EVOLVING FOOD PYRAMIDS

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The Lies That Keep Us Sick, Fat & Tired

And

What To Do To Feel Healthy, Trim & Energetic

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Overview and Introduction

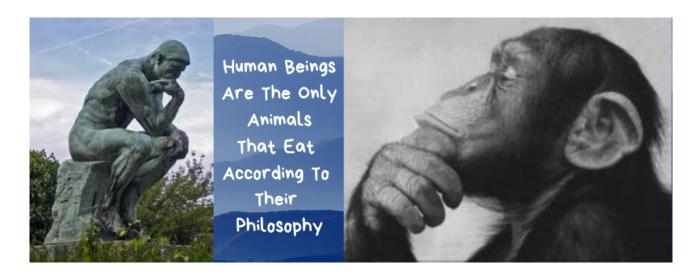
Hi and welcome to this adventure into food. It's an understatement to say that food has an immense hold and sway on our lives. Without it where would we be? Yet with it, what disaster have we brought on our selves? Metabolic and chronic disease is at true epidemic proportions. Information on food; what is good, what is not, comes thick and fast - often contradictory. Do we throw up our hands in dismay and give up trying to decipher the truth amongst the mists? Or do we take ourselves in hand and get to grips with the thing that above all else has the potential, to not only keep us alive but, to keep us both alive and well?

Let food be thy medicine and medicine be thy food.

Hippocrates

I'm going to share with you the key pieces I've learned in the past decade that led me from 35 years as a wheat free vegetarian and vegan to eight years on a LCHF, Low Carbohydrate High Fat, meat based diet and finally, over the last two years, to 99% carnivore. I can only say that I sincerely wish I'd known what I know now either 51 years ago when I started dieting at the tender age of 14 or at least when I was in medical school, before I decided to eat a vegetarian diet. Oh how different life would have been for me.

My aim is to both simplify things so you'll be able to take this information and apply it straight away and give you enough depth so you'll be able to come back to it when you need to dig in deeper. All the nuts and bolts will be here for you to really do something with this for your own health and wellbeing. Plus there will be plenty of references for ongoing learning and confirmation. This information has changed my life and I assume it will do the same for you. As my sub title says, I'm here to share the lies that keep us sick, fat and tired and what to do to feel healthy, trim and energetic.



I coined the idea that humans are the only animals that eat according to their philosophy. What I mean by that is that we tend to eat what we think, or what we believe, is healthy to eat. And we tend to avoid eating what we don't think is healthy to eat. That's a great idea if our beliefs match reality. But an absolutely terrible one if they don't. We like to believe that we are smartest animals around but I think what you'll learn from this book, is that in some ways it would seem we are actually not much smarter than some monkeys as the photo on the cover is meant to convey. And sometimes we are actually infinitely more gullible and naive.

I'd like to help you see how, over the past 50 years we have been taught the wrong things, about what is healthy and what is not. This has governed our food choices right up to today. If you don't learn to question and explore it will govern what you eat tomorrow and the next day too. Looking back to when I was a young doctor I now see we were taught the wrong things and I can see how those doctors, without really thinking, have been teaching the world the wrong things because of what they were taught and believed was true.

You don't have to go too far down that track to realise how much we have inadvertently caused the chronic disease pandemic that is upon us now. But you don't have to get lost down that road. As you will see hope is at hand and it's easier to sort out fact from fiction than you may have been led to believe.

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https://www.buymeacoffee.com/darag

My Background - Where I'm Coming From

So a little bit more about me before we get going. I graduated in Medicine from Otago Medical School in 1978. In the process of studying I found out that I was happier helping people live healthy lives rather than treating disease. I also found I was terrified of hurting people and I saw a lot of potential to do that in medicine. I believe that, with what we've been been taught, we've done more damage that we'd care to imagine. It's past time to redress that and this book is part of my stand for truth.

The Spirit-Mind-Body connection became more and more fascinating for me. I felt inspired to explore this further and decided to leave medicine. It's a story I will go into further in a future book.

At that time I wholly believed that a healthy mind would create a healthy body. I wasn't approaching it from a Mr Fixit perspective of prescribing thoughts to heal disease but more from the point of learning to live in alignment with spirit as a way of being. For me it was about learning to surrender my mind to the spirit that underlies all of life, and my life in particular, and to live in harmony with that. I imagined a healthy life would blossom from that.

I don't believe our Spirit needs any help. I believe it's perfect as it is. I'm OK with the idea that this is simply a working belief, that I may not find an answer until I die. I can live with that. It seemed to me that it was the mind that got in the way, thinking that it needed to control everything in order to be safe and ok, and denying any connection to spirit, or that spirit had any impact.

It took me a few decades to realise that I needed to look at life from the other side too. I had been operating on the premise that peace in the mind, through harmonising with what I believed spirit to be, would lead to peace in the body. But as I aged it became clear that my body was not at peace and I was not finding the solution in my mind. I found it in my body by learning to listen to it and accept what it needed to be at peace. And as I fed it in that way I noticed that my mind become more peaceful. As such it became more capable of listening to spirit and that made all the difference.

My aim is to Simplify Life's Lessons So You Can LIBERATE YourSelf. What do I mean when I talk about liberation? The acronym I created for LIBERATE is Life In Balance, Expanding, Radiating And Touching Everyone. For me that ever expanding journey is what life is all about. I hope to help you feel liberated from food by learning the simple truth of what is good for you and what is not. If you find that's so, I'd love you to share it with the people you are inspired to share it with. Our health authorities and governments can't seem to get the truth out there, so it's up to those of us who feel the calling to do that.

FYI: Since I'm forever explaining it to people, my name, Darag, has the second 'a' pronounced like an 'i', as in 'rig'. The first 'a' pronounced as in car. So Car rig becomes Darrig. The two 'r's will help you roll your 'r's like my mum did. I was born in Scotland and spent my first 9 years there before emigrating to New Zealand. Darag is the name my grannie found for me in a book of tartans. A Darag was the oak badge that the Stuarts used to pin their tartan cloaks on their shoulders.

We Have Been Fooled

I love this quote from Wendell Berry

We are fed by a food industry which pays no attention to health. And treated by a health industry which pays no attention to food.

I think this is highlighted by the fact that most doctors were taught, and therefore believe, that disease hasn't got much to do with what you eat. Apart from the erroneous belief that fat was bad for you.

I'd like to change the quote a little. It's not that they paid no attention to food, it's more like they paid attention to the wrong food. It seems obvious to me that a lot of attention has gone into it. It just happens to have been misplaced attention on incorrect information.

Let's look at two lies that I believe contribute to our becoming sick, fat and tired.

The first is that saturated fat is bad for us. Which led to the belief that carbohydrates are good for us. This is something that many people still believe, despite there being many medical doctors and researchers who have changed their views on this. I'll tell you how that came about and how it's changing.

The second lie is that you can get everything you need from a healthy diet. For me this is still in question. So this book will focus on the diet, not on supplementation. Though the argument seems obvious - that if the nutrients, particularly minerals that our bodies need, are not in our soils, then they can't be in the animals and plants that we eat that have grown on and in that soil. But then life is filled with obvious statements we'd rather not look at. I won't be addressing this here because my experience says the first thing to handle is the food choices we make.

In the same vein as you can't outrun a bad diet, it has been said that you can't out supplement a bad diet. Supplementation can come later if you need a little extra of something.

The Big Lie

It's easier to fool people than convince them they have been fooled.

Mark Twain

I loved reading Mark Twain's *The Adventures of Tom Sawyer* when I was younger. I'm not even sure if later generations have even heard of it. Lauded to be the "greatest humorist the United States has produced" there is a certain pithy eternal truth in that statement of his.

I'm highlighting this to help bring to mind that you have likely been fooled into believing certain things. And once you've been fooled it's not easy to convince you that you've actually been fooled. Why? I guess because no one likes to think that they've been fooled. That they have been naive and gullible. And that people who should know better and be able to be trusted, simply aren't doing the job we expect of them.

I'd like to take this moment to acknowledge you for being open and willing to purchase a book like this, to dig in and get involved with it. Because part of you knows or suspects there is some truth beyond the explosion of confusion. That part of you wants to get real with this and back yourself up with information. Hopefully I'm talking to the converted. You just need a little push in the right direction, a little clarification and then you are good to go. So, thank you for being who you are. And hopefully you can spread this to your family and friends. Become part of the change that the world is desperately in need of.

You may need to re-educate or change your doctor. Many doctors have changed their stance on things because a patient has come in with some issue, hasn't followed their directions and instead has followed something else that has worked astoundingly well. And if the doctor is open minded enough and is willing to change, because they want to help, that's when doctors start to really question what they are doing and what they have been taught. That's where, as people, we personally become responsible for the change in how medicine perceives diet and nutrition. So, if you face that situation, all power to you, send them information that you'll hear from these pages, that they'll be able to relate to, because it's one thing for a doctor to hear something from a patient and it's another to hear the same thing from another doctor.

I do that myself, if I'm talking to a doctor I'll direct them to other doctors. Even though I trained as a doctor, I don't work as a doctor, so there's a certain disconnect there for some people. Not for everyone, but the whole idea is to help re-educate the masses so we can get over the pain of being fooled and as I say 'eat some humble pie', learn to get over it and move on with our lives.

My Story With Food

My journey with food since the 1970's has been oriented around fats. Animal fats in particular. And I've either been avoiding them or looking for them.

Over the course of my path through medical school, 1973-1978, animal fat began to be progressively more demonised as the prime cause of heart attacks and strokes.

Just before that, in 1972, a book came out called '*Pure, White & Deadly*' by Professor John Yudkin, Emeritus **Professor** of Medicine at University College London. He had another opinion. He pinned the blame on carbohydrate, and sugar in particular. Hence the title. Sugar is the pure, white and deadly substance the book is talking about.

That book was recommended reading by our biochemistry lecturer, Professor Peter Schwartz in '74-'75. I don't believe it was part of the curriculum. If I'm remembering that correctly I imagine it was Peter, who was perhaps my favourite lecturer, trying to bring some sense to our young minds.

But unfortunately as interesting and compelling an argument John Yudkin made, it was lost to probably 99% of us. It faded in the mist of years of intense study and unknown to us, the extremely politicised field of public health.

It was only a decade later in 1984 that saturated fat was showing up in Time Magazine as the demon, with that famous shot on the cover of the face portrayed by two sad eggs as eyes with the down in the mouth strip of bacon. Medicine changed for the worse over that time period. Trusting doctors blindsided by what they assumed was an honourable scientific process. Prof Yudkin's career was effectively thrown in the toilet and he was ostracised relentlessly. Nothing came of his work even though, as you'll find, he was telling the truth and the other guys were lying. It's sad, so sad, that happened. And I was there to actually see it happen, which makes me feel even more responsible than I usually do for what happens around me.

As I've said, the more I studied and worked in medicine the more I became intensely interested in what lay beyond the body and the mind. A deep dive into spirit was where I was finding solace. Along with going vegetarian before it was popular I was becoming deeply immersed in yoga, tai chi and mediation plus I was also doing a lot of fasting. I became the slimmest I'd been since I

started to fatten up at the age of 9. Therein lay some clues that I didn't pay proper attention to till this last decade.

As a vegetarian, I was thinking that obviously medicine has got something right because 'fat is bad for you, animals are bad for you'. I trust you can you see how that was in alignment with my 'philosophy' at the time. It's funny when I look back on it. The one thing I thought medicine had right was the thing they were most wrong about.

From that point I was primarily vegetarian for 34 years. A decent chunk of time. Nearly half my lifetime so far. I thought I was healthy with it. During that time, In 1990, I had my first pass at supplements and I had some pretty profound results in how I felt and what foods I wanted. After adding them into my diet I went wheat and dairy free.

Before dropping wheat I had experienced some joint pain and stomach bloating. While eating and drinking dairy products I used to have a lot of sinus congestion. I never left the house without a hanky, it was an essential piece of clothing for me, often thick with mucous. I used to joke that I was either getting a cold, having a cold or just getting over one. It wasn't really about getting colds though. It was all about my body trying to get rid of the mucous that it was producing as a response to dairy. That mucous disappears if I stop eating it. Nowadays needing a hanky is a rare and minimal event. Colds and flu's the same.

In the mid 1990's we went wheat free vegan for 10 years. We brought up our kids on that diet. Our first girl, born in 1994, had pretty much those whole 10 years eating like that before we started to relax our ideas and transition to vegetarian with some dairy and eggs.

In 2004 at 49 years old, you would say I looked the picture of health but in the very next year the first signs of inflammation started appearing in my body. Looking back I can't say I've ever really felt unhealthy or sick in my life, I always felt like I had a good constitution and you would have thought that, looking at me, I was doing really well. But, underneath was a different story.

It started with blepharitis. I used to have really long eyelashes when I was younger and at this time I'd wake up and they'd be so gummed up that I couldn't open my eyes as my top eyelashes would be glued to my bottom eyelashes and I had to clean them out before I could open my eyes as I was waking up in the morning. It was the kind of gunk I remember seeing in old men's eyes in hospital wards and there i was experiencing it at the tender age of 50.

And then I got pustular rosacea. It even sounds awful doesn't it? I joke that I looked like a cross between Rudolph the red nosed reindeer and a teenager having an acne problem.

So blepharitis and rosacea, both signs of inflammation going on in my body. Something wasn't working right. I thought it was age. I didn't really think it was my overall diet. I looked at reducing specific things like chocolate and alcohol. Which did and still do make a difference for the rosacea. So I was working slowly with it. Beginning to learn how much of what would make my nose blow up.

Two years after, in 2007, I get cancer. I don't know if you've ever been diagnosed with cancer but that can really hit you. It certainly hit me and that's when I seriously started to question what I was eating.

I also went through a massive financial loss at the time with our accountant in investments he recommended and I was feeling extremely guilty about what I'd done with our family's inheritance. So the cancer may not have been related to diet, it felt to me that it was the emotional trauma that I was going through at the time that had brought it on. In the back of mind there's also the thought that I used to clip my cell phone on my belt over my left groin and it was my left testicle that developed a seminoma. Who knows what it was exactly. But, looking back, I'd pin the tail on the emotional upheaval donkey. But it did start me wondering about my diet.

A seminoma is a form of testicular cancer that could be called a Cleighton's cancer. In the vein of Cleighton's being something that is not real. Cleighton's alcohol, was a zero alcohol drink we had in New Zealand a while ago. So, in terms of being a Cleighton's cancer I'm meaning in the sense

that it has a good survival rate. Although it can certainly be lethal. I didn't need chemotherapy as I caught it early enough. Which I'm really grateful for.

My prognosis was a 90% five year survival if I just had surgery or a 95% survival if I had surgery and mild radiation of the area and the deep lymph nodes in the abdomen. Testicular cancer responds really well to mild radiation so the radiation dose was not huge like it can be for other cancers. I had very little belief in myself at the time so I was very, very vulnerable to suggestion and I opted for the surgery plus radiation. If I was to do it again I'd probably not do the radiation, because who knows what that is going to lead to in the long run.

So, cancer, big wake up call.

In what felt like being hit by a left followed by a right knock out punches, another two years later, I had another one. For me, this one was like adding insult to injury. At the age of 54, in 2009 my GP (General Practitioner in New Zealand) calls me in because I'm in my mid 50's and it's apparently time for a blood test to test my blood fats. He knew my history and he said "Well because you've been a vegetarian for so long we don't expect there will be any problem"

So I go in for a blood test and here I am expecting nothing but I get a call back to say your blood fats are bad and we need to do something. Get this, all they could suggest is that I eat less red meat and eat more whole grains and more vegetables. Now, I ask you. What would you do with that suggestion if you'd been told that after 35 years of eating exactly that way, no red meat, no meat at all, all organic as much as I could, wholegrain as much as I could, no wheat but lentils, rice, all whole grain, an abundance of veggies and fruit, nuts and seeds? What would you say? What would you be thinking?

I got mad. I got really mad at that point. I say that in being told not to eat red meat it was me that saw red. I thought "surely I've got something wrong here".

So that's when I decided to really dive in to some reading. Remember the cancer happened and I started thinking about my diet but it was being diagnosed with bad blood lipids and told to eat more of what I had already been eating and less of what I was already eating none of, that was the final straw I needed to dig in. I started looking at and researching doctors that were saying something different to the standard advice of eating less meat and more veggies.

That research led to me eating a massive amount of humble pie. I ate a lot of that. And I finally decided to shift to a Low Carb High Fat diet or LCHF. Some people call that a Low Carb Healthy Fat diet. I'll talk about the subtle difference later and also my own progression from LCHF to a more carnivorous diet.

Your Story?

Before we go on I want you to take a moment to think about your own story. Because we don't know each other and I can only imagine that you've started reading this for a reason.

Is Reality Hitting You In The Face?

Is that the reason? Is reality hitting you in the face, like it did me?

Is it weight that has gone on too much, too long and you need to get a handle on that because you know it's bad for you?

Is it because your blood pressure is up and you don't know why? They say it's idiopathic, meaning we don't know for sure what's going on but here just take these drugs.

Or maybe your blood sugar has gone up and you're facing a diagnosis of pre-diabetes or diabetes? That is one of the most diabolical situations you could ever imagine. If you want to experience your body falling exquisitely and painfully apart on you, get diabetes.

It could also be other things like Parkinson's Disease. All sorts of things.

You may be experiencing, like I did, that something that is happening to you, is pushing you to wake up like I got woken up. So if that's you, please know there is hope.

Do You Want Optimal Performance?

Or you may be focused on optimal performance.

There are a great section of people that really look at increasing the performance they get out of their body-mind. Now that's either physical performance or mental performance or both. That applies to both sport and business. It's all part of the process of really wanting to get the best out of yourself. There is plenty you can do.

Are You Hoping To Age With Grace?

I think all of us are really looking to age with grace.

If you've ever seen anyone go downhill badly that should make you think twice about changes you could be making now to improve your own future situation. I saw a lot of that as a young doctor, Sally and I have both had our parents die struggling with cancer and lives falling apart with dementia.

Until you experience death, life just feels good, it carries on as if it's going to last forever. But when you experience what dying without grace is like, if you're anything like me, you'll really want to make sure you age and die with as much grace as possible.

Sally's dad often said; "ageing isn't for the faint hearted" I love that quote and him for saying it. And yes ageing is not for the faint hearted but that's all the more challenge to make living as well as I can, a priority.

So, if you are struggling with some form of disease I hope you find something here that helps you. I believe there is. Likewise if you want to increase your performance and age gracefully then I believe there's information here that will serve you extremely well.

It can take years for problems to develop even when you believe you are doing everything right. There's those pesky beliefs again! It's by diving in and questioning them and following through on what you find that can make all the difference to your future self.

Whatever your story is, it's important to learn to eat what your body was designed to eat or in other words, has evolved to work best with. I believe it's there that you'll find optimal wellbeing and graceful ageing.

If you don't want to go through the why's and the wherefore's, if you just want to get down to the nitty gritty, skip ahead and start from the section The Best Carbohydrate Strategy and read from there. If you're like me and you want to know the why's and wherefore's before you try something new, read on.

When Doctors Disagree, Where Does That Leave You And Me?

Hopefully this question doesn't leave you with a headache but that's what it leaves a lot of people with. One of those things that we just have to get used to in life, is that there is a lot of disagreement out there. Often in places where we think there shouldn't be.

Where it leaves us though is where I believe we should be. I believe that we should each be willing and able to take on the responsibility for our health and well-being. The willing part is up to you. The able part is hopefully something you'll feel you can step into after reading this book.

Doctors aren't gods, they're just people like you and me with that little bit of extra knowledge. Sometimes that knowledge is working for them and you, and sometimes it's not. So you need to figure out for yourself and relate to medicine from an intelligent perspective. You need to be thinking, ok well who's saying what and what do I think is the best option for me?

So, it's really about each of us taking more responsibility for our health and wellbeing and not relying on other people. A lot of people still don't believe that doctors do disagree. It can be hard to hear that they disagree on a lot of things. We want so much to believe that those in authority really do know what's best. But the reality is so often the opposite.

A terrible and ironic story in this Covid era of masks and hand washing, is the story of a Hungarian doctor, Ignaz Semmelweis, who suggested in the mid 1800's that hand washing could reduce the numbers of women dying of post birth infections. He was so hounded by his colleagues that he ended up dying in an insane asylum. Sending 'disagreeable' people to institutions like that seems to have been a popular strategy for many ages.

Closer to home and alive today is the Australian, Dr Barry Marshall. He won a Nobel Prize in 2005 for showing that there was a bacteria, Helicobacter Pylori, that caused stomach ulcers and gastritis, (inflamed stomach lining). He rewrote the text books at that point but it was a story that was 100 years in the making because it was 100 years before he proved it, that someone suggested that ulcers were caused by a bacteria. Both my parents had ulcers in the 70's and I remember their pain vividly. How I wish that bacteria had been uncovered a few decades before.

For all those intervening decades, doctors believed, there's that word belief again, that gosh no bacteria can exist in the stomach, in that acid environment, that acid will rip anything apart. What they didn't know was that those bacteria were able to penetrate the cell and turn off the cells ability to produce acid, so that the bacteria could get a hold.

The funny part of the story, it's not really funny, but it has a certain sense of comic tragedy, was that Barry really had a bee in his bonnet about it. With the instigation of a pathologist who had found the bacteria in the ulcers and stomach linings of patients, Barry felt he had seen enough to 'know' they were right and he was determined to prove it. To that end he tried to infect dogs, or a dog, with this bacteria and the dog or dogs didn't get ulcers, or even any gastritis, as a result. He was dumbfounded and perplexed. You can imagine his quandary. He was sure it was this bacteria but the dogs didn't comply with the theory he was trying to prove. So he had the inspiration to try it on himself. He ingested a dose of bacteria. And sure enough, he got a wicked stomach ache that was shown to be gastritis. The funny thing is that they didn't know till after that point that dogs simply aren't susceptible to that bacteria. But humans are.

The moral of the story here is that doctors can disagree for decades. And will often try to vilify each other and destroy each others careers in the process. In the case of H. Pylori, it took 100 years to get to the truth.

For the past 50 years while we've continued to be taught about diet and nutrition and that saturated fat in the diet was defined as the enemy, there have been doctors disagreeing with that all along that path. There just wasn't enough of them, they didn't have the evidence at their

fingertips, and they just weren't being listened to. Because their voices were shut down you never heard about it.

Think about this time lag for emerging truths. You and I don't have 100 years for what's true to be acknowledged. A lot of change in medicine takes at least 30-40 years to actuate and we can do a lot of damage to our bodies in that 30-40 year period of following the prevailing 'wisdom'.

Rather than suffer the fate of the blind leading the blind we need to see that it's up to us. That's where I say when doctors disagree it's up to you and me. It's up to us to take more and more responsibility for our health and wellbeing, by getting better educated. To do that I recommend we learn as fast as possible which doctors we can trust and which ones we can't. That's exactly what I aim to do with this course. To introduce you to doctors who I believe deserve your trust and to give you the core of their messages without you having to take 10 years to read it all yourself.

Let me take you back to a certain moment in time.

1955. Two very, very important things happened. One, I was born. And two, President Eisenhower had a heart attack. Now I promise, swear to God, hand over my heart, that my birth had nothing to do with his heart attack. But I also swear to God that his heart attack had a lot to do with the food choices you make on a daily basis, right up to today, 65+ years later.

Professor Robert Lustig, is a Paediatric Endocrinologist. So, he understands hormones and he understands that the amount of body fat you have on board isn't about the oversimplified misnomer of calories in calories out. It's about the hormones, how they are stimulated by different foods, and how they affect how you deal with the calories from those foods. He made this comment about the education that came out with the USDA Food P.yramid:

The goal was to alter our diet for the better.

Instead we've laid waste to every nutritional hypothesis,
lost the public's trust and killed countless millions in the process.

We will be suffering the aftermath of this battle royale for generations to come.

Why does he think we will be suffering the aftermath for generations to come? I think there are two reasons. One, we're all suffering the effects of that change in diet we were taught to make. Having been taken down the wrong road we have changed the very fabric of our being, including those of our babies. Do you know that children born to diabetic mothers themselves develop weight issues and diabetes even earlier in life than their parents? And the other thing is that it will take a while for the beliefs to change, because we've had a few generations, we've had 50 years of 'education' saying 'fat is bad for you', 'salt is bad for you', and all those things take a while to percolate through and change. It doesn't just happen overnight.

But hopefully this will help you change it faster. If you'd like more information about how and why we went wrong, I highly recommend two books. They're what I call the yin and yang of the story of how it went wrong. They are *Good Calories*, *Bad Calories*, released as *The Diet Delusion* in the UK, by Gary Taubes taking the male, yang position and *The Big Fat Surprise* by Nina Teicholz taking the female, yin position. Two great books and if you want to fully understand what really happened, then get into those books. It's mind blowing stuff to think that the world can be taken down such a disastrous path by a few errant men.

But what happens when we're confused and things aren't quite working right for us? What do we tend to do? We often tend to blame something. Can you imagine what it is? What have you heard yourself blaming, for the reason your body is like it is?

How about your genes? Have you ever heard yourself say this statement: 'Oh, I'm just the way I am because of my genes.' Think about that. I know I used to say and believe this. I struggled with my weight for decades thinking oh it was just my genes. But hey, let's wait up a minute.

My body shape is more in line with my mum's than my dad's. Short upper body, long legs. My grandad on my mum's side was obese. Her mum was overweight and died of a stroke while I was in the womb. Grandad had an interesting history. After mining gold in the Yukon he returned to Scotland to buy the town bakery and marry his sweetheart. My dad had left my mum and I in Scotland and emigrated to New Zealand, so we lived at the back of that bakery for the first 9 years of my life. Bread was a staple of my existence.

Before leaving Scotland I was starting to fatten up. According to my mum I was a scrawny, sick kid until I got my tonsils and adenoids taken out. She was super delighted. She was so proud to share "you fattened up like a wee butter ba" ('ba' = ball) and I went from a sick skinny laddie to a bonnie plump one. Her belief was that it was healthy to carry some extra weight to see you through any of childhoods challenges.

Mum herself was so obese at the age of 12, in 1933, that they felt they had to put her on a diet. I remember her telling me that one of the steps they took when they discovered the housekeeper giving her a pie at bedtime because 'wee Meg was awfae hungry' was to put a stop to that practice. It never worked for her. She struggled with weight all her life.

If you're wondering about the other side of the family, my dad's parents were both overweight as they aged. I only know this from photographs. I never really knew them as mum separated herself and me from dad's side of the family when dad left. And dad's mum had died earlier that year that mum's mum died. Dad didn't fatten up himself till his 50's. By his early 60's he was definitely overweight.

Compared to me, I was overweight as a teenager. I always wanted to have abs but I never could see them. Now in my mid 60's, in terms of weight, there is no comparison between both my parents and me.

So what happened? How come I ended up different? I didn't end up overweight and obese like my grandparents or my parents? Well, the reason is succinctly elucidated by Dr David Perlmutter, a neurologist, in his book *Grain Brain*. Another I highly recommend reading. In it he makes this statement: *Food is a powerful epigenetic modulator*. Meaning it changes your DNA, your genes, for better or for worse.

To bring that into some sense of context for you, think of a Monarch caterpillar and butterfly. They look completely different. If you only saw them independently and didn't know one turned into the other you would say they are two different creatures. Yet the caterpillar and butterfly both have exactly the same genes. One is simply a grown up version of the other. The reason for the change in appearance is how the caterpillars genes were affected by environmental influences that stimulated the caterpillar to transform into a butterfly. But the same genes live in both of them.

When you think about it we used to be like butterflies, we used to grow up, get fit and healthy and go about our lives. But a large mass of us have turned back to being like fat caterpillars, haven't we? We just get lazier and lazier and want to sit around and eat all day, just like a caterpillar. As you'll learn that is what happens when you eat the wrong foods for your body.

We don't get fat because we overeat; we overeat because we're getting fat.

Gary Taubes

Images of the captain, crew and passengers on the space ship in the movie WALL-E come to mind here. If there ever was a movie to put you off processed food and get you back to appreciating real food then that would be on the short list for nomination.

What I'm saying, is that food, whatever food you eat, affects your genes and their expression. From there it can affect what's happening in your body and mind. So, if you want to blame

anything blame the food you are eating that made you into a fat caterpillar or a disease state or whatever it is. And particularly blame the education that encouraged you to eat that way. Because, as many like to point out, it wasn't actually your fault We've been very good at doing what we were told we needed to do. Those wrong choices of ours came from what someone 'believed' was healthy, and what we 'believed' was healthy as a result of their belief.

We could simplify this to: i's not our fault, it's not our genes, it's the education we had. Take that weight off your shoulders and lay it where it belongs.

We have a chance to reverse this if we can come from the perspective that doctor's do disagree. It's not your fault if you have been listening to the wrong doctors and you've ended up sick, fat &/ or tired. It's their fault for believing the wrong thing and telling you that you'd better believe it too. And you can learn to listen to other doctors. Hearing that whatever you eat changes your genes activity, for better or for worse, I'm sure you'd rather have your food change your genes for the better.

The Big Mistake

This is where we dig into the food pyramids and what happened with them. I've chosen pyramids because I think they are more evocative than the food plates in the current model. Pyramids have always been a structure of power and there's nothing more powerful than what you put in your body. As the original framework that foisted a major untested dietary change on the world population, I think the pyramids need to be held to account.

They aim to teach what to eat, what not to eat and how much of each. The question is, who decides what goes on those pyramids and what are the effects? Can we even really see the effects of a food pyramid? I think we can and I will show you soon.

We didn't have pyramids when I was growing up. We were taught the food quadrants. It was similar to My Plate but there were no side dishes like there is in My Plate. It was a simple circle. Divided into quadrants. The recommended diet in the 1950's was 1/4 meat, chicken, fish and eggs. 1/4 milk and cheese, 1/4 bread and rice and 1/4 vegetables and fruits. Essentially 50% animal products.

The USDA Food Pyramid came out around 1978-'79. Meat and dairy had been moved way up the pyramid so we were told to eat a lot less of them, sparingly in fact. The bottom of the pyramid, the largest amount we were supposed to eat, were the grains, cereals, and root vegetables. With the second layer being fruits and vegetables. Both of the bottom layers that they said we were meant to eat most of, were now very carbohydrate laden food. Which should give you a hint of where a lot of our problems have come from.

The new version of the pyramid is the My Plate idea. When you look at those you'll see they've put dairy off to the side, recommending just small amounts. Rather than mentioning meat they stopped talking about a real food here by naming that section Protein Foods. And when you dig in to what they mean by protein, they're very happy for that to be plant protein like legumes. Legumes have generally 60% of their calories from carbohydrate, so in a sense the whole food plate is almost all carbohydrate rich food.

Harvard tried to improve on the USDA Food Pyramid with the Harvard Healthy Eating Pyramid. Which came out I think in 2008. In the Harvard Healthy Eating Pyramid red meat is again right up at the top. The recommendation being that you eat that sparingly. Chicken and fish are 0-6 times a week.

It's interesting to compare that with what they ate in Ancient Egypt. A helpful thing for researchers about Egypt is that they mummified the dead. Only the poor were not mummified. In general mummification was part of the standard burial process for them. And now we can actually look at and scan the mummies and see what they died of.

Let's look at what they ate. They ate what Harvard would say is the perfect diet. Whole grain bread, cereals, fresh fruit and veggies, fish and poultry, almost no red meat, olive oil instead of lard, goats milk for drinking and making into cheese. No cow cheese or cow milk.

I first heard about this in Dr's Michael and Mary-Dan Eades' book *Protein Power*. It's an interesting point that when they wrote that book they would rather have called it something else like *Fat Power* but the editor's didn't think that would run. They thought the public would think that too crazy an idea. So they settled with *Protein Power* but they would have preferred to call it something like *Fat Power*.

Have you heard Einstein's quote:

What's the definition of insanity?

Doing the same thing over and over again and expecting a different result.

You could look at Harvard's Healthy Eating Pyramid as recommending the same things that the Ancient Egyptians did. Yet we see through the mummy record that the Ancient Egyptians proved that didn't work. They suffered from all the same disease as modern man such as obesity and heart attacks, Their hieroglyphs could be viewed as the first PR stunt but their statuary told a different story. Men, proudly flaunting man boobs and beer bellies, or was that wheat bellies, as Dr William Davis would call them?

The Devil In Disguise.

A long standing part of human nature is to want to blame something out of our control for our miseries. The devil has been a pretty good scapegoat for millennia. I don't believe in devils but some human beings can certainly act like them.

If there was someone to blame in this whole scenario, I would want to blame Ancel Keys. I read that he did try to change his tack later on but it was too late. By the time he wanted to question it, the wheels were already in motion and no one was willing to get in front of the locomotive. Nowadays there are a quite a number of people trying to put some spanners in that locomotive's wheels, to stop the whole ball rolling and I'll tell you about those soon.

Essentially Ancel had a bee in his bonnet about saturated fat being the bad guy and he wouldn't let anyone else suggest anything else. I read in Nina Teicholz's book A Big Fat Surprise that he came across as a big bully. He wouldn't support anyone in the nutritional research field to play in any other sandpit but his. If you weren't playing in his sandpit, meaning aiming to prove that saturated fat was bad for you, then you didn't get funding. His response to challenges to his viewpoint were brutal. Hardly the stance of a truth seeking scientist.

When I read Taubes and Teicholz I could see that it boiled down to Ancel changing the world's diet on studying 33 men, who were not eating their normal diet, on the island of Crete, in the Mediterranean. It also happened to be both Lent and post WWII. Meat stocks had been stripped out during the war and the predominant Greek Orthodox fast for Lent meant abstaining from all foods of animal origin, including fish, cheese, eggs and butter.

His big public push though was on nutritional epidemiological studies. He only showed us six and later, seven, what we would call cherry picked studies. Meaning they served his beliefs and purposes, not necessarily the public good. It had a massive public impact. Ancel Keys, aka Mr Cholesterol, wasn't called *the most influential nutrition scientist of the 20th Century* for no reason.

Ancel Keys came out with his famous 6 Countries graph in 1953. Which showed, according to the graph, that degenerative heart disease was associated with the amount of fat, particularly animal fat, in our diets, I remember this and his follow up 7 Countries Study being part of our curriculum while I was in medical school in the 70's. It was a big part of the push to make us all terrified of saturated fat

You can see his infamous curve, with heart attack deaths per thousand people on the vertical axis and the percentage of calories of fat in their diets on the horizontal axis.

So, it was as plain as day. If that was the only data you were given, you too would likely say Wow, that's phenomenal. Surely to God it's true that the more fat you eat the more heart attacks a population has. After all, that's what it looks like, doesn't it? And hundreds of thousands of medical doctors and dieticians were taught exactly that.

But why didn't he show us other countries results? There were <u>22 epidemiological studies</u> that he had to choose from in 1953 when he publicised his 6 countries graph. They came out as part of a rebuttal in 1957. Even before the beginning of the 7 Countries Study in 1958.

You've probably heard of the French paradox, they eat a lot of saturated fat but they don't die nearly as much with heart attacks as people in other Western nations at the same age. If you look down at Japan at the bottom left at the very bottom end of that curve on the graph on the right, below, and if you go across you'll see number 8 hanging out there on it's own. That's France with 30% of the diet from fat compared to Japan's 10% but they had a similar level of heart attack risk. Therein lies the French Paradox and therein lies the problem of using epidemiological studies as proven scientific ideas.

Ancel could also have told us that there was also no overall increased mortality rates from eating a high fat diet. What was noticeable was that the slack was picked up by the increased proportion of deaths from cancer as we lowered our fat intake. I'm sure we would all have appreciated hearing that. Oh, let's see would I rather die of a heart attack or of cancer? I'm sure that would have been a question we would all have liked to ask ourselves at that point.

The idea behind an epidemiological study is that it aims to point out associations. The next step is to

see if we can prove it's not just an association but to decide whether it's a causal relationship or not. Meaning does cholesterol and increased dietary fat cause heart attacks in men as we grow older? To decide on that we need to do two things. The first is to conduct properly designed clinical trials. The second step is to prove a mechanism. Which means to clarify how cholesterol and dietary fat actually do that.

So association or correlation is different to causation. Correlation means that you notice say that when you imported more bananas that the birth rate went up. Did they have anything to do with each other? You don't know until you do the follow up studies.

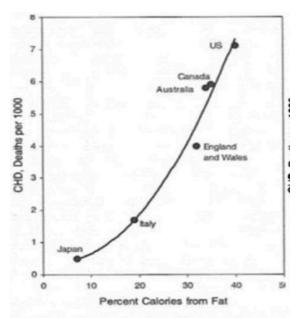


Figure 1A. Correlation between the total fat consumption as a percent of total calorie consumption, and mortality from coronary heart disease in six countries. Data from Keys.³

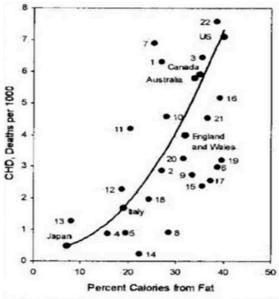


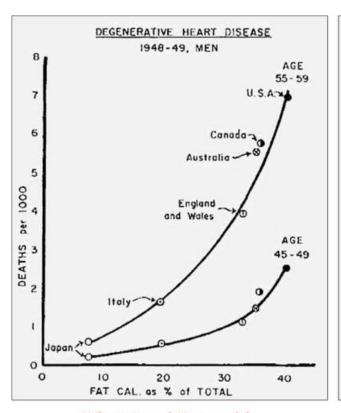
Figure 1B - as 1A but with all countries where data were available when Keys published, 1 Australia 2 Italy 3 Canada 4 Ceylon 5 Chile 6 Denmark 7 Finland 8 France 9 W Germany 10 Ireland 11 Israel 12 Italy 13 Japan 14 Mexico 15 Holland 16 New Zealand 17 Norway 18 Portugal 19 Sweden 20 Switzerland 21 Great Britain 22 USA Data from Yerushalamy and Hilleboe

Probably the best example of how an association does not prove causation is the study that showed an association between shark attacks and ice cream consumption. Every year as the ice cream consumption went up in summer they noticed there were also more shark attacks. It's easy to spot the immediate hole in this one. The shark attacks had nothing to do with ice cream but simply that there were more people swimming in the ocean at that time of year.

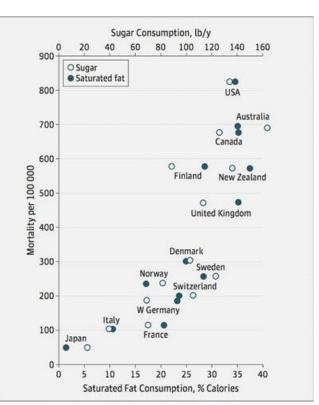
What Ancel did is what's called cherry picking data or studies. You may have heard of that before. Essentially he chose data from six or seven countries that agreed with his beliefs around saturated fat and he ignored the rest of the 22 countries data he could have chosen because they questioned his belief or said the opposite. And for a so called scientist to do that is totally shocking. We'd all like to think that doesn't happen today but it probably occurs even more. In every field. From diet to climate and now even SARS-CoV-2.

So here's another thing to look at. At the same time he could also have looked at these studies seen in the graph on the right, below, which showed that as you increase the percentage of calories from sugar you increase all cause mortality, which means heart attacks, strokes, cancer etc. You can see there is a similar plot for both fat and sugar, the black dots are fat and the clear ones are sugar.

It's interesting that France has both a relatively high fat intake and a relatively low sugar intake than other developed countries like New Zealand where I live. The point here is that these are all epidemiological studies that he could have presented. But he chose not to.







What Ancel Keys didn't say.

We can easily see that sugar was implicated at the same time as fat but Ancel had already decided that there wasn't going to be in the contest. Remember I said he wasn't going to let anyone play unless they played in his monitored sandpit?

https://www.dietdoctor.com/the-hidden-truth-behind-ancel-keys-famous-fat-graph

There was an article that came out on September 21, 2016 showing how the sugar industry helped to shift the blame away from their product to animal fat. They didn't want their precious 'pure, white and deadly' sugar being involved, so they actually shifted the whole area of research. The article suggests that the sugar industry held back real research for 50 years. Holding back humanity for half a century is a staggering thing when you take a moment to really let that sink in.

What should have happened is the epidemiological or observational studies should have helped us create proper clinical trials to see if we could identify the true or more likely culprit. And from there we could have got busy looking for the mechanism.

So research can be really skewed or you could say screwed. This will be the case both if it's not the right research or if it's the right research but not being interpreted correctly or completely.

Dean Ornish MD is famous for the vegan approach for health. I used to promote his work when I was vegan. It's curiously interesting that he's now started to recommend fish oil supplementation. When you look into it there are so many confounding variables in his strategy to reverse blood vessel disease including quitting smoking, exercise, meditation and group support. With that many variables, especially a known contributor to heart disease as smoking, you can't really pin the benefit on any specific one of them without doing more trials.

It's a good example of how the bias of the person doing the research contributes to the research method and the interpretation. They can be well meaning people. I'm sure people like Dean believe in what they're doing.

Then you add marketing and political lobbying on top of researcher bias we end up with major nutrition information wars where the truth becomes easily lost. Remember I said that Ancel Keys tried to change his position on cholesterol and fat but the politics was already rolling too hard, it rolled right over him.

If you'd like more information on how research is being skewed here are two links on the China Study, which is often used to promote plant based nutrition, to open your mind to the likelihood that you can't trust everything you read in the main stream media or from 'steadfast' health authorities.

https://proteinpower.com/the-china-study-vs-the-china-study/https://deniseminger.com/2010/07/07/the-china-study-fact-or-fallac/

From this point on, if you see anything that talks about an observational or an epidemiological study that says it 'proves' something, hopefully you will now see that you can strike the word 'proves' right out of that statement. It may prove an association, because there is an association, but it doesn't prove causation. A is associated with B but A did not create B necessarily. Just like those ice creams didn't cause shark attacks. We need further trials and studies to see if it's true or not. So any time you see a major press headline now you know what to look for and ask yourself, is this an observational or epidemiological study? Make sure you answer that question before you decide if you are going to pay any attention to them or not.

Getting back to President Eisenhower's heart attack in 1955, somehow the fact that he was a 4 pack a day chain smoker escaped everyones attention. Like sugar, cigarettes hardly got a mention back then. Yet today they are a well known risk factor for heart attacks. Their effect on blood coagulation is a major part of this. A question that my favourite Scottish GP, Dr Malcolm Kendrick, asks in his book *The Great Cholesterol Con* is whether this is a primary mechanism or a secondary one due to nicotine's effect on the HPA Axis. Funny that people say they smoke to reduce stress yet at the same time nicotine actually increases the amount of cortisol and DHEA, stress hormones, in our blood stream, that take up to an hour to peak. I'm sure you know people that have more than 1 cigarette an hour. In his book Malcolm pins the blame for heart attacks on stress primarily because of the stress hormones effects of increasing blood coagulation.

A poignant point about the status quo of nutritional research and orthodoxy is highlighted in this comment from Upton Sinclair:

It is difficult to get a man to understand something, when his salary depends on his not understanding it.

It shouldn't be surprising that unfortunately the funding sources of nutritional research tend to govern what the results are.

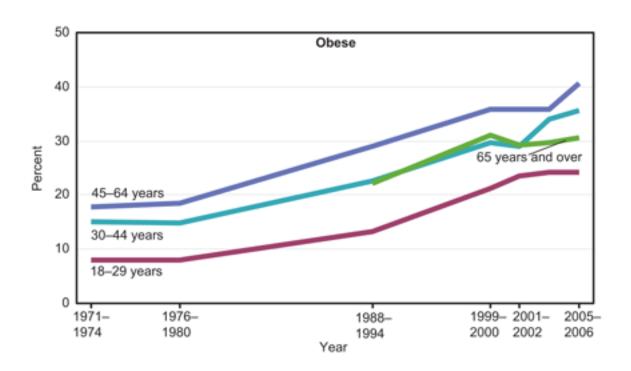
What came to be known as the Diet Heart Hypothesis, that fat in the diet causes atherosclerosis and heart attacks, is probably the most studied hypothesis in the world. Billions of dollars, not millions, have been invested in it. Yet it still hasn't been able to be proven that fat in the diet causes heart disease. It all came to nothing. Limits to cholesterol in our diets were dropped by the American Heart Association in 2013 and by the USDA in 2015. I'm sure you've heard that haven't you? Probably not. At least not at the volume and repetition you need, to get the message through to you. The amount of money we wasted and the amount of health that was destroyed in going down that rabbit hole has been shocking.

The Allies did do something well in Gallipoli. They retreated stealthily with minimal casualties. The Turks didn't know what was happening. The Allied troops all did their part and participated in deceiving the Turks as they withdrew to safety. That's unfortunately not the same with the AHA and the USDA. They are retreating stealthily, by changing their cholesterol recommendations, but they are not telling the troops, us. Why? Are they afraid the troops will turn on them? Ridicule them for getting it wrong? Or can they themselves not accept or forgive themselves for getting it wrong?

The Results Of The USDA Food Pyramid

Can we look at the results of the USDA Food Pyramid? I think we can. As an aside, it's interesting, don't you think, that the USDA is the US Department of Agriculture. That's about growing and selling things like wheat, corn and seed oils. Tuck that idea of seed oils away for a later date. It's got nothing to do with the US Department of Health, has it? You would think that would get us thinking that maybe it had more to do with protecting the agricultural department than the health of the nation and the globe.

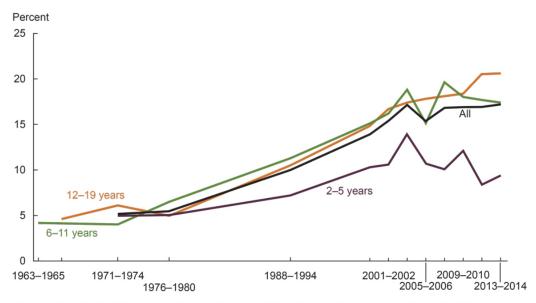
Well, let's look to see if we can see the results. Before 1970, where this graph starts, there was a flatline. Right back as far as it went. You know what a flat line is, right? No bumps. Just, that was it, the percentage of the population that was obese stayed pretty steady for each of the age brackets. Below you can look at where the low fat guidelines were instituted around 1976-1980 and you can see that the obesity rates started climbing after those were rolled out. By 2006 the obesity rates across all age groups basically doubled. We can see that in our streets. People are just bigger.



Source: National Center for Health Statistics (US) 2009

What about our kids? In the following graph of obese children over a slightly longer period of time, again there was a flatline before at around 5% of kids being obese. Then we quadrupled to 20% from the 1970's to 2014. Now, 10 years on from that and I imagine that same population will be over 20% obese.

Trends in obesity among children and adolescents aged 2–19 years, by age: United States, 1963–1965 through 2013–2014



NOTES: Obesity is defined as body mass index (BMI) greater than or equal to the 95th percentile from the sex-specific BMI-for-age 2000 CDC Growth Charts.
SOURCES: NCHS. National Health Examination Surveys II (ages 6–11) and III (ages 12–17); and National Health and Nutrition Examination

SOURCES: NCHS, National Health Examination Surveys II (ages 6–11) and III (ages 12–17); and National Health and Nutrition Examination Surveys (NHANES) I–III, and NHANES 1999–2000, 2001–2002, 2003–2004, 2005–2006, 2007–2008, 2009–2010, 2011–2012, and 2013–2014.

I've used US graphs here but they reflect what is happening across Western nations or nations that are adopting a Western diet. The trend is not limited to the percentage of obese people of all ages but also extends to overweight people of all ages.

That's a scary thing. Because of the prevalence of disease associated with weight gain, is it any wonder that we hear nowadays that we have the first generation of kids, for a long time, that are expected to have a shorter lifespan than their parents? It's a terrible indictment of our educational

and food production processes. Looking at it this way is an observational process. This proves an association of increasing overweight and obesity with our recommended food pyramids. The cause and mechanism is still to be proven which I believe you will find explained in this book and will be borne out by your own application of the principles we'll discover.

Along with overweight and obesity comes an explosion of disease. A whole plethora like diabetes, heart disease, hypertension, lipid abnormalities, strokes, cancer (immune system dysfunction), auto-immune disease and dementia. The rise in auto-immune disorders that we rarely used to hear about seems inexorable. Dementia in some circles is being called Type 3 Diabetes due to researchers realising the long term effect of sugar on the brain. That should tell us something.

In New Zealand in the last census our deaths from cancer overtook heart attacks. I personally wonder if that has something to do with the low selenium levels in our soils. We've learned to supplement our livestock here as there are vast areas of the country where sheep would die with cardiomyopathy due to low selenium levels. On top of that, according to the late Prof Gerhard Schrauzer the countries with the lowest selenium levels have the highest rates of breast, lung, prostate and colon cancers. Instead of blaming our high meat and dairy consumption for those diseases perhaps we need to be looking at something else beyond what I will talk about in this book.

Statistics not often mentioned are the latrogenic or treatment induced diseases and deaths. In the US it's now quoted as the 3rd or 2nd largest cause of death. When you consider our health agencies have and still are recommending a high carb low fat diet, as the recommended treatment for overweight and obese people, then I'm pretty sure that would take iatrogenic disease to the #1 spot. That's where I say the people still pushing that diet are responsible for you being sick, fat and tired.

Let's see if I can help you get the weight of that, no pun intended, with an analogy.

Anzac Cove in Gallipoli is probably more understandable for Kiwis and Aussies. For those of you who don't know down under history ANZAC Day is one of our major public holidays. It's the one where we honour our Veterans from the Australian New Zealand Army Corps, the ANZAC's. It marks the day when we landed a bunch of our troops on a beach with steep hillsides covered at the top with Turkish troops in WW1 and stuck them in a hopeless position for a long struggle that they couldn't win.

Military intelligence was not complete on both the terrain and the preparedness of the Turks and the allies couldn't use the weapons they had intended. An intense naval bombardment was planned with the ground troops to be used as a second wave to back that up. The Allied minesweepers couldn't do their job because Turkish canons kept them out of the minefield. So the big naval guns couldn't be used. Instead of regrouping and getting more intelligence as to what they were actually facing, the allies simply changed tack and sent in the troops. It was in effect the wrong tool for the job and it become a massive failure.

They couldn't get over the top of the hill because the Turks were on there in force. And they couldn't retreat because they would have been blown out of the water. So they dug in and spent eight months fighting there. It was a hell hole of continuous advances and retreats over a few hundred yards both above and below ground, through a network of tunnels.

So, I see it as an analogy for what the USDA Food Pyramid and the following health advice from all the official channels essentially did to us. It did to the whole of the population what the military command did to the ANZACS. Put them in a situation where they could struggle but not win. Instead of 8 months they've kept us there for forty years and counting. From the 1980's to the 2020's.

It's interesting that Winston Churchill was one of the main proponents for Gallipoli. You could say he took his failure to heart and he made damned sure Britain waged war instead of surrendering

to Hitler as his colleagues wanted to do. In the same vein may we be able to acknowledge and admit our mistakes of the last 40 years and may it lead us on to the success and health we all so deserve.

You've probably heard of the idea of Calories In Calories Out or CICO. Or in other words Eat Less Move More. I have seen it spelled SICKO. Which I think is more appropriate. It's the idea that if you're getting fat then you're not managing your personal calorie intake with your calorie output. Meaning you need to eat less and exercise more. And if you're not doing enough of both of those, starving yourself and flagellating yourself with exercise, then you're continuing to cause your own problem.

The blame has been pushed on to you. Whereas the blame really is on those who put you in that situation where you were immersed in an endless interminable struggle with little hope of winning. If you hadn't guessed I'd really like you to get that eating less and exercising more only leads to more struggle with minimal results and repeated problems.

One thing Ancel's <u>Minnesota Starvation Experiment</u> did prove was that dieting doesn't work. Reducing your intake will force your body to reduce its output. Plus, you will eventually be driven to recoup the calories you previously under ate. And you will end up gaining more weight than when you started. So we can only eat our way to a good body weight and waistline. Starving ourselves will rebound on us. Badly.

If you can understand that you've been put into a fight that you have zero to none chance of winning with any level of grace, and you can recognise that you've been lied to about your ability to win that fight, then you can be more open to accepting the mistake, letting that go and moving on. Accepting that you've been lied to. Accepting it has never worked and will never work. Accepting that it's just downright wrong as a long term solution. So you can be more open to asking 'what do I need to do?'.

Summary

The biggest problem came with the changing of the nutritional guidelines in the 1970's with ideas that were simply beliefs, with no proof. Since then they've been proved to be incorrect but it's been hard for the 'authorities' to simply admit that they got it wrong. That doesn't need to stop you from making your own decisions though.

Hope Is At Hand

We talked a lot in the last chapter about the associated effects of the food pyramids. We've seen an explosion of overweight and obesity along with an explosion of chronic disease since the late 1970's when the initial USDA Food Pyramid came out.

One caveat I'd like to mention here though is that the common denominator of chronic disease doesn't come down to being overweight. Being of normal weight, or a normal BMI, doesn't get you a Get Out Of Jail Free card like you can get in Monopoly. To ram that point home I believe we all know that there are plenty of fit, normal weight men in their 40's and 50's that still suffer from and die of heart attacks. That didn't begin or end with the famous runner Jim Fixx's fatal heart attack at the age of 52.

The reason I want you to understand this, is so you can open your mind to wanting to become metabolically healthy, no matter what your body size is.

Metabolic Health

This is where we come to what's called TOFI. TOFI is not the same as Tofu.

TOFI is an acronym created by an English doctor, Dr Jimmy Bell, that stands for Thin Outside Fat Inside. Thin on the Outside but Fat on the Inside. You can see this in scans of people where they may appear trim on the outside but inside they are riddled with fat. Particularly around the liver, spleen and abdominal organs. That's called visceral fat. Viscera is the Latin word for the organs particularly those in the abdomen.

You can be a healthy normal weight but have 4 to 5 litres of visceral fat within and around your organs in your abdomen. Take a moment to think of the size of a 5 litre water bottle and imagine that amount of fat stashed away, wherever it can get a hold, inside your belly.

Professor Lustig has this to say about visceral fat:

Visceral fat...translates into the difference of about 15 years of life.

What Robert is saying is that, if you have visceral fat, you are likely to die at least 15 years sooner than if you didn't have visceral fat. I'm aware this may not sound like good news. And would seem to belie the chapter heading Hope Is At Hand. But the really good thing about visceral fat is that when you get your diet fine tuned and you get it right with what I'm going to tell you in the next section, then the visceral fat is the first fat to get used up and go from your body. Which means you could be massively overweight and just reduce your weight by 10% but the bulk of that is visceral fat, so your health markers improve massively. Visceral fat, in that case is, both a bad thing and a good thing. It's bad to have but good that it goes so quickly when you get it right and keep on top of it by keeping with the diet that keeps it at bay.

That is inordinately exciting news. It means you can radically change your metabolic health profile within a few short weeks. Dealing with the excess weight, if you have any, will take time but you'll be metabolically healthier in the process of letting the rest of the excess weight go. That's why cardiologist Aseem Malhotra recently came out with the book: *The 21 Day Immunity Plan - How To Rapidly Improve Your Metabolic Health And Resilience To Fight Infection.* It's the metabolically unhealthy that are more likely to succumb to Covid-19.

Who's Your Worst Enemy?

You may think, from hearing this that visceral fat is your worst enemy but according to Professor Lustig, it's more specifically liver fat.

If we eat too much carbohydrate we actually overload the mitochondria, those are little guys, organelles, that produce energy in the cell. We overload those liver cell mitochondria with all those carbohydrates, particularly with fructose and that turns the liver fatty. So the liver cells themselves get fatty.

So, it starts in the mitochondria in the liver, fattens up the liver and spreads out into the abdominal cavity. And that visceral fat as Dr Travis Stork MD says:

..is very active and toxic.

Among other things it secretes chemicals
that increases inflammation throughout your body
and it governs your metabolism by decreasing adiponectin,
a fat burning hormone,
leading to MORE storage of visceral fat.

Ultimately leading to heart disease, cancer, stroke, arthritis, Type 2 diabetes, (and Alzheimer's
Disease - Type 3 diabetes)

Leading to essentially all the diseases of Western Civilisation or of Ancient Egyptian Civilisation, like we talked about earlier.

I love this quote:

Visceral fat is the fulcrum on which your health **teeters.**

Prof Robert Lustig MD

Doesn't that create such an evocative image? The bolding is mine.

But as I've said before visceral fat is the first to go and that is very, very good news. It means you can radically change your metabolic health, quickly.

If you haven't listened to it I recommend <u>Sugar, The Bitter Truth</u> by Prof Lustig. That will hopefully get you clear on how vicious sugar can be. I'm going to list some of the things it's been shown to do but we need to remember it's not just sugar. It's everything that turns to sugar in your blood. The bad thing about sugar is that it is 50% fructose.

It's interesting, we often in New Zealand and Australia hear that in the United States you guys have high fructose corn syrup and we don't and aren't we so lucky that we don't have it and aren't you so unlucky as that's blamed for your even higher rates of overweight and obesity. What would you think high fructose corn syrup is? 90% fructose? 75%? Well please take note that high fructose corn syrup, HFCS, is only 55% fructose, whereas normal table sugar is 50% fructose. Yes you are reading that right. One molecule of sucrose has one molecule of glucose combined with one molecule of fructose. So, it's exactly 50:50. When you look at that in the light of day sugar is not a heck of a lot different to a high fructose corn syrup, is it?

We used to think that fructose was good for diabetics because it didn't raise blood sugar, which is blood glucose, which is raised by the other molecule of table sugar, sucrose, which is glucose itself. The problem is, fructose can't be metabolised like glucose. It has to be metabolised in the liver. Fructose has been said to cause <u>fatty liver at 20x the rate that glucose alone will</u>.

hypertension De Novo lipogenesis (new fat production), dyslipidaemia (bad blood fats) and hepatic stenosis

Inflammation

Hepatic insulin resistance (first step to metabolic syndrome)

Obesity

CNS (Central Nervous System) leptin resistance which promotes continuous consumption. (raising insulin blocks leptin so you'll always feel hungry more than satisfied)

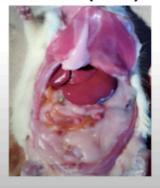
Prof Robert Lustig MD

Robert says that fructose is a chronic hepatotoxin or liver toxin and there is no regulation for chronic hepatotoxins. Whereas alcohol is an acute hepatotoxin. You can actually die by ingesting too much alcohol in one sitting. And because you can die from it and because it's an acute process it does get regulated. Whereas fructose, a chronic hepatotoxin, doesn't. You can drink that till the cows come home because it won't kill you hours after ingesting a large amount. It can however kill you, just more slowly.

Because of its impact on fostering fatty liver Robert has the idea that sugar can be regarded as carbohydrate and fat put together. He sees the glucose as carbohydrate and the fructose as fat because it goes straight to the liver and creates fat in the liver.

The most visually demonstrative image of the impact of diet on visceral fat that I've seen was in a presentation on an experiment with rats fed either a Western Diet, a Ketogenic Diet or a Standard Chow Diet, by Roberts, Lowery, Wilson et al (2016 JAP). When you look at the photos of what happens in their abdomens in and around the organs, you can see that the livers are pinker from the fat in the liver and there is more visceral fat in the abdomens of the rats fed a standard Western Diet, and the same but less with the standard Rat Chow. But with the Ketogenic Diet the liver is a much healthier dark liver colour and you can see all the organs clearly, even the intestines, with all the visceral fat basically gone. It's a great visual for what we actually do with our diets.

WD rat (SED)



KD rat (SED)



Std Chow rat (SED)



And remembering what I said, if you get the diet right you can improve your metabolic health and very likely turn a pink fatty liver and organs overloaded with visceral fat into healthy dark liver and organs. That's a good thing.

The other side of this coin is that just because you have some subcutaneous fat doesn't mean you are metabolically unhealthy. It's not all about being able to see your abs. It's about being metabolically healthy. I'm saying this so you don't feel like you have to whip yourself into a frenzy to get all that subcutaneous fat off your body because you can be overweight, sometimes significantly, and still be metabolically healthy. So please don't let yourself suffer from the delusion that if your abs are showing, you're as healthy as can be.

How Many Doctors Will It Take?

There's a page on my website called <u>How Many Doctors Will It Take?</u> There are more doctors on that page than I'll mention here but I wanted to highlight these few because if you were going to dig deeper and look further, these are the people I recommend listening to. Their personal stories can, in themselves, speak volumes.

Never underestimate the power of a book. You can read a book and be more up to date than most doctors in practice. Why? Because they are running on guidelines that don't always serve us. It's the doctors that dig underneath the guidelines to discover what is true and real and reach out to teach us that have always changed the face of medicine. Many of them did just what you are doing. They read an article or a book or watched a YouTube clip that made sense to them of what they were seeing in practice. They were willing to suspend their previous beliefs enough to personally and professionally explore different ideas. Then they too experienced results they were enthralled with and they too went on to write about it. That's how history is made.

It's also about knowing you are never on your own. Until you get solid with your own experience and have done as much reading and listening as it takes to get your mind on board with you, you will be susceptible to being dragged back down into the pit of confused information. Instead remember you have friends, comrades in arms at your side and at your fingertips to support you in your own journey.

When I was looking to change my own diet the first doctors I came across that gave me a crystal clear idea of how many carbohydrates I should be eating in a day, were Dr's Michael & Mary Dan Eades through their book *Protein Power*. So when I started with carb restriction I began with their recommendation of 30 net grams a day. They also brought to light for me that the Ancient Egyptians suffered from the same diseases as we do in today's world.

Watching both Sally's parents die with dementia I took a lot of heart for her future from Dr David Perlmutter. He's a neurologist, who wrote *Grain Brain*. One of my main takeaways from that book was that the brain has no pain receptors,

...you don't notice your brain is inflamed until you just can't remember things.

He saw his father, a neurosurgeon, deteriorate with dementia. Which is why he took a deep dive into studying Alzheimers.

One of my favourites doctors is Prof TIm Noakes from South Africa. I love his story because he did medicine and saw the limitations and like I did, he decided to get more involved with how to keep people healthy. To that end he got into sports medicine and exercise physiology. His book *The Lore of Running*, I hear is pretty famous amongst runners. He was also the first to produce a carbohydrate drink for runners that they could carry with them. A marathon runner himself he became perplexed that no matter how many marathons he ran he kept getting fatter as he grew older. I guess he chalked it up to age and genes like most of us would have.

Until one day he heard an interview about a book and thought it was a load of absolute rubbish as it talked about losing weight without feeling hungry and deprived. How dare someone suggest that! He just didn't think that was a realistic possibility. But he looked at the authors, who I'll tell you about next, and thought well, I know these guys, they're in exercise physiology themselves and they do good work. Hmmmm. So, he bought and read the book. He found he too had to eat a lot of humble pie. I'd recommend listening to some of his YouTube videos, I find he has such a delightful persona and brings a much needed level of lightness and humour to the situation. He's one doctor who really can admit that he made a mistake and be fine with it. A role model for many others if they'd like to take a leaf out of his book. He has recorded himself on video record tearing all the pages on the chapter of carbohydrate loading out of his famous book and throwing them away. He suggests we all do the same.

In 2017 he was taken to court after he commented on Twitter in 2014 when asked about weaning a baby, that a baby could be weaned onto LCHF food. A dietician took exception to that and took him in front of the Medical Council. It was a drama that went on for years. He presented the science as his defence. The dieticians society brought the full weight of internationally acclaimed lawyers onto him. Other lawyers he knew offered their services for free, otherwise he would not have been able to fight it. He felt he had to make a stand for what he believed in. He either had to lose his medical licence or take a stand and he chose to dig his toes in and fight. Because he'd been one of the professionals encouraging people to eat lots of carbohydrate and found out that it was incorrect advice, he felt professionally obligated to address that. That's what I'd call an honest gentleman.

The standard High Carb Low Fat, HCLF, strategy had led him to become overweight, despite being a marathon runner, and to develop diabetes. He realised that the diet he had been prescribing for runners had actually given him diabetes. He decided he needed to draw a line in the sand. It was a fantastic thing he's done for the world proving in essentially a medical court of law, the correctness of what I am talking about here.

The book he initially guffawed about and eventually read was *A New Atkins For A New You*. If there was one book you were going to read, after this one, that encapsulated everything, I'd say read this one. It was written by two doctors and a PhD. Jeff Volek, Steve Phinney, who I met in Auckland, and Eric Westman. Eric has been working at Duke University Hospital in the US for 20 years teaching this protocol to people and having it work. It's hard to believe that's been going on for that long, while the rest of the world has continued to be told all the rubbish about what to eat and what not for those same 20 years. He's more visible now but I bet he felt like a lone wolf for a long time.

If there is one website you were going to visit, I'd recommend <u>DietDoctor.com</u>. Dr Andreas Eenfeldt from Sweden was the originator of that. Andreas was simply a young doctor who realised they were teaching people the wrong things and dug into diet and nutrition and started teaching people what actually worked.

If there is one country that's going to get this faster than any other country it might actually be Sweden. Timothy Noakes is from South Africa and was already well respected there from his earlier work, so he is having quite an impact there. I see it as a bit of a fun race between these two countries and it will be interesting to see who crosses the finish line first. LCHF is a recognised diet for diabetes in Sweden now. But the real finish line will be when it's recognised as a healthy diet for everyone.

One of the things I'll talk about is fasting aka reducing your eating window. Dr Jason Fung has some great information about that. He's a nephrologist, that's a kidney specialist. What's one of the main causes of kidney failure these days? Diabetes. So, he was figuring out what he needed to teach his patients so they could preserve their kidney function as long as possible and not have to lose their kidneys. Fantastic guy. IntensiveDietaryManagement.com is his site.

Dr Jay Wortman a Canadian doctor did a lot of research and work with the First Nation people on the NorthWest coast. They had a massive obesity problem and he basically took them back to their native diet. That was shown in a series produced by the Canadian Broadcasting Company. He had his own epiphany at the age of 48 when he developed diabetes himself.

Like all these other doctors, once you wake up to how wrong you've been and you've experienced how easy it is to transition to something that works, you can't go back. You've only got to go forward from that point.

Another doctor that featured on a national television series is Dr Rangan Chaterjee from the UK. He's been pretty famous on BBC TV. Again doing the same thing as Jay. Going into people's kitchens and teaching them what to eat and what not.

Dr Aseem Malhotra, is a UK cardiologist. If there is anyone that is spearheading this kind of battle in the UK in a massive way it would be Aseem. All power to him. He's changing regulations as

we speak. I'm not 100% enamoured with his Mediterranean based, Pioppi Diet, for various reasons that I'll elucidate later, but it's certainly better than the standard western diet. Sadly he recently lost his mum to diabetes. A vegetarian who would not be convinced otherwise. Even from her well respected doctor son.

Dr Rlchard Bernstein in the US I love. He was an engineer with juvenile onset Type 1 diabetes who was married to a doctor. In typical engineer fashion he realised that if he could manage his blood sugars all the fallout from diabetes would be massively reduced. And he figured out how to do just that. Because his wife was a doctor he'd seen this ad come over her desk about a blood sugar monitor, so he ordered it under her name and was able to plot what was going on with his blood sugar levels with everything he ate. He was one of the people that actually got diabetics working with their own blood sugar measurements throughout the day.

But, as he says, once he figured it out, he wasn't a doctor at that point, he was an engineer married to a doctor, and he went to the local Diabetes Association thinking they'd want to hear his discovery. But no one would listen to him. So, he thought well I've just got to go and retrain as a doctor. He argued with himself that then they would have to listen to him. He then retrained to become a doctor in his 40's. Unfortunately he found that all the Diabetes Associations and researchers listened to him even less as a doctor than they had as a patient and an engineer who had solved a major problem for diabetics.

You can take advantage of his wisdom, he's now in his 80's and still going strong, from his own YouTube Diabetes University Channel about how to handle diabetes and his book *The Diabetes Solution*.

Prof Robert Lustig we've talked about. A Paediatric Endocrinologist is a doctor that works with kids with all sorts of endocrine problems. He realised, as a hormonal specialist, that overweight and obesity was a hormonal issue not a CICO, calories in, calories out issue. He doesn't see himself so much as a low carb enthusiast but more of a real food enthusiast.

Dr Terry Wahls had multiple sclerosis so bad she was reduced to doing her ward rounds on a therapeutic chair-bed. Can you imagine that? Having your doctor doing her rounds, coming to see you on a bed herself because the multiple sclerosis had wrecked her body? With no hope in sight from the best medical treatments she turned to diet and reversed the progress of her disease. She is now back up on her feet, even cycling and riding horses. Awe inspiring story. She now passionately shares her protocols with others.

Gary Fettke, is an orthopaedic surgeon from Tasmania. That's an island at the bottom of Australia if you didn't know where that was. He recently went through a similar legal process to Tim Noakes. As an orthopaedic surgeon he was dealing with a lot of overweight people because they come in with wrecked knees and hips so he was replacing their joints. And he was dealing with a lot of lower limb amputations due to diabetic complications. So he was trying to educate people in how to lower their blood sugar and reduce their weight so that either they didn't need him or it made surgery a lot easier. If you didn't know it, the more overweight you are the more precarious surgery becomes for you.

The authorities got to hear about the work he was doing and he was taken to the medical council and told he wasn't allowed to give nutritional information because he wasn't qualified to give dietary advice to anybody. Can you imagine that? Doctor's aren't qualified to give nutritional advice? Really? They have since retracted that judgement but not without a very worrying four years for him and his family. His wife Belinda <u>created a video</u> on the whole origin of the vegetarian ideology in the West which is very eye opening.

Dr Paul Mason, another Aussie, has a fantastic series of summaries on the process of what we're talking about here on his YouTube channel.

There are no doctor's making much of a public splash here in New Zealand but I want to give a shout out to Prof Grant Schofield and Carryn Zinn, good people helping kiwis focus on changing their diets.

All these doctors are really pointing towards the same thing which is away from the High Carbohydrate Low Fat diet to a Low Carbohydrate High Fat or Healthier Fat diet.

The Next Logical Step

If it's good to reduce carbohydrates, why not simply eliminate them altogether? As I've progressed with my own reduction in carbohydrate intake, starting with 30 grams net to 20 grams total, I've taken it that logical step further and started eliminating all carbohydrate rich foods so I am nearer zero now.

If you want to look further into that journey yourself here are some people and doctors I've found helpful to learn from:

Amber O'Hearn - decades of depression healed for her after letting go of all plant foods. As a scientist she has a lot of facts on her side.

Dr Shawn Baker - surgeon and world class athlete. Amber and Shawn created the first Carnivory Conference in early 2019. Shawn struggled with weight even though his exercise output was intense. He runs <u>MeatRX.com</u>

Dr Georgia Ede is a psychiatrist. It's interesting for me just how many people with chronic depression and anxiety find their mental-emotional state improve just by eliminating plants. Georgia has some great videos on the dangers of plants and how we think they are quite innocuous. I think it was from Georgia that I first heard the term the problem with plants is they can't run away. https://www.diagnosisdiet.com

What does that mean? Well, think about it. If a plant can't run away from something that is going to devour it and it's babies (its seeds), then what else can it do to protect itself and it's species? An animal can run, at least it feels like it can do something. Well what can a plant do? It's basically a sitting duck, pardon the pun. So, over time, at least for those that don't want their seeds spread far and wide through the alimentary canals of other species, they've learnt to defend themselves through chemical warfare. Meaning plants have learned to make chemicals that make their predators sick, to discourage them from coming back for more. Unless they're gluttons for punishment, which a lot of us are. Some of these chemicals even disrupt our own hormone systems. They've got very good at that and have been at it for a long time. We are discovering more and more things in plants that can be disastrous for people.

For many people getting off the idea that they need to eat lots of vegetables and fruits, like the plant nutrition pundits say, is the last key to uncover the pathway to health.

As Georgia relates in her own story: For decades I followed a low-fat, low-cholesterol, high-fibre, low-calorie diet and exercised regularly. In 2007, as I entered my 40s, I developed a number of perplexing health problems including chronic fatigue syndrome, fibromyalgia, migraines, and IBS. After seeing a variety of Harvard specialists who ordered a host of specialised tests and found nothing wrong, I decided to experiment with my diet. After about six months of trial and error, I was symptom-free.

Dr Ken Berry is a GP or Family Medicine doc in the US. He is getting quite <u>active on YouTube</u> around carnivory. He often highlights specific conditions and how a keto diet can address these.

<u>Dr Ted Naiman</u> champions the key importance of protein and calls us to consider how much we under eat protein.

On the other hand <u>Dr Paul Saladino</u> champions high animal fat and the elimination of plant oils.

Paul and Ted highlight a juxtaposition of the research that is yet to be teased out. My personal suspicion is that the truth will be somewhere in between and there will be people at both ends of the bell curve that will do better on a higher protein or a higher fat diet.

I also wanted to mention Mikhaila Peterson and her dad, Jordan Peterson, the famous psychologist. I like Jordan's work, he says a lot of things I can agree with and support. It was surprising for me to hear that he didn't think that there was enough research to show that nutrition could be of any help for his daughter Mikhaila, who had a lot of problems early in life. Her joints were getting attacked with an autoimmune process so badly that she needed several joints replaced while she was still a teenager. Can you imagine what that would be like to go through or watch your child go through? She was on lots of drugs to deal with the pain and the ensuing depression. Who wouldn't get depressed with all that going on, when you should be bursting out of your skin with life?

It wasn't until Mikhaila actually went on to a zero carb carnivore diet on her own volition and found that a whole gamut of symptoms were improving that Jordan, who could obviously see what was happening with his daughter, picked it up and found out hallelujah this also works for me.

He doesn't personally promote it as a diet but I wanted to put him in here and connect him with Mikhaila for you and tell their story to help you see that sometimes you do need to take what I call that next logical step in the low carb journey.

Then there is Doctor Zsofia Clemens, she's a PhD who works with Dr Csaba Toth. They run the <u>Paleo Medicina</u> clinic in Hungary, working with what they have trademarked a Paleolithic Ketogenic Diet TM. They are quite technical and therapeutic with their approach. Lots of continuously researched blood tests to help people work with their diet in a clinical setting both live and online for a variety of conditions.

The last one I'll talk about in this group is <u>Dr Paul Maybry</u>, he was a retired overweight doc who has gone back to practicing medicine because he resolved his own issues with a carnivore diet and was inspired to go back and work with patients because he knew he now finally had something that could really help people. I'd suggest taking a moment to think about that.

There are less of these folks than you'll see in the Low Carb High Fat 'camp' but they've all found the benefit of moving towards more of a Zero Carb High Fat camp.

You can download and read an interesting book by Vilhjalmur Stefansson, The Fat Of The Land. Vilhjalmur was an Arctic explorer in the early 1900's, which was when they started discovering vitamins and minerals. This became a very big deal at that time. It was one of the reasons the vegetarians of the time wanted people to shift to more of a plant based diet because they could prove that vitamins and minerals were in there. He saw that happening and was concerned because he had lived with the Innuit for years and knew we didn't need those things from plants. So he went through an experiment with one of his associates through a US Hospital which followed them on a zero carb diet for 2 years to prove the point.

Which is that, for eons or at least 200,000 years, before the agricultural age of the last 10,000 years, during the ice age, we were largely eating meat, fish, chicken, anything we could catch. That was fundamentally the way we ate. Particularly the closer to the poles and the further away from the tropics we got, there were not a lot of fruit and vegetables available most of the year and those that were available were quite different to what we have available today. If you've ever tried a medlar that was popular in Roman times through to Victorian England, you'll get a sense of what I mean. But that was still in the last 10,000 years. Beyond that is anyone's guess but I think we can all agree that there definitely wasn't that year round availability of tropical fruit and everything under the sun.

Time To Adapt?

I want to look at evolution and help you to really think for yourself about whether we have really had enough time to adapt to the dietary changes we've forced ourselves into.

When talking about evolution a lot of people throw out figures like we've been around for millions of years. The genus Homo can be dated back to a 2.8 million year old jaw bone found in Ethiopia. Until recently homo sapiens, as we humans are known, only show up in the fossil records from around 200,000 years ago. In 2017 several were discovered in Morocco that dated to 300,000 years ago. A leap of 100,000 years in just 3 short years. So it's likely that we've been around for way longer than that. But let's use that as a bench mark, knowing that it's likely going to fall short.

Let's look at some different ways to represent those years so that you can appreciate this process more.

Let's say that 300,000 years is represented by a 3m long line. Imagine that line drawn out in front of you or up a tall wall, which may be easier because height is a common perspective we have.

What happened 10,000 years ago? We made the shift from hunter gatherer to agriculturalist. Compared to the 3 metres that represent 300,000 years, 10,000 years is represented by a measly 10 cm. Can you see those two alongside each other either along the floor or up the wall? All of recorded history happened within those 10,000 years. It seems like a heck of a long time. Yet, we were hunter gatherers for a lot longer, weren't we? At least 290,000 years.

Let's look at the next big change for us. That happened 150 years ago when we started to refine grain with the first steel cutting mills, so we started to massively refine wheat and other grains. What length represents that 150 years? A mere 1.5 mm.

And finally it was only 50 years ago, a minuscule 0.5 mm of a 3 m length, that we were told to eat more of that refined grain stuff and even less of what we'd been eating for 2.9995 m of that 3 m timeline.

In case you don't relate so well to a spatial thing like lines on the floor or wall, I wanted to give you another example. Time.

So if you take that same 300,000 years and make it equivalent to 24 hours, a whole day, twice around the clock, 10,000 years is over in 48 minutes. 150 years is over in 43.2 seconds. And 50 years flies by in 14.4 seconds. The merest fraction of a whole day.

That will hopefully help you seriously consider whether you think we've really had time to adjust? I know some of us super humans may think we should be able to adapt to things in our minuscule 70 or so years of existence. But I, for one, don't think we can adapt in such a short time frame. That is being dramatically proven by those overweight and obesity graphs we've seen, the fit looking men in their 40's and 50's falling over dead, and the increasing prevalence of chronic and metabolic 'diseases of civilisation'.

We need to take care of our genes by honouring the epigenetic modulation that we've inherited around food. I don't see that our genes have had time to adapt to the kind of dietary changes we've been forcing on humanity.

Do you think we have had time to adapt? That's something we all need to think about because it's accepting and honouring our genes and what they're capable of and what they're not capable of that is a big part of the journey of choosing foods that our genes love.

It's interesting, in the diabolical sense of interesting, that you can take any primitive culture and give them 20 years on a western diet and you get the same results as we've seen in our children when you feed them a high carb low fat diet.

I don't think that's a coincidence. I think that's our genes crying out to make us aware that we really need to pay attention here.

It frightens me to see a lot of people going down the vegan route. Succumbing to the lies about the planet being in danger and that red meat is bad, not just for people but the planet itself. I'll be talking more about this in my upcoming book *Light, Love, Laws & Lies*. But the really scary thing is that it's no longer just a personal choice like when I made my choice of going vegan. They see this as a necessity for the whole of society. They are demanding to affect all of our choices without really thinking of the consequences. Like an earlier version of me, they've never thought this through properly and the Greens and various Politicians are trying to hammer this through.

Hunter Gatherer vs Agriculturalist

Paleopathologists, people that dig up bones and study them, can identify which culture the remains come from. They have ways of telling whether it comes from a hunter gatherer or an agriculturalist society. When they studied the tribes of Native American Indians who were either agriculturalists, growing corn etc or hunter gatherers who followed the bison as they migrated, the paleopathologists found that the people who were following the bison were generally tall, with strong, well formed bones and sound teeth. As opposed to the agriculturalists who were shorter, with weak bones and a lot of cavities and tooth abscesses.

It's not surprising when you consider that for at least three hundred thousand years we got 75%, and more, of our calories from meat (meat and fat) and the rest from a little bit of nuts and the berries, fruits and vegetation of the time.

Whereas 8-10,000 years ago we start to get down to 25% of calories from meat. We didn't have to hunt things, we could stop and grow things, predominantly a grain based diet. Over time the berries, fruits and vegetables were all cultured to become the high sugar foods we see on our present day grocery shelves. It meant more stability for cultures to expand and evolve. As fantastic as all areas of art, craft and science have become, we have paid a price. And the price shows up in the historical record as skeletal signs of malnutrition, stunted growth and tooth decay along with all the other diseases that we talk about. And it shows up in the preponderance of lifestyle diseases in our modern societies.

Summary

Visceral and particularly liver fat is nasty stuff.

You can be a normal weight and still have visceral and liver fat.

Thankfully it's the first fat to go if you eat and drink right.

There are plenty of doctors now, who have their beliefs aligned with what the human body is really designed for.

We really have not had the evolutionary time to adapt to the modern diet and shouldn't expect that we ever will.

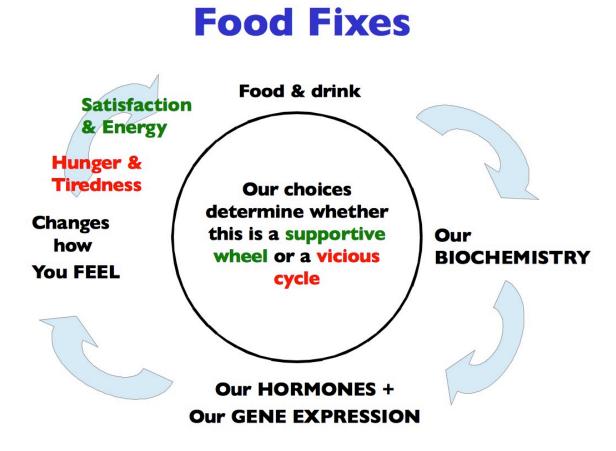
What's So Bad About Carbohydrates?

Before we get into the nitty gritty of what to eat, we're going to look more at why you want to change your diet. It's my belief that the more you understand the why, the more likely you'll be both willing and able to stick with the changes you decide to make.

Food Fixes

I love phrases with double meanings. Food can be a fix, as in a drug. We all know the feeling of hankering for a bagel or whatever it is you have a hankering for. But food can also be used to fix up our body. And that's the primary motivation for eating, to use food for that benefit not the addictive one. We eat so our body-mind will work, so we can go about our day and enjoy living.

Whatever we eat and drink changes our biochemistry in our blood. Which then changes our



hormones and our whole epigenetic process. It's our hormones and epigenetic processes that will lead to how you feel after a meal. So whether you feel hungry and tired, or satisfied and energetic, largely depends on what you last ate.

Because of the food 'fix' thing, the negative side of having a food fix, if you feel hungry and tired it will also tend to govern your next choice of food. Whereas, if you are feeling satisfied and energetic you'll have more freedom of choice on what you eat or don't eat. When you're hungry and tired you just want a quick fix, don't you?

So that's the piece to watch out for. It really determines whether this is a vicious cycle that keeps on repeating itself or whether it becomes a supportive wheel. You know the whole idea of a wheel

was to help us move things more easily. So the idea of eating to help your body get places and get there well and in good shape and to enjoy the journey, that's what it's about.

Who's Your Best Friend?

We've all heard of the adage that dogs are our best friends. I'd like you to start thinking of your body as your best friend. Why? I wonder if it's because we got our body for free that we tend to take it for granted and simply assume it's going to work. No matter what we do or don't do with it. We tend to downplay it and ignore it. It didn't cost us anything, so why bother paying attention to it? Some people have said we take better care of our cars than we do of our bodies. It seems an accurate statement to me. But part of that comes from the fact that we understand what our cars need. And we understand that it will cost us if we don't give them what they need. We likewise need to understand what our bodies need.

In terms of our body being our best friend we also want to ask: what is our body's love language? I've adapted this idea from Gary Chapman's series on relationships based on his original book *The Five Love Languages*. It can be revelatory in terms of understanding yourself and your family, friends and co-workers. I'm extrapolating his idea that we each have a primary love language that when that button is pushed we feel loved, honoured and respected, into our body's choice of foods and what it needs to feel loved.

In applying this concept to our bodies I'm wanting you to think about what foods your body actually loves? One way to clarify this is to ask yourself if you and your body have a love-hate relationship with anything? That's a follow on from the Food 'Fix' idea. Food and drink can be very addictive. And if you have a love-hate relationship with a food or drink it's more than likely that's the sign of a problem relationship and not true love at all.

How do you know when you've hit the right note? When you've actually given your body the food that it loves? There are a few tell tale signs.

Energy is one. Not just physical energy but also mental and emotional energy. Depression and anxiety have been reported to disappear or become more handleable when people give their body's what they love. For myself there is simply an even deeper sense of peace, my mind is more at ease, able to think and see things for what they are and what they are not. A sense of deep loving acceptance.

Hunger is another or should I say the lack of hunger. Once you get the carbohydrates low enough for your body-mind most people find that they don't feel hungry like they used to. It's been shown that you will actually consume 30% less calories than you used to. And at the same time feel more satisfied. You'll be able to go hours without eating and when you are ready for food again it won't have the same edge as it used to.

Waist Reduction. This shows up in easier weight or size management. Size is more important than weight. I've struggled with my size and have been dieting since I was 14. From then until I found these things out at the age of 55, were 41 long years. I certainly wish I'd known then what I know now. I can imagine how different life would have been. Rather than groaning in grief about that though I've learned to accept my misadventures as an important part of my journey. Because I now know what my body-mind doesn't like and what it does like, it's easier for me to make the day to day choices that support it.

With those three things as guides you will know when you've hit the right note. You'll learn to trust yourself and your body again. You won't be in a constant battle. Instead you'll be in constant relief.

Watch Out For Mr Smiley!

I do have some words of warning. One is to watch out for someone I call Mr Smiley. We all know Mr Smiley. He's often characterised by that bright yellow circle with two dots for eyes and a generously upward curved mouth line making a big grin.

Let me paint a scenario for you. If you had an empty gas gauge in your car, how would you fix that problem? Well that's easy you say, you'd go put more gas in the tank, right? You wouldn't think that you could stick a big smiley face over the fuel gauge and think you've solved the problem, would you? Of course you wouldn't.

But imagine that's your body and you've got an empty fuel gauge. I'm equating an empty fuel gauge in your car to things not working right in your body and you thinking you can just stick a smiley face over that empty fuel gauge and everything will be ok. We know that's not going to work for a car, so why do we think it will work for our body? Let's look at some specific examples.

I say that Mr Smiley comes in various guises or disguises.

The first one is complacency. Down under we have a saying *She'll be right;)*. Meaning this isn't good but it will come right in the end. It's our cue to not make any changes. Just carry on and everything will be fine. Useful in some circumstances but by far, not in all.

I don't believe you suffer too badly from this version of Mr Smiley because you're actually reading this book. Which means you know something can be better and there must be something you can do about it. So you are investing money, time and energy to clarify what that might be. But I'm sure you know others who do a lot of this to their detriment and you, like me, may have suffered from complacency in the past. I tend to err on that side myself, so I need to stay vigilant to when that is a good thing and when it is ruinous.

One of my favourite sayings that helps to keep me humble is this:

There is no saint without a past. And no sinner without a future.

An extension of complacency is where Mr Smiley shows up around symptoms and quick fixes. Say you get high blood pressure and you need anti-hypertensive drugs to bring it down to normal levels.

I've lost count of the amount of times I've had a conversation like this with people:

Me: How's your blood pressure? Them: My blood pressure's fine, thanks;).

Me: Are you on any drugs for that?

Them: Yes, it's controlling my blood pressure perfectly;).

I trust you can see the irony there. The idea is to be aware to the errant belief that because you are on a drug and something has come back to normal, like blood pressure, that you're actually fine. The only reason you are fine is because you are on a drug and because you need a drug to return something to normal, that should tell you, you're actually not fine.

There's something going on underneath that you might very well be able to get to the bottom of. So don't let drugs solving a problem, temporarily, delude you into thinking you are fine. By all means use the drugs while you need them. But use them as a signal that you need to dig deeper and do something differently. Because if you keep on doing the same things, you'll keep on getting the same result. Your blood pressure will keep on going up and you'll need stronger or more drugs to keep it normal. I imagine you know the path.

I'll say some more about how you need to watch out for the need for less drugs like antihypertensives later.

The Mr Smiley I can fall the most heavily for though, is this one: A little bit of this won't hurt;). I have to laugh at this one. I'm not on any drugs but occasionally I'll get the thought a little bit of this won't hurt me in relation to something I'm thinking of ingesting. The things I am tempted to have a little bit of are things like coffee, chocolate and wine. Hardly what you would call serious drugs but they're serious enough for me. If I'm really good I can control myself and just have that little bit. But often that little bit has led to a little more, which can become a lot more. Along with all the negative effects they bring for me. It's likely you have your own nemeses so you'll be able to relate to what I'm saying here. We'll talk about that more, later on, in terms of the addictive side of food.

I've learned to say *Yeah Right!* in response to the thought that a little bit of this won't hurt, That's another saying we have in New Zealand. I'm sure you have a similar saying for expressing wholehearted disbelief in your country.

If you catch yourself getting too complacent with that expanding waistline, if you've got symptoms and you think you're fine because you're on drugs that are keeping them at bay, think again. And remember to watch out for that sneaky little thought that a little bit of this won't hurt me. Because someone could lose 50-60 lbs and have one little cracker after a thought like that and the next day it's two crackers and six months later they wake up having gained back the 50-60 lbs and more and find themselves asking, How did that happen? Well it likely started with that thought a little bit of this won't hurt.

I'm assuming some of you will be able to relate to that. Be on the alert for that thought and watch out for Mr/Mrs Smiley in all his/her guises. As soon as you are aware of him or her, you have a choice, you have to deal with Mr/Mrs Smiley and the thoughts that tend to trip you up.

How Good Can You Handle Feeling?

This becomes the real question for me. It's often when I'm feeling really good that I'm tempted to have a little bit of something. A feeling of invincibility can delude me into thinking I can handle a little bit of whatever. I'm learning to be aware of that and to catch the thought before it catches me.

How Do You Know When You've Eaten Wrong?

Here are some symptoms to pay attention to. And I do call them symptoms. Symptoms of metabolic dis-ease.

When you feel bloated. This can be mild or severe. You may even confuse it with being full. I had to relearn what full meant, as for me it was so associated with being bloated.

When you feel still hungry for 'something'. You've eaten a big meal but find you're still on the look out for something more. You might catch yourself standing with one hand holding the fridge door open and the other holding a distended belly, staring inside thinking: what's next, what little bit of something do I want or need right now that will finish me off perfectly?

Beyond feeling hungry for something you might be experiencing food cravings. Those things you just have to have and you have trouble stopping once you start. That's a real good sign of an abusive relationship. Something that makes you crave it and beats the hell out of you once you get it inside.

Then there's various versions of feeling tired. We brought up our girls as wheat free vegans. One day on the annual visit of Sally's parents from the UK we were out at lunch. Our girl that had major challenges sleeping tried one of the buns on the table. One led to another. I'm not sure

how many of those little rolls she ate that day but straight afterwards she snuggled up to mum and went fast asleep and slept for ages. We'd never seen that happen before. That was a sign for her that she had a problem with wheat. Both the addiction, the craving for more and the sudden drop in energy after. She's aware of it now and manages it really well but like me, it's a life long process.

I think of depression as a form of tiredness. Many people are finding depression is better managed or 'cured' when they get their food right for them.

Becoming hyper is another. I've heard it called tired but wired. Where focus becomes so narrowed and agitated because you simply can't relax and be open to all that life has to offer.

You need to know that these feelings are not normal. In terms of the food cycle being a vicious cycle, these indicate you are caught in a vicious cycle.

How Do You Know You Have Eaten Right?

Whereas, how do you know if you've eaten right? Well, you'll feel replete, meaning you feel satisfied. You'll have great energy. Your mind is clear and relaxed. And these feelings will last for hours 3-4 hours and more, until you get hungry again. What you want to know is this is normal. And that's you being in the supportive wheel that I talked about.

The idea with eating is to pay attention to how you feel before, during and after you eat something, right up until the next meal. It's about getting some self assessment going. You can write this up in a personal food diary, taking note of what you ate, how much, at what time and how you felt and feel as time goes along, with that food in your body, right up to your next meal or snack or drink. Then repeat the process. It shouldn't take long to spot where you're going wrong.

I call it the Goldilocks Principle. It's really about being ready and willing to explore different foods and ideas and then listen to your body rather than listening to some expert saying something is healthy and something else isn't. I'm including myself in that comment too. Don't listen blindly to me. It's about getting away from the beliefs about what is healthy and what is not and doing enough experimentation to get an experience from your own body that tells you what is healthy for you and what isn't.

It's The Hormones

Let's talk about the hormones that actually effect how you feel and what happens in your body. When we get down to weight issues and general un-wellness, insulin is really a big culprit. Insulin isn't a baddy in itself. It's trying to do a good thing. It's trying to manage your blood sugar or to be more accurate your blood glucose and it's a very small amount it's trying to keep it at. Imagine 1 level teaspoon of sugar in 5 litres of blood. That's the task that it has, to keep the glucose in your blood at that level at all times.

So I think you can imagine if you start to give your body, and therefore your blood, a big shot of sugar. Like in a 12 oz can of soft drink. That's roughly 40 grams or 10 teaspoons of sugar. Which includes 20 grams of glucose. All at once. With another 20 grams of fructose that will hit your liver. Your body really doesn't like that. And insulin comes in to protect your body from those blood glucose spikes.

If you look at what foods affect insulin you'll see that what increases insulin the most is carbohydrates. Even more than that is a meal of carbohydrates with fat or protein or both.

Pure protein will raise your insulin a little but not a lot.

Fat will raise insulin a little but not much at all.

Even fibre, like in having a big salad, will increase insulin due to the hormone cascade that is initiated when the stomach is stretched.

So, from that, what do you think are the most effective ways to reduce insulin? We'll talk about a few.

On the side of encouraging your body to produce less insulin per meal, reducing carbohydrate is the primary food to reduce.

You can also help your body spend less time producing insulin by decreasing your eating window or reducing how much of the day you spend eating anything. What that does is decreases how much of the day you spend making insulin. This is also known as intermittent fasting or time restricted eating,

You can also help your body deal better with insulin once it's released. You can do this by making your muscles more sensitive to insulin. That's where exercise comes in. The most effective form of exercise for this has been found to be high intensity exercise (HIT High Intensity Training also called High Intensity Interval Training or Variable Intensity Interval Training). It's not a cardiovascular exercise, it's a muscle building exercise. It's about getting your muscles more insulin sensitive so they can help clean excess insulin up. Dr Richard Bernstein promotes that with his diabetic community, which should tell us something.

The old model for insulin resistance was that we have so many carbohydrates that the cells start to shut down the insulin receptors on the outside of the cells and therefore the sugar or glucose can't actually get into the cell. The thought was that we get tired because energy wasn't getting in. The new model of insulin resistance as explained by Dr Jason Fung, the nephrologist, is more akin to the Japanese subway stations, where the guards try to forcefully cram as many people as they can into each carriage. They are doing what insulin does in our body. The guards push as many people as possible into the carriage, just as insulin pushes as much glucose into every and whatever cell it can. In response to an ever increasing number of glucose molecules coming into the body the body increases the numbers of insulin molecules to stash those pesky glucose molecules wherever they bloody well can. The idea being the more guards or insulin the more people or glucose will be able to be pushed into the carriage or cell.

So it becomes an overload and overflow problem. We have too much glucose and insulin both inside our cells and outside of our cells.

So we need to reduce the primary driver, the amount of glucose we put into our body. To do that we need to reduce the amount of carbohydrate we put into our bodies so that we can reduce the glucose and therefore reduce the insulin. That's where it becomes possible to 'cure' Type 2 Diabetes.

It's an overflow problem.
Reduce carbohydrate,
Reduce Insulin
and cure Type 2 Diabetes.
Dr Jason Fung

I like the Japanese subway as an analogy to see that we are just so crammed full of the stuff (glucose). It's not that it's not getting to us. It's not that the cells aren't getting the energy, they have too much energy getting in and are shutting down because of it. We all know how enervating it is to live in a cluttered space. Imagine how our cells are doing trying to cope with a metabolic engine that is cluttered and jammed up with sugar.

A high blood glucose is seen as one of the first signs of pre-diabetes, the precursor to diabetes, which should really be called what it is - early stage diabetes. It's not pre- anything. It is the thing. Because insulin does such a good job of getting glucose out of the blood and into the cell, we shouldn't be looking at blood sugar for those early warnings. The real early warning sign is

hyperinsulinaemia not hyperglycaemia. Researchers believe too much insulin in the blood can be seen a decade or more before we see too much glucose in the blood. That's because of how effective insulin is in getting glucose out of the blood and into the cells.

I like to call insulin the Mr Scrooge of energy. We all know Mr Scrooge. He's the guy who likes to hoard the money, keep it in the bank and not let it out. One of the things that I really want you to get about insulin is that it acts the same way as Mr Scrooge in our body. Whatever energy comes in insulin stuffs it into the fat stores and then it locks down the fat stores so you can't access them and throws away the key. As long as insulin is running in your body, you're not going to be able to access your energy stores.

We all produce different amounts of insulin for the same amount of glucose load and as we grow older we get less and less sensitive. In the Japanese subway scenario, that means we'll need more and more insulin to push it in. Some people will respond to a meal with carbohydrates by producing way too much insulin, for way too long. This drops our blood glucose so low that we go into a hypoglycaemic state and we feel bad. The quickest 'fix' is to eat sugar to get back on an even keel. And that's where that vicious cycle is.

I hope, if you can get that picture of insulin being like Mr Scrooge, that you'll see the reason to keep your insulin levels down. Insulin will store all the energy away and it will lock it up so you can't use it. So if you're getting tired and cranky with low blood sugar it's best not to go back to eating sugar as that will simply keep the cycle going. At some point you need to change your meals. That's where breakfast is often the best meal to get used to changing. Because how you break your fast from not eating overnight can affect your whole day.

Insulin isn't just a one trick pony. It does a host of other things. One that deserves special mention is elaborated on in Prof Robert Lustig's book *Fat Chance*. He explains how insulin blocks the action of leptin in the hypothalamus. That is more important than it sounds. Leptin is produced by the fat cells and goes to your hypothalamus to tell it that you've had enough food. It's a satiation hormone, among other things, and it tells your hypothalamus that you're not hungry anymore. So it shuts down the urge to eat. But insulin will block this action, So if you have too much insulin you'll never feel satisfied. Like Mick Jagger you'll be caught in the *I can't get no - satisfaction* loop. If you've wondered how people can be big and eat more and still be hungry, well this is one of the things that's happening to them.

It's interesting to see that Robert is championing the book that I mentioned I saw come and go in medical school - *Pure, White and Deadly.* Both that one and *Fat Chance* I'd highly recommend reading.

Inflammation

Another thing carbohydrates are being shown to do is create inflammation in the body. TIME magazine in its February 23, 2004 cover called inflammation *The Secret Killer - the surprising link between inflammation and heart attacks, cancer, Alzheimers and other diseases.*

Dwight Lundell, a former heart surgeon, noticed when he looked at the arteries that he was working on, that there was inflammation around the artery. And he began to think that the inflammation wasn't just a side effect of the damage in the artery as had been thought, but that it was the culprit, the cause of inflammation in the artery. And it was that inflammatory process that was the cause of heart attacks.

I began to think there was more to inflammation than suspected that it wasn't just a side effect but in fact, it was the culprit, the cause of cardiac arrest. Dwight Lundell MD So he wondered what we could do. Thinking that if we could eliminate the inflammation we could eliminate the heart attacks. Teaching people to avoid or minimise carbohydrates are a major part of his strategy.

Dr David Perlmutter, the neurologist, says essentially the same thing about the brain.

Sugar acts like shards of glass in our body.

The brain has no pain receptors for inflammation.

What that means is you can't feel your brain is inflamed like you can in your skin when you get a pimple or an inflamed cut. Those hurt. Sadly, the first thing you might experience from your brain being inflamed is that you simply can't remember things. Your brain has been so inflamed over time but you simply didn't notice it. And then you lose your mind. If you haven't read his book *Grain Brain, The Surprising Truth About Wheat, Carbohydrates and Sugar, Your Brain's Silent Killers* his message boils down to this: you just cannot feel it until it's too late. Best to take preventive action.

You could say that eating carbohydrates is playing with fire. And we all know the warnings about playing with fire.

Inefficient Fuel

Do you remember the original Ghostbusters track - Who you gonna call? That comes to mind when I think of the question - What you gonna burn?

Burning carbs has been likened to burning dry twigs. When you light them up they're gone in a minute. And you need to feed them to the fire continuously if you want any warmth. Whereas burning fat has been compared to burning dense coals. They burn long and slow, delivering long term energy. It's a good analogy to help you see the benefit to you, in terms of energy, from having a diet that is predominantly fat rather than predominantly carbohydrate.

What we are discovering is that fat is our preferred source of fuel. When we burn fat we create ketones in our bodies that we can measure. That's why it's called a ketogenic diet because it's a diet that produces ketones. What we're finding out about a diet that helps our body produce ketones is that it's more efficient. Meaning it's cleaner burning with less waste. Tongue in cheek that also means less waist.

If your own waist wasn't that important to you, if you're caught up more in concerns about the climate, it has been shown that you can reduce your personal carbon footprint by at least 30% by eating in a ketogenic way. So if you need to think about it that way in order to support yourself to take action, then please do.

Although I have to say that carbon is essential for life and carbon dioxide is far from being a poison and is in fact an essential nutrient for plants, which in turn feed animals which feed us. That's another of those lies and myths that we need to work through. But we're not getting into that here.

AGEina

We're all aware of ageing but have you heard about AGEing? I love it when the reality of life matches our languaging. Here I'm talking about Advanced Glycation End products or some people call them Advanced Glycosylation End products. Basically they AGE you. Another thing that carbohydrates do to your body that you'd really be better off without. How do they do that?

Sugar attaches to proteins in the body and when sugar attaches to a protein it changes its function. So the protein can't perform like it should. Imagine that, your body is doing all it can to produce the proteins that support vital functions in your body and then there's you eating things that effectively destroy them. Talk about working against yourself.

One of those proteins is HBA1C. You've probably heard of it. It's what you measure when you've been diagnosed with pre-diabetes or diabetes. Part of the management of diabetes is to keep your HBA1C down. HBA1C is glycated haemoglobin. You could think of it as a sugar AGE'd haemoglobin molecule. Haemoglobin is the protein molecule in your red blood cell that carries oxygen molecules that your red blood cells are trying to deliver from your lungs to your cells. Normally there's about 5% of your haemoglobin that is glycated. Meaning that there's about 5% of your haemoglobin that doesn't work so well because the sugar stuck to, or glycated to, the haemoglobin molecule stops oxygen from binding to it. You can imagine when you get up around 10-11%, that's double the amount, how that's one of the reasons that diabetics are tired. They just don't have the same ability to oxygenate their tissues because of the amount of haemoglobin that is glycated.

It's an in your face example of how you can look at advanced glycation end products. Sugar latching onto proteins and ruining their ability to function.

Another Advanced Glycation End-product or AGE, is the small dense Low Density Lipoproteins or LDL's, the ones that have been labelled the 'bad' cholesterol. The same thing that happens with haemoglobin being glycated to HBA1C, happens with LDL. You glycate the protein part of LDL. LDL is a lipoprotein. It's name gives its structure away it's a lipid combined with a protein. As we all know, fat and water don't mix so the way we get fat through our bloodstream is the fat attaches to a protein. One way to look at that is the protein is like a bus driver collecting a bunch of fats and transporting them to the tissues and back to the liver, it even does a circular route like buses.

When you glycate the LDL it can't get picked up by the liver and dealt with but it can get picked up by the macrophages, which are white blood cells that are part of our defence system, and then they hold them in place, becoming arterial plaque. So that's what we're starting to see now is that plaque is caused by sugar damaging the LDL cholesterol molecules and those in turn getting caught by the macrophages and those ending up in the arterial walls. And they're not getting stuck there from the blood stream inside the arteries but from the blood that's supplying the arterial wall itself.

I hope you can see that what I'm trying to do here is build up a picture of how nasty carbohydrates can be to you and your body. Which is why it's a good thing to limit them Avoidance of pain is a recognised heavy duty tool for motivating human behaviour.

It's also good to know how non essential they are. Unlike essential amino acids -essential proteins and essential fatty acids - essential fats there are no essential carbohydrates. And any we need our liver will happily make all day long through a normal physiological process called gluconeogenesis, or new glucose creation.

Most of us can get by with no exogenous carbohydrates. but before we go on to look at how to limit carbohydrates it's important to know that not everyone should be on a ketogenic diet.

Who Can Benefit From A Ketogenic Diet?

As in everything there are some for whom a LCHF ketogenic diet is not the best option. They are rare but you still need to know about it.

Dr Zeeshan Arain, MD, a GP and Sports Medicine doctor from Melbourne, says that a ketogenic diet is our natural state where we operate best. The following lists are from a talk of his that you can find on YouTube

If you have diabetes, hypertension, overweight, high triglycerides, metabolic syndrome, epilepsy and disorders of carbohydrate metabolism (e.g. pyruvate dehydrogenase deficiency and GLUT1 deficiency syndrome) he says we definitely know a ketogenic diet helps.

If you have dementia, Parkinson's, ALS, brain trauma, stroke, migraine, ADHD, autism, MS,, PCOS, (women with PCOS are getting pregnant on a ketogenic diet), acne, cancer, irritable bowel, auto-immune disorders, osteoarthritis, and psychiatric conditions such as schizophrenia and bipolar there is enough evidence to say a ketogenic diet can probably be helpful. There's certainly enough anecdotal cases where it has. For these conditions more research is needed and should be done to confirm the mechanisms of benefit. But I wouldn't suggest waiting for that evidence to pile up while there is so much potential benefit waiting for you for such a simple dietary change. It's up to personal exploration.

The only conditions that a ketogenic diet are contraindicated for are porphyria's. One of my friends has Acute Intermittent Porphyria. These folk shouldn't be limiting carbohydrates to the point of nutritional ketosis because they don't have the enzymes to metabolise fats as well as they need to. So they can have more carbohydrates but still go easier on them than you'll see in a standard American or Western diet. If you have one of these conditions you will likely know about it and you can practice a level of carbohydrate restriction but avoid reducing them to the level of ketosis.

The Paleo Medicina group would add to this list people with cystic fibrosis, hereditary tyrosinemia, urea cycle disorders and glycogen storage diseases, fatty acid oxidation disorders and peroxisomal disorders because the enzymes needed to metabolise fat or protein or storage functions are missing or imperfect.

They also do not recommend it for those with organ transplants who are on immunosuppressives until more research has been done.

Is Ketosis A Key For Longevity?

For time immemorial we have been looking for the Holy Grail, for the elixir of youth. That ineffable compound that will transport us into immortality. It's ironic that the key that unlocks the body's longevity genes might already be inside us.

There has been a study of C. elegans, which is a tiny variety of worms, that shows their mean life span was increased by 26% when they were grown in petri dishes rich in a substrate of betahydroxybutyrate, the primary ketone our bodies produce and use on a ketogenic diet.

Our data support the hypothesis that BetaHB treatment will likely be useful in the treatment of many human ageing associated disorders. Dr Steven Phinney

Remember that process we talked of with the body's epigenetic modulation with foods? Look at that 26%. Imagine if that was transferable to human beings, an average age of 80 would turn into an average age of 100. There would be a lot more letters coming from the Queen, or whichever King was around. They'd probably have to up it to 120 to avoid congratulatory overload.

I can see how that could come about when we take into account some key issues:

1. Our mitochondria produce three times as much ATP, our currency of energy, from ketones as they do from glucose. I believe this is one of the reasons that we just don't want to eat as

much when we are in nutritional ketosis. Because we are getting more abundant energy than we've ever had. And because we're getting more energy from the food we eat, we therefore need to eat a lot less. I have heard figures of 20-30% less. Which makes a big difference on the load we put on the body. That alone I could imagine would enhance the ageing process

- 2. Ketosis ramps up our body's antioxidant production. We've all heard that we need to have antioxidants to limit the damage caused by free radicals. But have you also heard that your body is an antioxidant production factory in its own right? One of the main players being glutathione. When you aren't in ketosis you don't have that factory running at full production levels. So oxidation and therefore ageing gets the upper hand.
- 3. The third thing is that they've found ketosis reduces inflammation. A phenomenon we've talked about already.

I hope you can see that these three things can and should help us age better and live longer but as you can imagine the long term studies are not in yet. That shouldn't stop us from doing our own N=1 experiment though.

Beyond promising results with this happy little worm Dr Paul Mason has looked into a number of human studies. He looked specifically at total mortality data in the recent PURE study and found that the higher our energy intake from saturated fats the lower our total mortality was. In comparison as the level of energy from carbohydrates increased, the total mortality rates kept going up. A pretty graphic example when you stop to think about it.

There's not proof of hypothesis here, but an abundance of pointers towards it. When you combine the personal feel good benefits with the for and against sciences there is every reason for hope.

Summary

Hopefully from this section you now have a clear idea of the harms of eating a high carbohydrate standard western diet and you can see the benefits of eating a low carbohydrate diet rich in good quality saturated fats.

Anthony Robbins defines the two primary motivators of human behaviour as being pain and pleasure. Of those two, more of us are motivated by pain than by pleasure. You can see that in your own life. Are you more likely to take action to avoid pain or to get pleasure? Most will avoid making changes till they have to because they know making changes is painful. This culminates for each of us at some point when the pain of not making the change becomes greater than the pain of making the change. And hey presto, you find yourself making the change.

The thought of the benefits of making changes are not generally enough to inspire action.

Another way this has been described is the carrot and the stick.

Once you understand that you can use those things to help motivate yourself to make the right decisions you can support yourself in the process by taking time to deeply consider the pain and misery you are creating for yourself if you don't make the changes you know you need to make. Take yourself for an imaginary trip into your future. See yourself going downhill. Hear what people will say to you and what you will be saying to yourself. Feel the full import of what it will feel like as you slide further down that slope. See, hear and feel it as a full surround sound experience. I hope I have given you enough material to work with in this section to highlight the misery you can be causing yourself with a high carbohydrate low fat diet, disrupting your body's ability to perform at its best, ageing you prematurely and setting you up for some major diseases.

Learn to appreciate how perilous carbohydrates can be.

And hopefully you have a glimpse of the pleasure and joy, of being healthy and energetic, that you could be experiencing by shifting to a lower carbohydrate higher fat based diet.

Learn to use food to fix yourself up, not as a 'fix'.

Learn which foods your body loves and stick to those.

Most but not everyone will be best eating a low carb high fat ketogenic diet.

In the next section we're going to consider what your options are. We're going to help you pin down exactly what you need to do and what you need to eat. You'll see that there are options. To help you choose those options please remember as you clarify your personal preferences that your genes preferences should always get the most attention.

Your Mission, Should You Decide To Accept It.

Ok, here's where we get down to some nitty gritty. If you're like me you would have enjoyed Mission Impossible when you were younger. In the vein of the self exploding taped message, your mission, should you decide to accept it, is this:

N=1

What is meant by N=1 is that when people talk about a scientific experiment involving people, 'N' equals the number of people involved in the experiment or study. In our own case, when we approach a change in what we're doing or how we are living, N=1 is an experiment or study that we just apply to ourselves. So the real thing here is to treat it just like that. It's about testing the ideas we are about to talk about, so you know exactly what to do. It's only by testing it out yourself that you'll know whether they actually work or not. Whether they prove the theory or disprove it. It's up to you to figure that out by actually doing the experiment.

I've proved it for myself. Thousands, perhaps millions of people have proved it for themselves. It's up to you now to decide whether you want to accept that mission and see if you can prove it for yourself. I don't want you to believe anything anyone says but I do want you to know how to best conduct an N=1 experiment so that you can prove or disprove it to yourself.

The Main Instruments Of Mass Destruction.

A bit of tongue in cheek humour from me is to question what you think the main instruments of mass destruction are? Most people will start thinking of nuclear war and cruise missiles, climate destruction, viral pandemics. But really the main instruments of mass destruction are those simple everyday things on our dining tables; our knives, forks, spoons, chopsticks and receptacles of every shape and size. The things we use to convey food and drink into our mouths and into our bodies. It really is time to learn how to best use them so that we don't destroy our health faster but instead build it faster.

The Best Carbohydrate Strategy

I'm going to give you a broad outline to give you an idea of the strategy behind it all, how to actually determine your carbohydrate tolerance level and live within what I call your carbohydrate budget.

I'm going to use the image of an archery target as a way to bring that about. I was NZ Intermediate Champion Archer for a few years in my teens and spent a lot of time in front of a target like this and thought it fit these figures really well. I'll describe one and you can google it. A normal archery target consists of 10 concentric circles. The inner two are gold/yellow, the next two are red, followed by two blue, two black and two white. Imagine the inner gold circle is zero, the outer gold circle 10, the inner red 20, outer red 30, inner blue 40, outer blue 50, inner black 60, outer black 70, inner white 80 and outer white 90.

So the best carbohydrate strategy, if you have no contraindications like porphyria that we talked about, is to start with 20 grams of carbohydrate per day. By 20 grams of carbohydrate I mean 20 grams including the fibre. That is often called Total Carbohydrate.

The reason to start with 20 grams of total carbohydrate a day is that is the level Dr Eric Westman from Duke University has found that 90-95% of people will get a good result from. In the book *A New Atkins For New You* the focus was on Net carbs, meaning Total Carbohydrate minus the fibre but in his videos and lectures Eric makes the point of focusing on Total Carbohydrate which

includes the grams of fibre. He calls this the difference between a therapeutic dose and a non-therapeutic dose.

I'll share later what that means specifically in terms of food but a broad rule of thumb, 20 total grams of carbohydrate equates to 1 cup of cooked above ground vegetables and a cup or two of salad vegetables per day.

Taking that 20 total grams of carbohydrate as a starting point, what happens if that doesn't work? Well you may need to go down to under 10 Total grams of carbohydrate a day. If that doesn't work, then you can try 5 total grams and all the way down to 0. Bang in the middle of the target, where all archers are aiming for.

Your aim is to get to the carbohydrate level where you feel like you're getting results. Results like we've talked about: your waist is getting smaller and your waist to height ratio is improving, which in itself is one of the best longevity markers, this will likely show up as your clothes getting looser; your energy levels are improving; hunger levels are dropping, carb cravings are lessening, your mind is feeling clearer... all those kind of results. If you're getting those then there is no need to change what you're doing. Keep going and enjoy life.

Testing Your Carbohydrate Tolerance Level

This is completely optional. If you're going great why not keep doing what makes you feel great and bringing you the results you want?

Well, if you're like me you might like to test out your boundaries. Meaning how much carbohydrate can you actually tolerate? But think about that, just because you can tolerate it, does that mean you should?

A little word of warning - seeing how much you can 'get away with', might be your addictions talking. That being said it can be good to know, and I mean really know, by bitter experience, where your limits lie. For myself, once I knew my limits I could accept them more and argue with them less.

So assuming it's all good and you are proceeding well, then the idea if you want to test how much carbohydrate your body can tolerate before it kicks in with all those things going in reverse, is to go up by increasing your carbohydrates by five total grams a day, week over week.

Meaning once you've found some stable results at 0, or <10 or <20 grams of total carbohydrate per day you then try 0+5, or 10+5, or 20+5 every day for a week, and reassess. To be clear that means if you were on a maximum of 20 grams a day you go up to a maximum of 25 grams a day for a week and reassess before you go up another 5 gms a day to 30 grams a day for the following week. You don't go up 5 grams each day for the week.

I'll repeat, keep in mind you do not have to do this. It can be a bit like an alcoholic testing how much alcohol s/he can handle before going on a bender again. So it needs to be treated with caution. But if you want to see how much you can 'get away with' then by all means try this out.

I've been learning to live within my carbohydrate tolerance for the last 10 years since 2010. I've tried this consciously a few times over that period to see where my carbohydrate tolerance sits. By doing that I've got to know what that level is for me and I've found that extremely helpful.

I've also let the carbohydrates 'creep' back up unconsciously from just being slack. It's an easy thing to do. When I go over my carbohydrate tolerance level for a while I can deal with that. Meaning, I can see my 'symptoms' returning and get back on track by taking myself in hand and return to being more strict with my carbohydrate intake. But there are people for whom this can be a very bad idea. It can trip an addiction switch that can take months to recover from. So, for that reason, I wouldn't suggest rushing into this test. As I keep asking, if you're going great, why not simply keep going?

If you do decide to go ahead and test your carbohydrate tolerance level and you can manage the 5 grams a day for a week without a return of these kind of simple parameters; low mental, emotional and physical energy, pants or clothes getting tighter again, a return of hunger and snacking or a loss of self control, then the idea is, if you are still getting the results you want that you can go up to a maximum of 60-80 grams a day, in the two black circles of the archery target. I've picked this figure as that's what Dr David Perlmutter, the neurologist who wrote *Grain Brain*, suggests as the maximum amount for optimal brain performance. That sounds like a good place to stop for me. You do want optimal brain performance, don't you?

Someone who takes it a bit further is Prof Tim Noakes. But only in the context of top athletes with serious energy demands. Tim believes they shouldn't need more than 200 grams of carbohydrate a day. Which is off the archery target altogether but can be appropriate for that level of output. Although there are ultra distance runners doing very well without any. Again it's up to personal exploration.

That should give you a good spectrum to work within. If you're really pushing the envelope with exercise, yes you can deal with more carbohydrates. But is it a good thing for your long term health? Well that's up to you to decide.

How To Count Your Carbohydrate Content

It's one thing for me to throw some numbers at you but what the hell do they mean in terms of food and drink? Let's get clear on that.

I recommend you do this for everything you are currently eating. That way you'll quickly come to know where the problem lies. I've lost count of the number of times I've consulted with people who thought they were eating a low carb diet, that when we went through this exercise they found out they had blown their carbohydrate budget before they had finished breakfast. Which meant the rest of the day was a complete write off in terms of carbohydrate count.

I also recommend you do this repeatedly until you come to know how many carbohydrates are in everything you put in your mouth. It's like knowing your times tables. Once you know 2+2=4 you never have to think about it again. It's the same with looking at a banana or an apple, a carrot, a slice of bread or a handful of nuts, some cooked broccoli or onion. Once you know how many carbohydrates are in those you never have to think about it again. Unless of course you haven't eaten them for so long that you need to use Uncle Google for a reminder.

The faster you can know the answer the quicker you can know if it's going to fit into your carbohydrate budget for the day. And the easier it will be to use that knowledge to focus on the thing you are thinking of eating and make the decision of whether to eat it or not. It's all part of getting real with food.

Hopefully you will be eating real food. Because there are no labels with nutrition numbers on the food, you'll need to make use of the internet to do some sleuthing. If you are eating packet foods you'll be able to read it on the label on the packet.

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This is one of those things you likely can trust Uncle Google with.

I like to start this lesson with an apple. We've all heard of the idea that an apple a day keeps the doctor away. Well, let's see.

Pull out your laptop or your phone and bring up a Google search page. Now type in the search bar these two words: *apple nutrition*

That should bring up a box with a picture of an apple that has some Nutrition Facts underneath it. You should also be able to choose from a drop down menu that says, "Amount Per". That's where you can choose how much of that food you're thinking of eating. For the purpose of this exercise choose '1 medium apple'. Now scroll down and find the number you see in the Total Carbohydrate line? No need to look at anything else. Just that number of Total Carbohydrates.

I see 25 grams of Total Carbohydrate. Remember Total Carbohydrate is the total of the fibre grams, fibre is simply an 'indigestible carbohydrate', plus the sugars, or digestible carbohydrates. The reason we count the fibre remember is to get a therapeutic experience. To complete the picture for you, it's thought that some fibre can be digested by the bacteria in your gut. Turning indigestible carbohydrate into digestible carbohydrates in the end.

So, one medium sized apple and you've blown your <20 grams N=1 experiment for the day. And, assuming staying within your carbohydrate budget is best for your health, there goes that adage an apple a day keeps the doctor away.

I like to use that example just to help you realise how easy it is to blow that <20 gram a day budget. To stay within it at the beginning it's best to eliminate fruit altogether.

You can use this Google search process for anything you eat or drink that doesn't have a label. More often than not simply typing into Google the *name* of what it is you want to find the carbohydrate content of and the word *nutrition* and that box will appear. On a laptop it will appear on the right hand side of the screen. On a phone it will be the first thing you see.

If that helpful box doesn't appear you'll need to look further down in the search results. Over time you'll come to find the best sites. I've found www.nutritiondata.self is a pretty good back up resource for unusual food items. If there is no box with the information I'm looking for and I see a link to the information I'm looking from that site, I'll look at that before anything else.

Labels

Now let's look at using labels. Hop over to your cupboard and pull out something that you eat most days from a packet, a box or a bag. If you need glasses put them on and find the "Nutrition Information" section on the packet. Or you can take a photo of the label and magnify the photo if you don't have glasses but are struggling to read the tiny print.

Look for the Carbohydrate Total number and see what it says under "Quantity Per Serving" or "Quantity Per 100ml or 100gm or whatever". Figure out from that what you would normally eat, and work out how many Total Carbohydrates are in that amount.

Combining The Two

All right, well done. Now let's look at your normal breakfast. For now it doesn't matter what time of day that is, I'm talking about your first meal of the day. Write down on a piece of paper everything you have for that meal, both food and drink, one item per line. Now go through the two processes we've been through, Google or use the food Nutrition Information label, figure out how much of that item you normally eat and write out on each line for each item how many Total Carbohydrates were in each item. Then add them all up so you can see your Grand Total number of carbohydrates you have in that meal.

What number did you come to? Was it within your budget or not?

Here's a typical Kiwi breakfast

3 Weet-Bix with 1/2 cup of milk and 1 teaspoon of sugar 30 + 10 + 5 = 45 total grams 2 slices of toast with 2 tbsp peanut butter 24 + 6 = 30 total grams Coffee, milk and 1 tsp sugar 1 + 5 = 6 total grams

A 'healthy' kiwi breakfast

100 grams Muesli & 150 grams natural yoghurt 1/2 cup Chopped fruit Coffee, milk, 1 tsp sugar Total Carbohydrates

60 + 7 = 67 total grams 12 = 12 total grams 1 + 5 = 6 total grams 85 Total Grams

In contrast my current Break Fast has only 1 to 2 grams of total carbohydrate. Look out for that in the Fuelling with Fat section below.

Carbohydrate Budget

I came up with the idea of having a carbohydrate budget to help people manage their carbohydrate intake. We all know what it's like to have a budget. We only have so much income and we have to budget appropriately or we'll fall further into debt. If we stay within out budget we know we're going to save some money, which is always a good thing for a personal budget.

So this is the idea that we all have a carbohydrate budget, which will vary according to our carbohydrate tolerance level. We need to stick within that budget if we want to get the results we want.

Given that we're following the recommended guideline to start with <20 grams of total carbohydrate a day, when we look at a medium sized apple of 25 grams of total carbohydrate we then need to make a judgement and decision call. Is a medium sized apple worth blowing my budget on? Am I going to commit to stay within this budget or not?

Assuming you went through the breakfast carbohydrate count exercise you'll be getting some idea of how many carbohydrates are in the foods you are eating. Let's look at some other common foods.

As well as apples we often hear that nuts are healthy for us. Cashews used to be a favourite of mine. I loved them. But in a way they didn't love me. We each have foods that seem to drive flatulence or gas. You could say that cashews were my nemesis. And the smell!. Best to leave that part out. But at the same time I loved them, they were my favourite nut. I couldn't just have a handful, though. Like most nuts, once I started, the whole bag was in danger. And the carbohydrate content? Hop back on Google and you'll find that 100 grams of cashews has 30 total grams of carbohydrate and if you're like me 100 grams of cashews would just whet my appetite for more.

Not being able to stop eating specific foods is another thing you need to be able and willing to look at. How much of a sense of hunger for more, or craving, comes along with each food? It will be different for different foods. In my early days of learning to live within my carbohydrate budget I could have a slice of apple without craving more but a small handful of cashews would drive a major craving for many more of them.

Let's move on to vegetables. I like to start here with onions. Because it's often a real shock to realise that onions do indeed have quite a few carbohydrates in them, particularly if you cook them.

A simple rule of thumb with vegetables is that when you cook them you essentially double the carbohydrate content. You'll be able to appreciate that fact. Most of us have had raw carrot and cooked carrot and we all know for sure that cooked carrot tastes sweeter. That's because the cooking process turns some of the indigestible carbohydrate, or fibre in the carrot, into digestible carbohydrate or sugar. Pre-digesting it in a way. Like what I've said before that the bacteria can do in your gut with fibre.

<u>Most vegetables</u> and fruits do this. Raw cabbage tastes quite bitter compared to cooked cabbage that tastes quite sweet.

Googling onion nutrition and picking 1 small onion from the drop down menu will show you a Total Carbohydrate count of 7 grams. If you cook it that will turn into 14 total grams of carbohydrate and if you have say steak with onion on it, it's fairly easy to throw a small onion on there, isn't it? And all of a sudden you're up to 14 grams of onion right there with that onion.

Blueberries can be useful, in terms of fruits, blueberries are the most common fruit that people say are ok on a low carb budget. One of the things I like about blueberries is that you can measure 5 grams of blueberries quite easily. Which makes them very useful for the time when you want to test out your carbohydrate tolerance level. 5 total grams is a quarter of a cup of blueberries that you can add to your daily diet and see at the end of the week what that did for you in terms of the looseness of your clothes, hunger and energy levels, all those things we've talked of before. For those that find they are very sensitive to the impact of fruit, then you can, instead of blueberries, try adding in 5 grams of total carbohydrate of your favourite vegetable.

5 Grams

5 grams of carbohydrate is a good thing to be able to mentally tag any food and drink with. Not just for when you're testing out your carbohydrate tolerance level but as an every day thing.

One simple way to use it is if you are doing a maximum of 20 grams a day and are eating 3 meals a day and 1 snack, then you could look at eating 5 grams per 'meal'. That makes counting really easy. It also spreads the carbohydrates out during the day so you get a pulsatile a more natural insulin release. If you're doing a max of 10 grams a day and have two meals a day with carbohydrates then you can do the same thing. 5gms per meal. If you want another meal then you could do zero carb for that one.

Alcohol

We need to look at how tricky alcohol can be for you. For that reason, if you can manage it, going alcohol free for the first month will help.

If that's beyond you, then we just need to run alcohol through the same process we did with food and non alcoholic drinks.

I enjoy a glass of wine but I generally aim to keep it to a weekend event and keep it within my carb budget. I don't buy the idea that it's good to drink particularly red wine because of all the resveratrol in it. You have to drink a barrel load of wine to get resveratrol in any meaningful quantity so I believe that's a bit of a marketing ploy. Best not to fall for that one.

For most dry wines, you're looking at 5grams of CHO for about 180ml. If you haven't been drinking wine because you've been clean and good for those few weeks and want to test out your carbohydrate tolerance by trying wine, then by all means try it out for yourself.

Moscato's are much sweeter so I would stay away from them. As are liqueurs, which are full of sugar.

The thing to look out for with wine is obviously, what does it lead to? Can you have just 180ml, that's like two small glasses, in an evening and leave it at that? Or does that lead to more glasses of wine or a glass of liqueur or dessert to finish off the meal? Meaning how much does it weaken your resolve? If it does you're going to need to be really careful with wine or any alcohol.

I'm not a beer person. Sally's favourite is Monteith's Summer Ale. It comes in at 10.2 grams of CHO in a small 330ml bottle. Your favourite should have it's own label. With beer some shift to low carb beer.

As we've learned with food, have a look at what happens when you run your favourite alcohol through a label check or Google for Total Carbohydrates.

Spirits like whisky or gin, if you have them neat or on the rocks, the alcohol in there is a carbohydrate, but if you keep it to small amounts you're generally fine. It's what you add to them that leads to the carbs going up. Gin and soda is low carb. Gin and tonic, where the tonic comes in at 9.2gms per 100ml, very quickly blows your carb budget. Sugar free options of mixers generally have other types of sweeteners that can play havoc with insulin so you need to be wary of those too. Again no Get Out Of Jail Free card with natural or artificial zero carb sweeteners. Some people count 25% of sugar alcohols like erythritol or xylitol as digestible carbohydrate. So 20 grams of either or those would count as 5 grams of total carbohydrates.

The take home message is that you really need to be discerning on how you're going to manage alcohol but you don't have to be teetotal if you don't want to be.

Chocolate

For some chocolate is one of life's essentials. However did we survive before Fry's made the first chocolate bar in 1847? I love chocolate but I really need to manage myself with it. Remember I said I had rosacea as one of the inflammatory processes I had happen in my body early on? If I have too much chocolate, wine or coffee, or even too much intense exercise in the heat, my nose starts to blow up like a Belisha beacon. It goes hot, red and finally, pustular. Not a pleasant experience. My nose definitely is better without those things but I still like them, so it's an ongoing juggle.

But if you don't have issues like that with chocolate and you're simply looking at how to fit that into your carbohydrate budget, the best way we have found to do that is to base our chocolate intake around squares of Lindt 90%. There are 10 squares in a bar, each square has 1.25 grams of total carbohydrate. We've found it the most satisfying chocolate experience as we don't need much more than one square at a time. Although Whittaker's have recently come out with a solid contender with its 92% Ghana.

For other chocolates you'll easily be able to work out how many squares of chocolate you can have to fit in your budget from the serving sizes on the labels. To give you an idea 85% Lindt has 2 gms per square and 70% has 5 gms per square. Any chocolate under 70% will have more than 5 gms per square. But that again depends on the size of the square so you really need to check the label and do the calculation for yourself on your favourite chocolate.

Again, as with any food that has addictive qualities you'll need to stay aware of what does that square of chocolate lead you to. Is one enough? Or does it lead you to eat more? For me it will quickly lead to more later in the day and it can quickly become a regular habit. I've found I'm better to keep it as an occasional indulgence.

Overall it's not about completely losing your ability to eat anything, it's about managing your ability to eat what you want to eat. But also managing it so they don't send you into a tailspin.

20 Grams A Day.

Let's get clarity on what this means in terms of food. Remember 90-95% of people will have a good and positive experience with low carb eating if they start at 20 total grams of carbohydrate a day or less. What does this look like in terms of real food?

It can look, over the course of a day, something like this:

Broccoli cooked 1 cup 6 gms
Onion cooked 1/2 cup 5.5 gms
Mushrooms cooked 1/4 cup 1.5gms
Red pepper 1 raw 4 gms
Celery 1/2 cup raw 1 gm
Spinach 2 cups 2 gms

Total 20 gms

So you can see how you can have a cup or two of cooked veggies and 2 or 3 cups of salad veggies throughout the day and be within that 20 gram a day limit. One way to simplify this further so you don't need to count carbohydrates is to have one cup of mixed above ground cooked veggies and 2 cups of salad veg and then having meat, chicken, fish, shellfish and eggs to your hearts content. This is a really simple way to eat.

60 - 80 Grams A Day

If this works for you and you test out your carbohydrate tolerance level by going up 5 grams a week and find you can go all the way to 60-80 grams of carbohydrate, as suggested by Dr David Perlmutter as a limit for optimal brain health, without bringing back increasing hunger, lower energy levels and your clothes getting tighter, then that 60-80 grams can look something like this. Again this is on top of meat, chicken, fish, shellfish and eggs to satisfaction.

Broccoli cooked 1 cup 6 gms Cabbage cooked 1 cup 10 gms Beetroot cooked 1/4 cup 5 gms Peppers cooked 1/2 cup 7 gms Onion cooked 1/2 cup 5.5 gms Mushrooms cooked 1/2 cup 3 gms Celery 1/2 cup raw 1 gm Spinach 2 cups 2 gms Blueberries 1/2 cup 10 gms Cheese 120 gms 1.5 gms Cream 50 ml 1.5 gms Almonds 16 nuts 5 gms Chocolate 4 squares of 90 5 gms Wine 180 ml dry 5 gms

Total 67.5 gms

Pumpkin, or squash, is an above ground vegetable and some people like Dr Eric Westman are fine with these. In that case 5gm of total carbohydrates is a fraction over 1/4 of a cup or just under 50 grams of pumpkin.

There are two schools of thought on above ground or below ground vegetables. The standard ketogenic diets tend to favour something like what I have above. In comparison the Paleo Ketogenic Diet doctors from Hungary would favour root vegetables. One third of a cup of cooked root vegetables you can roughly equate to 20 grams of carbohydrate.

They are also fine with above ground but only if they are organic and to not include the nightshade family; potatoes, tomato, eggplant. If you are metabolically healthy they would limit vegetables to 30% of your plate. Likewise, if you are metabolically healthy they also recommend limiting fruit to one piece a day. You'd be in trouble though, if you thought a whole watermelon counted for one piece of fruit.

Of the 10 years I've been on what would be called a low carb high healthy fat ketogenic diet I spent the first 8 of them eating from the above lists of foods. Generally aiming to keep my daily

total carbohydrate intake below 20 grams a day. For the past 2 years I've reduced and then eliminated vegetables altogether.

Fuelling With Fat

We've dealt with what is meant by LC, Low Carb, the first two letters of the LCHF acronym. The other end of the LCHF acronym is HF, High Fat or Healthy Fat

To our fat starved and fat phobic trained brains those two little words, *High Fat*, often conjures up images of food dripping in fat. But that's not what we're talking about.

Although you might argue that it must be from Dr David Perlmutter's statement that a ketogenic diet derives 80-90% of it's calories from fat. That indeed does sound like your meals would be swimming in fat. So, let's break it down to give you a reality check on that.

On a purely mathematical basis, because:

- 1. Fat has 9 calories per gram and carbohydrate and protein only 4 calories per gram.
- 2. And because you will tend to eat up to 30% less calories when you are burning fat because of the metabolic efficiency of fat burning and increased levels of bodily satisfaction when carbs and insulin are reduced.

This doesn't equate to a lot of fat at all.

Here's a typical break fast meal I used to have when I was eating vegetables.

Omelette with vegetables

2 eggs

2 rashers of bacon - chopped

1 teaspoon of lard

1 & 1/2 cups of vegetable - mix of chopped onion, mushroom, spinach and broccoli Salt to taste

2 eggs = 10gms of fat and 12gms of protein

2 small slices of bacon, 30gms each = 59 gms of fat and 1 gm of protein.

1 teaspoon of lard or beef fat = 5gms of fat for frying.

1 & 1/2 cups of cooked above ground veggies = approximately 8 gms of CHO and 4 gms of protein

SO we have:

Fat: 74 gms = 666 calories = 87% Protein: 17 gms = 68 calories = 9%

Carbohydrates CHO: 8 gms = 32 calories = 4%

The only fat we added was a teaspoon for frying. It's the fat in the food that gets you that 80-90% fat content. The bacon made this a higher fat meal. You could have used salmon or another egg and end up with a little less fat and a little more protein. But I think you can see the point. 80-90% fat is simple, easy and enjoyable.

Omelette with mince

The above was a regular breakfast of mine a few years ago To give you an idea of where my diet is now, my current 'omelette' is:

2 eaas

Chopped bacon - 62.5 gms (1 slice of Hendersons naturally cured Middle Bacon)

Mincemeat 80/20 - 200 gms Chopped liver - 25 gms Lard or dripping - 1 tablespoon Salt

The calorie percentages work out at 66% fat, 33% protein and 1% carbohydrate. If you have 70/30 mince available that would be 75% fat, 24.4% protein and 0.6% carbohydrate. Not too far off that 80% of calories from fat.

I generally have one somewhere between 11am-1pm. Because of the relative amount of mince and egg I have, a more appropriate name for his might be a mince pattie. The eggs are really for binding the ingredients together.

FYI: in New Zealand the general rule of thumb is that Premium mince is <5%, Prime Mince is 5-10% and regular mince is 10-20%.

It's taken years but saturated fat has finally been exonerated. Although it seems that getting the word through to the population is taking a while. Butter featured on the cover of TIME in June 2014 with an article explaining how the scientists got it wrong. But how many people actually believe that? Do most still worry, in the back of their minds that fat in the form, of butter, is still bad for us? I believe so.

The HF or High Fat isn't just any old fat though. Which is why some people have relabelled HF to be Healthy Fat or High Healthy Fat. We need to pay attention to the importance of healthy fats. We've been told for decades that animal fat is bad for us and fish and plant oils are good. But the truth is coming out that animal fat is the best fat for us. Plant oils are proving to be a problem. Particularly seed oils.

There is a difference in plant oils between plant seed oils and plant fruit oils. The seed oils come from the seed like sesame seed oil, sunflower oil, canola oil. corn oil, peanut oil and soya bean oil. They put the seeds through quite a process to get those oils out. Whereas things like olive oil and coconut oil are oils derived from crushing and squeezing the flesh or the fruit of the nut or seed.

There is lots of evidence now from many different sources that the seed oils are very problematic. You'll see them referred to as PUFA's, Poly Unsaturated Fatty Acids, or industrial seed oils. They are very high in omega 6's, the pro inflammatory oils, and very low in omega 3, the anti inflammatory oils. And they are known to be unstable oils, oxidising readily.

They are also now implicated in the development of insulin resistance along with carbohydrates. Dr. Cate Shanahan is quite vocal on this. She shares how the percentage of PUFA's in our own fatty tissue, as determined from biopsies, has increased from 2-3% a century ago to 20-25% in 2010 and she believes that will likely be at least 30% now. That's a huge increase because of how our food has changed over that period of time. She says that creates a problem where the mitochondria become damaged when they try to metabolise those unstable oils creating oxidative stress that underlies insulin resistance at a molecular level.

Vegetable oils enter every cell in the body and promote inflammation. In my opinion vegetable oils are responsible for more sickness than cigarettes.

Dr Cate Shanahan

Dr Paul Saladino joins her in promoting this idea. As far as he is concerned the initial damage to our mitochondrial metabolic machinery happens with the amount of linoleic acid we are eating from seed oils. After that carbohydrates come along and simply fan the flames into the firestorm of damage that we've talked about above.

Then there are questions around olive and coconut oil. Unless you're actually creating that oil yourself, and using it immediately, olive oil is so easily oxidised. That's why they keep it in dark bottles. But when you take the top off the bottle, the air goes in and oxidises the oil anyway.

I was in Italy in 2018 and you can buy olive oil that's been canned in an oxygen deprived environment. They use cans rather than bottles to keep the post production oxidation to a minimum. It is very expensive olive oil but produced that way to preserve the flavour that the oxidation process ruins. And we know how Italians love flavour. Tuscany, where we were, is full of olive trees and you can have the crop on your back lawn harvested and the oil delivered back to you in 3 days. It's that simple and fast. Yes, it has more of a robust flavour than olive oil out of a bottle from the supermarket shelf, but it still doesn't do the same for me, in my experience of it, as a good quality animal fat.

It's the same thing with coconut oil. Some people are really big on large amounts of coconut oil but for me my stomach does uncomfortable things. It does not like coconut oil at all. You have to consider your personal body felt experience with these oils. I have some Pacific Island friends who shared with me that in the old days the coconut oil was only ever used on the skin. It was never ingested. So if you think about ancestral diets and what we have evolved to eat, that would surely rule coconut oil out.

Because they are 'flavour of the month' in terms of 'healthy oils' I think it's good to appreciate that there is some very real controversy around olive and coconut oils. There is no controversy, in my mind around seed oils, they are good to get out of your diet. If you are attached to olive and coconut oils you'll just need to try an N=1 by eliminating them for a month and seeing if you can decipher a difference for yourself.

Lucia Aronica PhD, an Italian epigenetic researcher from Stanford, is on record as saying that most Caucasian's cannot effectively use Omega 3 from plants such as chia seeds and flax seeds, which is important for Caucasian vegans to be aware of as they, like I was, can be fooled by marketing into thinking they are getting their omega 3's from those sources. She also pinpoints omega 6's from vegetable oils as being particularly bad for almost all Africans with concomitant low grade inflammation which may be the reason why they are at greater risk of heart disease when they switch to a Western diet which is typically high in vegetable oils and omega 6's.

Butter has made a resurgence to the point that some people have converted to having butter in their morning coffee, often called a keto coffee. The idea originated as a bullet proof coffee with butter and MCT oil specifically. (MCT stands for Medium Chain Triglycerides, which are extracted and isolated from coconut or palm seed oils.) People use from a teaspoon to a table spoon of each, blended up in hot coffee to produce a thick creamy, frothy finish.

It can taste really good but I know for myself that with that much butter I get mucous in my throat, which I assume is related to some of the proteins in butter that I'm reacting to. I've always been sensitive with dairy and am better off without it. And as I'll share later, if you are in the process of losing weight, it's best not to add fat to your diet. You want fat to come from your body. Which it can do if you get the carbohydrates low enough because that drops the insulin which was locking your fats away in storage. If you have extra fat on board your body you want to be using that rather than fat from your daily intake.

When you cook in butter most of us have seen butter go brown, some chefs call that caramelising the butter, but the browning is actually the butter oxidising. And remember you don't want oxidised oils. That's what happens with the plant seed and fruit oils when exposed to sunlight and air. You don't want them getting oxidised because that creates more inflammatory processes in your body. So it's really better to cook with something like lard or dripping. In the States I believe dripping or rendered beef fat is called tallow. I remember dripping from my mum's cooking. We always had a block in the fridge. I was delightfully surprised to find you can still buy it. In plastic tubs now rather than a block in greaseproof paper like it used to come.

I wouldn't be deep frying anything though. Shallow pan frying is fine. Just remember to cook with something that's not going to oxidise like butter. Butter you can add on afterwards while the meal is warm. Particularly for something like fish which has a very low fat content.

Sweet breads are also a good source of animal fat and comes with a 2:1 ratio of fat to protein, which the PKD folk pinpoint as an ideal proportion.

Last But Not Least - Protein

Zero carbs – no big deal. Zero fat – no immediate big deal. Zero protein – imminent big deal.

Kevin Stock

The amount of misinformation about carbohydrates and fat pales in comparison to the amount of misinformation about protein. You've probably heard that too much protein: turns into sugar in your blood, damages your kidneys, gives you gout, leaches the calcium out of your bones and ages you faster than anything. There has to be a reason that the USDA and Harvard Food Pyramids say you should eat meat sparingly, doesn't there? Yes, there is a reason but it's got nothing to do with your health.

Kevin has eloquently encapsulated the misinformation in the quote of his I have above. If you want a full rebuttal of all the myths about protein you can read all about it here: https://www.kevinstock.io/health/high-protein-diets/

The main problem is that we under eat protein. That's a really anti-life thing to do given that proteins and their component amino acids are the essential building blocks of nearly every structure and process in our bodies. As such we hunger for them. We are internally driven to seek them out. But we've been taught to eat protein minimally. So we hang in limbo seemingly between the devil and the deep blue sea. Not trusting our hunger. Afraid of it even. Certainly not allowing ourselves to satisfy it.

Yet, there's probably not many better ways to ruin our health. The end result is that we are starved for protein and driven to the quick false energy fix of high sugar and high carbohydrate foods.

Coming from decades of vegan-vegetarian eating it took me a few years to grasp both what protein foods my body really needed and loved, and how much.

Part of that journey for me was reading a book called *The Metabolic Typing Diet* by William L. Wolcott and Trish Fahey. My synopsis of the book is that they defined three groups of people, protein types, carbohydrate types and mixed types.

Essentially you can look at that as a 1-9 spectrum along a straight line, with 1-3 being protein types, 4-6 being mixed types and 7-9 being carbohydrate types. To find out which type you are there was a questionnaire. The trouble is, as a vegetarian, I couldn't answer most of the questions. Like this question; do you sleep better after a meal of red meat?

So not being able to answer those questions for obvious reasons, I went to the next best option. What does your body hunger for? The problem with that is that when you have spent decades sublimating your desires it's a very difficult question to ask and to get an honest answer for.

The best answer I could come up with at the time was chicken and fish. So I started eating some of those. We weren't allowing ourselves to cook meat at home so fish came out of cans and chicken was enjoyed in our rare meals out. It was an OK experience but nothing to write home about.

In contrast I still remember the feeling in my body of my first steak in decades. During one of our meals out I was sitting with my chicken or fish meal in front of me (it's telling that I can't remember exactly what was on my plate) and I smelled someone's steak on a table nearby. Up until that time steak had smelt a bit off-putting but surprisingly, this time it smelt really good. I decided that the next time we ate out I'd order one. Which I did. We all know the saying I felt like I'd died and

gone to heaven. That steak was one of those moments for me. And to this day, steak is my favourite meal.

It does fit in with the Metabolic Typing idea that the primarily protein types tended to come from the higher latitudes, closer to the poles. I was born in the north east of Scotland from local stock. So apart from Eskimos and Laplanders I could argue that we were the next in line from the North Pole. Protein Types particularly like red meats and fatty fish. Salmon and herring are good examples of the latter that are available in those climes. My home town was a primary kipper (smoked herring) producing town and apart from the bones it was a favourite of mine growing up. In the right wind the delicious smell of freshly smoked kippers wafted through the town inspiring many a folk's suppers. Supper being the old word for what we now call dinner.

The idea is that as we progress towards the tropics our genetic ability to handle carbohydrates and different kinds of meats with less purines increases and the more of a Carbohydrate Type we become. With Mixed Types being those somewhere on the way. Carbohydrate Types are supposed to be able to deal better with carbohydrates and to prefer white meats like chicken, particularly the breast, and the white fish that are readily available in the tropical and subtropical regions. I'd add here that being able to handle carbohydrates doesn't necessarily mean you have to eat them. There are plenty of Pacific Islanders that would be better off without them. I believe Metabolic Typing has more merit than the blood type diet but it is still questionable for me.

The Paleolithic Ketogenic Diet, PKD, folk would argue that all humans are genetically and epigenetically still back in the Ice Age. In a previous section I questioned our ability to adapt to the changing diets of the last 10,000 years since we developed agriculture. It's interesting, don't you think, that this 10,000 years has essentially been the time that we came out of the last ice, about 11,500 years ago. Before that there was were two other interglacial periods over the last 300,000 years since the earliest finds of homo sapiens remains have been dated to. Which means in that time we have spent 90% of the time, 270,000 years, in ice age conditions. During that time our primary food has been large mammals. In other words red meat. Because of that PKD would say that, apart from a few rare genetic challenges, there is only one optimal diet for human beings.

There may have been some adaptation in the tropics over that time but maybe not. Until the researchers have done more we'll all need to do our own N=1 study on that. That can be as easy as eating 100% red meat, lamb, beef and salmon for a week then try switching to 100% white meats, chicken breast and white flesh fish, and see if you can determine which you prefer.

I wonder why our instincts and preferences are so hard to find and follow? Is it our existential guilt? Or is there, as Belinda Fettke's research would suggest, some scurreligious component?

How Much?

It was one thing for me to learn what kind of meat my body preferred but it took me a lot longer to learn how much of it I wanted and could have. Part of that journey for me was facing up to my various beliefs and the other part of it was simply being willing to explore and to allow myself to eat as much of my favourite meat as I wanted. I found that a challenge.

When I began my LCHF journey I used a calculator from the book *Protein Power* to determine my protein need, which took into account lean body mass, sex, age and exercise levels. It came to 75 grams of protein a day. Multiply that by 4 and you come to 300 grams of meat.

It was only through putting it to the test by eating more, more regularly, that I came to realise my body wanted more like 600 grams of meat a day as a minimum. Not 300 grams recommended by the calculator I originally used. How that shows up for me is if I eat less than I need I'll end up snacking on things I'm better off without, like cheese and chocolate. I've found it's only with a good amount of red meat that I can stop thinking about food for hours on end and make better food choices throughout the day.

It's interesting for me that my N=1 experiment with meat led me to the same conclusion that Kevin Stock came to of 1gm per pound per day as a minimum. For my weight of around 70kg or 154lbs this means my daily minimum protein needs are approximately 154gms of protein. Because meat is generally 25% protein 154 x 4 comes to 616 grams of meat or 1.35 pounds.

Let's take it plus and minus 10kg to give us an idea of the spread that you might be able to relate to your own body.

60 kg x 2.2 = 132 lbs

132 grams of protein x = 528 grams or roughly 1.2 pounds of meat for the day.

80 kg x 2.2 = 176 lbs

176 grams of protein x = 704 grams or roughly 1.5 pounds of meat for the day.

To save yourself the years of under eating protein that I went through you can work that out for yourself. Take your weight in pounds or kilograms. If you use kilograms multiply your weight by 2.2 to get the grams of protein you need. If you are using pounds then the number of pounds you weigh will be the same as the number of grams of protein you need. Then you just need to multiply the number of grams of protein by 4 to get to the minimum weight of meat you need per day. You could then cut some steak that weighs that much and see how you feel after simply eating that for the day. You can eat it all at once or divide it into 2 or 3 pieces and eat it over 2 or 3 meals.

I like to point out that this is a MINIMUM requirement for protein. Meaning we can eat more if we want. It's also important to know that as we age our need for protein goes up, not down. Think about that in relation to what most people in and our old care homes get to eat.

We will each have an amount of protein that we find is the most satisfying. It will also change as your daily needs change. As will the proportion of protein to fat. It's up to you to discover how much you need but you won't discover it if you are afraid of it. Hopefully you will now know it's ok to explore and enjoy doing so.

Eat Meat.
Not Too Little.
Mostly Fat.

Amber O'Hearn **Bolding** - mine

http://www.empiri.ca/p/eat-meat-not-too-little-mostly-fat.html

Be Wary Of Dairy.

I realised that I was intolerant of dairy when I was in my early 30's and have been either dairy free, for up to a decade at a time, or dairy restricted, since then. How it showed up for me as a child and young adult was sinus congestion. I used to joke that I was either getting a cold, having one or getting over one. A hanky became like a little Linus blanket for me, an essential thing to have on me at all times. Now I see that was just my rampant mucous over-reaction to dairy.

This kind of intolerance is not the same as a lactose intolerance. Lactose is a milk sugar which shows up as abdominal bloating, pain and diarrhoea because some people don't have the enzyme to digest lactose.

Most intolerances and allergies are to the proteins in foods. So the kind of intolerance that produces sinus congestion is related to the proteins in the dairy. I find it interesting that we understand dairy is mucogenic, meaning it stimulates our bodies to produce mucous, and we

know mucous is part of our immune defence mechanisms but we don't connect the two things. If we did we might come to realise that our bodies might be producing mucous in response to dairy because it sees something in dairy that is not good for us. Dairy foods have been accepted as such a 'normal' part of our lives that we can't seem to allow it to become a suspect of any malfeasance.

There are various reasons that in an LCHF diet dairy needs to be limited or eliminated. Dairy does contain carbohydrates. Milk especially. So milk is generally off limits.

There is also the question of the fat content and not wanting to over eat fat in the beginning. Dr Eric Westman talks about limiting the amount of cream and cheese because of this.

I understand this with cream. Which has 6 grams of fat to 0.8 grams of protein in 30ml or 1 oz serving. Eric suggests, cream needs to be limited to 50 mis or one and two thirds ounces per day. Whether you're having that with coffee or with say 1/4 a cup of blueberries, when you're doing a 5 gram a day test to your carbohydrate tolerance level, make sure you limit it. There have been plenty of people that when they heard the idea of High Fat being good for us, that have let loose on their previously withheld desire for cream and taken it to the extreme, adding it to everything they could. It generally doesn't end well.

Eric also recommends limiting firm cheeses to 4 ounces or 120 grams per day. If you need to measure it out, please do. Cut off and measure 120 grams of cheese so you know what that looks like until you can go by sight alone. Keep it in a separate container, if you have to, so you don't end up eating more than the 120 grams when you're slicing some off for snacks during the day. A simple way to do that is get a 1Kg block cut it into half and cut each half into quarters and voila you have 8 days worth of cheese sorted.

But I wonder if limiting cheese is important because of something else? Most firm cheeses are around 1:1 protein to fat ratios per gram. Not a lot different to most meats. So if you can eat meat to satisfaction why not cheese? I think it may have more to do with IGF-1, or Insulin-like Growth Factor. This is present in dairy and in our blood after we eat it. Its main purpose is to stimulate growth of tissue. We need to remember that dairy from cows was created to raise baby calves into robust, healthy cows and bulls. You might want to think about that. We're not going to get nearly as big as cattle.

Not the least reasons Zsofia and Csaba from PaleoMedicina recommend eliminating dairy is due not just to the inflammatory effect of some of it's proteins but also to their effect of increasing intestinal permeability. This allows things into our bodies that we'd really rather not have. Our body protects against foreign invaders at all levels. Increasing your intestinal permeability is like opening all the gates to your fortress in the middle of a siege. Not a good idea if you want to stay alive and well.

The other thing about dairy is its addictive qualities. One of the things I remember reading in a book called *The Allergy Relief Program* many moons ago, was how when we ate something our body thought was an invader that needed dealing with, part of the immune systems response is to initiate an adrenal response, meaning a release of fight or flight hormones. If you've ever had the experience of eating something and feeling empowered, like you're on top of the world, *God*, *I love that food*, that's your adrenal glands working over time, getting you geared up to fight. That's usually followed by an energetic crash. At that point it's not uncommon to head for the food that rocketed you into the stratosphere in the first place. And the vicious cycle continues.

If you wonder if you have a love-hate addictive relationship with dairy just try going without it for a month. Your reactions will educate you on what it is for you.

Summary:

Eat these to satisfaction: grass fed ruminants like beef and lamb, wild fish, free range organic chicken and pork.

Grass fed and free range meats, organic free range chickens and eggs, and wild fish I think are optimal but I don't think they are a requirement. If your budget can't stretch to those then you're much better to have lower quality meats, fish, fowl and eggs than eating carbohydrate beyond your personal carbohydrate tolerance level. We don't want to use our financial budget as a limitation. We do want to make the best choices we can within those budgets.

Most beef is grass fed and often just grain finished. Which means for most of their lives the cattle are grass fed and grain finished to fatten them up. This means that it is easier and likely better to choose lower quality meats than lower quality chicken. Chicken kept in a coop, not let out, fed on corn and given stacks of hormones and antibiotics, I have some concern about. But my out is to choose cheaper beef options than cheap chicken.

Having said all that, the nicest lamb I have ever tasted was fed on a regenerative agricultural farm with many different varieties of grass.

Eliminate seed oils and trans fats.

You don't have to add lots of fats to your diet, all those good quality meats, fish and chicken, eat that to your satisfaction, add some fat and you'll be getting pretty close to that 80-90% that Dr Perlmutter recommends.

The primary focus is to keep insulin down and stop Mr Scrooge cramping your style. Find your carbohydrate tolerance level and learn to live below it.

Limit or eliminate dairy.

Diabetic Cookery 1917

Before we move on to the 30 Day Resets I wanted to show you this book on <u>Diabetic Cookery</u> from 1917 by Rebecca W. Oppenheimer. This was from before they found the drug insulin in 1921 and were able to give it to diabetics. The discover of insulin impacted all diabetics but was especially profound for Type 1 Diabetics.

It's sobering to be reminded that Type 1, originally called Juvenile Diabetes, was essentially a death sentence. Before we found insulin most children didn't survive beyond 3-4 years after diagnosis. I can't imagine the pain of watching your child waste away to the point of dying. Heartbreaking.

If you scroll down to page 8 you'll discover that what diabetics were told they can use freely under direction is very similar to what we've been talking about.

Eat as much as you want of meat, game, poultry, fish and shellfish. I found it interesting to see the different kinds of meats they had then. You can find some gems in the recipe section. Tongue, & brain I remember my mum preparing in the 60's. It's rarely available now. Except if you go to a supermarket in France. Incredible what you can find available in different countries.

Above ground vegetables including squash as per Dr Eric Westman.

It's sad to see Crisco appearing on the list of fats to eat freely under direction. Crisco was the first plant oil that tried to shunt butter and lard off the side of our dinner tables. That's when those seed oils really came in, as I've said I would warn you against those. They didn't know about the dangers of them back then.

Apart from that, the diet they were teaching diabetics to use in 1917 is the same as what this whole section on counting carbohydrates has been about.

It's funny, when you think about it, that we've taken all this time to get back to what we knew was right over 100 years ago. That's a frightening indictment of the field of nutritional sciences and the curly path we've been led down, before finally being brought back to better ways of eating.

If you like you can go 150 years back to William Banting's 1869 Letter on Corpulence

Or even nearly 200 years back to Jean-Anthelme Brillat-Savarin's 1825 Physiologie du Gout (Physiology of Taste)

I treat obesity the same way I treat diabetes.

Dr Eric Westman

In the next section we'll go through the 30 day resets from carnivore to vegan to show you how to apply a low carbohydrate diet with different food approaches.

30 Day Resets

Here we are going to look at what I call 30 Day Resets. Another word for 30 days is a month and the idea is to reset or reboot your genes and their expression. Like we talked about in the section on epigenetics, the ultimate controller of your genes is the environment they live in. And one of the main things that influence our intra and extracellular environment is the food we eat and the liquids we drink.

I see the 30 Day Resets to be like rebooting your computer. Most of us have had the experience of our computers slowing down and becoming unable to perform basic tasks that we'd normally expect them to do and doing a simple reboot to clean it up and hey presto, it works again. So I look at this in the same vein as rebooting your computer. You can reboot your genes by giving your new diet at least a month to work its magic.

Another reason I like 30 days is that most of us can handle the thought of trying something out for 30 days. If I told you you needed 9 months of being strict with this to get a good result I'm sure you wouldn't be as keen. But 30 days? Now, that becomes handleable. And for 95% of us, those 30 days will be all you need to confirm that there is some value in this and give you the needed motivation to continue and to explore further.

30 Day Reset Zero Carb Carnivore

If you can consider it, the primary reset I recommend even though we've talked so much about eating less than 20 total grams of carbohydrate a day, is the zero carb carnivore diet. It wasn't the way I started when I came out from being a vegan-vegetarian. Partly because it really wasn't in the public sphere as it is now and partly because it would have been too much of a leap for me.

There's many reasons I recommend this to begin with. Some say it's quite hard to do but I have had people jump in and be fine. I started low carb when I went into this whole realm. From my high carb vegetarian diet I shifted to a low carb, high healthy fat, moderate protein diet eating meats and vegetables. It took me several years to reduce the vegetables, to increase the meat and go to more of a zero carb carnivore diet.

If you are looking at starting from scratch and really resetting and rebooting those genes, I think the zero carb carnivore diet deserves some deep respect here. The only challenge I've heard with it has been the rare instance where in making the transition from carbohydrates to fat for fuel that some people slip into a hypothyroid state. If you'd like to read more about that go here. The key suggestion if you have been in a long term struggle with weight is to do what I did. Go more slowly. If that's you one particular way you can mix this up is to have a carnivore meal for your daily break fast meal and a low carb high fat meal with some vegetables for your following meal/s.

The idea behind this reset is to eat when you are hungry and stop when you are satisfied. It's not about stuffing yourself. It's about being nicely satisfied. Getting the right fat to protein mix can be a salient ingredient of that feeling of satisfaction. The PaleoKetogenic folk in Hungary have a protocol of eating 2 grams of fat for every gram of protein. That adds weight to why Australian Aborigines were said to have thrown away the body of something they had just hunted and killed if it didn't have enough fat on it. Imagine going through all that effort to then just leave your kill? That should tell us something about the value in which the ancients saw fat. The phenomenon of rabbit starvation is relatively well known. Too much lean meat has been shown to not be good for us. If you've been terrified of fat, which we all have been, you may tend to err on the lean side. So watch you don't fall in that hole.

Most meat and eggs are 1:1 so you do need to add in some fat in the cooking process. The cheaper mincemeats, in the US the 70:30 are 2:1. 80:20 are 1:1. In New Zealand the general rule of thumb is that Premium mince is <5% = 95:5, Prime Mince is 5-10% = 90:10 - 95:5 and regular mince is 10-20% = 80:20 - 90:10.

A simple measure to get that 2:1 ratio is to add 35 grams of fat or suet for every 100 grams of meat. But at the beginning, if you are not seriously sick, I wouldn't be too concerned with this detail. Get your body-mind working better before you handle this. And if losing fat weight is part of your agenda, you'll have plenty of fat stores you need to use up.

I would steer you towards the red meats. Again, no pun intended. Chicken breast without the skin is very low fat. It's quite dry, which may be that reason I can get hiccoughs from eating it. If you've been a vegetarian for a long time you might think you want to start there. Fish is also often seen as a good entry point. Again most of it is low in fat. Even salmon, one of the fattiest fish, has a fat content of just over 1 gram of fat to 2 grams of protein. Whereas tuna has only about 1 gram of fat for every 20 grams of protein.

In terms of the PKD idea of 2 grams of fat to 1 gram of protein chicken and fish are particularly poor. I know it took me a long time to get to eating steak but when I did, as I've said, I felt like I had died and gone to heaven. I felt so good. So, if you can, I see nothing wrong with going straight to steak.

Ruminants need to be appreciated as our primary and optimal meat source. The specific meat for me that I've settled down to as my favourite meat is what I know as Scotch fillet. I'm sure it has nothing to do with me being a Scot but then again, it might. When I looked at a lot of the carnivore information most people were talking about their favourite meat being ribeye. I thought it would be nice to try one one day. Until I discovered that ribeye is the exactly the same cut as a Scotch fillet. It's just called different things in different countries.

I think it's really interesting that, it took me a while to re-equilibrate my body to what it truly liked and I came down to the same conclusion as many other carnivores have. Ruminants, beef, sheep, deer and goat, are really our favourite foods. Fish, birds and eggs are second best when ruminants weren't available. As hunter gatherers we basically followed the coastline as we inhabited the planet because when ruminants weren't available we could catch fish. We proceeded that way around the globe, eating through populations of animals until we learned to farm them.

Carbon marking has been used to determine what early humans ate and the results show we were apex predators meaning our main food was meat but as well as ruminants we also ate other predators as well.

Nose to Tail

There are carnivores that do very well on a steak only diet for years and years. And there are those that promote the nose to tail idea. Offal and broths come in at this point. It's often acknowledged that when a lion hunts the first thing it goes for is the liver. It seems to be a highly prized bit of flesh.

One of my favourite meals when I was eating vegetables was lambs liver fried up with some chopped veggies. I particularly enjoyed chopped fresh ginger and garlic in this mix. If you don't enjoy liver that was a great way for me to make it palatable. Another favourite was with paprika, rosemary and thyme. Whereas, now I'm eating primarily meat I find I don't enjoy liver that much so I only eat small amounts. Not the 400-500 grams per week that the PKD folk recommend.

I recommend you start somewhere that feels good and appropriate for you and play around with it according to your N=1 experiment.

Water

The next thing about the carnivore diet is to have water to thirst. It's not about having bucketloads of water, you can die from diluting your blood electrolytes with too much water. So have it to thirst. I find I still can get tripped up with differentiating thirst from hunger. It's often that

I'll feel like something and have a snack when what I was really feeling was thirst and i just wanted some water. My fallback position on that is to drink first when I feel the urge to snack. If one or two glasses of water doesn't handle that feeling I can snack later.

Salt

And have salt to taste. There was a reason the salt trade was a primary industry in ancient days. We knew we needed it. Our medical profession have terrified people off salt for decades so it can take some reeducation to appreciate its importance to our bodies. I still to this day have to work at keeping my salt content up to minimise muscle cramping at night.

30 Day Reset LCHF

If carnivore seems too far out for you then the one I started with is the one I've described earlier.

Eating when hungry, stopping when satisfied. Basing your diet on meats, fish, poultry and eggs to satisfaction.

For the vegetable portion of a 30 Day LCHF reset you have some options.

The primary one we have talked about is where you keep your total carbohydrate count down to less than 20 grams a day. Or as a rough rule of thumb 2 cups of green salad and 1 cup of mixed above ground cooked vegetables.

Which vegetables you use here will depend on whether you want to start by also eliminating vegetables that are associated with autoimmune disorders.

If you have any level of the more than 100 auto immune diseases. I highly recommend you try shifting your diet right back to ZCHF or carnivore or a LCHF approach that eliminates known problem plants. It's easy to see how that would be a good starting place as autoimmune protocols generally eliminate eggs as the whites can be a problem, nuts and seeds, even coffee, cocoa and seed based spices, all the nightshades, potatoes, tomatoes, eggplants, sweet and hot peppers, goji berries and spices derived from peppers like paprika, as well as gluten and gluten cross reactive foods.

I recommend taking that into account even if you are not aware whether you have an autoimmune problem. You can always add one at a time in later to test out your reactions. You might be surprised to find that once you eliminate a food that you get clearer signals from your body when you reintroduce it. Getting a clear sign from your body makes it easier to choose not to have the foods that do that to you.

For myself I notice these symptoms from certain plant foods. Gut pain and bloating from wheat, nuts, seeds and eggplants. The less cooked the eggplant is, the worse it is. Flatulence from legumes and some nuts, like cashews. I also get joint pain, particularly in my thumb joints, from coffee. My nose and face fire up from coffee, chocolate and alcohol. I wish it wouldn't. I wish it would leave me alone to enjoy what I enjoyed. But I have to honour its wisdom and accept what works for me and what doesn't. It's a pain to have to acknowledge it but it's more of a pain to suffer because of it.

The other option on vegetables is from the Paleo Ketogenic Diet folk in Hungary. In terms of vegetables they differ from the regular ketogenic folk in their approach. Rather than eat above ground vegetables they would favour a small amount of cooked root vegetables. They are not solidly against above ground vegetables and raw or cooked but they do agree with eliminating plants that can stimulate autoimmune reactions. So any vegetable associated with that needs to be eliminated e.g. potatoes even though they are a root vegetable are excluded.

Their first option is no vegetables but if you are healthy and would like some and your body can deal with them, they recommend no more than 30% of the food on your plate. They don't work with grams of carbohydrates. Simply the volume of food on your plate. Which will suit some people. If you are metabolically healthy they would also recommend no more than 1 piece of fruit a day. And they are OK with a small amount of honey as the only sweetener option for healthy people.

As you can read there are interesting dynamics there and different twists to the vegetable story. I laid out quite a bit on the above ground vegetables but I wanted to bring this in now so you could actually start to really think about which way you might want to approach that. I think starting from a zero carb carnivore, once you've gone into that and are through your 30 day reset, if you wanted to add something to it, it may be that a small amount of cooked root vegetables might be better. If you keep it under 20 grams of total carbohydrate you'll only be eating about a third of a cup of cooked root vegetables and you can work from there if you want to test your carbohydrate tolerance level.

Anti-Nutrients

Plants don't just deliver carbohydrates. We are coming to the understanding that certain compounds in plants act as anti nutrients in our digestive systems leading to other nutrients not being absorbed as well. They come with names such as lectins, phytates, saponins and protease inhibitors. When the main thing we want our digestive process to do is to absorb needed nutrients, to eat food that stops that process makes no sense at all.

Dairy

Eliminate or limit cream to 50 mis a day and cheese to 120 grams a day.

Your Philosophy Can Be Dangerous For Your Health

While I have put these in here as I respect there are people who want to stay with these lifestyles, I did want to add a word of warning before I go into them. As you know I've personally been a vegetarian for 35 years of my now 65 year lifespan, 10 of those years were wheat free vegan. I've been wheat free since 1991. But bottomline, after decades of being apparently healthy and thinking it was working for me, it wasn't. It was getting back to eating meat that healed me.

For me it was challenging to get out of the philosophical mindset of what in India is called *ahimsa*. Meaning to live without harming other beings. And to really begin to emotionally accept what my body can deal with and what it can't. An essential part of that was owning up to the self harm I was doing by not paying attention to what my body was trying to tell me.

If making this transition is difficult for you, and you are open to dig into some deep questions, I'd recommend reading *The Vegetarian Myth* by Lierre Keith. In there she shares her story of how she destroyed her health with 20 years of vegan eating. It's a very emotive and enlightening book. She approaches it from every perspective, from the health of the soil, to the health of the planet, to the politics, the philosophy, the religious, and the mental-emotional-physical health of being human. She covers all those because she had to cover them all for herself so she could make that shift herself. It was a big deal for her. She had built her life around it. And it was painful to own up to the fact that it wasn't working for her body and that she needed to change. She needed to get her mind on board before she could. So it is the whole gamut of that process that she elucidates in this book. What helped, or rather, forced her change was that her body, her joints in particular, were causing her more pain than the pain of changing her mind about what was appropriate for her to eat.

So I highly recommend reading this book if you are open to question vegetarian or vegan belief systems.

And if you really feel you must stay with your philosophy then here are some ideas on what you can do.

30 Day Reset Vegetarian

In A New Atkins For A New You they recommend that vegetarians limit carbohydrates to 30 net grams a day. Which means you don't count the fibre grams when you look at the amounts you eat. It's very hard to get below 20 grams total as a vegetarian. That's because if you are eating pulses and grains to get your mix of amino acids right, so you can get enough protein, you're going to be way over your carbohydrate tolerance level.

Eating when hungry, stopping when satisfied doesn't change. If you can eat eggs, great. You can get a lot of mileage from them. If you can eat cheese remember to limit that to 120 grams a day and cream to 50 mls a day.

But you may not be able to do that so you're then looking at soy products like tofu & tempeh.

Keep above ground cooked veggies to a cup a day and salads to 2 cups. You could play with having a smaller amount of below ground vegetables as an alternative to above ground to see if that made a difference for you.

Oils I'd suggest the plant fruit oils like olive, coconut and avocado. No seed oils.

It's recommended to introduce nuts and seeds before you introduce berries for their nutrient density.

Water to thirst and salt to taste.

30 Day Reset Vegan

As you progress to vegan it becomes more difficult to keep your carbohydrates down so *A New Atkins For A New You* recommends starting out at 50 net grams of carbohydrate a day.

Again eat when hungry, stop when satisfied. Eat seeds, nuts, soy products, soy and rice cheeses, seitan, pulses and high protein grains like quinoa.

A cup of cooked above ground vegetables and 2 cups of salad. Or play again with a smaller amount of below ground cooked vegetables. Oils as in fruit oils olive, coconut and avocado. Water to thirst. Salt to taste.

Please remember I honour the struggle it can be to let go of being vegan and vegetarian. But if you are open to it I highly recommend you look at changing that by getting your mind and emotions around it so you can actually make the change. But if you can't at least know there are options for you.

When To Eat

We've done a lot of talking about what to eat.

This section is about when to eat. Why is that important? It's primarily about limiting the spread of the hours you actually spend eating over the day. Which can make a serious dent in how many hours your body is awash with insulin. I've likened insulin to Mr Scrooge, stuffing sugar away into any cell it can, filling up your fat vaults with whatever food you are eating, and locking them down so you can't access them. I'm assuming you can imagine if you can reduce the amount of time that your body lives in an insulin dominant state you can reduce how much fat is stored and how long it is locked away for. Keeping Mr Scrooge at bay is a major boon for your metabolism.

This is called different names, like intermittent fasting, limited eating window or time restricted feeding. Having different ways of describing the same thing can be really helpful because there are some people that hate the idea of fasting but can handle the thought of time restricted eating.

One of the best resources I've found for this is Dr Jason Fung, www.intensivedietarymanagement.com.

He looked at it this way. Before the 1970's people generally ate three square meals a day. Do you remember that term? 3 squares? The idea was 3 solid meals not namby-pamby snacks. Jason surmised that when we did that, yes most of the day we did have insulin dominance but there were also serious amounts of time in which we were insulin deficient. That was because we used to only eat three meals a day and between each meal there was time for the insulin to come down to low levels. Bedtime snacks were also not encouraged so after dinner we didn't eat again before going to bed. Which meant a deeper insulin trough overnight.

Whereas in the 70's we were taught to eat more often during the day. That was partly due to the rising snack industry. And we were taught to have a snack before bed. So throughout the day we lost the between meal dips in insulin so insulin was high over nearly all of our waking hours. And those hours were stretched out further with that bedtime snack. The only time we were becoming insulin deficient was over a shorter overnight window.

One of the things you should notice when you learn to reduce the amount of carbohydrates below your carbohydrate tolerance level is that you just naturally won't be as hungry. You'll want to eat less. You'll actually be satisfied around food. Your mental-emotional-physical energy will improve. That often leads people to just eating one or two meals a day. I've settled into being a twice a day eater myself.

One of the simplest ways for me to think about this, is the idea of reducing my eating window. Or in other words the amount of hours during the day that I spend eating compared to the amount of hours I spend without eating. How that looks in my day is that I'll generally have my first meal between 11am to 1pm and my second meal between 6 to 8pm. When you count the hours of the day from 11am to 6pm or 1pm to 8pm you get 7 hours. So that's a 7:17 or 7 hours eating to 17 hours not eating ratio. You can see there's a long period of time there without any eating.

The idea remember is that insulin is raised by nearly everything, carbohydrate the most, protein the next, fat the next and even fibre in big salads or lots of fruits like apples.

If you limit the time between your first meal and your last meal of the day, you minimise your carbohydrate load throughout big periods of time during the 24 hours. Shortening your eating window is what it's all about.

It's really easy for me to not eat in the morning, having a late breakfast or brunch and then another meal early in the evening. But other people find it easier to eat an early breakfast and have a late lunch and then not eating for the rest of the day. You can tailor fit a reduced eating window to your personal preferences.

Some people, like me, are really good on something like the seven hours that I do. There is room for personal flexibility here. Anywhere from an 8 hour eating window to a 4, to even a 2 hour eating window. So all meals and snacks, everything that has calories in it including drinks, then come inside each of those time frames. Which can be late in the day or it can be early in the day, depending on what works best for you.

The same with those that have one meal a day, there will be some time during the day that you feel that works best for you. Work with your body's food clock on that one. As our social life is important to us, some may want to work this around your life and your family. Eating with them may be more important than what your body would prefer. That's completely a personal choice.

The key is to have the meals be zero or low carbohydrate and to limit the overall amount of time your body has to deal with food so that both of those impacts together minimise the amount of insulin that is released and the amount of time it is released over.

It's up to you whether you also have something like coffee with a little cream in the morning or not. A little bit of cream will technically break your fast and raise insulin but your body will deal with it relatively quickly and for some people that's all they need to get through to lunch or dinner and keep their eating window as short as they can.

Hopefully that's given you an idea that intermittent fasting, reducing your eating window, or time restricted feeding is a normal thing to do and you can appreciate that it's a big part of the journey. You can make a lot of changes purely with this alone but if you bring in the carbohydrate restriction, and eating within your carbohydrate tolerance level on top of that, then you get cumulative benefits. Both in the things you notice, the things we talked about; reduced hunger, increased energy and a reducing waistline. And the things you don't necessarily notice. Like less oxidation, less glycation and less AGEing. As you keep reducing your carbohydrate load over the day you will be supporting your body better.

So, take this section not as a stand alone thing. It can be a stand alone thing, a lot of people recommend it as such. One of the reasons Jason champions it is that it was easier to teach his overweight diabetic patients to stop eating than it was to teach them to not eat carbohydrates. He may educate them to do that but they couldn't seem to get that rice, a staple part of their diets, was carbohydrate. So rather than trying to continuously reeducate them to reduce the carbohydrates, including rice, it was easier and more time effective to teach people not to eat at all. He had people get off their diabetic medications in just a few months by simply doing that. But I recommend fasting or reducing your eating window along with carbohydrate restriction within your carbohydrate tolerance level. Then you get the best of both worlds.

Some people also mix it up. There are various ways to do that. If you are normally a 6-8 hour window eating person try adding in one or two days a week when you eat in a 2-4 hour eating window. You could also add in a day a month where you don't eat at all. Some extend this to 3 days, say at the change of seasons to mark the occasion. And you can go on from there to explore longer and deeper fasts if you want. But that's not something I have an interest in pursuing so I'd recommend looking for people that are doing that, if that's of interest for you. There are concerns about what that does to your metabolic and hormonal processes over time. For me the journey has been more about learning how to eat rather than learning how to starve.

Results To Pay Attention To

First we're going to look at the main problems you might come across. Problems are after all results we can generate. After that we'll look at what things are best to keep a track of and how to keep a track of those things.

The Main Problems With LCHF Ketogenic Lifestyles

OK. So now we know what to eat and we know when to eat, we're going to look at some problems we might run into. To be forewarned is to be forearmed.

First we'll talk about the emotional tripwires. Those things that can either stop us starting or trip us up and send us head over heels down the hill when we are in full stride.

To make sure you embed this in your body and mind more solidly grab a piece of paper and a pen or pencil. Draw an equilateral triangle with the base along the bottom of the page and the point at the top in the middle of the page.

On the bottom left point write the word 'Helplessness'. That's the first thing I see. People go into helplessness, Which shows up in those thoughts that begin with I can't. Like I can't do that! That's too hard! Well I don't know how many carbohydrates are in that! I can't be bothered figuring that out.

Do you get what I'm talking about? So if you hear yourself going into helplessness just wake up and grow up. You're an adult, not a kid anymore. And you have resources at your disposal. Give yourself a pat on the back and say *You can handle this* and go back to the section on How To Count Carbohydrates if you need to clarify things and know what you need to do so you're not helpless. Or go carnivore for a month so you don't have to think about it.

The next problem I see is Rebellion. Write 'Rebellion' at the bottom right hand point. Rebellion is personified with the thought I won't! Hey, that may be a great idea, but there's no way I'm going to do that, I just hate that idea, I won't do it! If you recognise that voice in yourself then again, it's time to grow up and get over being a teenager about this.

Helplessness can be likened to the baby state. Rebellion is like the teenager to young adult stage. Some people never grow out of that one. But again, we have to learn to be able to laugh at ourselves and get over ourselves so we can grow up. We have to know what's good for us and learn to take steps in that direction. And adulthood is just a process of growing into that, isn't it?

So that's the base of the triangle. At times you'll be on one side of that line from helplessness to rebellion and at other times you'll find yourself at the other end. So write *I can't...* underneath Helplessness and *I won't...* under Rebellion. Just so you can honour the process that lives in all of us. Respect them and give them space. They're part of normal healthy living. You're not really a problem child after all.

Now write - *I can't AND I won't...* - at the top of the triangle. What do you think those two combined represent?

I'd say they point out Addiction. So write that at the tippy top. Basically food can be really addictive. If you Google <u>sugar and brain scans</u> and go to Images, you'll see that sugar lights up the same areas of the brain as cocaine does. Sugar fires up the dopamine pathway, that feel-good hormone. Over time we build up a tolerance so that we need more and more sugar to stimulate the same amount of dopamine, which is another reason that obese people don't feel as satisfied with food.

Then, as with all addiction, comes the dependence and the withdrawal symptoms when you withhold that food.

So food can be a real addiction. Remember I talked about Food Fixes. That can be a minor issue for you, or it can be a really severe issue. Which means you need to pay attention to what happens when you're feeling really good, you're getting the results you want and then you have that little thought, remember? *A little bit of this won't hurt.* What happens after you act on that thought?

If you have a severe biochemical addiction you may very well notice you just have to have one cracker or one cookie, one bite of apple, one grape, or one glass of wine and that leads to a cascade that can take you days, weeks or months to get out of. That's what I would call a severe biochemical addiction.

How you approach this will depend on two things:

- 1. How serious the issue is. How debilitating etc
- 2. How seriously you take that issue.

If the issue is big enough then you will generally take it more seriously but not necessarily so.

If I have one addiction in life, it's probably food.

Liam Hemsworth

As with all addictions, it's that one day at a time process. For today, I will do this... Thinking about tomorrow just creates more anxiety. Just focus on today. Focus on THIS meal or THIS snack. The one I'm having right now.

If it's not so severe it may just take you a few days to get back on track and then you can indulge a bit whenever you want and get back on track as soon as you can. This was my process at the beginning. I would come and go. I would get to feeling really good and I would have a day which would lead me down hill, sometimes it did take me more than a week to get back on track. So there's part of me that has that addictive process going on. It was only over time and experience that it got easier and easier. And the more I focus on good quality animal foods, leaving everything else out, the easier it is for me. I know for me the more I skimp on meat and fat the more likely I'll be heading for the cheese, the chocolate or the mascarpone and blueberries.

The Battle For Your Mind

In terms of handling battles, the battle for your mind can come from two fronts. Internal and external.

The internal struggle is both a philosophical issue, dealing with our beliefs about what's right and what's wrong to eat, and it's also that internal mental and biochemical addictive process that happens with certain foods. You need to pay attention to both of those pieces. And you need to accept that it's a journey so you can learn to handle it with some grace and humour.

The external battle for our mind is what we hear from experts. Generally that happens through the media. The media propaganda machine can shout very loudly and undermine your fledgling steps at change. Until you get solidly grounded in your own experience and the counter arguments against the misinformation from the media and their 'experts', there is always the risk that your efforts will be sidetracked by information that lines up with your weak spots. They can hit you where it hurts; your previous erroneous beliefs and your mental-emotional and physical-biochemical addictive processes.

As you will hopefully now understand, it's experts getting control of the mass mind that has gotten us into such deep water. The only cure for this is to get yourself educated both with your own personal experience and from experts that are more worthy of your trust. I've pointed you to the people that I've learnt from. Learn from them, dig out things from them and read. Treat it as an

ongoing study because N=1 isn't just about the food, it's about getting yourself wise. Part of getting wise is about getting to know who to pay attention to and who not to.

As far as the media is concerned, anything that's sensational they will slam right in front of your face in a way that reminds me of *A Clockwork Orange*.

If you never read the book or watched the film it was about using an experimental aversion therapy. To stop a vicious psychopath from hurting people they held him in a machine that locked him in place and held his eyelids open as he was forced to watch horrific scenes, while simultaneously being fed drugs that made him writhe in pain. The result being, instead of taking pleasure in abusing people, he would throw up whenever confronted with any degree of viciousness. In the story it ultimately backfired but not without some very graphic and gripping scenes.

This is kind of what the media does to us when it focuses on the drama and doesn't tell us the truth. And remember what I said before? If you see that they're saying *don't eat this, it will kill you* and you see that it's an epidemiological or observational study, you know what to do. Remember? You forget about it. Don't even think about it. And if you do want to think about it then go back to the sources that you've learned to trust and listen to what they say about it.

There are enough people out there now who are willing to make a public stand for the truth that it won't take long for them to speak out after the latest media feeding frenzy. Nowadays I know enough to spot the holes in their arguments. But if there are pieces I'm not quite sure about I'll look out for what people I trust are saying about that. Then I'll listen to them more than I'll listen to the news report. I recommend you do the same.

So, if you can surpass the helplessness, the rebellion and the addictions then you'll be able do this. You'll also want to do this and once it becomes a supportive wheel rather than a vicious cycle for you, you'll find you want more of that. Because feeling good is a really good thing.

What Good Things To Look Out For

Here we're starting to look at results. At the beginning they are going to be around how you feel.

So you've either gone zero carb or low carb and healthy fats. You've either gone with meat or without meat. Pull out a sheet of paper and draw another equilateral triangle.

Less Hunger

Write *Hunger* on the bottom left point of your triangle. The first thing you should start to see is a reduction in hunger.

The only caveat I have to that relates to what I mentioned as The Goldilocks Principle. Learning to eat to satisfaction. That can be a challenge for some people. If we've had any long term weight issues we will tend to have been forcing ourselves to eat less. That old 'eat less, exercise more' parrot with a firm grip on our shoulders whispering continuously into our inner ear, boring deep into our brains. In essence we've been playing The Hunger Games with ourselves. That can be challenging to stop playing. But you can still experience less hunger and lose fat in the process of mastering that.

Personally my weight bounced over my adult years from 64 to 84 kg's. 84 kg's for me at 166.4cm is a BMI of 30.3. Obesity begins at 30. Essentially I added a third of my body weight in fat and bounced between those points in a vicious yoyo cycle that went from my fully grown teenage years to my early forties. When I got into the low carb high fat process I still bounced around but it was in a tighter curve, between 64 to 70 kgs. That's a good 10 pounds up and down but then it

just got tighter and tighter. Sitting closer to 70kgs as I learned not to starve myself. Particularly of protein like I've mentioned earlier.

Partly your hunger reduces because you're finally learning to eat to satisfaction and the other reason your hunger reduces is because you're not stimulating insulin production. Remember insulin acts like Mr Scrooge on your energy system. It will lock the energy in your fat stores down so that you want to eat something sooner, and it shuts down leptin so you don't get the satisfied feeling that comes when leptin isn't being blocked by insulin.

That comes back to the process of limiting carbohydrates. You should find if you eliminate them enough to get below your carbohydrate tolerance level, and you eat enough protein, that your hunger becomes a non issue.

How that manifests for most people is they find they're not thinking about food all the time like they used to.

I call it freedom from food.

Over time that feeling will grow as you learn to simultaneously trust your hunger and enjoy the freedom from it.

More Energy

Write *Energy* on the bottom right hand point of the triangle. The second thing you should notice is your energy levels increasing. And that's all levels of energy, physical, emotional and mental. It's feeling the energy to do things. It's feeling calmer and more emotionally balanced. Sometimes that may mean finding out that you are more willing to stand up for yourself in ways you haven't been able to before. It can take some time to get used to that level of emotional strength. In terms of mental energy it's having a mind that thinks clearly, remembers things better and can sort the wheat from the chaff more easily.

I ask you, isn't that what we're all looking for?

At a very deep level the way I've experienced it is, that the more I feed my body and my genes the food they love, the more I come into harmony with the source of my soul, my spirit, where peace, joy and love abound. Gone are the sensations of need, greed and the sense of *I can't get no, no, no satisfaction*. Because my body is getting what it wants my mind can rest into the fullness of my spirit.

When you can feel that good just from your choice of foods, that's when you're really driving that supportive wheel, using food to do what it should do, which is to fix the processes in your body. Food is meant to provide nutrients for maintenance, repair and regeneration. And once you get that right then that's what you experience. Little hunger, often no hunger, and energy, meaning you can just get on with your day.

I can go to work and work for hours when my mind is engaged, I just don't feel hungry. I can be an emotional eater. If there's nothing else to do, well food is a good option. So I have to watch that. But if my body isn't crying out that it's hungry then it's easier for me to do something else, rather than eat.

Healthier Waistline

Ready for the top point of the triangle? Write the word *Waistline* up there. By waistline I do mean the area around your belly button. A lot of men may think they have the same waistline as they

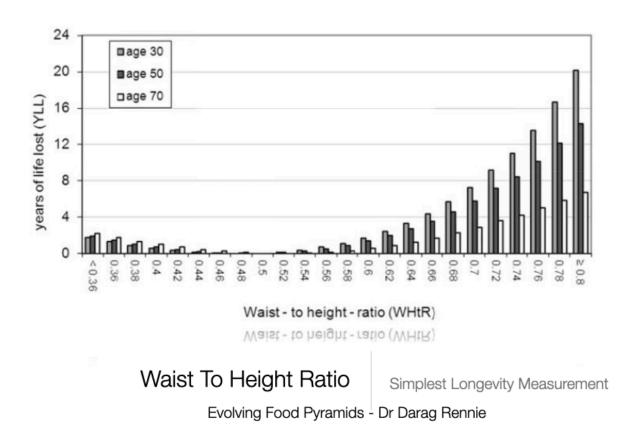
had in their twenties because they still have the same belt size. If that belt is buckled up below a big belly, that doesn't count as the same waist size. I'm sorry to pop that bubble but then you knew it wasn't right all along, didn't you? The key result here is that you should see your waistline around your belly button reduce. That's your liver and visceral fat heading out. One of the best things you can do for yourself.

The Waist To Height Ratio

Let's look more at this waist to height ratio.

In terms of a simple measurement you can do, this is one of the most helpful. It is a measure around the level of your belly button. You want to do it with a completely relaxed belly. To be accurate you don't want to tighten your belly at all. You want a reading of what it is in a relaxed state.

It really wants to be pretty close to half your height. You can see that in this longevity graph where years of life left is measured against your waist to height ratio.



This shows that the sweetspot for longevity is a waist to height ratio of 0.5 or a waist that is half your height. As you get older and as your waist gets bigger you take serious amounts of years off your life. When your waist to height ratio goes over 0.8 in your 30's you take 20 years off your life expectancy, in your 50's you take 15 years off, and in your 70's you take 5. At 0.7 those reductions are 7, 6 & 3 years respectively. On the other end it's still not good but nowhere near as bad as having a big waist. On the left you can see it goes in the opposite direction. The thinner and older you are the sooner you die.. At a waist to height ratio of 0.36 a 30 year old takes 2 years off their life expectancy, a 50 year old 2 years plus a month or two more and a 70 year old 2 years plus another month or two more.

This is why, rather than dealing with the scales, which can traumatise people, I generally recommend throwing the scales away and paying attention to your waist. An even simpler way to stay in touch with your waistline is how loose your clothes become. I don't measure my waist.

When my clothes get tighter again I know I need to reduce both my carbohydrates and my intake of healthy fat.

Summary

A reduction in hunger, an increase in energy, and a reduction in your waistline are the three key indicators you are looking for to let you know you are on the right track.

Speedbumps

In the first week though you may experience some speed bumps. Things like headache, fatigue, irritability. This little triad has been labelled the keto flu. I'm not sure how it got that name but we'll just work with it. I've talked before about salt, how important it is and how we've been taught to eat low salt. I never experienced the keto flu but if you do, a simple solution is to have both extra water and salt. Bone broth is a good option if you are into creating that. A simple version of this is to keep the fat from a roast dish like leg of lamb, lamb chops or chicken. Or a simple glass of warm water with a half a teaspoon or a teaspoon of salt in it. Drink it down and have some more water if you want. I don't recommend bouillon cubes because they've got lots of things in them you don't want.

It really comes down to a problem with dehydration because when you reduce your carbohydrates your insulin levels reduce, which reduces insulin's effect on the kidneys of making them retain salt. So your kidneys finally get to let go of salt, like they've always wanted to. Water goes with it and exacerbates the symptoms of keto flu. So increasing your salt intake and hydration is a great thing to remember to do if you experience this. Particularly in your first week or month.

Why The Salt Trade Was A Big Deal.

A little more about salt. I didn't know about salt until several months or even a year or two into LCHF ketogenic eating and at that point I was starting to feel tired. Less energy. And so as well as headaches, fatigue, dizziness in the beginning, if you find you had good levels of energy at the beginning but as you've gone along you find you're getting tired again maybe it's a lack of that old man salt. So you need to add more salt.

Another way it shows up, which can be early on or much later, as it did for me, is muscle cramps. I remember waking up at night with both my calf muscles completely seized up. Painful. And for most people its salt, sodium chloride, that is the remedy. So when I added more salt into my diet the cramps went. Others may need magnesium, or potassium, as well or they may need to reduce their coffee intake. But salt will generally solve the problem in 90% of people. So don't limit salt. If you get those symptoms at the beginning or you get symptoms of tiredness or cramping as you go along, then your first thought should be *Oh, maybe I need more salt*. And away you go.

I still get cramping from time to time. So I've had to learn to salt my food more than I was used to. At least that's what it tastes like. But then I've had a few decades of under salting my food because I was following the low salt guidelines, so my taste for salt has been trained out of me. But leg cramps and tiredness have both taught me to have more and not be afraid of it.

Keeping Fat Down At The Beginning.

Many people make the mistake when they hear that a ketogenic diet is a Low Carbohydrate High Fat diet, of going to town with fat. One way people often do this is to go to town with cream and butter.

But, in the beginning, particularly if you are overweight, it's best to eat a low carbohydrate, low but healthy fat, and a higher protein diet. Why? Because you want the fat to be provided by your body as this becomes more readily available. Remember when you reduce the carbohydrates below your carbohydrate tolerance level, your body produces less insulin. Less insulin means you've banished Mr Scrooge from the kingdom and your fat stores are freely available.

So you're eating protein to satisfaction without a lot of extra fat, you've got your carbs down and your body is providing the extra fat you need. As you reduce your body fat over time and you are coming close to a waist to height ratio of just below half you'll find you will need to increase the amount of fat you eat. That's where you can ramp it up to that 2:1 fat to protein grams recommended by the PaleoKetogenic team. A simple measurement they offer is 35 grams of fat for every 100 grams of meat to maintain health.

But, remember, at any point if you eat more fat than you need, all the body can do is store it for you. It's not going to throw it out, as much as you might like it to.

Which Blood Tests Are Important?

Beyond your waist to height ratio the next thing to pay attention to is your blood tests. This also involves learning which ones are important and which aren't. To keep tabs on your metabolic health I believe the first two tests below are the most important. Your Fasting TG/HDL ratio and your HBA1C.

Fasted Triglyceride/HDL Ratio

This is the most important test to pay attention to in terms of metabolic syndrome.

Our ideas about cholesterol have changed massively. Prof Ken Sikaris from Melbourne, is a haematologist, that's someone who works with blood. When sharing the history of our relationship with cholesterol he elaborates that: 30 years ago cholesterol was of primary importance and triglycerides were unimportant. 20 years ago it was all about there being a bad cholesterol and a good cholesterol. 10 years ago it was all about the types of 'bad' cholesterol. That's the oxidised, glycated, small dense LDL we've talked about.

If you increase the good animal fats in your diet, your cholesterol will generally go up. Most of our cholesterol is produced by our own body. It's in every cell wall and the backbone of many hormones. It's an important molecule. That's why your body produces 80+ percent of it, all by itself. So, you don't want to limit it. You actually want to have the bulk of it be good molecules. Not the oxidised or glycated versions of it. Those things are the problem.

Today we're realising that the tests we've been doing have been totally off the wall and that triglycerides are particularly important. Instead of the bad cholesterol 'LDL" to total cholesterol ratio the best ratio to measure is the Fasted State Triglyceride: HDL ratio.

Most people will still get a non fasting blood lipid test but, because triglycerides are so responsive to carbohydrates, you need to ask for a Fasting Lipids so you can interpret the results better. Don't try to interpret a non fasted lipid panel with these figures.

Ken states how you want to be aiming for a Fasting Triglycerides of below 1.0 mmol/l or 88.5 mg/dl as when you get above 1.5 mmol/l or 132.75 mg/dl most of your LDL will be the small dense variety. And the TG/HDL ratio wants to be below 0.87.

There is a page on my website, called Which Blood Tests Are Important. If you go the search bar and type that in there you should get taken to it. The videos are on that page so you can inform yourself. Make sure you listen to them so you don't just blindly believe what I am saying here. We all need to be on board with doing our own research so we can make our own minds up.

HBA1C

We've talked about HBA1C before. The aim of the test is to measure the percentage of glycated, meaning rendered useless by glucose, haemoglobin in your blood. It essentially measures how much sugar your haemoglobin has been soaking in for the length of the life of the red blood cell. In most populations, because of its ease and simplicity, it is the preferred test to diagnose prediabetes and diabetes. Normal HBA1C is <40 mmol/mol or 5.8%. Prediabetes 41-49 mmol/mol or 5.9-6.6%. Diabetes >50mmol/mol or 6.7%.

The problem is that by the time your HBA1C has risen to that level you've already trashed your pancreas to a certain degree by overworking it to produce insulin to deal with all that glucose you've been adding in to your body. In the future I wouldn't be surprised to see fasting insulin levels replace HBA1C as a marker for Type 2 Diabetes. Before your HBA1C rises your fasting insulin has already been elevated for a long time. So a fasting insulin would be a better early warning test.

Insulin resistance develops over years and you can spot changes in fasting insulin a good 10 years before you see your glucose rising in a glucose tolerance test, which used to be the test for prediabetes before it was found HBA1C was as effective and simpler. I'm not 100% sure but I imagine this also is a similar time frame to a raised HBA1C. That 10 years could make a significant difference to the progression and reversibility of diabetes and all the problems that come with that.

Why? Because the job of insulin is to keep your blood glucose down and when it can't do that the body produces more insulin to deal with the increasing blood glucose levels. Remember the Japanese subway stations? You've got an overload of passengers/glucose, needing more guards or conductors/insulin to cram those passengers/glucose into the carriages/cells.

When your blood glucose remains high after a glucose tolerance test your pancreas is on the brink. Too many insulin producing cells are giving up the ghost and are dying on you. At the point that it does actually give up the ghost, your blood glucose heads for the roof while your insulin levels head for the floor as your body simply can't make it any more.

According to Dr Richard Bernstein a normal non diabetic not on a standard high carbohydrate diet has an HBA1C of 4.2-4.6% or 22.4-26.8 mmol/mol, which equates to around 80mml/dl blood sugar. As far as he is concerned both Type 2 and Type 1 diabetics can aim for and achieve this range rather than the standard, which varies between countries; UK < 6.5% or 48 mmol/mol, NZ under 7% or 53 mmol/mol, US 7% or 53 mmol/mol - 8% or 63.9 mmol/mol.

The reason Dr Bernstein recommends tighter control is that, as a long term Type 1 Diabetic himself he knows that the lower the blood glucose and the better controlled it is, the less blood vessel damage throughout your body. As anyone with diabetes should know it's the damage to the small blood vessels through too many and too high and prolonged blood glucose spikes, that lead to you losing your eyesight, kidneys, toes, feet and eventually your life itself.

One of the other ways the pancreas dies is that the sugar glycates or damages the proteins in the pancreatic beta cells that produce insulin. There's some evidence to show that if you get it early enough that you can recover some of that damage.

Dr Paul Mason champions the work of the late Dr Joseph Kraft, a pathologist who did a profound amount of research on the early diagnosis of diabetes based on insulin assays. He found there were five different groups of people. They each had a specific insulin responses to a

carbohydrate load. Essentially, if you over react, if you're the kind of person who produces way too much insulin for a given glucose load, that goes on for a longer period of time and as you age that gets worse and worse then those are the kind of people that are heading for diabetes quicker.

This has been known and in the press since 1974 but like Prof Yudkin and Pure White and Deadly Dr Kraft hasn't been given near enough the attention he deserved. He detailed this in his book Diabetes Epidemic And You.

Coronary Artery Count or Score

If you're still concerned about your arteries even if your Triglyceride level is good, your HDL is good and your TG/HDL ratio is good, you can go ahead and do what is called a Coronary Artery Count. Ivor Cummins who I've mentioned before, has a website called TheFatEmperor.com and is supported by the Irish Heart Disease Awareness Society https://ihda.ie would recommend getting a Coronary Artery Count. It's a non invasive low radiation scanning process where you can see the calcification in the coronary arteries. Basically the more calcified your arteries are the worse it is for you. We all know that.

Having one test will tell you whether you have a problem or not. There are plenty of people in the zero carb and low carb movements who are getting these tests. Their blood test all show up good but they have high total cholesterol so they just want to put their mind at rest. After all we've all been browbeaten for decades about how bad cholesterol is. So they check how their heart is and they get to realise *Oh, my heart's fine. No coronary artery build up.* And therefore those high LDL levels are high good LDL and they can know for sure for themselves so they can relax on the mental angst. Over time they get them retested and they see how they're progressing as a way of keeping a track on themselves.

There are reports of people finding their coronary artery score getting better over time with cleaning up their diet. Like I said, the visceral fat goes first, so that creates less inflammation. And then you're cutting down the amount of glycation and oxidation of LDL and the body has time to deal with all that and actually resorbs it. That's a great thing to hear that you can actually reverse it.

If you want to do this test, it's important to get the same kind of test each time. Best done if you use the same clinic for each one. Because there are a couple of different variations on the testing procedures that can be used. I highly recommend the movie lvor's promoting extratimemovie.com That title says it all.

Liver Enzymes

ALT or alanine transaminase is a liver enzyme which raises in the blood when liver cells are damaged. We're looking at that as a measure of liver damage from fatty liver disease. If your liver starts getting damaged, remember we talked about fructose, from fruit or table sugar and seed oils, getting in there, overloading the mitochondria, leading to fatty liver. What's happening there is that the liver cells are dying. And when they die they release their contents. One of which is an enzyme that's specific to the liver cell. So if that is raised it's showing how much of your liver is dying and it's showing up in that enzyme level increasing in your blood. You obviously want this to be low.

It's a disaster the amount of NAFLD, Non Alcoholic Fatty Liver Disease, that there is in the community. I've heard of kids under 9 in Scotland getting liver transplants because their livers have been wrecked by too many sugary everythings. That's insane when you think about it.

On Medication?

Remember I talked about medication. This is really important to understand because you can die if you get your medication wrong. That's a pretty serious result. How does that happen with going low carb?

Insulin

If you are on insulin or an insulin releasing drug like a sulfonylurea, either way you are mechanically adding more insulin to your system. And then, if you cut back on your carbohydrates and don't reduce your insulin, or insulin releasing drug at the same time, you can get into a problem with hypoglycaemia because the extra insulin you're putting in to deal with the carbohydrates you aren't giving your body, drives your blood glucose too low.

As most diabetics know this can be lethal. Most diabetics also have learned how to recognise and deal with that and are used to monitoring their blood sugars and topping up with sugar or insulin where needed and vice versa.

This is where it's good to have your doctor on board with what you're doing. What they're seeing now is that you may have to reduce your insulin by as much as 50% on the very first day that you go on to a 20 gram total carb a day budget. So you want to be aware of that ahead of time because the last thing you want is to go into hypoglycaemia. As you likely know this can be lethal and I'm sure if you're diabetic and on insulin or insulin releasing drugs you will have had that conversation with the people helping you take care of yourself. And you will likely have experienced what the early signs of hypoglycaemia feel like. You need to be aware that you need to pay extra special attention to this and reduce your medication accordingly.

If I Had Diabetes?

There's another page on my website that you can find by typing if I had diabetes into the search bar. You'll find all the resources I'd be following if I had diabetes. People like <u>Dr Richard Bernstein</u> and a few other diabetic doctors who have learned to handle their own diabetes medications and reduce them massively or eliminate them altogether by changing their diet.

Type 1 diabetics will generally always need some insulin if their pancreas just can't produce any and Type 2 diabetics will often get back to needing none at all. You can massively reduce diabetes doing this or make it much more easily managed. The major implication of this is that you won't wreck your small blood vessels as much and you therefore won't experience the horrendous effects of the disease. Take a look at Dr Bernstein himself. 86 years old as of 2020, still working, and in great health after being diagnosed as a Type 1 diabetic when he was 12. If that doesn't encourage you I don't know what will. But then you do have to stop acting like a helpless baby or a rebellious teenager or young adult.

Antihypertensives

The other medications that can be a problem if you are going low carb are the blood pressure reduction drugs or antihypertensives. Remember we talked about the more you reduce the carbohydrates, the more you reduce the insulin. This allows salt a chance to get out of your body through the kidneys. Water will go with it. So a consequent lowering of blood volume will reduce your blood pressure. What happens is you might start to feel dizzy because your antihypertensives are pushing your blood pressure even lower. To the point where you can feel faint when you stand up. And you don't want to black out, have a fall and hurt yourself. Again talk with your doctor before you do this and have a conversation with them about how to handle that process if it happens.

Another action of insulin is to thicken the smooth muscle in the wall of the artery, which can further lead to blood pressure problems. Obviously less insulin in your system can reverse this but I believe that is a slower process than the immediate salt and water or blood volume issue.

There is something called salt sensitive hypertension which is something to pay attention to if you need salt for cramps. More research needs to happen on this. At the moment your N=1 is the most important way to deal with this.

If I Had High Blood Pressure

The same thing with this, I have included a couple of doctors in that page that have managed to reduce their own blood pressure with low carb eating for themselves and you too can learn to manage it yourself. But do remember to stay in touch with your medical team who prescribed those drugs so they can help you manage your journey of reducing them if you can and need to.

As drug reductions may be massive, as in reducing insulin by 50% on the first day, I hope you can appreciate why you need to know that before you start reducing your carbohydrates. That's where LCHF and ZCHF should have a warning label on the box for those on insulin and antihypertensive drugs.

Anti-depressives and other psycho active drugs

Drugs that affect your mood can be particularly tricky. There are plenty of stories of people successfully coming off them with diet. But it's not without serious implications. As coming off them can lead to all sorts of dramas, including suicide, you need to be extremely careful and have your medical team on board with you.

As they say in the ads *don't try this at home.* Meaning, if you are considering getting off these drugs. Read more about it and the pitfalls. Understand it's about a slow tapering off. No sudden changes. And definitely have your prescribing doctor or psychiatrist involved.

Some psychiatrists I would encourage you to read and listen to are. Dr Georgia Ede and Dr Kelly Brogan. Amber O'Hearn and Mikhaila Peterson also have powerful personal testimonies and have done a lot of research.

If you are on any psychiatric medication please read Georgia Ede's overview of what she recommends here:

https://www.dietdoctor.com/low-carb/mental-health-get-started-and-medications

I saved the lives of 150 people through heart transplantations.

If I had cared about preventive care earlier,

I would have saved 150 million people.

Prof Christian Barnard

This quote was brought to my attention in a seminar by his granddaughter, Karen Thomson. She has featured in the low carb movement in South Africa. Her main personal issue was addiction. Drug addiction. Carbohydrate addiction. Remember I said if you have a severe biochemical addiction that you really need to pay attention to that and work with it as an addiction. That's a process. It doesn't happen overnight. And it can be done.

I wanted to end this section with this thought, to show you how much we can change public health. 150 lives or 150 million lives improved. It can now number in the billions. There are 7 billion people in the world. How many billion are overweight, have diabetes or other metabolic disease? It's unimaginable what medicine has done in promoting high carb low fat as a healthy diet when they should have done the research properly. Hopefully, now you understand it, you'll be able to take those steps you need to take.

Reeducate your doctors if you need to. If they aren't willing or open you may need to find a doctor who is already working with these principles. There are more and more of them out there.

Get into the drivers seat and get yourself on a real track to health and wellbeing.

Tracking Your Process

At the beginning I found it helpful to keep a daily diary to make sure I was keeping within my carbohydrate targets. It helped to keep me on the straight and narrow path I needed to be on. The act of having to write down the carbohydrate content of each meal or snack was useful for me not just to learn how much was in different foods but it kept me honest with myself.

You can use this to keep a track of many things. Including how you are going with your chosen eating window, your waist-to-height ratio, and how you feel before, after and between meals.

You can create your own spreadsheet or use a notebook or something like this chart that <u>I</u> <u>created for myself.</u>

I had to use one for several weeks and go back to doing them occasionally until I could trust myself to carry on without one.

Summary

Be aware of helplessness, rebellion and addiction.

Use your key markers - hunger, energy levels and waistline - as guides on your journey.

Know which blood tests are important and how to interpret them.

If you are on insulin or an insulin releasing drug be aware that you may need to reduce them by as much as 50% on your first day. Talk to your prescribing doctor about what you plan to do. Hypoglycaemia can be lethal.

Same with antihypertensives but the reduction isn't as dramatic as it can be with insulin. You can damage yourself if you faint from low blood pressure because the drugs push your blood pressure too low when you reduce the carbohydrates. While most people will see blood pressure come down over time and they can increase salt if they get cramps etc, there are some people that have salt sensitive hypertension so you need to watch out to spot if that is you and work with your prescribing doctor.

Antidepressants can be very challenging to come off about how to reduce these responsibly.	of. Talk with your prescribing physician

Menu

Ok, so you made it to the end. I want to give you a summary so you know you have choices. I've put a lot of ideas together above and I'd like to see if I can simplify them even further for you.

My personal recommendation is to start with 0 grams of carbohydrate a day with the Carnivore diet or less than 20 total grams of carbohydrate a day with the LCHF Ketogenic Diet. But maybe either of those two will be too much for you to think about or to emotionally handle. Which is why I want you to be aware you still have options if you can't contemplate either of those.

It's up to you to explore.

Remember N=1 is the mission and no, it's not impossible.

Remember who your best friend is. Your body.

Remember your worst enemy. Visceral & liver fat and all that goes with it.

Remember the Goldilocks Principle. Learning to eat what works for you. And learning to not eat what doesn't.

In order to take action, I've summarised what you need to do with the acronym, ACT.

A: Acceptance - You need to appreciate what you have been and are being lied to about. And you need to Accept what's true for you and what your body, what your genes, what your epigenetic processes can handle and what they can't. If you do that, you can start to make real commitments.

C: Commitments to test it out. Commit to 30 days or a month of some kind of change. At the end of those 30 days decide what you'd like to try out for the next 30 days. See it as an ongoing process. Yes, you will likely fall off the wagon at several points. At that point it's up to you to not throw the baby out with the bathwater and get back on the wagon.

T: Test out the theory.

With N=1 you need to test it out for yourself because once you feel those changes in your mind and body, then the journey really begins. Because you've taken a step you can see you can take another step and when you experience that it just keeps getting better and better, that's an amazing place to be. Something I wish for all of you.

Remember Food can be a 'Fix', you can be addicted to food. Or it can help fix us up, which it's meant to do, to help our bodies regenerate well and be a supportive wheel or process for our lives. So, we can live our lives as we want to. Feeling the best we can feel. Performing the best we can perform. And living as long and as gracefully as possible.

The Menu

The Menu

Appetizers

Eliminate Sugar

Eliminate Wheat

Eliminate Seed and Plant Oils

Main Course

Intermittent Fasting

Ketogenic Lifestyle

Dessert

Water

Exercise

Sleep

Breathing

Above I've listed the various steps you can take as a menu. Because we are talking about food I thought it was a useful way to summarise what we've been talking about here.

If you just wanted to dip your toes in the water, you can simply have an appetiser. Hopefully you won't do that. I really hope you will go full hog but hey, I'm just backing off here so you can take a tiny step if you want to.

Appetizers

Eliminate Sugar. The first step could be to simply eliminate sugar. Prof Robert Lustig is a champion for this. He describes sugar as carbohydrate and fat together. Sucrose is split into glucose, the carbohydrate that raises blood sugar/glucose, and fructose, the molecule that gets sent to the liver to be processed into fat.

So, if you eliminate sugar and you're healthy metabolically, eliminating sugar might be all you need to do. I recommend doing more. But if you want to just take one step, as an appetiser, in the spirit of let's just check something out, eliminating sugar could be it.

Eliminate Wheat. The next one would be eliminating wheat. The reason for that is that whole process of what it does to the gut and intestinal permeability. I think we're all intolerant of wheat. I don't think you have to be coeliac to say you have a wheat intolerance. I see it as us having a spectrum of response to wheat and to the proteins, like gluten, in it.

People can fool themselves into thinking that the older grains are better. Remember when I talked about our evolution from at least 300,000 years of hunter gathering to the last 10,000 years of becoming ever more deeply immersed in agricultural living. Peaking with the last 150 years of more finely grinding grains. Hopefully you can more fully appreciate that we have had very little time to adapt. And we've capped that off with the last 50 years of miseducation to eat more grain and more plant foods and to run from meat, rather than towards it as is our natural tendency.

The whole idea behind the PaleoMedicina approach of Zsofia Clemens & Csaba Thoth, is to reduce intestinal permeability. Which they suggest from copious research and clinical practice solves the problems of both the paleo or carnivore folk and the medical ketogenic approaches. And there's nothing like removing wheat as a first step to improving your intestinal permeability. Meaning that things that shouldn't be getting through your intestinal wall into your blood stream, don't get through. I believe that wheat gluten, whether you're coeliac or not, is a big deal.

So, in terms of an Appetiser to this way of living, eliminating sugar, eliminating wheat or both, will give you some results that you can base further exploration from.

Eliminate Seed and Plant Fruit Oils

Still in the appetiser section is eliminating all plant oils. You won't necessarily notice results from that at the beginning like you will with the other Appetisers. But it's worthy of a place here.

We've talked a lot about carbohydrates creating a problem with insulin resistance. For a long time carbohydrates were the sole public villain in that regard. But now there is developing a strong association with mitochondrial dysfunction, insulin resistance and high level of Poly Unsaturated Fatty Acids, PUFA's, in the diet from vegetable oils. The thought of vegetable oils creating insulin resistance is something that Dr Paul Saladino is very vocal about, particularly linoleic acid. Researchers are working to determine a causal relationship.

I warn people about the tendency to take a side. It's not about whether it's carbohydrates causing insulin resistance or vegetable oils. It's not one or the other but both. As Paul suggests it may very well be that excess linoleic acid in the vegetable oils kick the process off and the metabolic fire is then fanned with the high carbohydrate diets we've been used to.

Rather than wait for science to catch up with reality you may find it useful to replace seed and other plant oils with animal fats before or at the same time as eliminating sugar. Like any set of appetisers you can have more than one on the table at the same time.

Dr Cate Shanahan credits her ability to drop sugar with making that switch by starting her morning with a generous drop of cream, i.e. animal fat, in her coffee rather than a sugary cereal.

If you simply stop eating sugar without doing anything to make sure your cells get an alternative fuel, you're not likely to have success ending your relationship with sugar. The only way to fix metabolic sugar addictions is to provide your cells with fuel other than sugar. When I stopped my morning bowl of sweet cereal and started drinking so much cream, the ferocious sweet tooth I'd had all my life couldn't hang on.

Dr Cate Shanahan

The Main Course

Reduce Your Eating Window.

In some respects you could put this in the appetiser section but it's serious enough in it's reduction of insulin's effect on your body for me to put it in the main course section. The other point here is it does become a natural part of daily life.

There are plenty of people getting great results by having the appetisers above, eliminating sugar, wheat, plant oils and reducing their eating window or just reducing their eating window by itself without any of the appetisers.

Remember this is about eating once or twice a day within a certain eating window and you decide what and when that is. Then you just do that every day. You don't necessarily have a day off, it's just that is the way it is. That is life.

Some people try 5 days on 2 days off as their social life revolves around the weekend. For the 5 days of the week they reduce their eating window but let go of the discipline on the weekends. I wouldn't recommend this. It can be a recipe for disaster. There's those issues around addictions coming in. But the key issue is around how long does it take your body to get back into a ketogenic state? A top athlete might be able to get back on track in 2 or 3 days after a weekend. So by Wednesday or Thursday they'll be back into a ketogenic state, their bodies being actually able to produce and use ketones.

Women have a harder time with a ketogenic diet than men. To give you an idea of what that means in this kind of situation; if you are a woman who has had a consistent history of being overweight, and you're post menopausal, it might take you three weeks, not three days, to get back into ketosis by keeping the carbohydrates down. That's why I say that it's best to keep this as an everyday experience. Which brings us to the other dish of the Main Course.

Ketogenic Lifestyle

This is about reducing your carbohydrates so your body can digest fats and produce ketones from them, that then power your body, power your immune system and decrease the inflammation in your body. That's actually a ketogenic lifestyle.

We've seen that the Low Carb High Fat people have a cup of cooked above ground vegetables and two cups of salad a day, whereas the PKD folk would eliminate the above ground vegetable first. So this is something you need to pay attention to, particularly for autoimmune processes.

Remember I've said that the problem with plants is that they can't run away. And those things that are above ground want to protect themselves more than what's below ground. Generally above ground is where you get the seeds happening. A broccoli becomes the flower that becomes the seed. Those are their babies and, like humans, they will do anything to protect those and the pregnant mothers. So that's where the PKD folk would say that a small amount of root vegetables may actually be better for you than those three cups of above ground vegetables. This is something the community is needing to do more exploration on. The PKD folk have the clinical research to suggest the exploration has been done. Perhaps what we need is simply confirmation of the results from more sources.

If you are not going full carnivore or PKD remember to start the ketogenic lifestyle on a maximum of 20 total grams of carbohydrate a day. If that doesn't get results in terms of less hunger, more energy and your waist reducing, then you may need to go down to ten total grams a day. If that doesn't get results, then you may need to go down to zero. I know personally I'm happier in that 0-10 grams a day range.

Whereas, if you're fine and you're losing your waist, your hunger is reduced and your energy levels are good, then you can test your carbohydrate tolerance out, if you want to. You absolutely don't have to. Remember the idea of increasing your carbohydrate intake, by 5 total grams per day, for a week. A quarter of a cup of blueberries is one way to do that. And then see what happens. Does you hunger or cravings increase? Did your energy get lessened? And/Or did your waistline increase? Those are three simple things anyone can pay attention to if you are testing your carb tolerance out.

If your don't experience any of those three reversing. If your hunger levels are still good, no cravings kicking in. If your energy levels, physical, mental and emotional are all steady as she goes or even improving. And if your waistline is still reducing, your clothes continuing to feel looser, when you lie down you can start to feel things you never felt before, like your ribs or your stomach muscles seeming to be closer to your fingers. Then by all means, if you want to, you can add in another 5gms a day for the following week. And reassess again.

If you do find one or more of those things happening. Your hunger kicks in. Cravings get stirred. You have a dip in energy. Your mind isn't as clear. Your feelings come a bit unglued. Then you know you've stepped over the line of your carbohydrate tolerance. Once you know that, you simple drop the extra 5 grams and go back to the level you were enjoying results at. Or go lower still. Either option is perfectly fine.

And then, once you know the level of carbohydrates that you can tolerate, learn to live within that as your carbohydrate budget, within your carbohydrate tolerance level. Because if you are living within that limit you will be living a ketogenic lifestyle.

Dessert

What have I got for dessert? Most of us like dessert. It certainly used to be a main part of a meal for me. If you're of a similar bent you'll know the sense of being full after a main course but still finding plenty of room to slip a staggering amount of sweet dessert in through the cracks.

Water

We are designed to drink water and not all the other concoctions we have. You don't have to flood your system with water. You can kill yourself by drinking too much water. Some runners do that. Google 'death by hyponatremia' if you don't believe me. So don't overdo it but remember water is important. It's about simply learn to drink to thirst. You may notice this is more of a challenge in winter. Like me you may confuse thirst with hunger so between meals learn to have water first when you feel like a snack. Wait and reassess. And remember salt if you need it.

Exercise

Some of the best exercise to do along with a ketogenic lifestyle, is high intensity or variable intensity interval training. It mimics what we used to do when we used to hunt and gather. Short bursts of energy and longer periods of recovery. In terms of losing weight, i.e. body fat, it has been said that you get 85% of the benefit just from changing diet. Exercise is not the main thing at all. It is particularly important if you are a diabetic to improve the insulin sensitivity in your muscles. But it's not necessarily the place to start.

In fact, if you are massively overweight it is best to get your diet right first, lose some weight, feel the energy come back to the point where you want to exercise and that may be simply going for a walk. That's a great time to add exercise in. Doing it that way means less trauma to your joints as you progress on your journey to a healthier you. Over time you'll be able to build up your activity levels.

Exercise also does something for one hormone we haven't talked about. Cortisol. There's a bunch of hormones involved in our ability to let go of body fat but the main one, as we've talked about, is insulin. Insulin is a master hormone that affects many other hormones, including leptin. A lot of people think leptin is of primary importance but insulin blocks leptin's action, which is the satisfaction hormone. So insulin I believe is the main drama queen.

The next one is cortisol. You may have heard this called your stress hormone. That's another big one. Stress eating is actually a thing. For some people they don't want to eat when they are stressed. Preferring to drop into fasting mode. But for others, like me, food is an easy thing to reach for when I'm stressed. Then there is the additional impact cortisol has on your blood chemistry. Weight gain, increasing blood pressure and mood swings can all be part of a high cortisol picture.

Where exercise comes in here is that it may be stressful when you are engaged in it but over the period of the day or the week, between bouts of exercise, your cortisol level comes down lower than if you had not exercised at all.

So, if you think stress is a part of your weight issues then exercise should likely be part of the solution. Plus if you can exercise outside then you have all the benefits of being outdoors which is relaxing in itself. Walking on the beach or in the bush or forest are two of my favourite spots.

Sleep

If you've ever had trouble sleeping you'll know that is not good for you. It's one of the biggest stressors we can have. Increasing cortisol, reducing insulin sensitivity and driving a raging hunger all by itself. Having trouble sleeping has never been an issue in general for me, so, never having to address that issue I can't call myself an expert on that.

The key things that disturb my sleep though are the same things that stimulate my rosacea and incline me towards addictive tendencies and weight or waist gain. They are coffee, chocolate and alcohol. Even two small glasses of wine can disturb my sleep.

Screen time doesn't seem to affect me. But with some people it does. You can turn your screen to night time or get glasses that reduce the amount of blue light emitting from your screen. Plus of course eliminating screen time for at least an hour or two before bedtime. Read a book, have a bath or shower, meditate or have some simple me or we time chatting with yourself or your significant other.

To explore this whole area further I recommend digging into <u>Dr Jack Kruse's</u> work.

Even though some people seem to need less sleep as they get more metabolically healthy I've found that it is still very individual. Some people just need more and some people simply need less. It's a trap to compare yourself with others and think it's a virtue to need less. Again it's about learning to appreciate and accept what we individually need and want.

Breathing

The last thing I'll talk about is breathing. Learning to breathe, or learning to let yourself breathe is a key issue. You need to be able to relax into your breath so you can relax into your body.

One of the other ways we ruin our relationship with our breath is we breathe in things other than oxygen or air.

Smoking is one of the stupidest things that human beings can do. Sorry, I'm so terribly blunt with this. Both my parents used to smoke. Mum died of lung cancer. Dad died of asbestos poisoning from work as a builder. They both had to stop smoking at one point. My dad because his lungs were trashed with asbestos. Mum because she got pneumonia that put her off smoking finally, in her 70's. She then blew up like a balloon. Smoking can suppress hunger, so a lot of people use smoking to reduce their food intake. But that's a false economy, really a disaster for your body.

I don't mean to be hard on you, but seeing both parents die or suffer from smoking related disease, I'd strongly suggest if you are smoking to get that addiction handled so you can get better at handling all the rest. There are some that find the need to smoke disappears as they become more metabolically healthy but it's not a full proof strategy. Some still need all the support they can get.

The sight of people with wrecked lungs in the respiratory wards is indelibly printed in my brain. They were on as much oxygen as we could give them without risking settling the place alight. But it still wasn't enough. The permanent look of frightened desperation pervaded their faces and beings as they struggled in vain with every single breath to find the air that just couldn't get to them because the inside of their lungs were so ruined. They no longer had enough alveolar surface to get enough oxygen transfer to even get out of bed without help. Yet they couldn't wait to get wheeled down the corridor to the end of the ward, or wherever it was they were taken, to have another smoke. I've often wanted to drag young smokers into a patients room like that and make them watch it for long enough to break through the she'll be right, Mr Smiley, bravado, that I'll be one of those that it won't happen to. It has to be the commonest self inflicted addictive process humans have invented. I find it such a sad thing.

Breathing is meant to be a full body experience. The best description I can think of is if you've ever sat next to a sleeping dog you'll see their breath come and go in some quite big waves. That's the way it needs to be with us. But emotional controls tend to limit our ability and willingness to breathe fully. A full breath starts in the diaphragm expanding your abdomen and reaches up into your chest as it expands and lifts your collar bones. Letting go with an exhale that can be quite explosive like that dog you're watching. Taking time to sit or lie and let yourself breathe fully without trying to control it or limit it in any way can be a regular meditation practice of being still and watching your breath or it can be a moment of stillness in the middle of your day or a stressful moment. I'd also recommend you pay attention to how you breathe while you eat. The commonest stress breathing is to not breathe into your tummy at all and just breathe into your upper chest. If you notice you are doing this while eating or at any time, give yourself more time to let yourself breathe fully. Your body knows how to breathe if you allow it to.

Final Reminders

Manage Your Medication

Last steps, remember we talked about managing medication. So if you are on insulin or an insulin producing drug or an anti hypertensive or anti depressants, you really need to pay attention to what you need to do with those. Review that section. Talk to your doctor. If they're not up to speed with low carb then help educate them by introducing them to the material from the doctors I've recommended. Send them to the information so they can get updated and then they can help you better. If you need to change your doctor then maybe you need to change your doctor

Manage Your Expectations

As I've said before women, post menopausal women in particular, tend to be slower on the uptake, in terms of their body's response being slower. For as yet unknown reasons, they also tend to be less compliant.

If you are a woman doing this together with your husband, just know that this is the case. That way you will hopefully not be too upset when he gets results quicker. It's just one of those unfortunate things.

But it's also true for all of us. Learning to manage our expectations and learning to manage our addictions, our choices, is all about that same process of coming to terms with accepting what works for us and what doesn't. Knowing that for some it's going to take more time than others and just being patient with yourself in that process. Don't be tripped up by the urge to have it all happen quicker.

Manage Your Exploration

As I said this is an N=1. You want to find out that food does fix you up and it's going to take time. I've given you the parameters I believe are best to explore. The best carbohydrate strategy. If you stick to that then you just take it step by step. One step will lead to another.

You may start with just reducing your eating window. Or you may start with reducing your carbohydrate content. And then you'll add in those other things.

If you need to take one step at a time, please do that. And if you want to dive on in you can go completely zero carb and see what adding things to that feels like, after 30 days or more. Learn to enjoy the journey. It's been a tremendously empowering journey for me and I can only imagine it will be for you, too. It's also never ending. I'm in a continual learning process as I continue to make refinements in my choices as the days, weeks, months and years, progress.

Over time there will be updates to what I've shared here, but like evolution, once you have the basics, any updates will take a while and have little day to day impact.

So, yes, manage your exploration. Have fun with the menu. Enjoy exploring it. I hope you find your hunger reduces, your energy increases, your waistline reduces and your life and the experience of being in your body-mind improves in wonderful ways,

Just as we all have to learn to manage life we need to learn to manage this particular piece. Food. And the freedom from angst with it that allows us to enjoy food, accepting it for what it is and what it isn't, so that we can then enjoy life to the full.

Enjoy your journey with it. Don't get caught in the trap of thinking it has to be a certain way or that you have to be the same as whoever. That could just be you thinking you need to eat

according to yet another philosophy of what is good to eat. Instead, allow your exploration to show you what works best for you.

Mentoring

If you would appreciate working with a mentor I do work with people personally. I've got a page on my site that shows you what I offer. Feel welcome to touch base with me if you'd like some support. I'm happy to work with people all around the world. We can work out a time to connect online. Some people can just read this and run with it and not need or want any other help or support. And there are others who simply work best with a friend at their side.

If you simply want to keep in touch, you can do this through my Facebook page <u>LCHF Paleo</u> <u>Ketogenic Lifestyles</u>.

Bye for now

Thank you for interest and your attention. The next step is up to you. You have to be the sole agent of choice in your life because you are the one who will experience the consequences of whatever steps you choose to take.

My aim here has been to share with you the steps that I have taken that have made all the difference for me and the learning that led me to take those steps. I hope I have given you enough clarity so that:

- 1. You feel like you can take some steps yourself.
- 2. You can keep an eye out for the pitfalls and know what you need to do with them.
- 3. You know how to keep yourself headed in the right direction.
- 4. You have plenty of links and references so you can dig in as deep as you need to.

I wish you the best journey with it.

As I've I said I like Simplifying Life's Lessons to help people LIBERATE themselves. If you find it works for you and you feel inspired to share, please do. We each share differently. It can be a nod and a wink over a different looking plate of food at a dinner table or it can be a full on lecture. Either way it's only in the sharing that we can all help to reverse the tide of chronic disease. It's up to us to change the world situation because it's not going to happen from the top down. It's a grass roots process. It's us changing our own perspective, understanding how we've been lied to, knowing what we need to change, starting to take those steps and getting those results. That's how we get the confidence we need to share with others and help humanity so we can all live Life In Balance, Expanding, Radiating And Touching Everyone.

Stories and feedback are very welcome.

Enjoy.

Darag



Last Summary

Thanks for your time, interest and attention.

Enjoy the journey. When you get it right, for your body-mind, you will know.

If you're not ready for one of the 30 day resets you can choose one of the options from the Menu.

Contact me if you need to.

If you'd like some mentoring: one on one time.

Like and follow me at: https://www.facebook.com/LCHF-Paleo-Ketogenic-Lifestyles-with-Dr-Darag-Rennie-457984394365332/

And you can always buy me a coffee here: https://www.buymeacoffee.com/darag