

*The Health Ecology Solution*

# FOODS & IMMUNE RELATED ILLNESS

*The Link Between Certain Foods & The Impact On Your  
Immune System.*



*Bill Giles  
Clinical Immunobiologist*

## About Bill Giles

I have quietly achieved many things in my life. I have built hotrods and surfed as a teenager while studying engineering, but a shakeup in my early 20s changed all that, and if I was to make sense of my world I needed a new direction and a new perspective. So like many young people of my generation, I set out to understand what my life was all about and how it fitted in with others. I chose to use biology and yoga to help me with this. As soon as I finished my engineering studies, I enrolled for another seven years studying biology. My focus was ecology and ethology.

Following a few years in research I spent another 30 years in a clinical setting helping people with their mental and physical health challenges—from a biology perspective. I founded, directed and still work in the Canberra Medical Ecology Centre as a clinical biologist focusing on immune-related illnesses (immunobiology). I established the Samyama School of Yoga in 1987 and have taught weekly classes in hatha and raja yoga.

After completing several thousand case studies on the interaction between the human immune system and the natural defence chemicals in the plant foods we eat (vegetables, salads, fruits, seeds and grains), I founded the Deeks Health Bakery in 2004 with my close friends, Rob de Castella and his wife Theresa. This had been the world's first totally grain and gluten free bakery—the products of which have helped many people across Australasia to live a more normal lives despite their diagnosed chronic immune related diseases. These health products also promote better overall fitness.

I have published eight books on yoga and several self-help books on chronic immune-related illnesses. Combining useful knowledge and techniques from yoga and biology I created a 10-week Self-discovery Program which uses both the internet and physical workshops to guide people to achieve a 'sweeter' pathway for their lives. Along with Larisa Zoska who has worked with me in the clinics for 20 years, we created the 10-week Kickstart Program to assist immune function by tutoring people in a protocol to self-determine a 'Signature Diet' specific only to them and the state of their immune system. This way of eating promotes the best mental and physical health possible for each person as an individual at the present stage of their lives. In workshops, classes and seminars I am still keen to continue to teach people lifestyle techniques, tools and skills that can improve their mental and physical health and allow them to live longer with better health and achieve their particular higher purposes in life.

I still practice martial arts (after 55 years of training). I still like to surf and snowboard and I am still keen on hotrods. I am blessed with a loving family, grand children and friendships.

## Yoga publications:

Zen Shiatsu 1990. (out of print)  
Trunk Exercises and Yoga Nidra 1993 (available as CD)  
The Yoga Sutra of Patanjali—a practical interpretation. 2001 (Hard Copy)  
In Search of Yoga. 2005 (Hard Copy)  
The Yoga of Happiness. 2005 (Hard Copy)  
The Yoga of Samadhi. 2005 (Hard Copy)  
The Hatha Yoga Pradipika. 2015 (Hard Copy)  
Trunk Exercises (with CD). 2015 (Hard Copy)

## Books on Chronic immune-related illnesses:

Death Begins in the Colon 1996. (Out of print)  
No More Chronic Fatigue 2001. (Hard Copy) (PDF download)  
The Melody of Healing 2007 and 2010. (Hard Copy)  
Atypical Coeliac Disease 2007. (Hard Copy) (PDF download)  
Coeliac Disease 2007. (Hard Copy) (PDF download)  
Healing Cancer—A six month immune boosting program. 2008 (PDF download)  
For Lasting Health—The balance between nature and technology. 2007 (PDF download)  
Fructose is Satan's Sugar 2010. (PDF download)  
Maximising Health and Longevity 2011. (PDF download)  
Understanding Cancer—a series of articles 2017. (PDF download)  
Autoimmune Diseases 2016. (PDF download)



*The following is a selection of blogs I have written about*

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### ***General Introduction***

We have evolved our therapy, medicine and lifestyle techniques to unload, strengthen and refocus the immune system.

***If you are interested in participating in your own healing, talk to us today. Phone 0421889164 or 0262826800.***

***Bill Giles, Larisa Zoska***



## We are Human because we Cook our Foods

Biologists, evolutionary psychologists and anthropologists point to our hunter-gatherer ancestry to explain much of human behaviour today. But what if the roots of humanity lie not broadly in adaptation to nature but strongly influenced in adapting to a communal life cooking food? That is what Richard Wrangham, a Harvard-based biological anthropologist proposed in his book '*Catching Fire—how cooking made us human*'. Since this book was published in 2010, I have used many of the arguments presented by Dr Wrangham to assist people who come to my clinic for help in overcoming their ill health. His ideas are withstanding the test of time. I highly recommend reading this book and examining from an historical perspective why cooking food is better for your health than eating raw food.

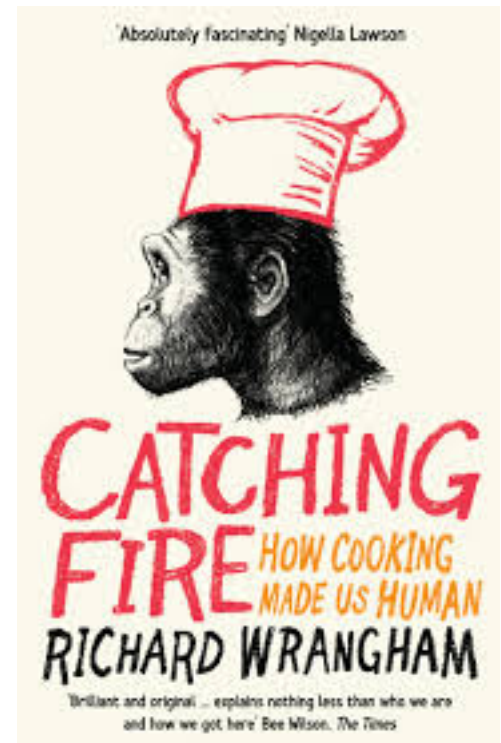
Catching Fire is an easily understandable scientific essay that expands our understanding of human evolution, through 'a cooking hypothesis'. Dr Wrangham states, “Cooked food does many familiar things. It makes our food safer, creates rich and delicious tastes and reduces spoilage. Heating can allow us to open, cut or mash tough foods. But none of these advantages is as important as another aspect: cooking increases the amount of energy our bodies obtain from food. The extra energy gave the first cooks biological advantages. They survived and reproduced better than before. Their genes spread. Their bodies responded by biologically adapting to cooked food, shaped by natural selection to take maximum advantage of the new diet. There were changes in anatomy, physiology, ecology, life history, psychology and society”.

Richard Wrangham writes that eating cooked food, whether meat or plants or both, makes digestion easier, provides more energy, renders many natural plant poisons inactive, and generally takes less time to eat than raw foods. Over 1.6 million years, the large amount of energy that was formerly spent on attempting to digest raw foods was made available through cooking, to power our increasing brains. The warmth provided by fire enabled us to shed most of our body hair, enabling us to run farther and hunt more without overheating. So the simple expedient of cooking food gave our ancestors access to many more 'safe' calories every day, which allowed early humans survival quality over competing animals in times of limited resources.

Dr Wrangham suggests that our ancestors mostly eliminated the normal primate behaviour of eating foods where they found them, and adopted social eating behaviour around a fire. The protection that fire provided at night enabled our ancestors to sleep on the ground. Females adopted the role of cooking for males, who were then freed to spend more time hunting. “Relying on cooked food creates opportunities for cooperation, but just as important, it exposes cooks to being exploited”, he writes. “Cooking takes time, so lone cooks cannot easily guard their wares from determined thieves such as hungry males without their own food”. Women needed male protection.

Dr Wrangham cites studies demonstrating that strictly adhering to raw-food diets has difficulty providing adequate energy over time, and notes that in one survey, 50 per cent of the women on a vegan diet stopped menstruating. He refers to studies that suggest that living on an unpredictable raw plant food diet increases the difficulties of surviving when compared to access to unpredictable cooked foods (flesh and plant). Even castaways have needed to cook their food to survive. “I have not been able to find any reports of people living long term on raw wild food”. Thor Heyerdahl, sailing a primitive raft across the Pacific took along a small stove to cook. Alexander Selkirk, the model for Robinson Crusoe, wrote that he built fires and cooked his food.

Dr Wrangham also questions the popular 'Man-the-Hunter hypothesis' underpinning human evolution, which argues that eating meat was the primary force shaping human evolution. Meat eating “has had less impact on our bodies than does cooked food”, he writes. “Even vegetarians thrive on cooked diets. We are cooks more than carnivores”. Though there is poor archaeological evidence of humans controlling fire before 800,000 years ago, the changes to the structure of the human face, teeth, brain, and gastrointestinal tract, since *Homo erectus* 1.6 million years ago, indicate adaptations to regularly cooked meals.



Once these early humans started to eat soft, cooked food, their jaws and teeth were no longer required to munch ceaselessly, and they became smaller and more delicate. That is why we don't look like apes anymore. Modern humans don't have significant fangs, our jaw structure is weak and does not articulate like a carnivore, our blunt teeth are not efficient at chewing and our mouths are small. Vegans use these anatomical facts to argue that we are adapted to eat raw foods and not flesh foods. But Dr Wrangham believes these facts and the current anatomy of the human gut, strongly indicate that we are, as he colourfully puts it, “the cooking apes, the creatures of the flame”.

The more cooked food these hunter-gatherers ate, the more their gastrointestinal tract adapted to cooked food and became more compact. As they spent less time eating, they had more free time to explore how to survive with more quality, predictability, tool use and social interaction—around a central campfire focus.

For the last few decades, those of us living with technology have the luxury of predictable access to a surplus of attractive foods, with none of the brutal experiences of actual hunting and gathering, nor the rigours of regularly being forced to spend considerable periods of time without food. Most of us also have become rightly concerned about the health effects of industrial chemicals that are being used in the growing, packaging and preservation of food. Most of us desire that food should be as natural as possible, that is ‘organic’. We also demand food quality—taste, smell, presentation, texture and adequate volumes to satisfy our indulgence. The fast modern lifestyle, commercial pre-cooked and corporately presented and packaged fast foods are becoming more the norm these days—eliminating the traditions of kitchen cooking and communal eating. Dr Wrangham's well written book offers a wake-up call to review the human qualities related to cooking in our lives, and the benefits to cook foods well to assist health and wellbeing.

## The Challenge of Eating for Entertainment

Most of our important family and social events involve food. Christmas, birthdays, and celebrations usually incorporate food in symbolic and important ways. December and January are months where we holiday, celebrate and align with our family and friends—and we use celebratory foods and drinks as a primary way to do this. For those of us eating a 'restricted' diet, such celebrations can seem somewhat challenging. But it is possible to have your Christmas cake and eat it too!

While foods are essential for life by producing energy, nutrition and sometimes medicines, the entertainment value of foods has assisted human survival over hundreds-of-thousands of years. Of all the current primate species, humans are the only species that, when we find a food we rarely eat it in the vicinity, but prefer to take it back to a camp, prepare and share it with others. We are also the only primate that puts the group's survival above the individual's survival. All other primates, in their behaviour are the opposite.

This type of group-supporting behaviour is now a part of our genes. Individual hunter-gatherers would have found it almost impossible to survive in nature by themselves as individuals—we do not have claws, fangs, nor are we a large animal. When individuals focus on ensuring that the group survives, then their own survival quality and potential also increases. We use communal cooking and eating of foods in order to align everyone into a tight-knit group. The particular types of foods that smell good, taste good, have the right texture and crunch, assist to produce laughter, positive bonding and connection. These are the foods that assist our happiness and social congeniality. Without quality eating we lose some of our drive to tackle the challenges of life.



Unfortunately many of the foods that we find entertaining are the ones that impact on our health. Also, consider this—most are derived from the plants we eat—coffee, tea, fruits/juices, alcohol, herbs & spices, sugar, bakery products, and even 'street drugs'. Although plants may be entertaining and provide various degrees of nutrition, all plants are to some degree toxic and poisonous (particularly the grain-derived foods).

No plant wants to be eaten. Plants protect themselves with spikes, some have woody tissue that makes them impossible to digest, but most use chemical warfare to protect themselves. Think of mushrooms—most of us wouldn't risk eating a mushroom we happen to find in the wild—because it will probably be poisonous. Also consider that there are more than 450,000 fruiting plant species in the world and we only eat a few hundred because the rest are either too poisonous or impossible to digest.

Additionally, consider that as we age onwards from around 35 years, our immune systems begin to scar and, for most, the scars form around the naturally occurring plant defence chemicals of the plants we are eating—grains, vegetables, salads, fruits, herbs, spices, nuts and seeds. So while, it is important for humans to enjoy the social interactions that sharing food engenders, it can seem that some of our most entertaining foods are out to get us—or at least our immune systems think so!

So how do we enjoy our entertaining foods and remain healthy? The key is to tailor your diet to your individual needs so you can know which type of entertaining foods you can eat without creating ill-health, and how much you can take at each sitting—related to your mental and physical health in the moment.

For optimal health and longevity it is best to eat a specific diet customised to you and your immune system that shifts slightly as you age—and that can be used as entertainment when you need it. This is more rewarding for the overall quality of your life, than blindly eating whatever you like, whenever you like, and having to turn to the doctors' prescriptions to address chronic health symptoms caused by convenience, entertaining and even foods touted as being nutritious.

If a person is between the age of 14 and 35 with a healthy immune system, then most likely they can eat any sort of diet (junk food and sugars included), in mostly any amounts, and still remain perfectly healthy.

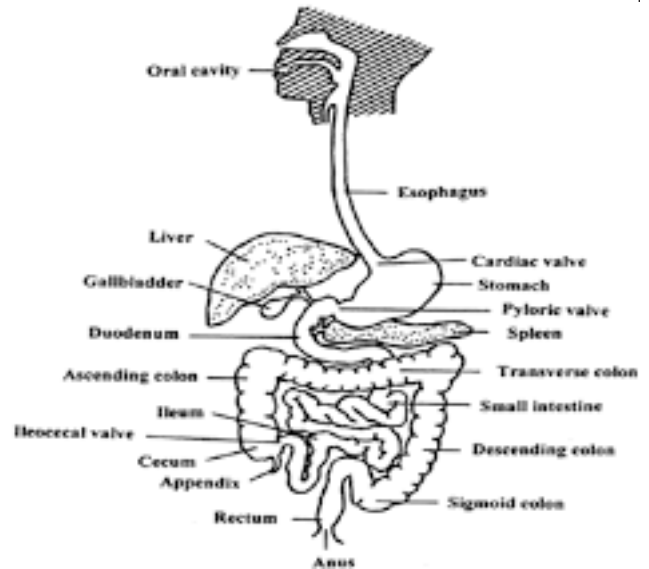
Unfortunately as we age past 35 years, our immune system starts to decline in its strength and efficiency through what is called "adaptive immune system scarring" where it loses efficiency at identifying microorganisms, such as viruses, and/or chemicals, with which it comes into contact. These can be commercial/industrial chemicals or they can be the chemicals we spray on our plant foods, the naturally occurring toxins in the plant foods, or the chemicals/heavy metals that occur as pollution in our meats. From my experience with almost 30,000 case studies, most people develop immune-related ill-health symptoms from the naturally occurring chemicals in the plant foods they eat, and the most damaging will be the grain-based foods.

There is however, usually more to the story than what I have presented, and although the generalised advice—that the removal of grains will lift your health to some degree—since each of us has a unique immune system, we mostly need unique solutions to maintain normal health while we attempt to live to our potential longevity. A Signature Diet is a better option as we age.

## Foods and Human Digestion

Plants can be incredibly beneficial for human health but they can also be incredibly destructive. Plants do not want to be eaten and use bark and thorns as well as chemical defenses, to survive predation. This includes the handful of plants that humans eat. It is estimated that there are more than 450,000 plant species in the world yet most of us would consume fewer than 100 different types in a year, depending on their commercial availability. Some plant products are used in small doses as medicines, some is used for nutrition but mostly plants are used to give energy—as carbohydrate sugars. There is much confusion about the foods that humans should and shouldn't eat.

The structure of an animal's gastrointestinal tract indicates the main foods it eats. Although some animals are classified as specialist feeders, such as the great apes, almost all will eat a variety of animal, insect and plant foods, depending on availability, season, health, and so on. Each animal species will, however 'prefer' a particular type of food to which their digestive processes are most adapted (great apes prefer stems, leaves, fruits and shrubs but select particular plants for the insects and grubs that live in these plants). Humans eat all types of foods: plants, animal tissue, some insects, milk and eggs. We are true omnivores that are genetically adapted to using tools to cut up our foods, and we use fire to cook our foods. This is what makes the human diet unique and our gastrointestinal tract unique compared to other animals.



From our mouth to our anus, our gastrointestinal tract can be stretched to about eight metres in length. Our small intestine is about 6 metres long, while our colon is about 1.5 metres long. In general, carnivores have intestinal tracts that are three to six times their body length, while some hind-gut herbivores such as rabbits have intestinal tracts 10 to 12 times their body length. Humans are neither of these.

The uniqueness of the human gastrointestinal tract causes confusion. Some argue that humans are naturally carnivores, some argue that humans are plant eaters and some say we are omnivores. Our small mouth, unique dentition, jaw shape, cheeks and starch peptide enzymes in our mouth indicate that we eat plants and we can eat soft animal tissues. It must be remembered however that humans have been using stone-tools to cut-up animal flesh for 3 million years, and we probably have been cooking flesh foods for more than 1 million years—and cooking meats softens them to the point that we don't need fangs to assist tearing flesh apart.

Most carnivores have a large single-chambered stomach, and in large carnivores, this can be more than 50 per cent of the total volume of the whole digestive tract. Large carnivores eat about once a week, and a large stomach allows these animals to quickly gorge themselves and slowly digest while they rest. Humans have a simple, single-chambered stomach like small carnivores. Traditional Australian aborigines varied their eating from three to four times a day when meat was available to once a week when meat was not available.

Carnivores keep their gastric pH around 1 to 1.5 even when food is in the stomach. This pH can breakdown raw protein and kill microorganisms such as bacteria, which are found in decaying flesh foods. Unlike carnivores, our human pH is considered to be mid-range, with an ability to move down to 1.5 to 2. Our use of fire to cook foods and the use of stone tools to cut up the foods into small chunks, means that we do not need to have the normal pH of carnivores. It is noted that humans quickly digest cooked flesh foods than cooked vegetables. You will have observed that if you vomit up a recent meal, the undigested, cooked vegetables will be visible but not any chunks of meat. Cooked meats digest quickly in the human stomach.

Herbivorous animals that predominantly consume high cellulose plants, must ferment (digest by bacterial enzyme action) their food. They are classified as either foregut fermenters (ruminants) or hindgut fermenters. The foregut fermenters have a four-compartment stomach which ferments their food before uptake in the small intestine. Hindgut fermenters have convoluted stomachs



which partially break down their food, pass it quickly through a moderate small intestine to a fermenting chamber called a caecum. The caecum connects the small intestine to the ascending colon. These animals uptake most of their nutrients in an extensive colon. The caecum is large in hind-gut fermenters while it is small to nonexistent with a vermiform appendix in carnivores. Humans have a nonexistent caecum and a vermiform appendix. Humans are neither a fore-gut nor hind-gut fermenter.

So what does this tell us? The muscular-skeletal structure of our bodies allows us to move reasonably well but not exceptionally well (we are not a large animal, we don't run as fast, nor swim as well, nor balance, nor are as strong as many animals), we are however, exceptionally well adapted to handle and use tools. In the same understanding, our gastrointestinal tract allows us to eat both animal and plants, but not exceptionally well. Our gastrointestinal tract is however, exceptionally well adapted to digesting foods we eat by cutting, pounding, grinding, fermenting, cooking and soaking.

If your immune system is functioning normally, then eat animal foods and a wide variety of plant-derived foods, prepare them with care and enjoy their taste, texture, smell and nourishment. If your immune system is not functioning normally, you will probably have to change your diet to accommodate for this.

## Gut Ecosystems and your Health

There are more than 100 trillion microbes that are part of the ecology of the human body, and most have remained largely unstudied. It is now known that changes to the ecology of body organs, in particular the gastrointestinal tract, contribute to a variety of diseases, including autoimmune diseases and obesity.

In 2012 the Human Microbiome Project was established to detail the diversity of microbial communities in the human body. Most microbes live in the gut and perform vital functions for health and survival—digesting food, producing anti-inflammatory chemicals, and modulating the immune system's responses to toxic chemicals and other microbes that enter the gut via the foods we eat. The gut ecosystem is unique to each individual and is constantly changing due to: the health of our immune system; the types of microbes present; the toxic chemicals entering the gut through our foods; our genetic makeup, our digestive enzymes; the amount of exercise we do; our sleep patterns and the emotional tension we hold.

Scientists are now realising that our bodies are composed of complex ecosystems colonized by numerous collaborating and/or competing types of microbes. Maintaining health is really about maintaining the stability of the ecology within the different ecosystems of our body.

One of the questions central to microbiome research has focused on the reasons why people in modern society, who are relatively free of infectious diseases, are so prone to inflammatory, autoimmune and allergic diseases that have their origins in the gut. Scientists are now beginning to understand that the immune system is the 'farmer' of the gastrointestinal tract and when it loses its efficiency, the ecology of the microbial communities in the gut is likely to breakdown.

The huge microbial variation from person to person, has forced scientists to redefine how the immune system interacts with the gut ecosystems. Until a few years ago, scientists were suggesting that there was a 'standard' array of human-adapted microbes in the gut that promoted long-term health. But now they suggest that long-term health is predominantly governed by the interactions between the immune system, the microbes that live in the gut, and the constantly changing chemical environments of the gut due to the foods we eat.

Dr Harry Sokol, a gastroenterologist at Saint Antoine Hospital in Paris, found a link between changes in bowel flora and Crohn's disease, a chronic inflammatory disorder of the gut. Most inflammatory bowel diseases are linked to disruption by particular plant defence chemicals on the gut ecosystem when changes to immune system communication reduce the ability to farm the ecosystem of the gut. When Dr Sokol did a comparative DNA analysis of diseased sections of intestine surgically removed from patients compared to healthy patients, he noted that the population of one common type of clostridial bacterium was significantly depleted. Rather than 'bad' microbes prompting disease, he considered that poor farming by the immune system caused the loss of particular types of microbes, which then reduced the ability of the immune system to modulate its response to particular food chemicals coming into the gut. This was the cause of localised inflammation. When Dr Sokol transferred the types of bacteria that had been reduced/lost, back into the gut of mice, he found their presence, in general, reduced intestinal inflammation. Mixing these types of bacteria with human immune cells in a test tube also reduced inflammation. It appears that certain bacteria are necessary to assist modulation of the immune system.

Dr Kenya Honda, a microbiologist at Keio University in Tokyo, also uncovered a connection between the presence of clostridial microbes and reduced immune inflammatory responses in the gut. To study the effects of gut microbes on animal health, scientists decades ago developed the germ-free mouse—an animal without any gut microbes. These rodents, delivered by caesarean section and raised in sterile plastic bubbles, can exist only in laboratories. Dr Honda noted they had a general lack of the types of immune T-cells that regulate the intensity of inflammatory responses, and without these, inflammatory diseases such as colitis could be easily induced through diet changes. By inserting human-adapted clostridial strains of bacteria, obtained from a healthy lab member into the gut of mice with induced colitis, he found he could boost the presence of regulatory T-cells and stop the colitis.

There appears to be three ways to stop inflammatory diseases. One is to restore the immune system to normal health. A second is to manipulate the presence of clostridial bacteria in the gut. And a third is to remove the particular foods with toxins (both naturally occurring for defence and those sprayed on the plants) which disrupt the ecology of the gut and reduce these types of bacteria.

When we use antibiotics we broadly alter the gut flora by destroying countless numbers of gut bacteria. A number of studies

have now found a small but significant correlation between the early-life use of antibiotics and the later development of inflammatory disorders, including asthma, inflammatory bowel disease, childhood obesity, and more recently, colorectal cancer. One explanation for this association might be that sickly people (with damaged or inefficient immune systems) take more antibiotics. Antibiotics are not the cause, in other words, but the result of a preexisting immune inefficiency.

Dr Honda's studies suggest that antibiotics may deplete the very bacteria that modulate the immune system, and this leaves it prone to overreacting to the presence of specific food chemicals. Dr Brett Finlay, a microbiologist at the University of British Columbia, has explored this possibility. His studies have demonstrated that early-life vancomycin treatment of mice increases the animals' risk of developing asthma later in life. He also found that the depletion of clostridial bacteria resulted in a depletion of T-suppressor cells, which then resulted in gut inflammation to food toxins and this is somehow linked to asthma.

Dr Cathryn Nagler, an immunologist at the University of Chicago, destroyed clostridial bacteria in the gut of laboratory mice, using antibiotics and then fed the animals peanut butter. Without those particular microbes and the depletion of T-suppressor cells, the peanut butter caused a rodent version of a food allergy. She was able to prevent the allergy by reintroducing types of clostridial bacteria.

A number of studies over the years have also linked living in moderately less sanitary environments during childhood with a lower risk of inflammatory bowel disease in adulthood. For example, a 2014 study from Aarhus University in Denmark found that among northern Europeans growing up on farms and interacting with livestock, the risk of contracting inflammatory bowel disease later in life halved. Thus exposure to nature as children appears to influence both the immune system and the ecology of the gastrointestinal tract, despite the array of genes we carry.

Does transplanting types of bacteria in the gut through probiotics or through physical insertion into the bowel, benefit the recipient? That viability has been scientifically tested. For example, several years ago Dr Max Nieuwdorp, a gastroenterologist at the Academic Medical Centre in Amsterdam, transplanted microbes from lean donors to patients recently diagnosed with metabolic syndrome, a cluster of symptoms that often predicts Type-2 diabetes. The recipients recorded improvements in insulin sensitivity with the enrichment of their microbiota, including clostridial species. Six months after the transplant however, all the patients had relapsed, metabolic improvements had faded and their microbes had reverted to their original states.

Modifying the 'diseased' ecosystem by installing a population of specific microbes will not necessarily overcome a health problem. A damaged immune system simply farms the new community in the image of the old food chemical environment. This helps explain why faecal transplants, which are able to initially stop bacteria-induced diarrhoea, have so far failed to treat inflammatory bowel disease. The bacteria-induced diarrhoea is caused by a single opportunist, but in general, inflammatory bowel disease is driven by a poorly farmed gut ecosystem and eating the 'wrong' foods for the individual at that time of their life.

Thus for long-term health with longevity, rather than transplanting bacteria populations which will have difficulty surviving in the long-term, an individual with gut inflammation should either change their diet as they age (to maintain the dominance of certain desirable microbes in the gut environments) or they should improve the efficiency of their immune system so that it can 'farm' for optimal gut environments—or undertake a combination of both. A Signature Diet does this.

## **Cholesterol: your Body's Essential Fatty Ingredient**

For decades, Australians have been urged to watch their cholesterol levels and eat fewer foods containing saturated fats (from animals)—there is even a margarine designed to lower one's cholesterol and serve as a substitute to butter. But cholesterol is not the bad guy it's been made out to be—in fact it's an essential element in the functioning of your body, in particular the production of testosterone.

Cholesterol is a waxy, fat-like substance that is found in all cells of our body. Without sufficient concentrations of cholesterol we cannot live. Cholesterol is involved in most functions of the body and assists optimal aging and longevity. Cholesterol is essential for production of vitamin-D which is linked to improved immune function, calcium and phosphorus regulation, gene expression and mental and emotional health. Cholesterol is essential for the formation of bile acids which are involved in the digestive breakdown of proteins and fats. It is vital for brain health, by forming the myelin sheaths that coat the cells and effect the release of neurotransmitters. It is also the precursor to balanced testosterone.

### **The cholesterol-testosterone dance**

Testosterone is often referred to as the 'fountain of youth' hormone for men, because levels are at their highest during adolescence and early adulthood, and gradually decrease with age. When age-dependent testosterone levels are too low, there occurs reduced sexual desire, lower libido, fewer spontaneous erections, impotence (erectile dysfunction), infertility, emotional instability, a decrease in motivation and pride, a tendency to depression, memory loss and anxiety as well as changes to sleep patterns, reduced muscle bulk, tone and strength, decreased bone density, increased body fat and types of immune dysfunction. When age-dependent testosterone levels are too high there occurs higher blood pressure, overactive thyroid and other endocrine glands, excess and inappropriate calcium deposition, emotional instability with a tendency to aggression and bitterness, types of immune dysfunction, tendon damage, arthritis, and other ill-health symptoms. The greater the variation of your testosterone levels from normal ranges, the greater will be your vulnerability to sickness and ageing.

Several studies have confirmed the connection between low cholesterol levels and low testosterone levels. The majority of men who take statins (cholesterol-lowering drugs) for example, experience a drop in libido and an increase in erectile dysfunction as well as the other symptoms of lowered testosterone. It is known that the Leydig cells in the testes can create the most testosterone, and to do this, these cells require more cholesterol than other body cells. When blood cholesterol levels are forced down by statins, the body naturally ramps-up to maximum cholesterol production to keep testosterone levels normal for age. This becomes impossible over time, and low testosterone eventually results.

Your body has the ability to produce most of the cholesterol it needs from your liver, intestines, adrenal glands, and reproductive organs. It can also obtain cholesterol from fatty acid production via foods. If you eat foods supplying relatively high volumes of cholesterol, your body decrease its own production and has a 'rest'. If you do not eat foods with cholesterol, your body simply increases its production—unless it is suppressed with drugs.

### **'Good' and 'bad' cholesterol'**

Cholesterol is transported throughout your body attached to carrier lipoproteins—which can be high-density lipoproteins (HDL) and low-density lipoproteins (LDL). For a long time HDL had been called 'good' cholesterol while LDL had been known as 'bad cholesterol'. Today the tendency is to understand that neither are good nor bad. The reason why medical people assumed that HDL was 'good' was because it is the lipoprotein that removes cholesterol from the body by transporting it away from the body's tissues to the liver where it is turned into bile and deposited into your intestines for eventual removal. Thus one of the functions of HDL is to remove excess cholesterol, which otherwise would concentrate throughout the arteries and lead to high cholesterol levels. The more available HDL you have, the greater chance your body has of removing excess cholesterol quickly. This is why HDL gained a 'good' reputation.

LDL was considered 'bad' cholesterol only because it delivers cholesterol to the body from its production sites. People who eat foods low in natural cholesterol, force their body to increase production of cholesterol and this also means LDL production to transport the cholesterol. While our body uses the cholesterol that LDL delivers, it can cause health problems in those people whose arteries are being constricted by inappropriate immune activity or plaque accumulation at certain junctions.

Higher concentrations of LDL can have difficulty moving through constricted arteries and can even totally block an artery—pri-

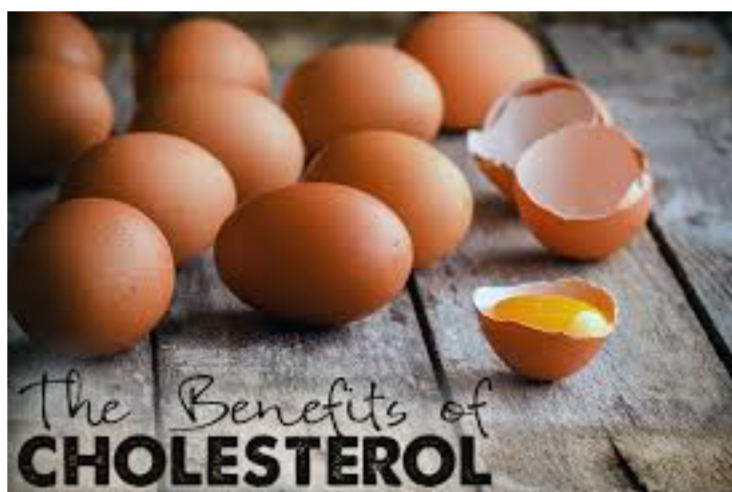


marily leading to a heart attack. Consequently, most doctors focus on reducing LDL production to lessen this possibility. As people age, most suffer immune scarring and this is often working with arterial inflammation and thus can cause partial arterial constriction. So as you age and your health deteriorates, your doctor may recommend statins for you. But research has shown that increased consumption of saturated fats decreases the amount of LDL in your body. So if you eat the right amount of cholesterol containing saturated fats, your body can in turn, produce less to make up the balance, and this will also balance your LDL levels.

Current research is finding little or no connection between heart disease and eating fats—both the saturated and unsaturated varieties. But eating high trans fatty acids on the other hand is certainly linked to circulatory problems.

The best question to be asked about the testosterone-cholesterol dance and foods is not: 'Is eating high cholesterol foods good or bad for me?' but rather: 'Which foods should I eat and which should I avoid as I age, to help balance cholesterol and testosterone levels?'

From more than 28 years of clinical practice, I have found the best foods to eat as you age are flesh foods, eggs and butter. Reduce milk, cream and yoghurt as you age. Steer clear of any commercial foods using trans fats. Eventually remove all grains from your diet. Limit the amount of fructose (fruits, sugar, fast foods, beer, wine) you consume (depending on your liver health). Eat only those salads, vegetables, herbs and spices that you know do not cause you ill-health symptoms. Find the herbal/homoeopathic medicines that you can regularly take to support any damaged organs or scarred immune system due to lifestyle injuries. To find what foods are you can still eat in any amounts, which ones you need to cook or cook well, which trigger symptoms in the tiniest amounts, and which you can eat but must limit the volume under certain circumstances. To know this you will need to undertake a Signature Diet Trial. You should also aim to keep your weight optimal, engage in adequate exercise, have restful sleep (seven to ten hours per night), and spend enough time in the sun to maintain optimal vitamin-D levels.



## Book review: How we've been Duped into thinking Fats are Bad

This is a review of Nina Teicholz's book 'The Big Fat Surprise—Why Butter, Meat and Cheese Belong in a Healthy Diet'.

Based on my own experiences in the 1970s with near-traditional Australian hunter gatherers, I know they ate mainly meat and they prized saturated fats as well as the blood, kidneys, marrow, brain, liver, and the tongue. This is what my family also ate in the 1950s as part of the traditional Australian diet. Prior to World War II, heart attacks were so rare that Australian doctors could practice through their entire careers with seeing only a handful of cases. Australians prior to the 1960s ate far more saturated fats and meats than they do now, however today cardiovascular disease is the leading cause of death in Australia. (Take a look at: Michaels, L, 1966, *The Etiology of Coronary Artery Disease: An Historical Approach*; Brit. Heart Journal, 28, p 258).

Most Australians today would believe that our forefathers in 19th century Australia predominantly ate grains and vegetables with a small quantity of meat when they could get it. This was not so. Meat was the predominant food that produced the healthy, strapping, long-lived Australian bushmen and bushwomen of yesteryear. How did we go from a meat-eating, butter-using, lard-cooking society to the fat-fearful, heart attack prone, overweight and constantly dieting people of today? The blame for that can be laid directly at the doorstep of one man: Ancel Benjamen Keys. This story is wonderfully documented by Nina Teicholz.



Ancel Keys was a pathologist from the University of Minnesota, who came up with a 'diet-heart hypothesis' proposing that fats in our foods raised cholesterol and directly caused heart disease. Through his aggressive and forceful personality he single-handedly drove the movement that has led us to the diets most of us eat today. He has led millions of people around the world into an eating lifestyle which promotes poor mental and physical health, and he did it because he let his monstrous ego override whatever modicum of scientific integrity he had.

### The Story

In a 1952 presentation at Mt Sinai in New York (later published in a paper that received enormous attention), Keys formally introduced his diet-heart hypothesis that fat in the diet increased blood cholesterol which resulted in heart disease. A graph he presented showed a close correlation between fat intake and death rates from heart disease in six countries. It was a perfect yet simple upward curve, suggesting that if you reduced fat intake to zero your risk of heart disease would almost disappear.

This almost naive connect-the-dots presentation in 1952 was the con that built our mistrust of fat today. All the illnesses that have subsequently been linked to eating fat—heart disease, obesity, cancer, diabetes and others—originates from the implantation of this idea into the scientific establishment by Ancel Keys and his obsessiveness in promoting this at a political level rather than for scientific inquiry. Today when you choose cereals for breakfast, lean chicken breast and salad for lunch and pasta for dinner, this eating style can be traced back to Ancel Keys.

In the 1950s, Keys travelled broadly to promote his 'fat-causes-heart-disease' hypothesis and used the six-countries chart as the persuader. However, he ran into scientific opposition by Jacob Yerushalmy, founder of the Biostatistics Department at Berkeley. He considered that Keys had massaged his data, omitting some and including only that which supported a correlation between fat consumption and heart disease. If all the data was used, he suspected that it would only show a scatter of dots not the clean curve that was presented. Yerushalmy published a strong rebuttal of Keys' work (Yerushalmy and Hilleboe 1957, 'Fat in the Diet and Mortality from Heart Disease': A Methodologic Note, NY, State, J. Med.).

For her book, Nina Teicholz interviewed Henry Blackburn, a long-time associate of Keys who was present when Keys first read the rebuttal. Blackburn described Key's response: "I'll show those guys' ... and he went off and designed the Seven Countries Study, not to undertake better science to retest his hypothesis, but to prove his point"—and rise above anyone who would challenge him. Instead of following the scientific method and attempting to refute his diet-heart hypothesis, he made it his mission to search for any evidence that confirmed his personal ideas, while ignoring or belittling any conflicting evidence.

Keys' formidable powers of persuasion along with his political academic credentials assisted over time to get his 'diet-heart

hypothesis' accepted by the establishment. Anyone who dared to disagree was attacked with great vitriol in the pages of any journal in which an opposing argument to his ideas, appeared.

Through his political affiliations, Keys ran roughshod over his detractors. In 1961 he graced the cover of Time magazine, and got the American Heart Association and the National Institutes of Health to accept his hypothesis on the evils of fat. With these two establishments, Keys had the money and the political influence to strongly promote his anti-fat bias to both doctors and the public. With the diet-heart establishment promoting the bias, Americans and then the rest of the world, cut their fat intake and changed from eating the traditional animal fats, to eating plant-derived polyunsaturated fats.

This initially posed a problem for the food industry because saturated animal fats have cooking properties that are difficult to reproduce when using polyunsaturated plant fats. So the food industry switched over en masse to using trans fatty acids to emulate the cooking properties, and the public was led by these scientific organisations to believe that these new trans fats were health foods.

Through concentrated political pressure, Keys was eventually able to persuade the United States government to accept the 'diet-heart hypothesis' and intervene in the health of all its citizens by recommending a diet in which saturated fat was reduced to 10 per cent of all calories and the recommended dose of carbohydrates was increased to 60 per cent. This was a major change from the high meat/fat/dairy diets of previous generations with their very, very low rates of heart attack.

With the government now promoting for its citizens a high carbohydrate-based diet, recommending polyunsaturated oils over saturated fats, the large food companies that sold these products began to make huge profits on their fast foods such as biscuits, breads, cookies and crackers. The political orientation to healthy eating suited the corporate food manufacturers just perfectly.

While most doctors blindly accepted and promoted this new establishment dogma, paediatricians were having doubts. Children didn't get heart disease, so why should they have to reduce their fat intake, drink skimmed milk, and increase their carbohydrate loading? Eventually the paediatricians were won over and they began to change the first solid foods introduced to infants from that of well-cooked meats or offal with fat first chewed by their mother, to eating rice. This was then followed by cereals, fruits and other carbohydrate-based fast-foods such as crackers.

Nina Teicholz describes a study undertaken by British researchers to test the low-fat healthy diet hypothesis on infants. This involved putting Gambian children after weaning, on a low-polyunsaturated fat diet. These infants were compared to English infants on a traditional diet of whole milk and meat. Both groups received the same number of calories. By the age of three, however, the Gambian infants weighed 75 per cent less than they should have, according to traditional standard growth charts, while the Cambridge infants were growing normally and weighed 8 pounds more than the Gambian children, on average at this age. (Nina Teicholz notes that while rice porridge, the first solid food fed to Gambian infants, contained 5 per cent energy as fat, the processed rice cereals that American parents have been feeding their babies contains zero grams of fat). From this it could be considered that if children are raised on low-fat diets, they could be heading for health problems later in life.

During the years Keys had been promoting his 'diet-heart hypothesis', he had been spending a good deal of time in Italy, in a house he built overlooking the sea south of Naples. With this Mediterranean influence, he focused on various diets of the cultures around the Mediterranean that supported his ideas. By combining a number of the low-fat meals, Keys laid the foundation for what was to become known as the *Mediterranean Diet*. In 1975, Keys reissued a low-fat cookbook he had previously published and renamed it: 'Eat Well and Stay Well the Mediterranean Way'. This was basically a repackaging of his low-fat diet with a Mediterranean slant. The dogma was taken up by other scientists from Italy and Greece who used Keys' bogus data to promote their cultural predisposition to eating with olive oil.

They were funded by the olive oil industry, and their association essentially evolved into a campaign to seduce scores of foreign scientists and food writers into attending 'medical conferences' on the Mediterranean coast, drinking free wine and eating free food. The food journalists could experience tasty olive oil-drenched foods to compare with the less tasty low-fat, high carbohydrate foods back home. As the Mediterranean Diet gathered momentum in America and other countries, a handful of scientists focused on re-searching this highly recommend diet. They soon found that there was not one diet but a diversity—there was no single Mediterranean Diet, so each research group basically created its own idea of the Mediterranean Diet and studied this. Today in a vein similar to the many 'join-the-club-diets' there is considerable variation in the understanding of what constitutes a Mediterranean diet.

Over the last 50 years because of this change to a high-carbohydrate diet over a fat-protein dominated diet, most Western countries are in the midst of obesity, diabetes, and heart illness epidemics. The big food companies have grown bigger and more po-

litically powerful. By funding and grooming food scientists, these giant industries have been able to keep the detrimental effects of plant-derived trans fats from becoming public knowledge. The public thought they were eating polyunsaturated fats because, from the day hydrogenated oils were introduced in the form of Crisco in 1911 right up until the year 2005 (nearly a century later), not one major scientific conference had been devoted to the benefits or hazards of trans fats. Today the real hazards of trans fats are more broadly known to the public, thankfully because of the internet, and all in a short 10 years of exposure.

While more people are reading labels, most still believe that saturated fats are bad. Most also now understand that trans fats are also bad for health. So to keep their profits intact, the big food industries cannot profitably advertise that their foods have either saturated fats or trans fats. So the race has been on for many years now to find other plant oils that can replace these two types, and it is a bit scary where our big-business commercial foods are leading us. It's a big step into the unknown for our health because there is no easy way to determine the effects of new plant oils on population health, except by looking at the results of changes to general health over another generation.

The dietary guidance by the establishment has followed Key's view for 50 years now, and despite half-a-billion dollars having been spent trying to prove his hypothesis, the evidence of its health benefits has never been produced. Meanwhile, rates of obesity, cancer and diabetes are rising and heart disease remains a leading cause of death. It is worth wondering if the establishment's working hypothesis will ever be changed now. And if alternative ideas are to be considered, nutrition science must, like any science, provide an open, civil and unbiased climate for genuine debate and inquiry, and enter a post-Keysian era for the health of us and our children. Don't hold your breath!

Either Nina Teicholz will be burned at the stake, or she will be applauded as a heroine for health. She can allow us to return to the high-fat diets of our ancestors and eat our way to better heart health with a clearer conscience for doing the 'right' thing for our bodies. I recommend reading her book—it demonstrates a common sense understanding of foods and dieting.

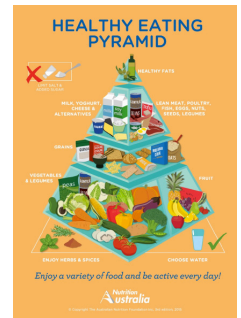




## Food Pyramids and Healthy Eating

In the last few years, Nutrition Australia released a new *Healthy Eating Pyramid* ([nutritionaustralia.org/.../healthy-eating-pyramid](http://nutritionaustralia.org/.../healthy-eating-pyramid)) to serve as a “simple visual guide to the types and proportions of foods that Australians should eat every day for good health”.

The original food pyramid presented to us over the last generation. It contains the five core food groups, plus healthy fats, according to how much they contribute to a balanced diet based on the Australian Dietary Guidelines (2013). ([nutritionaustralia.org/.../australian-dietary-guidelines-2013](http://nutritionaustralia.org/.../australian-dietary-guidelines-2013))



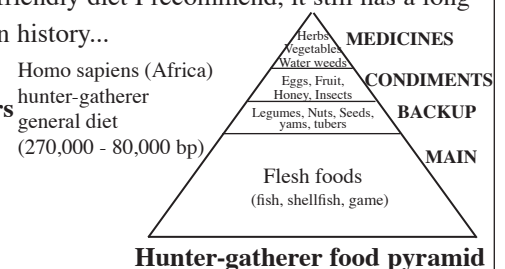
The most notable change has been to the status of grains. Grain-based foods have been removed from the foundation layer and replaced by fruit and vegetables. Meaning fruit and vegetables should now make up 70 per cent of our diet, rather than grain-based foods.

What I suspect behind the scenes is that the 'experts' are saying something like: “Because of gluten sensitivity becoming a force in our societies, we must have had it wrong, so we suggest that everyone reduce all cereal grain-derived foods, across the board”.

So while the change brings the Healthy Eating Pyramid a little closer to the paleo-friendly diet I recommend, it still has a long way to go. Let’s take a look at food pyramids (if they’d existed) throughout human history...

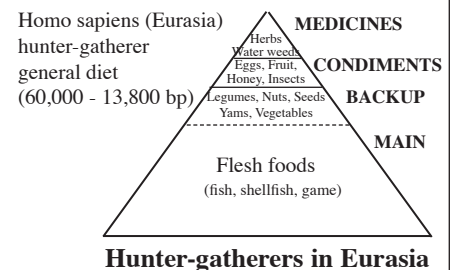
### According to anthropology, a food pyramid for Homo sapiens hunter-gatherers in North-East Africa, from 270,000 to 60,000 years ago would look like this:

(Up to 90% of the diet is flesh foods, with geophytes (yams, tubers) when there was no flesh foods. In season there are condiments and herbs and water weeds were used as medicines)



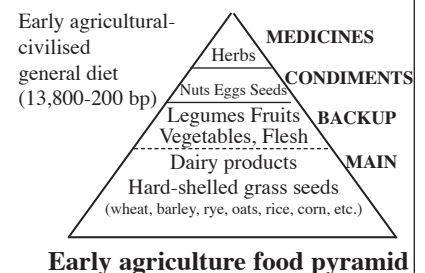
### Now the food pyramid for Homo sapiens hunter-gatherers in Eurasia, from 60,000 to 14,000 years ago would look like this:

(Up to 90% of the diet is still flesh foods, but above ground leafy vegetables such as zucchini, were added to the geophytes (yams, tubers) when there was no flesh foods. In season there are condiments and herbs and water weeds were used as medicines).



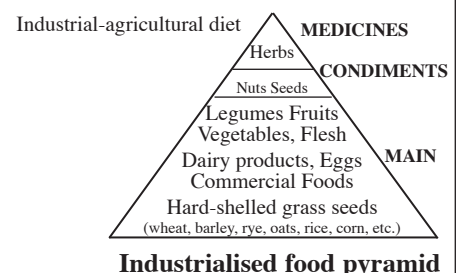
### So then evolved the early Eurasian Agricultural/civilised diet, from about 14,000 to 200 BP:

(Up to 90% of the diet is now grain foods and dairy, while above ground leafy vegetables such as zucchini, were added to the geophytes (yams, tubers) when there was no flesh foods. Fruits were seasonal. Flesh foods are supplemented with low-grade hunting for flesh foods. Herbs and water weeds were used as medicines)



### And finally the industrial-agricultural-civilised diet of recent times:

(Most of the diet is now commercial sugar, grain foods, dairy, eggs, vegetables, fruits, herbs, and flesh foods. Nuts and seeds as well as many commercial foods are condiments. Herbs are still used as medicines).



Now if you consider the new Healthy Eating Pyramid—can you see a trend toward a paleo-friendly diet?

### Quinoa in the pyramid

Another thing to note is the new Healthy Eating Pyramid lists quinoa under grains. But quinoa is NOT a grain. It is actually from the same family as beetroots and spinach and the part of the quinoa plant we eat is the seed.

## Find Your Signature Diet and Unload your Immune System

Most of us recognise that foods have a great influence on our health. For decades, through this clinic we have been assisting people with many types of diets. We have determined these through the use of electro-dermal testing combined with our 'With and Without' food trials—that require graphs, diaries and controls to ensure accuracy for the individual. Different people have different requirements. Some people need ways to address acute symptoms, some to address chronic symptoms, while some want diets to reduce the possibility of illness as they age.

Immune resources are used up in the process of addressing chemicals and microbes in some foods. When a person's immune system is chronically damaged, we assist them to create a *Signature Diet* to specifically unload their immune system from using up valuable resources. When the immune system is unloaded it is able to re-allocate its valuable resources to address more important issues in the body such as monitoring against cancer cells.

When people have autoimmune diseases, cancers, or permanent organ damage, we assist them to create an individual *Signature Diet* with the aim of maintaining the maximum possible quality of eating where nutrition is maximised and the load on the immune system is minimised. In our long experience, we have found that it is the natural defence toxins in our vegetables, salads and fruits that cause our individual immune systems to waste valuable resources. Why should this be so?

There are more than 450,000 species of plants on this planet and we can eat only a select few. Why is it that a goat can eat tens of thousands of plant species and we cannot? The simple answer is that they have evolved chemical processes in their livers, kidneys, intestines and immune systems to denature the natural plant toxins and poisons, and they have evolved fermenting chambers (caecum) in their intestines, to unravel the glyco-proteins from plant cellulose for digestion. Humans do not have this range of chemical processes and we do not have a functional caecum, so we are restricted to eating an incredibly small number of select plants that give up their nutrients without fermentation and only have those types of toxins and poisons that our organs, supported by our immune system, can denature.

Still, we have to cook most of these plants to digest them and not suffer poisoning. On the other hand we can eat almost all the different types of animals on this planet and not waste immune resources (as long as we cook them), because the vast majority of animals do not have poisons within the tissue of their muscles and organs to deter predators eating them. Animals survive predominantly through movement, size, fangs, claws and cooperative defence to stop being eaten.

Having said that, there has been a developing concern over the last 50 years with the concentration of heavy metals and industrial chemicals in the fat/protein tissue of animals—and this is now impacting on immune function. Eating younger animals and mostly those that are herbivores (cattle, sheep, goats) rather than omnivore/carnivores (pigs, chickens, most fish), will reduce this concern. In addition, if animal tissue is cooked with sugars at excessively high temperatures to produce the lovely tasting browning effect (maillard compounds) that we can create with modern cooking appliances, then our immune systems will expend resources to limit these inflammatory chemicals.

Our immune system is consistently using resources to address natural plant toxins. While most of the several dozen fruits we eat are very low in toxins, the vast majority of the plant species in this world are too toxic for us to eat, even if we cooked them. No plant itself 'wants' to be eaten. Plants wage warfare against the animals, insects and moulds that attempt to eat them. Plants wage warfare against other plants for limited resources such as soil nutrients and sunlight. Sometimes they use spikes and woody tissue, but mostly they use chemical warfare instead of mobility. If you happen to find a strange looking mushroom or fruit in the bush, would you take it home to cook?—no, because it might be poisonous and your liver or kidneys may not be able to denature the poison or it could be toxic and our immune system may fail to cope with it.

Our immune system keeps our organs healthy by acting as a public service to the different cellular communities—our organs. The immune system has two primary roles: one is to 'govern' the behaviour of the communities of cells, and the other is to maintain perfect organ environments so that individual cells can live to their potential, and efficiently behave as a community. When this is achieved, our organs function perfectly without symptoms. It is through these primary roles that our immune system is able to denature a small range of the less poisonous and toxic plants, so that we can eat them for their nutrition.

When a person are really ill and their immune system is failing to cope with a life-threatening illness, they stop eating everything. This unloads their immune system from having to deal with the plant poisons, toxins, fungi, bacteria, viruses or other

microorganisms associated with foods. This allows more immune resources to be redirected towards the immediate threat. We know these people are getting better when they start eating again.

So on the one hand there are hundreds of thousands of plants we cannot eat because of their natural poisons, and on the other, is the phenomenon that we stop eating all foods when our bodies are failing. But what about the foods between these two extremes?

When we are young and possess effective immune system health, all our organs are assisted to function normally and thus we can eat any of the acceptable human foods, including most of the commercial, synthetic foods. We can eat any amount, any combination, at any time of day and night, and incredibly, remain perfectly healthy for years. The advice of nutritionists, dietitians, doctors and naturopaths we can ignore, and most of us do when we are young.

One of the most important things to be aware of is this: There are many healthy young people who can eat all the junk food they like and remain perfectly healthy, have normal weight, normal energy, and never get sick. After the age of 35 most people suffer slight to moderate changes to their immune function and they begin to develop low-grade chronic symptoms. If we seriously damage our immune system, then, if we want to have symptom-free health, we really need to be more selective in the human foods we eat, including both animal products and plants.

It must be remembered that the immune system in each of us develops its own unique signature of efficiency as we grow from an infant to an adult and it loses its efficiency in its own unique way as we age, depending on its genetic makeup and our life circumstances. While some people find they react to one type of food as they age, others do not. This has allowed the creation of literally hundreds of different types of 'Join the Club' diets in the last 100 years. This keeps professionals in business advising their patients on the diet they should have in order to eliminate symptoms and regain their health.

Most of us understand that, if we are not well, we will improve in health if we simply remove fast foods from our diets. Most 'Join the club' diets initially appear to work for many, because they advise removing fast foods and sugar. While they may greatly assist the majority of people, there will always be some that they cannot help—because of the uniqueness of the individual's immune system or organ damage. This is where a Signature Diet, specific to the individual, is more valuable in the long term than supplementation, medicine and therapies. A Signature Diet, more than any other generalist diet, efficiently unloads their immune system from having to commit resources to deal with specific food toxins/poisons/pathogens and allows it to refocus its resources in its efforts to maintain healthy organs—and this increases the potential for longevity with better health.

Carnivores keep their gastric pH around 1-1.5 even when food is present. This is necessary to breakdown raw protein and to kill dangerous bacteria often found in decaying flesh foods. Human pH is 1.5 to 3 to assist cooked and dissected foods. We more quickly digest cooked flesh foods than cooked vegetables. You may have noticed when you vomit up a meal even more than an hour after eating, only undigested vegetables are visible, not chunks of meat.

Herbivorous animals that predominantly consume high cellulose plants must ferment (digest by bacterial enzyme action) their food. They are classified as either foregut fermenters (ruminants) or hindgut fermenters. The foregut fermenters have a multiple 'stomachs' which ferment their food before uptake occurs in the small intestine. Hindgut fermenters have convoluted stomachs which partially break down their food, pass it quickly through a moderate small intestine to a fermenting chamber called a caecum. The caecum connects the small intestine to the colon. These animals uptake most of their nutrients in an extensive colon. The caecum is large in hind-gut fermenters while it is small to non-existent in carnivores. Humans have a non-existent caecum and vermiform appendix. Humans are neither a fore-gut nor a hind-gut fermenter.

So what does this tell us? The muscular-skeletal structure of our bodies allows us to move reasonably well but not exceptionally well (we are not a large animal, we don't run as fast, nor swim as well, nor balance, nor are as strong as many animals), we are however, exceptionally well adapted to handle and use tools. In the same understanding, our gastrointestinal tract allows us to eat both animal and plants, but not exceptionally well. Our gastrointestinal tract is however, exceptionally well adapted to digesting foods we eat by cutting, pounding, grinding, fermenting, cooking and soaking them.

If your immune system is functioning normally, then eat animal foods and a wide variety of plant-derived foods, prepare them with care and enjoy their taste, texture, smell and nourishment. If your immune system is not functioning normally, you will probably have to change your diet to accommodate for this—but this is the subject another blog.

## **Detox your Body as a Buffer for the Year Ahead**

When we have normally functioning organs we feel healthy. We wake in the mornings refreshed and clear, without aches, pains, sinus blockages, bloating, headaches or other symptoms. If it ever happens that we start to have symptoms that keep occurring all the time and making our life unbearable, then one of the first things we can do to regain our normal health is to detoxify our bodies from accumulated petrochemicals.

It is a fact of modern life that we will be exposed to lots of commercial-industrial chemicals such as bisphenol-A, which over time will accumulate in our fat cells, liver, brain, lungs, heart, lymph, connective tissue. In fact this chemical along with many others, accumulates in all organs, including the joints and skeletal tissues and in certain concentrations are connected with pain and inflammation. Bisphenol-A (BPA) is a modern chemical used in most plastics to create water bottles, sports equipment, CDs, DVDs, thermal receipts, household water pipes, the coatings on the inside of food and drink cans, in the flame retardants added to seats, in mattresses, carpets, car upholstery, as part of shampoos, aftershaves, deodorants, antibacterial soaps and so many other items.

Such commercial petrochemicals are not a natural part of earth environments, and our bodies don't cope with them very well, nor can they efficiently remove them. They will pass the blood-brain barrier and disrupt many brain functions including short-term memory. They contribute to brain fog. They can accumulate in the heart muscles and artery walls and contribute to blood pressure and plaque buildup. They are known to influence libido and sexual function, hinder blood sugar regulation, contribute to poor vision, and other annoying day to day symptoms.

Even if we eat organic foods, drink filtered water, and use natural products in our homes, we still come into contact with petrochemicals. Industrial chemicals are everywhere—in brominated flame retardants, heavy metals, dioxins, polycyclic aromatic hydrocarbons from automobile exhaust fumes, heavy metals such as mercury which is now in all fish, arsenic in chicken flesh, and pesticides in our fruits and vegetables.

Comprehensively detoxing is the quickest way by far to regain good health. A once-year detox gives better year-long health than using EDTA chelation therapy (ethylenediaminetetraacetic acid) for simply reducing heavy metals (mercury-lead) in the body and spending time sweating in saunas.

Comprehensive cleaning requires shifting the diet for 30 days, keeping graphs and controls, taking natural herbal and homoeopathic medicines, using hydrated bentonine, apple cider vinegar/bicarb, activated charcoal, combantrin, to create a buffer for the year ahead!





## The Paleo Diet is not a Paleolithic Diet

The modern paleo diet seeks to mimic the diet of pre-agricultural hunter-gatherers. It attempts to conform to those foods available across the broad range of ecological niches frequented by paleolithic humans. For the purpose of practicality, it is based on commonly marketed modern foods. It includes cultivated plants and domesticated animal flesh and offal products, as an alternative to the wild sources of the original pre-agricultural diet.

### Paleolithic people

With most modern paleo diets, lean meats, fish, vegetables, fruit, roots and nuts are the dietary staples, while cereals, some dairy products, salt and processed fat and sugars are avoided. The underlying rationale suggests that foods available from the emergence of *Homo habilis* (2.3 to 1.4 millions of years ago) through the evolution of *Homo sapiens* (230,000 to 260,000 years ago) until the emergence of civilisation (9,500 to 12,000 years ago), are healthier than farmed foods. Our digestive and metabolic systems have not had enough time to genetically adapt to some of the farmed foods. For example, all the grains (rice, wheat, corn, rye, oats, barley, etc), have phytochemicals that are known to harm our health.

In truth, the paleo diet is not strictly typical of a paleolithic diet—for it does not emulate the often desperate eating that our ancestors had to endure. During my time living with the Wik Aborigines on Australia's Cape York Peninsula, hunger was a constant companion, with feasts and famines oscillating throughout the year.

Some current day versions of the paleo diet do not include breads made from either grass seeds or other flours. The starchy tuberous roots (rhizomes), bulbs and many legumes are also excluded. Some paleo diet extremists even frown on yams and sweet potatoes because they are high in starches, even though our hunter-gatherer ancestors ate these probably for hundreds of thousands of years. Also traditional hunter gatherers such as Australian Aborigines, have always made bush-breads, in the form of flat dampers and seed-cakes, and they have made them from soft grass seeds, acacia seeds, and sometimes roots and types of yams. These bush breads, as well as plant foods such as yams, were considered secondary foods to be eaten when their primary sources of food—the flesh foods—were not available.

Paleo diets include many vegetables that hunter-gather people did not eat—such as asparagus, artichokes, beets, brussels sprouts, broccoli, cabbage, cauliflower, capsicum, carrots, celery, eggplant, onions, parsley, spinach squash, and zucchini. These are cultivated crops that have been selectively enhanced over hundreds of years to reduce toxins and improve their sweetness. Some paleo diets promote the use of modern processed oils that were never part of traditional hunter-gatherer diets—oils made from avocados, coconuts, macadamias, and olives. Some paleo diets also promote and grass-fed cow's butter. Aboriginal hunter-gatherers ate some oily seeds such as linseeds, however they never crushed and processed them to concentrate the oils.

Most paleo diets support eating fruits, such as: apples, avocados, bananas, blackberries, blueberries, cantaloupes, figs, grapes, lemons, mangoes, oranges, pawpaws, peaches, pineapples, plums, raspberries, strawberries, tangerines, watermelons and others. In Australia at least, a couple of dozen fruits were seasonally eaten as condiments by traditional Aborigines. You will never see most of these fruits on supermarket shelves because they are tightly seasonal, make poor crops, most are not tasty and have to be prepared before they can be eaten. Until recently in Australia, fruits were only eaten as seasonal condiments. In the mid 1960s, the range of fruits was expanded and most have been made available all year round rather than just the summer months. Fruits are no longer eaten as condiments. They often are consumed as full meals, and this causes health problems for some people.

The paleo diet has also incorporated many modern nuts in its diet such as almonds, cashews, hazelnuts, pecans, walnuts and seeds such as pumpkin and sunflower, however they do not accept peanuts. In Australia, Macadamia, bunya, cycad and native pine nuts were traditionally eaten as condiments by aborigines, but it is highly likely that others types of nuts were also have been eaten.

So what really is the paleo diet? It can be considered a mishmash of ideas not really based on traditional hunter-gatherer ways of eating, but on modern tasty foods that conform to advanced nutritional ideas. The term paleo diet was coined by the noted and respected nutritional-exercise scientist Professor Loren Cordain, although many people (such as Weston Price and others) have proposed that the hunter-gatherer way of eating is the most healthy diet for modern humans.

So which diet should you follow for really good health—your? The modern paleo diet is a good diet for achieving generally good health. But consider it a base. If you suffer chronic ill-health, consider reducing the variety of vegetables and fruits by conducting your own personal food trials and discover which foods are right for you to live a more healthy life.

## Expanding the Paleo Diet

A paleo diet has a lot to offer. It is based on the foods eaten by our hunter-gatherer ancestors in Africa during the paleolithic era from about 2.6 million years ago to the beginning of the agricultural revolution about 13,000 years ago.

The main foods hunter gatherers ate were meats from freshly killed land animals, fish and crustaceans. When meats were not available, they ate tubers, yams, select legumes, soft seeds and nuts which were ground into flours and baked in ground ovens like today's bush damper. Occasional seasonal condiments included honey, eggs, fruits/berries and vegetables like bush carrots. Hunter-gathers also used parts of plants in minute amounts as medicines.

Humans are genetically adapted to this type of diet—we have evolved a unique omnivorous gastrointestinal tract that is closest to a carnivore in physiology and function, but is genetically adapted to cooked foods and tools.

So what does this mean? If we eat foods to which we are genetically adapted then we have more chance of living a healthy happy life. But for many people, eating a strict paleolithic diet isn't very appealing—especially in our modern world filled with amazingly delicious entertaining foods. I would only suggest that a person should eat a more paleolithic diet only when they begin to experience a chronic immune driven illness. Even then, not all modern plant foods will present a problem. The key is to determine which plant foods make the illness worse and which do not. Which plant foods need to be strongly cooked to denature some of the natural chemicals and which do not. Which plant foods trigger the illness in minute amounts (such as gluten does for coeliac disease—a micro-intolerance) and which are okay in reasonable volumes—a simple intolerance.

My advice is not to become a blind follower of a food cult—any food cult. While there are many different diets that work for different people, in general the paleo diet works better than most because it removes table sugar, all the grains and fast foods. It is a great place to start when you want a boost in your health.

If you consistently have aches, pains, headaches, irritable bowel syndrome and any of the myriad of modern ill-health symptoms—then start with a paleo diet and take notes over the next six to eight weeks, to see if your symptoms improve or even disappear. If you are strict over this time, and keep track of changes to your symptoms, you can then make your own 'evidence-based' decisions about the paleo diet. You can test foods by re-introducing them and monitoring their impact.

Our bodies are not designed to eat many of the modern commercial foods. If we stop eating grains, table sugar and junk foods, our immune system will cope better.

So wouldn't just cutting back on grains help?

Sometimes people partially adopt a paleo diet and wonder why their health hasn't improved. They occasionally eat a small amount of a grain-based food, not understanding that this can cause problems for their immune system. For example, if a person with coeliac disease is exposed to more than 5 parts per million of gluten (about a half a grain) their immune system can react for up to six weeks! Think about this.

So in general, the paleo diet works better than a modern commercial diet. If you are healthy with no symptoms you should be able to eat any commercial/supermarket food and remain healthy. If you have chronic symptoms, then a paleo diet may help turn your health around. If it doesn't move to the next level—create your own Signature Diet.

## **Eating Paleo can be limiting so find your Signature Diet**

Although people may be living longer, most need more visits to their doctor because of chronic physical and mental illnesses. Of the various factors in our modern lifestyle that contribute to this, it is the types and volumes of indulgent foods that we eat, that are the main culprits. Everyone these days knows that eating too much junk food, fast food and sugar is a major contributor to ill health. However, it is the hidden effects of eating certain plant foods that greatly contributes to the more serious chronic illnesses as our immune system scars with age. The now popular paleo diet assists health because it restricts certain plant foods.

The paleo diet in theory is basically about eating foods that we have evolved to consume. Over hundreds of thousands of years, our bodies have evolved to eat cooked flesh foods and plants. Cooking eliminates harmful microbes and toxic chemicals. When we are healthy we can eat a small number of plants in their raw state (salads, nuts and seeds). Our immune system (with the help of the liver) has evolved to identify and neutralise certain toxic and poisonous chemicals (phyto-toxins) in these plants. However, if our immune system develops scarring, it often loses the ability to identify certain plant toxins, and when we continue to eat these plants we experience chronic immune-related illnesses.

As we age past 35 years, most of us will develop immune scarring. We can buffer the effects of this by creating our own Signature Diet. This requires self-testing and personal food trials, and many of us would rather follow a 'Join-the-Club-Diet' because it seems easier. This is where the paleo diet has benefit. In general it is a good starting point.

The greatest health reward from eating a paleo diet is the removal of grains junk foods and table sugar. However this is where some confusion begins, because the hard-core factions of the paleo movement define grains according to the definitions of agronomy, not botany. Agronomy is the modern science and technology of producing and using plants for food, fuel, fibre, and land reclamation. Agronomy encompasses plant genetics, plant physiology, meteorology, and soil science. Agronomists define grains as small hard, dry seeds with or without hulls or fruit layers harvested for human and animal consumption. Agronomists call the plants that produce grain seeds: 'Grain Crops'. Botany on the other hand, is the science of plant life and is a branch of biology. Botany originated in prehistory as herbalism, with the efforts of early humans to identify—and later cultivate—edible, medicinal and poisonous plants.

According to botany, a seed is the embryonic part of a plant that is covered in a shell or 'seed coat' called an achene—a fruit 'coat' that contains the seed. There are two types—those where the 'fruit coat' does not adhere to the seed (eg. in quinoa) and those where it is fused with the seed (cereals such as rice, wheat etc). All the seeds of cereal grains have their 'fruit-coat' fused to the seed. The important thing to understand is that it is the seed coats that contain the phyto-toxins that the plant uses to defend itself from being eaten—chemicals such as gluten. It is healthier not to eat the toxic seed coats, but the toxic coats of cereal grains cannot be removed from their seed. However, the toxic 'seed coat' of achene seeds, such as quinoa, can be removed with washing—these are called pseudo-cereals.

According to agronomy, grains include cereals, achene seeds that look like cereal seeds and legume seeds. However according to botany, cereals are the seeds of grasses: barley, corn (maize), millet, oats, rice, rye, sorghum, teff, triticale, wheat, etc. Achenes are the pseudo-cereals such as amaranth, buckwheat and quinoa. Legumes are simple dry fruits that look like cereal grains—beans, peas, chickpeas, soybeans, lentils, etc.

If you strictly adhere to the theories of a paleo diet, you will be losing out on a variety of healthy foods. From my case studies I have found that when a person's immune system first begins to scar, in general, the cereal grains are the first to become problem foods. In general, grains with gluten are usually the first to cause chronic health problems, then with further immune scarring, corn and rice become problems. With further immune scarring, there is little predictability as to which plants become problem foods—it becomes an individual thing and any number of hundreds of vegetables/salads fruits/nuts/seeds can be the cause.

And so, my advice is to take up a paleo-based diet for a while, but only remove gluten or all cereal grains, and keep eating seeds like quinoa and the legumes. If necessary, you can test legumes and pseudo-cereals sometime later to see if they present your body with a problem.

## Quinoa: your Paleo-friendly Superfood

Touted in the health and fitness world as one of today's superfoods, quinoa is appearing in all sorts of foods from salads to breakfast cereals. But what is quinoa and can you eat it as part of a paleo or grain-free diet? Yes! Quinoa is NOT a grain—it is in fact a seed. Quinoa is from the same family as beetroots and spinach and the part of the quinoa plant we eat is the seed. It's naturally gluten-free and packed full of protein, making it a fantastic source of energy for everyone—especially those on a gluten-free, grain-free or paleo diet.

I first discovered the amazing health benefits of quinoa in the early 2000s when I began researching alternative grain substitutes to create commercial bakery products. As Australia's only immunobiologist working in private practice, I kept seeing time and time again a link between cereal grains and the efficiency of a person's immune system. I set about examining how the dozens of defence chemicals found in cereal grains, such as wheat and rice, affect the human immune system. I believe I was the first person in the world to do so. I published my findings in my book *No More Chronic Fatigue* in the late 1990s after conducting 4,000 case studies. Part of my research included investigating alternative plant seeds and roots that could be made into commercial bakery products as a substitute for cereal grains like wheat, rice and corn.

Quinoa was one of the grain substitutes that I tested on hundreds of people with compromised immune systems. I found it to be an amazing alternative and it went on to become the basis of the world's first grain-free bakery *Deeks Health Foods* in Canberra.

Being from the same family as spinach, quinoa is genetically a long way removed from grasses. In botany, grains and cereals are only seeds from grass families. But the paleo movement uses agronomy rather than botany to define what constitutes a grain. Agronomists define grains as small hard, dry seeds with or without hulls or fruit layers, or any seeds or fruits that resemble grass seeds in appearance, and that are harvested for human and animal consumption. Thus quinoa is included in the paleo definition as a grain—because it resembles grass seeds in both size and appearance. But in actual fact, quinoa is as far from being a grain as the green leafy vegetable spinach is.

Quinoa is also sometimes referred to in health and food articles as a pseudo cereal (or even a super-grain) because the Incas harvested it to make flat breads for more than 1,000 years, (much like Australian Aborigines harvested spinifex, woollybuck, nardoo and legume seeds to make flat breads in the central Australian deserts). The great thing about quinoa is that you can easily remove the poisonous seed husk by rubbing the seeds in water. The seed husk has saponin chemicals that protect the seeds from birds and some insects, and the Incas obviously found that rubbing the seeds in their hands in water easily removed the poisonous coating. The seed husks with the saponins can be used as a detergent for cleaning, and this may also be a reason why Incas used this seed—to clean clothes in streams. Nobody should eat quinoa with the husk still on—it produces a very bitter taste and is poisonous.

The quinoa seed pulp does contain some defence storage chemicals, however these do not cause a problem for most people, and highland quinoa does not create problems for those with compromised immune systems. Lowland quinoa however gives more immune responses than highland quinoa above 3,000 metres, according to my research. So where quinoa comes from can make a big difference to your quinoa-eating experience. You can buy quinoa seeds with the husk still on from farms in Australia, but you need to thoroughly wash the husk off the seeds before you prepare them for cooking.

Cheap quinoa found in some supermarkets also often still has remnants of the husks attached because they have been poorly washed to save on costs. Poorly washed quinoa makes people sick. So if you're planning to eat quinoa for the first time, you are best to try and source some highland quinoa or at least some that is well prepared.

The great news is, all of the quinoa used in Deeks bakery products is premium quality, highland quinoa from Bolivia. So if you're on a grain-free, gluten-free or paleo diet and you're keen to give quinoa a go, check out Deeks. They bake substantial alternatives to the wheat or rice-based breads you may have grown up eating and now miss.

So not only is quinoa grain-free and good for your health, it also tastes delicious!



## **Building your Brain with Butter** **(or Ghee if you are Dairy Intolerant)**

Until the early 1950s, fat was just a normal part of the average person's diet—people were not overweight and heart disease was relatively rare. Then came Ancel Keys, a nutritionist from the University of Minnesota. Keys published a six-country study in 1953 and a follow-up seven-country study in 1970 that supposedly correlated fat consumption with an increased rate of heart disease and obesity. With his political force, Keys was able to bulldoze his own personal agenda on optimal diets, which became the government platform for our current nutritional guidelines—and generated our fear of eating fats, including butter. However 30 years later it was finally accepted by broad scientific thought, that Keys had left out all the data in the studies that didn't support his agenda, and he ignored research that suggested opposing conclusions.

Butter is actually one of the world's most ecological superfoods—you don't kill an animal to obtain it. It is a part of breast milk. It is nutrient dense and a perfect brain food, because the brain runs on either glucose or ketones (which are biochemical leftovers from fat breakdown). Like the rest of the body, the brain can readily move from one source of fuel to the other.

It is theoretically believed that within certain types of brain cells, glucose is the preferred fuel for some activities of cellular function, but clinical experience is demonstrating that our bodies can turn protein or fats into glucose through a process known as gluconeogenesis. This means that people can live quite healthily eating proteins and fats without the need to eat carbohydrates. When we eat carbohydrate foods such as sugary snacks, soft drinks, commercial foods, vegies in excess, our blood sugar concentration rises, but is usually short-lived because our pancreas secretes insulin to pull the excess glucose out of our bloodstream. If the pancreas is too aggressive, it can temporarily force the blood sugar too low, and we develop hypoglycaemia.

In hypoglycaemia our brain has reduced access to glucose and if we require high mental activity during our day to day activities, our brain cells experience an energy shortage and change over to a 'go-slow mode'—we then feel spaced-out, weak, confused, nervous, fuggy, and stressed. Our ability to focus and think suffers. Auditory and visual information processes more slowly and we feel the need to eat food that will give us a hit—you guessed it, carbohydrate foods. This usually starts a two hour oscillation of high and low blood glucose and we desire to consistently eat carbohydrates. It's no fun having to work and live in this oscillating state.

Carbohydrate-based fuelling is a self-perpetuating short cycle, which runs out quickly, and when carbohydrates are eaten they take precedence over fat-burning. Fat-based fuelling, on the other hand, is much more sustainable because it allows access to a large store of energy without having to frequently refuel every few hours. Skipping meals presents no problems to alertness nor energy levels, and blood sugar is maintained without exaggerated swings. All this means stable energy, mood, and alertness.

As we increase butter consumption (and other saturated animal fats), our bodies initiate a cyclical process of using both ketones and glucose (and glycogen stores) when performance is needed. In a way, this is similar to our electric/petrol cars that are programmed to change from one fuel source to another when performance is required. With a higher fat diet, insulin production is reduced and insulin sensitivity increases, and this allows excess fluid to be released. Weight drops both from fluid release and metabolism of glycogen stores—we become thinner.

In this day and age, understanding that butter is really a healthy food, can be a real challenge for most people. For generations now we have been programmed and conditioned to view butter and other saturated fats as bad. While milk derived from cows, sheep and goats can be challenging for our digestive system when we age, the saturated fats of the milk are far more friendly, because they have almost no lactose or casein. Dairy butter has vitamins-A, E, D, K, antioxidants, selenium, manganese, iodine, chromium, zinc and copper; conjugated linoleic acid, butyric acid, arachidonic acid (for brain function), lauric acid, lecithin and omega-3 in balance with omega-6.

We've all heard that butter is bad for our cholesterol—but that's just not true. Butter helps levels of HDL (the good cholesterol), and actually changes the LDL (bad cholesterol) from small to large LDL. Together these reduce our risk of heart disease. Butter helps us feel full longer, and this allows us to eat less and keeps our weight stable as it used to be in people living in the 1950s.

So go ahead and try eating like our great-grandparents did—be liberal with your butter consumption. While it is really hard to get rid of that inner voice telling us that butter is bad, in truth, butter is actually good for us. Start eating more of nature's superfood and notice that you will cut down on snacking, you will feel better, have more energy and feel happier.

## **Chocolate: is it really 'Black Gold'?**

There are more and more studies that agree that dark, low-sugar, dairy-free chocolate has health benefits—provided we eat only a few ounces a day in combination with a high protein and low carbohydrate diet.

While there are several health benefits to cacao, the one that we are drawn to, is the way cacao stimulates our brain neurotransmitters to lift our mood. Cacao comes from Central and South America and it is believed that the Aztecs ground the cacao beans, mixed the powder with tobacco to provide a stimulating 'cigarette'. Cacao is now cultivated for its seeds, popularly known as cocoa beans, which are roasted, husked and ground to make cocoa powder and chocolate.

Most of the manufactured 'tasty' milk chocolates however, that dominate our supermarket shelves contain limited amounts of cacao. Rather it is the sweetness of the sugar (lactose from the milk and fructose from table sugar or high fructose corn syrup) that gives us the desire to eat them. While the sugars give us a mental hit for some minutes, they also quickly drop us down, whereas the bitter cacao lasts longer with its stimulating effect.

Eating typical milk chocolate and white chocolate will not improve your health. To get the health benefits from eating chocolate you need to eat good quality, dark chocolate—with at least 85% cacao, as this has the lowest fructose content.

Fructose will reverse any of the positive benefits of chocolate, because it breaks down into a variety of waste products including uric acid. Uric acid increases blood pressure by inhibiting the production of nitric oxide. It also promotes insulin resistance, which is one of the drivers of chronic disease—so beware the amount of fructose in chocolate.

### **Reducing risk of stroke, heart disease**

Cacao powder has health benefits because bacteria in your intestines can ferment cacao and produce anti-inflammatory compounds that benefit your health by buffering inflammation in the body—including cardiovascular disease, reducing the risk of stroke and coronary disease.

A stroke is similar to a heart attack, but occurs when the blood supply to the brain becomes blocked or reduced, as opposed to the blood supply being blocked to the heart in a heart attack. Nitric oxide relaxes blood vessels and lowers blood pressure. Dark chocolate assist with nitric oxide metabolism and produces a flavonoid compound called epicatechin which assists people following a stroke by increasing the cellular signals in the brain to shield nerve cells from damage. Unfortunately cheap commercial milk chocolate has the lowest flavonol content, while cacao powder and dark chocolate have the highest.

The closer cacao is to its natural raw state, the higher is its nutritional value. So when choosing a chocolate, you will be getting health value for money by selecting a dark chocolate that has higher cacao and lower sugar content. When selecting an authentic chocolate, the only ingredients you should expect to see are: cocoa, cocoa butter, and sugar (no soy emulsifier, vegetable oil or palm oil). In some instances vanilla is added—which is fine. In general however, the darker the chocolate the more bitter it will be.

The cacao flavonol make the chocolate bitter, so most manufacturers remove them. The flavonols however, are the source of cacao's health benefits. To counteract the bitterness, most chocolate is sweetened, so it's a matter of balancing nutritional benefit with palatability. So, read your labels carefully.

Honey is recommended when you are making home-made chocolates, but it is generally too expensive to use in commercial chocolates. Honey is preferable to cane sugar, fructose, high fructose corn syrup or artificial sweeteners.

### **Chocolate helps keep you up, not lift you up**

Blending cacao powder, unsalted butter, hot water and a small amount of honey creates a delicious hot chocolate drink that gives regional changes in cerebral blood flow and overall increased blood flow to most of the brain for up to three hours (as assessed by functional magnetic resonance imaging). However when you are stressed and highly strung, chocolate can cause insomnia because cacao contains caffeine.

The amount of caffeine is dependent on the drying and fermenting processes to develop the colour and flavour of cacao. Thus, the caffeine content may be high in the pure chocolates without soy emulsifier. Chocolate is a condiment to use when you are

not feeling stressed. Unfortunately, many people go for a chocolate 'hit' to feel a little better about their stressed situation—and this can just make things worse.

Commercial sweet chocolates can put on weight if you eat about a third of a block of chocolate every day. Unfortunately promoting chocolate as having health benefits does not automatically mean 'more is better'. You can get satisfying goodness by drinking a frothy mug of hot buttered cocoa or some good quality dark chocolate, like Willies Cacao. Like a good cup of tea or coffee, the 'black gold' of South America is something most of us value.

You can make your own chocolates—it is really easy and once you get the hang of it you can adjust the sweetener to your own liking and add in any additional flavours (such as peppermint, orange, chilli—or add nuts, seeds etc).

*Here is Jo Roy's chocolate recipe:*

**Ingredients:**

200 grams cacao butter (available from most health food shops)  
1/4 cup honey  
1/4 raw cacao powder  
1 teaspoon vanilla extract  
Pinch of Himalayan salt  
Any flavours that you want to add in  
(Approximate quantities - I'm more of a whack-it-in type chef!)

**Method:**

Grate or 'shave' the lumps of cacao butter. Melt the cacao butter in a bain-marie (bowl over pan of gently boiling water). Make sure NO water mixes with the cocoa butter, and ensure your bowl is clean and dry before you use it—otherwise this may cause the chocolate to separate.

Once the cacao butter is melted (liquid) gently whisk through the honey, until that is melted also.

Remove the bowl from the heat and stir through the cacao powder, vanilla extract and salt.

Add in any flavours here that you want.

Pour or spoon into moulds. You can use a baking sheet (with baking paper on) or a plate to let it set. Place in the fridge (or freezer if you are hungry!) and wait for it to set.

*Enjoy!*



## Connecting Grains and Disease

Does the medical system really understand the connection between grains and chronic diseases? In this Scientific American article, "Gluten Sensitivity" May Be a Misnomer for Distinct Illnesses to Various Wheat Proteins, it is heartening to see writer Roxanne Khamisi pushing the prospect that there is more to wheat than gluten.

In my experience, articles such as these have been written for more than 25 years now. The slowness of medical systems, combined with the personalities directing their research focus, are not really assisting the increasing number of people worldwide, whose ill-health is directly due to eating grain-derived foods. The vast majority of people who have consulted with me because of diseases associated with compromised immune systems, have been able to eliminate all their symptoms by totally removing all grains from their diets. People with coeliac disease have an initial immune problem with only several peptides of many occurring in the protein known as gluten. In time, with further deterioration of adaptive immune efficiency, coeliacs invariably develop symptoms to other peptide constructions that are also found in the other grains (rice, corn) that do not have gluten.

Before the diagnostic tests for coeliac disease were invented, it was common for doctors to use elimination-diet programs to diagnose this disorder—if their patient had chronic diarrhoea. They did this to be sure that they were helping their patients through a practical program that both doctors and patients could work to gether to make the most informed decision about a rather difficult lifestyle change that could improve their health.

It was straight forward. If a patient's symptoms disappeared on a gluten-free diet, they probably had coeliac disease. Common sense dictated that they should avoid gluten-containing foods—whether they had coeliac disease or not didn't really matter. These days, the vast majority of doctors now use antibody tests combined with biopsies to diagnose coeliac disease. Of course it costs the patient more money to have these tests, but they are saved the challenge of having to undertake their own somewhat difficult trials. It allows patients to get on with their lives and places the responsibility for their health on the medical system and its diagnosis.

The problem is that, when the tests indicate that the patients do not have coeliac disease, they are prescribed drugs and sometimes operations to address their chronic symptoms—what else can the doctor do? Most are reluctant to step beyond the rigid boundaries imposed on them by the directors of their profession. There is much conservative pressure placed on the public to beware of unorthodox diagnosis testing and treatments for coeliac disease and other immune-related illnesses that are used in the absence of scientific rationale.

Changes to the medical systems are slow, but they are occurring at a grassroots level. The recent World Gluten Summit is indicative of this. Researchers who are not necessarily medical doctors are starting to speak out about their findings—which broaden the relationships between all types of grains and many chronic immune-related illnesses. They are proposing a new term—noncoeliac wheat sensitivity—be used for people who react to wheat but are not diagnosed with coeliac disease.

This is what we called pseudocoeliac disease 20 years ago in an attempt to link awareness to the relationship between many of the chronic immune-related diseases and grain defence chemicals other than gluten. Diseases such as: Type-1b diabetes mellitus, autoimmune liver disease, Grave's and Hashimoto's diseases, Addison disease, anaemia (iron deficiency), irritable bowel syndrome (IBS), chronic fatigue, unexplained liver enzyme abnormalities, osteopenia, Crohn's disease, ulcerative colitis, MS, and many other autoimmune diseases, as well as a link to many cancers.

Since the term coeliac disease was created, there are others that have also been proposed in attempts to link various disease symptoms to gluten and other grain chemicals:

- Atypical coeliac disease is the absence of 'typical' gastro-intestinal symptoms, but the patient has chronic symptoms that are considered unusual and secondary to those of coeliac disease—such as iron deficiency or elevated liver enzyme levels.
- Silent coeliac disease occurs in people who are asymptomatic, but who have a positive serological test and villous atrophy on biopsy—the classic pathology of celiac disease. They are usually tested because they have relatives with coeliac disease.
- Latent coeliac disease is proclaimed by positive blood tests and a family history, but have normal results for their duodenal biopsy (villous atrophy usually develops later in life).

- Gluten intolerance (gluten sensitivity) is really a grassroots movement term. It usually means that the person does not have a diagnosis of normal, silent or latent coeliac disease, but they have better health if they keep off the gluten containing grains—although in recent years this has been spreading more to include other grains like rice and corn.

What are the risks to people if coeliac disease is latent or atypical and remains undiagnosed and they keep eating gluten? The medical system suggests conservatively: a four-times increase in potential mortality; a five-times higher risk of getting non-Hodgkin lymphoma; a significantly higher risk of other lymphomas; a four times greater risk of tuberculosis, and other diseases. It also means that grain defence phytochemicals (lectins) other than gluten could be causing other diseases.

If you suspect you may be having a problem with any type of grain, certainly go to your doctor and have the tests for coeliac disease, however I suggest you also undertake a strict, controlled Grain-Free-Trial to determine if your symptoms have any relationship to grain defence chemicals. With improvements you can then reintroduce one grain type at a time and determine for yourself if there is a connection. Scientific research is costly, slow and dependent on commercial and philosophical dictates and so, do you want to wait out your lifetime and have poor health, just because medical science is slow to recognise that all grains, including rice and corn, are potential triggers for many diseases?





## Beyond gluten: Why eat Grain-free?

Our society and culture eat a lot of grain foods. Foods made from wheat, rye, oats, barley, millet, rice and corn are cultivated all over the world, are readily accessible, cheap and even considered by some nutritionists to be a key part of a healthy diet. This makes it challenging to even consider grains that could be linked to illness and disease—but the fact is they are.

Most plants don't want to be eaten by animals, insects, fungi and bacteria. They protect themselves with woody tissue that is impossible to digest, poisons, and chemical toxins such as lectins. These chemicals mimic and distort communication between certain immune cells in the human body.

When you eat grains your body has to work hard to neutralise the toxins and lectins. Most of this work falls on your immune system and liver. If your immune system is strong, your body can do this without too much disruption and there will be no symptoms of ill health. But if you have a weakened immune system, for example if you are suffering an autoimmune disease, your cells will not be able to communicate effectively to eliminate the toxins. In a weakened state, your immune system may miss cancer cells, attack healthy cells or simply let your body degenerate and age faster than it should. A single grain of rice or wheat can be enough to weaken the immune system and trigger symptoms for weeks in some people .

It is important to note here, that gluten-free and grain-free are not the same thing. Gluten is a protein found in wheat, rye, barley, and oats and is linked to various intolerances and coeliac disease. Rice and corn are also grains but they do not contain gluten. Since the 1980s mainstream medicine has advised people with coeliac disease that it is okay to eat rice and corn because they are gluten-free. But it has now been found that both rice and corn still have specific lectins that use up precious immune reserves in a similar manner to gluten—they all come from the same family of grasses after all. So while people with coeliac disease may have fewer digestive problems on a gluten-free diet, rice and corn may still be contributing to other symptoms.

There are no comprehensive medical tests you can take to determine if chemicals in all grains affect your immune health. There are tests to check your response to gluten which are used to diagnose coeliac disease, but even these tests are limited in scope and many people who are gluten intolerant do not test positive. The only accurate way to work out if grain lectins are weakening your immune system is to conduct your own personal food trials.



## **With Fructose Intolerance, the Sweet Stuff Makes you Sick**

Sugar has been attracting a lot of press over the past few years—and little of it good. A lot of people have 'quit sugar' and seen the enormous benefits of doing so. Giving up sugar, and more importantly fructose, will benefit pretty much everyone—however for some it may mean the difference between life and death.

Clinical intolerance to fructose was initially described in 1956. The following year, researchers reported a familial coincidence of the disorder occurring in other family members, postulating that the defect was a deficiency of a liver enzyme they called hepatic fructose 1-aldolase (aldolase-B isoenzyme). They called this Hereditary Fructose Intolerance. Within the next 4-5 years, the symptoms associated with Hereditary Fructose Intolerance were documented in infants, including vomiting, hypoglycemia, failure to thrive, cachexia, hepatomegaly, jaundice, coagulopathy, hemorrhage, renal Fanconi syndrome, severe metabolic acidosis (in part due to lactic acidosis) and in many cases, liver failure, coma and death.

Hereditary Fructose Intolerance is an inherited disorder when both the mother and father have the gene that causes the condition, but may not have symptoms of fructose intolerance themselves. This is called an autosomal recessive pattern of inheritance.

Fructose is one of the simple sugars we eat—others include glucose (the form in which sugar circulates in the blood) and galactose (produced by the digestion of milk). These simple sugars can be absorbed by the small intestine. Fructose is found naturally in table sugar, fruits, vegetables, and honey. Synthetic fructose (in the form of high fructose corn syrup) is used as a sweetener in most commercial foods, including baby foods and sweetened beverages.

The digestion of food begins in the mouth, moves to the stomach, and then into the small intestine. Along the way, specific enzymes are needed to process the different types of sugars in the foods we eat. An enzyme is a substance that acts as a catalyst to produce chemical changes without being changed itself.

Absorption of fructose requires two steps of enzymatic activity (phosphorylation). The first occurs in the small intestine while the second principally occurs in the liver. People with Hereditary Fructose Intolerance have a liver that is genetically unable to produce adequate amounts of the aldolase-B iso-enzyme to complete the phosphorylation process of even small amounts of fructose in the diet. People who develop dysfunctioning livers which are unable to produce this enzyme for small to moderate amounts of fructose in the diet will also experience similar symptoms. This illness is called Partial Fructose Intolerance.

When people with the genetic limitations, or through their dysfunctioning liver, ingest fructose or sucrose (cane or beet sugar, table sugar), there is incomplete digestion of fructose which then circulates in the blood, accumulates in the liver, kidneys and brain. Accumulation progressively causes damage that can lead to further liver-kidney dysfunction as well as mental dysfunction. The mental dysfunction is compounded by oscillating states of hypoglycaemia (accumulated fructose interferes with the conversion of glycogen, the body's energy storage material, into glucose, which results in abnormally low oscillating levels of blood glucose) where parts of the brain close down.

An interesting observation of many of the infants that eventually become diagnosed with Hereditary Fructose Intolerance is their powerful protective aversion (feeling of intense dislike) to sweet-tasting foods and beverages when they are first introduced to them. They continually spit them out when their parents attempt to place them into their mouth. Eventually through persistent pressure to swallow these sweet foods, the infant accepts them and invariably develops an addictive response to fructose, demanding sweet foods from then on.

### **Symptoms of Fructose Intolerance**

The disorder will not be apparent until an infant is fed formula, juice, fruits, or baby foods that contain fructose. Many soy-based formulas contain considerable amounts of sucrose (50% fructose) as a carbohydrate source. Initial symptoms include abdominal pain, bloating, sometimes vomiting and unexplained fever, thirst, increased urination and sweating. The infant often rejects all foods within which they detect fructose. Tremors and seizures caused by low blood sugar can also occur. The liver becomes swollen, and induces darkening below the eyes, and in later stages the infants become jaundiced with yellowing of the eyes and skin. If fructose is continued to be given to the infant/child, they can succumb to coma and death. Most infants survive, but go on to demonstrate the same symptoms as those people who develop Partial Fructose Intolerance.

One of the main challenges of either of the states of fructose intolerance in children is their challenging behaviours that emu-

late the symptoms of ADHD—bouts of uncontrollable inattention, hyperactivity, impulsiveness, loud crying, and demanding nature—particularly for sweet foods (addiction response). When the child attends preschool and later primary school they do poorly in exams, have difficulty with short-term memory, have poor concentration, have heightened confusion, and have general socialisation difficulties, while ever fructose is part of their diet.

In later life they are inclined to develop addictive responses to smoking, drugs, alcohol, difficulties succeeding (or even fitting-in) in society, and in extreme cases show bipolar symptoms and other serious psychological illnesses. In older age with continued ingestion of fructose throughout their life, they are prone to dementia and the other age-related mental diseases.

### **Diagnosis**

The diagnosis of Hereditary Fructose Intolerance includes genetic testing with DNA analysis to identify one of the common gene mutations that lead to this disorder. However, negative results are not a guaranteed that the person does not have Hereditary Fructose Intolerance. Urine tests can be used to detect fructose sugar in the urine while blood tests can also be used to detect hyperbilirubinaemia, and uric acid in the blood. A liver biopsy may be performed to test for levels of enzymes present (aldolase assay) and to evaluate the extent of damage to the liver.

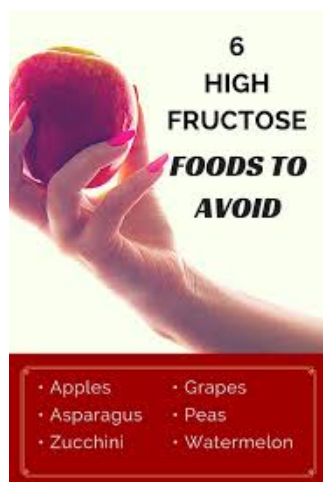
For an assessment of Lifestyle Fructose Intolerance, the best way to do this is through personal food trials. A Fructose Free Trial involves removing all starchy vegetables, table sugar, fruits, fast foods and sorbitol, from the diet while keeping short-term memory graphs and long-term memory controls to record changes to individual symptoms. The person eats animal products including eggs and butter and cheese only. The trial needs to be conducted over a three week period to cover variations in the reduction of symptoms.

In most trials that I have conducted, individuals with Lifestyle Fructose Intolerance who undertake the trials, will quite clearly recognise the difference in mental clarity, reduced emotional stress, increased motivation and fulfilment in their everyday lives as well as a reduction in liver symptoms. Clearly seeing these results helps them to make choices around their fructose consumption. When their liver function is challenged they remove fructose from their diet and when it is functioning normally they determine how much fructose they can safely consume while maintaining normal health, this includes in drinks such as beer and wine.

### **Weaning infants**

If when your infant begins eating formula or is introduced to solid vegetables/fruits, and within a few weeks they develop any of the symptoms mentioned in this article, then you are advised to undertake a Fructose Free Trial to determine fructose intolerance. Early identification of a fructose intolerance will allow you to manage it and start to understand how sensitive your child is to fructose. It will also allow you to better identify behavioural problems that may occur (that may be similar to ADHD) and manage them without medication.

Knowing if your child has a fructose intolerance will also aid you in helping them to avoid it as they go through life. If they haven't developed a 'sweet tooth' at an early age they will be able to more easily refuse treats and sweets which they will undoubtedly be bombarded with as they grow up.



## Why is Fructose an Awful Sugar?

Fructose is Satan's sugar. It is a primary factor in gastrointestinal illness, obesity and mental disorders. But isn't fruit a natural part of our diet? Yes it is now, however we eat more fruit today than at any time in human history, and this can be a problem.

Our earliest ancestors, before 4 million years ago, lived in trees and ate their foods raw—primarily fruits, succulents, leaves, some nuts, occasional insects, small lizards and very occasionally small mammals and birds. They could be considered frugivorous omnivores. When survival pressures over a couple of million years forced our ancestors to live primarily on land, they evolved their diet toward plants such as underground tubers, roots and those fruits growing close to the ground, while adding more and more flesh foods into their diet. During the Paleolithic era (the period spanning from 2.6 million years ago to the beginning of the agricultural revolution) our hunter-gatherer ancestors in north-east Africa ate mainly flesh foods (crustaceans, fish, land animals) and yams, with back-up foods including legumes, soft seeds and nuts. Honey, eggs and seasonal fruits and berries were occasional condiments while wild vegetables, herbs and water weeds were medicinal foods used in tiny amounts. This is the diet humans epitomised through the use of tools and cooking.

Traditional Australian Aborigines are the best modern example of what our ancestral hunter-gatherers ate. Much of Australia has had similar environments to those in north-east Africa over the past 4 million years and some Aborigines were classical hunter-gatherers right up to the early 1960s. Fewer than a couple of dozen fruit species were traditionally eaten throughout the whole of Australia, and most of these, were strictly seasonal, and needed to be prepared first. Many were restricted to healthy young adults and were not given to children or old people—because they were too toxic. Sugarbag (native honey) was a treat.

Today there are more than 450,000 species of plants in the world yet we consistently eat fewer than a few hundred different types of these—and many we have to cook and/or soak before they are edible. Most are poisonous. With the agricultural revolution and increased trading throughout the world, once rare fruits have become common place. Our modern technology and trading efficiency mean most of us now eat too much fruit, table sugar and high fructose corn syrup.

What makes fructose bad for our health? The problem is linked to the amount of fructose we eat, not that fruit is necessarily bad for humans. Different fruits have different quantities of fructose. Eating fruit when it is unripe (green) and eating too much can create digestive upsets. There is an old saying: *“An apple a day keeps that doctor away, two apples a day will make you pay”*. This folklore suggests people should limit their daily intake of fruit so they don't experience intestinal discomfort or health problems. However a modern misinterpretation of this saying (without the second line), is that if one apple a day keeps the doctor away, it must give health and thus several servings of apples and other fruits should be even healthier.

But fructose is difficult to digest. There are eight essential sugars (including glucose, fucose, maltose, galactose and xylose, and others) that are quickly and simply absorbed into the body, raising the blood sugar concentrations within several minutes. Fructose is not one of these—and was once recommended as a food for people with diabetes mellitus and hypoglycaemia because it raises blood sugar more slowly. But it is now known that the slow rising of blood sugar is due to a lengthy ‘multi-step enzymatic phosphorylation’ process that our bodies have to undertake to denature fructose to glucose for absorption into the body. Digesting fructose is difficult and takes time, especially if a person is not totally healthy.

Fructose malabsorption (sometimes called Dietary Fructose Intolerance) is the inability of the small intestine to generate sufficient fructose enzymes (fructose-1-phosphate aldolase) to partially convert fructose into smaller molecular fragments for transportation into the body, and on to the liver where it is converted into glucose. The production of fructose is an individual ability which varies with age and health. If the body cannot produce enough fructose, the fructose cannot be converted for passage into the body. It then progresses onto the colon where bacteria feed on it and produce hydrogen, carbon dioxide and methane gasses. These gases create enormous pressure in the intestine causing bloating, pain, diarrhoea and flatulence. The bacteria also form short chain fatty acids and restrict the colon from re-absorbing water. This keeps fluids in the colon and makes bowel motions loose and watery. Approximately half of the world's population are unable to absorb 25 grams of fructose at one sitting. About three-quarters of the world's population are unable to absorb 50 grams in one meal.

There is no cure for fructose malabsorption and good health only occurs by limiting fruit, sugar, and grain foods (which also contain fructans). This is a food volume-related illness. People with coeliac, atypical coeliac, pseudocoeliac, latent and silent coeliac disease, gluten intolerance, non-coeliac gluten sensitivity, ulcerative colitis, Crohn's disease, and other gut diseases, have a high probability of also having both fructose malabsorption and lactose intolerance. This is just the tip of the fructose iceberg

## Even Monkeys have Problems with Fruits!

Fructose is found in three forms in our diet—as free fructose (in fruits, honey, high fructose corn syrup, agave nectar, etc.), as part of table sugar (glucose+fructose), and in most vegetables and grains—along with chains of fructose molecules, known as fructans.

Modern fruits have been selectively cultivated to be much sweeter and lower in fibre than traditional fruits eaten by most primates in the wild. The very high fructose content in modern fruits causes monkeys in captivity to develop mental and physical health problems. As this knowledge has become more widely accepted, more and more zoos have stopped feeding monkeys fruit. For example, according to keepers at Paignton zoo, “... *reducing the sugars in their diets has calmed them down and made their groups more settled*”. Clinical trials on human primates indicates the same.

If you ever try and find wild edible fruits, you will have a hard time finding them. Until agriculture, fruits that humans could eat, had always been rare in nature. These fruits are strictly seasonal, smaller, sour, fibrous and contain more seeds than do cultivated modern fruits. We love sweet and juicy fruits. Healthy people with normally functioning livers can get away with eating a few pieces of fruit each day without any problems. However if your liver is not functioning properly, the fructose you eat in your foods can be causing you mental upset.

Fructose is metabolized in a two-step phosphorylation process using two enzymes (aldolase iso-A and aldolase iso-B), occurring firstly in the small intestine and then in the liver (and to a minor extent in the kidneys). Over-worked livers have difficulty producing adequate aldolase iso-B enzyme, and when this happens, the liver is unable to fully metabolise fructose (See here for more info on this ) which then re-circulates back into the blood stream, and ultimately accumulates in the brain. Even though our brains produce a small amount of aldolase iso-C enzyme in an attempt to buffer this, often it is not enough to denature all the fructose which then causes mental dysfunction—as parts of the brain close down. This illness is called Partial Fructose Intolerance.

We observe the mental disruption in our children when they come home from birthday parties, during which they have eaten too much sugar. Mental disruption also occurs in people who drink too much wine, beer, or fruit juices—and who eat too much fruit or dried fruit for their livers to cope. When the person's liver is not functioning efficiently and they eat too much fructose, they are more prone to experience emotional fights, oscillations into depression and feelings of low self worth.

When people are stressed and have eaten too much fructose, their short term memory is less efficient. When this happens, most people then turn to coffee, tea, drugs, more sugar, more alcohol etc, to combat this symptom. As a general rule people will feel mentally much better if they do intense exercise to 'burn-off' excess fructose.





## Stop Hayfever in its Tracks—Remove Fructose

Are you one of the 20% of people in Australia who suffer from hayfever?

The hayfever season is in full swing now, so what can you do to ease your symptoms other than taking immunosuppressants recommended by your doctor, such as antihistamines, corticosteroid nasal sprays, decongestants, and eye drops?

There is a magic cure that I have used for decades for those people with compromised immune systems linked to Epstein-Barr Virus (EBV) activity who also suffer from hayfever.

In spring, the countryside in and around Canberra has plants that use wind-pollinated distribution of seeds—such as rye grass pollens—which are the likely external triggers of people's allergic rhinitis (hayfever). By the second week in spring, people with even slightly compromised immune systems, start having sneezing fits, develop runny noses, have itchy swelling eyes, nose, throat/inner ears, and possibly an intense, stabbing frontal headache.

The magic cure is to unload part of your liver function by experimenting with your diet. You see, an immune system that is under stress, 'leans' on the liver. You will know when your liver function is compromised, due to the purple-black discolouration occurring under your eyes. You commonly see this with hayfever sufferers—the 'allergic shiners'.

So the magic cure: the easiest and fastest way to stop hayfever symptoms is to remove all fructose from your diet during the spring months. Removing fructose unloads the liver and frees it up to aid the immune system in dealing with the seeds and pollens around you. This requires removing ALL fruit, dried fruit, fruit juice, table sugar, honey, maple syrup, agave, fast foods, wine and beer. This is a simple fix if you really want to be rid of your hayfever.

You can test whether this approach helps you. The first morning of a test, you have fruit juice, dried fruit or fruit with your breakfast and note if hayfever symptoms occur within the next hour—and once you get a response do what you have to do to reduce the symptoms.

The next morning ensure you remove all foods containing fructose. Take note of any symptoms over the next hour. You may have to do this over a few days to be convinced, but I am confident you will see a difference if you follow the instructions exactly!

If you see an improvement but still experience some symptoms you can then try *Allergy Antitox* or another natural remedy that we can make just for you at our clinic. If symptoms persists, you can then try the next step, which is removing all grains from your diet (including rice and corn). Some people need to be totally off grains to really unload their immune system/liver, and thus eliminate all hayfever symptoms. (You can also undertake a personal food trial to test your response to grains).

By the end of November, hayfever is usually over and fructose can once again be consumed by most people.

If you suffer from spring hayfever, it costs no money to have a go at this little test—only a little discipline.

## Going Beyond Exercise for Sustainable Weight Loss

For chronic weight gain that you can't seem to shift you may need to go beyond diet and exercise and uncover additional triggers of weight gain. The first place to look is to your immune system which underpins all other body functions, including metabolism and fat storage. Your immune system can be weakened by drivers such as emotional stress, sleep quality, reactions to foods, as well as pathogens, chemicals and heavy metals. All of these factors can influence your weight gain or loss.

If you have weight loss challenges you may like to consider a program that focuses on your individual needs based on your medical and health history, symptoms, lifestyle, and emotional outlook.

Many weight loss programs focus solely on fat-loss through dieting and exercise. Some people simply cannot lose weight on these programs while others lose weight but quickly regain it again once the 'diet' has finished. This is because these programs do not consider the additional factors behind the weight gain, such as a weakened immune system.

When your immune system is weakened, your organs may not function properly and this leads to weight gain for many people. Have you noticed how some people gain weight following an illness or a stressful event in their lives? Typical weight-loss programs do not work well for these people.

Also worth considering is most weight that is lost or gained quickly, particularly in the abdominal area, is due to lymphatic inflammation. The lymphatic system transports lymph fluid from body tissue to the liver and is composed of lymph nodes, ducts, capillaries, vessels and lymphoid organs. It has a major role in immune defence by collecting, transporting and disposing of waste, toxins and foreign bodies that cause illness and disease. The lymphatic system is concentrated in the abdominal area surrounding your digestive organs.

If your lymphatic system becomes inflamed, the lymph fluid quickly builds up in the lymph nodes and swelling occurs. Have you ever put on a few kilograms of weight in your abdominal region overnight? This is known as lymphedema and can be triggered by pathogens, foods or chemicals within your digestive organs. Even small amounts of foods like wheat, rice and corn can fuel this inflammation if the immune system is not working properly. When the lymphatic system becomes inflamed, swollen and clogged, fat is naturally deposited in the region where the lymph nodes concentrate—your abdomen, buttocks and thighs. When the lymphatic system works properly, the lymph nodes shrink and then fat surrounding them can be effectively removed through exercise.

Our KickStart Program always removes excess weight and works by improving immune efficiency. Once you know what causes lymphedema you are already well on the way to maintaining your optimal weight. If a type of food is triggering this response, you will be able to isolate the culprit through our Signature Food Trials. We then help you substitute other foods into your diet that do not trigger your chronic symptoms.

You can lose weight without going hungry and learn how to keep it off—for good—if you can understand what in your lifestyle and environment is contributing to excess weight. Additionally you have to be disciplined!

For those who feel that emotional stress is a big factor in your life our Three Pillars to Health program goes further to address this, which is a huge factor behind comfort eating and weight gain. We offer therapies and strategies to improve your emotional wellbeing; lifestyle coaching and self-care advice; exercise tips and natural medicines to support you on your weight loss journey.

### **Emotional stress and comfort eating**

All of us comfort eat from time to time when we feel lonely, stressed or bored. Sometimes we do it without being aware of it, reaching for an extra slice of cake with our cup of tea or buying two bars of chocolate at the supermarket—one for now and one for later. We justify bowing to the urge to eat another helping because the first one was so delicious.

From birth we quickly learn that eating makes us feel better. As infants we feel pleasure from our mother's comforting embrace when breast-feeding, then as children we are given comforting treats when we are 'good', when we hurt ourselves and for special emotional occasions like birthdays and Christmas. As we get older, these comfort eating experiences can become ingrained and a part of dealing with challenging situations. We then eat for comfort when we feel unhappy, have a stressful day at work, when the future is worrying us, or when our desire for love and connection is not being met.

Comfort eating is a learned behaviour and varies from the occasional chocolate to binge eating. Unfortunately, most comforting and entertaining foods are made from ingredients that humans are not genetically adapted to eat, such as sugars, fruits, dairy products, grain products, alcohol and synthetic additives. All these foods are connected with weight gain and if you are trying to lose kilograms, eating these comfort foods will strongly work against your goal.

The manufacturers of comfort foods deliberately make them high in sugars and carbohydrates and use emotive advertising to create a link between their product and happy times. Most of us have been guilty of saying to ourselves, “It’s the weekend so eating some ‘naughty’ food won’t hurt because I’ve been ‘good’ all week and will be disciplined again come Monday”.

If you are overweight and find yourself eating snacks between meals when you are not really hungry, you have been comfort eating. As with anything you do regularly enough, it becomes habitual, and habits are hard to break. Such habits cause suffering and losing weight becomes a struggle. Comfort eating really only gives us short-term happiness because soon after eating these foods we can feel just as miserable as we did before. In some cases even worse, because we feel guilty as well! If you do not address a habit of comfort eating, it can stay with you for life, always undermining and sabotaging your efforts to lose weight.



## THE KICKSTART PROGRAM

This is a 12 week program that will unload your immune system, strengthen it with specific medicines and improve its focus to make you feel and look 20 years younger in health and wellbeing.

The program is **more** than a 'nutrition' program. It will guide you to discover which foods negatively affect both your immune system and your mental health.

This program is not like any other in existence and is based on original research over 30 years of more than 10,000 case studies investigating the effects that certain chemicals in our common plant foods have on chronic immune related illnesses (such as the role that gluten has, causing the autoimmune disease known as coeliac disease).

## Your Own Signature Diet

A signature diet is one that is tested by the individual and is specific to them only, as opposed to the '*Join-the-Club*' diets which are generalisations based on dietary guidelines—which may **not** suit you, because you are unique and your immune system is unique.

In order to determine the best diet for your immune system you have to first 'unload' it from having to prop up body organs, control specific bacteria and fungi that are always trying to over-run your body, as well as unloading your immune system from expending valuable resources on acclimatisation responses.

## What is Acclimatisation

Acclimatisation is the process in which your body cells are able to adjust to stress inside your body.

This means that certain immune cells use valuable energy to neutralise toxic chemicals in the vegetables/salads/grains/fruits and nuts you eat. When your immune system is strong it can effectively do this, allowing your body to function normally without any illness or pain. When it is weak it cannot do this, and ill-health symptoms develop when you eat these foods.

## Plants use Chemical Warfare

While animals can run away when their lives are threatened, plants can't. All the plants you eat, such as the vegetables, defend themselves against viruses, bacteria, fungi, insects and animals that might eat them, by using toxic and poisonous chemicals. Cooking plants denatures many chemicals but not all, and when your immune system is weak or has scarring, it may not appropriately handle these chemicals. The results will include lymph swelling, pain, organ dysfunction, and autoimmune disease symptoms.

Your personal **KickStart Program** allows you to find the foods that are doing this to you and you can adjust how much you eat of these foods or cook them more to eliminate ill-health symptoms.

## Using Graphs and Controls

Finding immune reactions to plant chemicals is complex and you will need to use graphing techniques and a control to reduce any mistakes. A food diary can assist, but usually is not accurate enough to determine correlations between foods and symptoms. We guide you through all the difficulties.

## Guide to the KickStart Program

### Weeks 1 to 4. *An Effective Cleanse/Detox*

By improving the function of your liver, kidneys, gastro-intestinal tract, blood and lymph system, your body is able to efficiently remove unwanted chemicals, debris and micro organisms, as well as unload your immune system from having to perform extra work.

All the required instructions, medicines and nutrients are supplied. You have weekly contact, guidance and support with any health problems during this time.

### **Weeks 5 to 8. *The Signature Diet Trials***

With your immune system unloaded, by now you will be noticing improvements in your long-term symptoms. You will then be able to more accurately find out which foods it has difficulty dealing with, by following a specific method of dietary trials. You have access to webinars, literature, discussions, and personal counselling to ensure you get your results. (Since there are no medical tests that can isolate these foods, you have to do personal control trials). By now you will have developed a natural state of optimism, clear brain and happy moods.

### **Weeks 9 to 12. *Fructose Challenge***

The public are slowly waking up to the health problems of over-eating sugar. Now people are learning that the fructose molecule in sugar activates opioid responses in the brain and can cause all manner of mental illnesses. We have more than 20 years of clinical experience dealing with hereditary fructose intolerance, partial fructose intolerance, and fructose malabsorption. We will guide you to uncover the volumes of fructose that causes you to become emotionally stressed, lose discipline and feel bad about yourself.

### **Webinars, Instructions, Videos, Personal Contact**

Most people have little idea about the behaviour and ecology of the human immune system, so we teach the essentials during the program. Most peoples' focus on foods and diet is related to nutrition, which is the supply of energy from fats, proteins and sugar (carbohydrates), along with the balance of micro nutrients as vitamins, minerals and trace elements. **Our** principle focus is the relationship between the foods you eat and the ability of your immune system and organs to effectively deal with their natural defence chemicals along with the polluted commercial chemicals that accumulate in some of our foods.

If your immune system collapsed right now, you would die within the next 24 hours. Your immune system has mobile red blood and white lymph cells that defend your body, maintain homeostasis, and allow you to live to the potential human life span of 100 to 108 years, only if it is able to keep reserves for emergencies, and does not suffer scarring that reduces its ability to function normally.

Humans, like all animals and plants on this planet, live best in genetically adapted environments. We are healthier when: We are loved; eat foods to which our ancestors were adapted; exercise moderately; live in mild climates; and keep away from unhealthy 'bugs' and chemicals. Living outside the optimal human environments stresses the adaptive part of our immune system and we suffer ill-health symptoms and a reduced lifetime.

Modern commercial foods are one of the main causes of immune stress, and because your immune system is unique, if you want to live a long pain-free life, you will need to be careful with some foods past the age of 35.

### **Foods for Both Health and Entertainment**

The foods and drinks we use for entertainment are made from: table sugar, fruits, tea, coffee, chocolate, beer, wine, spirits, herbs and spices. We can add street drugs and tobacco as other forms of entertainment. All these are derived from plants and they affect our brains in various ways. We know that some people also have brain reactions to some common vegetables and grains.

Without these chemicals in their lives, most people would find life dreary and a burden. In this program, we guide people to discover which entertaining foods their bodies can tolerate, and how often they can have them without compromising their health.

### **Freedom and Independence**

Once you have completed the KickStart Program you will find that you have more confidence in choosing the diet that suits you, and you won't feel confused by the myriad of diets that are presented through the media, nutritionists, dietitians, doctors and governments.

You will **know** how to push the boundaries and how to regain control over your health.



## **Cancer and Autoimmune Diseases**

This is a perfect way to begin to help your immune system. All cancer cells live on carbohydrates, not on proteins and fats (Otto Warburg, 1931 Nobel prize), and we assist those with cancer to test a ketone diet, then modify it to suit their particular cancer condition, to unload their immune system, and slow or stop cancer growth, while being satisfied with their diet and improved health.

## **Assessment of Organs and Immune System Function**

In the Canberra Medical Ecology Clinics (Bowral and Deakin), we have tested more than 20,000 people for organ function and immune system efficiency using electro-dermal testing protocols. This gives us a means to compare changes in health throughout the program. We use these tests to create customised medicines, therapies, or further experiments for lifestyle change.

Talk to Laris Zoska or Bill Giles for more information or register to attend one of our free webinars, where you can ask your questions.

**Larisa Zoska** *is a herbalist with 20 years clinical experience.*

**Bill Giles** *is an immunobiologist with more than 30 years clinical experience.*

## **For more Information**

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