (or US MyPlate, or UK Eat Well Guide, or or or) which suggests at least 6 to 7 servings of grains! Granted, they do suggest that adults get between 7 to 10 servings of vegetables as well. But how are you supposed to fit in all those vegetables, on top of all those grains!? Most people will opt for the grains, because of [hyperpalatability](#) and addictive qualities of them. Quite simply put, food manufacturers have made us addicted to junk food, and labeled it as health food. And our governments have told us that's quite ok!

I for one, think that's wrong! In so many ways!

If you have been struggling with nagging symptoms that your doctor has not been able to help you with, symptoms as varied as constipation, all over muscle pain, migraines, brain fog, bloating, and gas, just switch up your typical Canadian breakfast for something more akin to what our ancestors ate. You will notice a significant difference in how the rest of your day goes! You'll have more energy, you'll make it straight through 'til lunch without the sugar crash, and without the grumbles! You may even make it past your usual lunch time, and not even feel hungry, or the least bit of reduction in energy! Protein is not only important to help build muscle, but it digests slower, and keeps you feeling satiated longer. All of the fiber and micronutrients of the vegetables and fruit will help to keep your GI tract in good health, and will balance out the "good" and the "bad" microbiota (both are needed!).

I bet now you're thinking ***"but you haven't even mentioned calories once! What about the calories!?"***

Simple. Don't count calories. Count micronutrients. You can easily overdo it with calories if you're eating all the Canada Food Guide suggested manufactured Frankenfoods, but it's really difficult to overeat broccoli!

1 slice of whole wheat bread, with a tablespoon of peanut butter is about equal to 100 calories. One slice of toast with spread isn't a whole lot of food, you're definitely going to be feeling hungry again soon! 100 calories of broccoli by comparison is equal to about 5 cups! Who could possibly eat 5 cups of broccoli?

Why does all of this matter? The title of this e-book is *"The Importance of Nutrient Density"*, why can't we just eat whatever we feel? Well, you can, if you want to. But now that you know that all of those foods really **aren't** health promoting, why **would** you want to?

Why are nutrients so important? If we break it down between macronutrients, we're all familiar with these ones, protein, fat, and carbohydrates; these provide energy, and are the building blocks for our cells. More importantly though, are *micronutrients*. These are the vitamins, minerals, and phytochemicals in plant foods, if your diet is deficient in these, your body cannot function properly. When your body can't function properly, you are susceptible to more infections, you feel tired a lot, but you can't sleep well. You have mood swings. Headaches. Body aches. Brain fog. Sooner or later, you're going to develop a chronic disease or 3. Type 2 diabetes. Cardiovascular disease. Non-alcoholic fatty liver disease. Children will be diagnosed with ADD or ADHD. Or even autism. As adults, we go see our doctors for stress related issues like depression, and anxiety. As we get older, we talk to our doctor about hot flashes, and erectile dysfunction. Round about that same time we ask about digestive aids, because we always seem to be bloated and farting.

All disease begins in the gut.

Our immune system resides mostly in our gut. If our gut is not healthy, then **we're** not healthy. Whether you have, or are susceptible to autoimmune disease, or not, your gut microbiome is integral to your long and continued health. How well do you want to live through your later years? Taking multiple prescription medications, and feeling every ache and pain in every joint and bone? Maybe even unable to get up out of a chair, or off the toilet without assistance? Or would you rather live a vibrant and active life, free from medications, and able to live for yourself, until you just drop dead at a ripe old age of 100+? It is possible! And it's never too late to get started!

Thousands of people worldwide enjoy a happy and disease-free life, well past 80 or 90 years, and even past 100 years. How do they do it? Mostly diet. They don't eat our modern manufactured nutrient poor crap. They eat fresh, whole foods that they grow themselves, or buy direct from a farmer. They eat meats that are sustainably and humanely raised. They eat fish that isn't battered, deep fried, and served in a bun! They eat as close to how our ancestors ate as is possible in our modern world.

It's true, we cannot fully recreate a paleolithic diet! Every corner of the globe would have had a different diet. The Inuit in northern Canada, Alaska and Greenland would have had a diet primarily of seal, walrus, caribou, whale, and some small plant foods in the spring and summer, and sea vegetables, (contrary to popular belief, they didn't eat only meat and fat! But that was likely about 90% of their diet), which would have been vastly different than the diet of Australian aborigines, who would have had an abundance of plant foods to eat, as well as land mammals, and sea creatures.

Of course, the foods they ate in the paleolithic era would have looked a lot different to the foods we eat today, even if they are the same botanical family. Most of the foods are likely extinct, but some remain, only they've been modified and hybridized to be more palatable, easier to grow, and more prolific on the plant. If you go for a walk in the wilderness and see some wild berries, or wild fruit trees, and compare them to berry plants and fruit trees at a local farm, you'll see the similarities, and notice the differences too. I'll take the [wild varieties](#) any day! I enjoy foraging.

So, how does one get started on this journey to eating healthy, whole foods? Well, you start with a trip to your local grocery store. It's that easy. Instead of heading to the middle aisles where all the food packages are, hang a right, (why is it always off to the right?) and go into the produce section. Fill your cart with all of the stuff you see there. If you don't know what it is, take it home and Google! Experiment, have some food adventures!

Next, head on over to the meat department, get yourself some unprocessed beef, pork, lamb, chicken, fish, maybe a rabbit even, depending on the demographics of your neighbourhood! “Unprocessed” means there are no added preservatives, so you’re not going to be buying sliced deli meats like bologna, or salami that are full of nitrites, sugars, salts, and multi-syllable unpronounceable things! Buy a roast beast that’s big enough for one dinner for everybody, plus at least one lunch for everybody. Buy some ground meats to make breakfast sausage patties for the week. Buy stew meat, and toss it in the slow cooker or pressure cooker with some vegetables. Buy whole chickens, have a couple of meals, and then make bone broth with the carcass.

Snacks are easy too. Fruits, nuts, seeds, raw vegetables. Small servings of whatever you had for dinner last night. Food. Food is good. *Healthy food is good!*

It won’t take long for you to notice a considerable difference. Even if all you change is breakfast. Once you do, then you’ll want to change lunch. Then dinner. And you’ll wonder why you ever thought that a bagel and glass of juice for breakfast was a good idea!

Enjoy your life, with more energy, and age well with whole natural foods.



Health Coach Reba lives in Toronto, Ontario with her mum and her rescue dog Kreacher. She loves to spend time in nature, go camping, and grow her own food on her balcony. She also has a passion for creating new recipes that are free of gluten, highly nutritious, and very tasty.

In 2007 she was diagnosed with Grave's disease, an autoimmune disease that causes the thyroid to go hyper. In 2009 she was diagnosed with celiac disease, and later in 2014, very evident symptoms of Sjogren's syndrome took over her life for a short time. During all of these trials, Reba started looking at how diet can affect her health. Particularly after she found out she has celiac disease, which can only be treated by a specific diet of eliminating all forms of gluten from food and drinks. If one food group can contribute to disease, what about all the rest?

Like any typical Canadian, Reba ate according to the recommendations on the Canada Food Guide. With a lot of junk food and pop tossed in as well, let's be honest! It wasn't until she switched her diet to a paleo style, and then AIP (autoimmune protocol) that she realized what healthy feels like, and now, at age 50, is more active and has more energy than she did at age 20.

Reba studied at the Institute for Integrative Nutrition, receiving her certificate in health coaching in May 2015, and then in September 2017 received her AIP Coach certificate from Autoimmune Wellness Inc.

You can contact Reba by email at rebecca@rebaweber.ca She has a website, where she keeps her collection of healthy healing recipes at <http://rebaweber.ca> You can also find her on [Facebook](#) and [Instagram](#)

