

Reversal of Coronary Heart Disease with Low Carb Orthomolecular Medicine

0:00:00.0 Dr. Richard Chen: Okay. Hi. Hi, everybody. Thanks again for the invitation Dr. Bailey. And I'm glad to come back to talk to your audience. And again, my name is Dr. Richard Cheng and I have been a physician in private practice for many years, being a physician for 40 years. Now I practice medicine in the United States and also, I have an office in Shanghai, China. But today I am gonna talk about the reversal of coronary heart disease with low carb and molecular medicine. And this is a sort of translation from a recent presentation that I just did here in Shenzhen, China, which I'm still here, I haven't left yet. And so without any further ado, I'm going to start. And this is about me and I'm not gonna read it, I've been around a little bit. So today I'm gonna focus on a few areas, and this is interesting because the reason I'm so particularly interested in the atherosclerotic cardiovascular diseases, or namely, the coronary artery heart disease that most people know of and Carotid plaque.

0:01:25.3 DC: A lot of people also have this problem of stroke and other arterial diseases. Most of the diseases actually are very similar, they are same part of heart disease, and these diseases are the top killer worldwide, therefore, I'm also facing the same risk as the most of you face. This is the number one killer worldwide and I want to know what it is and how we can prevent it. Okay, so, first of all, we're gonna talk a little bit about ASCVD in brief, abbreviation, and also its relationship to Type 2 diabetes. Then we all learned and heard, and so much about the cholesterol, the cholesterol heart disease which was a hypothesis proposed by a Dr. Ancel Keys around 60 some years ago, and the story about it. Then I'm gonna also introduce to you a bit about the Orthomolecular medicine perspective of the ASCVD, which was first mentioned, probably by Dr. Pauling, Dr. Reiss and later on, Dr. Levy, one of my heroes, I learned a lot from him, further sort of expanded in this field. So, I learned a lot in this field. And primarily, let me just read the two sub bullets here.

0:02:53.8 DC: The ASCVD is primarily an inflammatory disease and was a characteristic nutritional deficiency which is actually coming to many other diseases, which eventually led to the blood vessel wall damage. And that leads to the plaque building and stenosis, and further, which is very interesting. Dr. Levy not long ago wrote a paper describing Atherosclerosis as a non-healing wound, which makes perfect sense to me. It is a wound that if we don't heal it, it will keep on building and the stenosis will only worsen. And therefore, if you reverse it, if you remove or reduce the root causes of ASCVD, namely by inhibiting or reducing the inflammation and also supplement the deficient nutrients, particularly vitamin C, not just vitamin C, but many others. And this disease, actually many others, is potentially reversible. And then finally, I will review some of the experiments, I mean the clinic studies that have been done over the last more than 50 years going on, 70-something years ago.

0:04:13.1 DC: When the first clinical study was performed, and some other study and also along with some of our own experiences. Yes, I'm happily reporting that we have completely resolved or reversed several cases of coronary artery disease and improved many others altogether probably six, seven cases already. And not only that, in the ASCVD using the similar approach, similar understanding, we have tried to manage many other diseases from harsh models, to skin rash to cancer. And so this is the sort of table of contents that I'm gonna talk about today. Now, first of all,

practically all of you diet, we live when we wanna eat and we eat to live and we live to eat as well.

0:05:08.0 DC: Anyway, so we all know the in the diet how to eat, actually practically we don't know how to eat these days, right? So the low-fat diet has been proposed by the mainstream medicine and the media for the last over 15, 16 years, particularly with the dietary guidelines for Americans by the United States Government, has further sort of pushed the people to the low fat field, 'cause fearing fat or cholesterol being the culprit of heart disease. And we know that they don't really solve the problem, so the diabetes and the cardiovascular diseases, many other chronic metabolic diseases have been steadily rising. In the United States obesity is rampant and now probably more than three quarters of people are either overweight or obese.

0:06:05.7 DC: So the low carb diet, the opposite of the low fat, you know about the macronutrients, the nutrients, the nutrition that contains calories what we call macronutrients are only fat, carb, the starch, and the protein. Only three of them. So if you eat low fat, you will increase your carbohydrate content or vice versa. If you lower your carb content you will increase your fat. Okay? So now, as we know, because of the rampant obesity and diabetes, the low carb diet has been popular for the many years. In my clinic, we've been doing this for around 10, 20 years. 'Cause weight loss has been a majority of our practice, actually many practices in the United States too, 'cause that's everywhere. So for the 20 years or so, and it makes sense because diabetes is primarily a high sugar disease. Therefore, if you lower sugar content in your diet, it will help your diabetes. This is a no brainer.

0:07:13.5 DC: We don't need that actual, to me you don't need clinical studies to prove it. It's just common sense. Alright? The problem is, if you eat low carb diet, you will naturally increase your fat content. Now we're being told that high fat, high cholesterol, particularly high saturated fat, will increase your risks for heart disease. Now, that's the problem. So here in red, I wrote down here, so which kind of pitches all of us to a choice between either diabetes or coronary heart disease. Neither one of them is my choice. And I believe neither one of them is yours either. So clearly how can we resolve this conflict?

0:08:03.2 DC: Should we eat low-carb or low fat diet? That's the question. That's the \$60 million question. Now, first of all, let's briefly talk about what is ASCVD. ASCVD is an abbreviation standing for Atherosclerotic Cardiovascular Diseases, namely coronary heart disease, carotid artery disease, or stroke, or even including also peripheral artery disease. Okay?

0:08:31.3 DC: So, these diseases in clinical medicine, oftentimes they're kind of separated with different diagnosis codes, but they're practically the same disease happening in different places as well. That's all. And oftentimes if you have one of these clinical presentations, you have others as well. So, this is the same disease, and this is a sort of official list of the risk factors for ASCVD, which are listed on the right side. The picture on the left is beautiful, and I included there, and there was the link down there, which is from the American Heart Association. Of course, the risk factors include age, gender, race, cholesterol [laughter] There are two criteria, total cholesterol CH I mean HD cholesterol, blood pressure, anti-blood pressure medicine, diabetes, smoking, finally diabetes last year. So, it is clearly a multifactorial factorial disease. As we know, practically, or if not all, most of the diseases today are multifactorial, including COVID-19, which I'm not gonna divert. COVID-19 is not a single virus disease. I'm not gonna argue, I'm not gonna expand too much. But simply as we know, single factor disease usually means one factor will determine the outcome.

0:10:00.3 DC: As we know, COVID-19, most people catching COVID-19 virus do not develop symptoms are asymptomatic and most, and the majority of them, are either asymptomatic or develop only mild to moderate diseases. Only very small percentage of people, 1% or less develop severe. So that clearly tells you it's not just the virus, it's multifactorial. The point I want to make here is the vast majority of diseases today are multifactorial, including ASCVD, the heart disease, atherosclerotic cardiovascular disease. And the problem here today, as most people we know, including physicians, is that the focus has been too much on cholesterol. Practically all they talk about is cholesterol, and the cholesterol lowering drugs because it's a multi-billion-dollar class of drugs. So now let me present to you some of the data that is inconsistent or opposing the hypothesis of cholesterol.

0:11:11.0 DC: Now, this is a recent study only two months ago published October 5th in the *New England Journal of Medicine*. This is a big global study by global cardiovascular risk Alliance. Yes, the global consortium. It's a global cardiovascular risk consortium. This is a study of over 12 cohorts with more than 1.5 million people coming from 34 countries and eight global geographical regions. By the way, some of the translations, I actually translated from English to Chinese and put it for a Chinese translation and for this Presentation I didn't have a lot of time.

0:12:04.2 DC: So I translated it back. So the translation may be slightly off. I didn't have enough time to, I apologize, I didn't have enough time to proofread. I read through, okay, it makes sense. But some of the areas probably a little bit off here like consortium and here's like alliance. But anyway this paper, *New England Journal of Medicine* paper, clearly, actually the figure on the left clearly shows you there are two rows. The top row is risk for CVDs, and the lower row here on the left is all-cause mortality, basically death risks. And the columns, there are five of them. And the very right is the data for Type 2 diabetes. Clearly, you can see diabetes is the major risk factor for both the risks for CVD as well as all-cause mortality. So if you have diabetes, your risks of developing heart disease and deaths are much higher.

0:13:11.8 DC: And the fourth, the second to the right is smoking. You can see clearly also that cigarette smoking is a risk factor for heart disease and death. So, if you smoke, stop, okay? The point I want to make here is that the center column, the red arrow point here, the cholesterol, okay? Cholesterol does not increase the risks for cardiovascular diseases nor the all-cause of mortality. In this major study published about two months ago. So this is inconsistent with the cholesterol heart hypothesis. Cholesterol does not kill you, does not increase your heart disease risk. This is one of them. And this is, since this is for Chinese presentation, I also found some data for Chinese. And these are the two studies I found for comparison. On the left is the ASCVD prevalence, incidents, and risks for heart disease, and also the death rate for heart disease on the left side. What you can see is basically the darker the red, kind of warm color, the higher the rates.

0:14:37.9 DC: So you can see in China, the northern part, and the entire northern part, from northwest to east northeast, basically you have higher rates of heart disease risks, heart disease prevalences and incidents, as well as heart disease mortality rates in the northern part. Why is that? We don't exactly know. However, a couple of things we know is that the northern part of people probably eat more wheat products. And this is probably one of them. And in the southern part of China, rice is probably more of a majority mainstay of the food. Now, interesting, on the right is the Type 2 diabetes prevalence, which is very similar to the left. Basically, the northern part of China has higher rate of, higher prevalence of diabetes, okay?

0:15:34.1 DC: So coincidence, but we already know in the previous slide I showed you, actually Type 2 diabetes is the major risk factor for cardiovascular diseases. I do not think this is a coincidence. There's an intimate relationship. Now, let's talk a little bit further about ASCVD. ASCVD actually is an inflammatory disease, which is well-recognized in the literature. It is an inflammatory disease process, okay? Biochemically, it is characterized by the increased oxidative stress. So oxidative stress is actually the biochemical nature of inflammation. Practically all inflammation has elevated the oxidative stress or in common, in layman's term, increased the free radical. I believe practically everybody understands what free radical is, okay? It also has characteristic mitochondrial dysfunction. This is of very great interest to me.

0:16:41.3 DC: And we all know now today is the buzzword is that it also has the insulin resistance. Now in red, I highlighted here is the inflammation, elevated oxidative stress, mitochondrial dysfunction and insulin resistance. Actually, these are not only the common features to ASCVD, but also diabetes, yes, cancer, Alzheimer's and many of the autoimmune diseases, even emotional and psychiatric diseases, for example, depression, anxiety and even schizophrenia. These are very common to many of the diseases, if not all. Now, let's talk a little bit further about cholesterol. And this is a study, actually it's been a few years back, published in 2009. This is a study of data from 541 American hospitals, United States hospitals. It involved more than 230,000 hospital admissions due to coronary artery disease. So these people were admitted to the hospital not for other diseases, but the main diagnosis is the heart disease, coronary artery heart disease. This is between 2000 and 2006. The data, the conclusion, I mean the main data of this study is that a majority of these people with atherosclerotic coronary artery heart disease do not have elevated LDL cholesterol, roughly about 75%.

0:18:25.0 DC: Now, this is interesting because we have been all told that coronary artery heart disease is caused by elevated cholesterol, particularly LDL cholesterol, so-called bad cholesterol. But you can see here, three-fourths of these people do not have elevated bad LDL cholesterol. How can I explain? This is not a small study. It is of 500 hospitals in the United States. Of course, we have more data.

0:18:58.7 DC: Okay. This is another recent study, pure study. Many of you probably know publishing the European heart journal in July of 2000, which was six months ago, July of 2023. This is a major study involving quarter a million people worldwide from 80 countries. It's dubbed as pure study. Okay? On the left, they make summary of this of the data. Basically, this paper shows that fruit, vegetable, legumes, nuts, fish, dairy products, including full fat dairy products appear to be healthy for us, okay? And in this study, they showed red meat and whole grain are neutral. The study did not show neither positive nor negative results for the red meat and whole grain. Now, this is interesting because we've been told the red meat is bad for us, whole grain is good for us, while this study doesn't support that. Therefore, summarizing from these, it highlighted in red is that whole-grains are not as healthy as they told you, which I don't, I don't eat whole-grain, okay?

0:20:17.2 DC: And also meat, particularly red meat is not as bad as they told you. I eat a lot of red meat and the full fat dairy, which they've been telling you it's bad. Actually, it's very healthy. Yes, I drink whole fat milk. Okay? This is odd is that US law bans whole milk in school lunches right now. Now this hopefully will change. This is not science based. Okay. Now another study dubbed as hunt 2 study. This is a Norwegian study from 2012. This study included more than 52,000 people, and it is a 10 year follow up. The finding in summary is that people with higher total cholesterol, actually they had lower all cause mortality. Meaning if your cholesterol is high, your

risks of death is lower. It is the opposite of what we've been told that cholesterol is bad for your health. This study, again, shows you high cholesterol actually is good for you, okay? And of course, in the author's own conclusion is that this explicitly questioning the cholesterol heart disease hypothesis. Now, this is a recent study published in 2022, including more than 110,000 people, okay? It's a meta analysis publishing the... Anyway, you've seen the data journal here.

0:21:47.9 DC: Now, so the authors concluded this as evidence of another cholesterol paradox. Basically, again, is the people with high cholesterol levels was not associated with increased the risk of death or and these people may even have lower risk of mortality. Again, it shows you people with high cholesterol levels do not have increased risks for deaths, and they may actually even live longer. Now, this is a 2021 Japanese study, including more than 3600 people. Again, that shows you that people with highest LDL cholesterol, which is so-called a bad cholesterol, the highest LDL cholesterol people had the lowest risk of deaths. Okay? Alright, that's another one. Now, a 2016 study publishing the British Medical Journal including 19 cohorts of more than 68,000 elderly people, 60 years and older. The conclusion is that for this age group, 60 years, older high LDLC, again, the so-called the better cholesterol high HDLDS cholesterol is inversely associated with mortality. Meaning if you've higher LDL cholesterol, your chances of living longer is increased, you may live even longer.

0:23:31.9 DC: So LDLC in the last couple of studies show you actually may not be that bad, maybe even good. Now, this is another interesting study just published this year. This the switch, the Morris study. They included more than 44,000 people and interesting this is probably the only one they claim that they have followed these people for like 35 years. Now, the same cohorts, it's kind of similar to the Framingham study in the United States. They follow similar people for many years, okay? In this group, they followed these people for 44,000 people more than 44,000, followed for 35 years or longer. And interesting here, the study found is that the higher the total cholesterol, the greater the chance of becoming a centenarian. If you want to live to 100 years or older, you'd better increase your cholesterol level to direct the translation of this study. Alright?

0:24:36.1 DC: That's even that interesting. And also I want to share with you is that this is a little bit off the topic is that GGT part of so-called liver function test, GGT is significantly negatively correlated with lifespan. We know GGT. High GGT is a bad sign, particularly one it is associated with high level of ferritin. The reason for that I just mentioned here a bit high GGT is a sign of Glutathione depletion, okay? And so this is interesting. Anyway, we focus on cholesterol here. So this is another recent study showing you cholesterol is not that bad, actually, maybe a friend. Now since this was a Chinese study, I mean Chinese presentation, it was, and so I also found that this Chinese study published in 2000, I believe '19, yeah. In 2019, the Chinese Cairn University most people know Cairn, right? It's famous for its food, Cairn, spicy food. Anyway, this 2019, 430 person study showed that hyperlipidemia is not an important cause of coronary atherosclerosis.

0:26:00.2 DC: So there are more studies and there are more studies, because the presentation was 20 minutes, so I have to limit to 20 minutes here in this presentation 'cause Dr. Bagley didn't give me a limitation. I can talk a little bit more. Okay? Anyway, I found this was just published recently. Or this was a 2016 study. This is interest. Another interesting study is that butter. We know butter, most people will, most of us probably love butter. Now, butter is a major source of dietary fat for particularly in the Western cuisine. And we know butter is mostly in, the natural butter, the real butter from animal, from dairy is full of mostly the saturated fats, okay? But anyway, this is a major study including more than 600,000 subjects and followed for more than 6.5 million person years. So

it's a large data. Anyway, in summary is that butter is not associated with increased rates of cardiovascular mobility, more on mobility, mortality, and nor it diabetes.

0:27:08.2 DC: And actually, butter even appears to have cardioprotective properties. And I meant butter is one of my favorite foods, as you can see here in lower right, lower corner, which is a typical hotel food for me. 'Cause when I go to conference travel or whatever, I stay in the hotel. I usually, I don't eat breakfast, but most of these places offer breakfast. And of course, I wouldn't want to, I'm being average person and I don't want to miss a free meal, right? Therefore, this is a typical hotel breakfast for me that I would eat probably three or four eggs, couple of strips of bacon with lots of butter. Oftentimes I will take about six, eight to 10 pieces. I'm still in that the hotel and actually, right before this presentation, I just had eight pieces of these kind of butter. Eight, seven grams each. So that's 7X8 56 grams of butter. I had three eggs this morning, and also three strips of bacon and some coffee. So I've been eating butter for a long time, and I'll show you some of my data really though.

0:28:42.8 DC: Okay. So butter is good. Butter doesn't show in this major study doesn't show any negative health impact. As a matter of fact actually it's healthy for you. Just showing a little bit more about ketogenic diet. So this is a recent review, July 28th, 2023, which is like three and a half months ago. It's a review article of the data published on ketogenic diet and it's effect on the vascular endothelium. And so here is a nice picture on the left, and I broke down the, basically it is endothelial cell energy function regulation, blah, blah. I am not gonna read it you can read it in detail, but in summary, you can see clearly that ketogenic diet is a promising nutritional model for the prevention and treatment of cardiovascular disease, which actually let me tell you this, I realized this many years ago. That's why we've been using this approach for many years already. Okay? I will talk a little bit more. But anyway, here's that, PMID number and that journal citation, if your interested, you should read it.

0:30:02.8 DC: It's interesting. So this, basically summarize it all, is that the low carb ketogenic diet not only does not pose a threat to cardiovascular diseases, as a matter of fact, it is very promising as a nutritional approach to this type of diseases, which is exactly what we have been doing. And I've been practicing this for over 10 years. Myself. Now, let's go back, talk a little bit about why this cholesterol, heart disease, how did it happen and why we were so much, I want to say, let me just say it. Why were we so fooled by this hypothesis? First of all, we all know Dr. Ancel Keys a physiologist back in the '50s proposed this after his so-called Seven Countries Studies. Now, what I'm not gonna go over the detail of this hypothesis, you all know about it. Basically, this was a hypothesis which was never proven, never received confirmation scientifically. However, it was rushed into the dietary guidelines for Americans in the 1980s. And unfortunately, this is a long story and this is a long story. Lot of things going on in this thing as we know in this world. I wanna say this is that money, follow the money, like in that, the movie, right? So basically, a lot of interests involved in every part in our life, particularly in this. Now, long story short, right after the hypothesis of the Ancel Key's Diet, heart or cholesterol, heart hypothesis, there had been many studies to show opposing data.

0:32:08.4 DC: Many of these critical studies were later on dubbed as core trials in the '70s and '80s. These studies all showed opposing evidence. However, these studies were basically hidden, swept under the rug. Most of us didn't know. I was in the medical school at the time, and I don't remember reading or listening or any professor teaching any of this stuff. So all I grew up while I knew was that cholesterol is bad for you. The only thing I remember back going to medical school, my

Amamara was Shanghai Medical University. I remember one of the greatest, I remember him now, he is a biochemical professor. He said, I remember vividly, the only thing I still remember is that eating eggs does not affect your blood cholesterol level. We know 80% of our cholesterol is synthesizing the liver. Has nothing to do with your dietary cholesterol intake.

0:33:07.2 DC: That's the memory I remember. Anyway, so a lot of studies were done in the past, but we didn't know because, but they were all reported in there. Now this is a second part of the, all the, I'm not gonna go read about it, but anyway, so a lot of opposing studies, but they did not want you to know. However, all these things started happening about 2010. One, as we know, basically the statin drugs, lipid cholesterol, lowering drugs, all these things came up and the billions of dollars were made. However, clinically there were very little progress in terms of coronary artery heart disease. So a lot of scientists and conscientious scientists, doctors began to question. And so, these type of papers began to appear again, probably starting around the year 2010, about 13 years ago.

0:34:14.8 S2: And so this is well summarizing this paper by Nina Teicholz into actually about in February this year. I advise you to read it, but this is a short and sweet article. Summarize the story in the field. Very nice. The article told us about the story, what happened behind the scenes, A lot of things. I'm not gonna read the detail. This is a quote from Nina Teicholz of where summarizes it. Basically, the entire American population has indeed been subjected to a mass experiment, and the results have clearly been a failure. Okay? She also published a well-known book, *The Big Fat Surprise*. I think that was 2014 probably. And what I am glad to report is that she, Nina and her, she formed a nutrition coalition and many others as well.

0:35:17.3 S2: They've been lobbying the Congress. And so recently, a couple months ago, they reported that in probably after numerous congressional hearings, the US Congress finally directs USDA that in the next dietary guidelines for Americans, they should base their recommendations on rigorous scientific data. What does that mean? Well, let me tell you what it means. Many of you probably already know because the last expert panel that decided the Americans, what American, how Americans should eat, basically, the DGA 95% of them received direct financial compensation from these food companies. Now, where is the scientific fairness in the United States? Okay, let me just leave at that. So basically this is a great success victory for the consumers is that one way, one, our experts, the experts should be fair and square, and the politicians should be less biased, okay?

0:36:31.6 S2: When we form these public policies, we should have experts without financial conflicts of interest. That's common sense. I don't understand why these re-moral and ethics values, where did they go? Okay, now this is interesting. This was a published reported back in 2015. Basically when the first dietary guidelines for Americans was formed the panel chairman, the chief was the senator, was a Senator McGovern. George McGovern okay? One of the experts, Dr. Olsen from St. Louis University basically urged the panel not to put a limitation on the saturated fats, because there was not sufficient data to support their conclusion. More research was required. That was a prudent scientific approach in my opinion. However, the senator was so arrogant that we, senators were so busy, we didn't have the time to wait for every last bit of evidence. So an unconfirmed hypothesis was rushed into an American policy, which in turn affected hundreds of millions of Americans, as a matter of fact, the entire world, because that was the very first dietary guidelines for humanity, and which was copied, and mimicked by many governments worldwide. And that's how sad it is. That's how bad an arrogant politicians can affect your health and that of mine. And I don't like it.

0:38:25.0 DC: Now let's move on to talk a little bit about the Orthomolecular perspective of ASCVD. Now, first of all, this first, as far as I know, was started by Dr. Pauling, Dr. Rath back in the 1990s, at least, maybe even earlier. And we know Dr. Pauling, the two Nobel, two times Nobel Laureates. He was an advocate for high dose Vitamin C, and he was also, he also coined the term Orthomolecular medicine. What is Orthomolecular medicine? Orthomolecular medicine simply means nutrition and optimal nutrition is the cornerstone of health, is the major pillar of our health. If we do not understand nutrition, we do not understand health. We do not understand disease. And so, Dr. Pauling, is the true nutrition scientist and the grandfather. Now, and, currently Dr. Levy, as you can see, the handsome picture show, right here further, developed this concept which I really like, I learned a lot of also medicine from Dr. Levy. And, luckily Dr. Levy and I, we... He published a book a couple of years back called *Stop America's #1 Killer*, basically, about the cardio, the CVD. And so we summarized and further I included, expanded a little bit to include some of the, functional medicine aspect and publishing the Chinese Journal back a couple of years, 2019. And as you can see, this is Chinese, 'cause since this was a Chinese presentation.

0:40:11.6 DC: Okay. Now in summary, this, Orthomolecular perspective, I am summarizing my understanding here. Now, first of all, we all know collagen is the backbone of our blood vessel wall integrity. As a matter of fact, collagen is not only the backbone of our blood vessels, it is our entire human body. Roughly protein, our human body, about 16%-ish of our body weight is protein, of course, depends on your muscle mass and everything. So collagen is, I mean collagen, I mean about 30% of our protein is collagen. So one of the major components in our body is actually collagen. We all know, for example, bone, you think bone is hard, right? Bone is harder because it has a lot of collagen, the bone collagen. The collagen is key here. Now, we all know synthesis of collagen requires absolutely Vitamin C. We all know that, particularly a woman. They, pretty, of course we do too. So, to have skin beauty and anti-age and Vitamin C is critical. Why? Part of the major function of Vitamin C is to help with the synthesis of collagen. Now we also know Vitamin C has multiple biological properties, including antioxidant capacity, and here we mention about the collagen synthesis capacity. Of course, when you are multifactorial, multi-functioning, you are stretched. And we know, being an antioxidant, when you have too much oxin... Or I mean toxin too, all toxins in your body are oxidants.

0:41:56.2 DC: They require antioxidants to neutralize them. So when you have too much toxin in your body, they deplete your Vitamin C, number one. Number two, we also know these days in our diet we have a dietary reduction, decreased dietary intake of vitamins, which is well known, is because of, our soil is being depleted, our food, processed foods is, these days our diet, our food is calorie-rich nutrition-poor. This is part of that nutrition-poor, is because the micronutrients, including Vitamin C amount has been reducing in our diet. Due to these combined effects, essentially, many of us, particularly most of us, have insufficient Vitamin C in our body, which leads to insufficient collagen synthesis. And which in turn, and the end result is that blood vessel walls are unable to synthesize sufficient collagen, and which leads to the blood vessel wall breakdown. Basically it's forming a wound. When you have a wound in the blood vessel endothelium, our body tries to repair that wound. The repairing process, including deposits of proteins, of what, as you know, when we have a wound on our skin, for example, our white blood cells, there's calcium, the cholesterol, the other proteins will deposit, trying to plug that hole.

0:43:35.1 DC: That is the process of atherosclerosis. As Dr. Levy pointed out, in his article, which I have the reference citation down here, is that, if this process is not stopped, because we... And

most people don't realize, except a few people in the Orthomolecular medicine field, otherwise, most people don't realize, if we do not realize this is an inflammatory process that involves the collagen synthesis, the toxins, the radicals, and antioxidants, that wound healing, the wound persists. That continues to deplete, require a lot of vitamins, and therefore the wound continues to go on, the plaque, the stenosis, the wound healing process keeps on going. That's so-called Non-Healing Wound Hypothesis, which I really like. And makes sense, a lot of sense to me.

0:44:32.2 DC: Therefore, if we understand, if we believe this hypothesis is true, what we need to do is to start aiming at the root causes. One major root cause is what? Toxin overload. So try to reduce the oxidants, toxins, or the inflammatory agents in our body from all aspects. Okay? Mental, environmental, water, food, drug, whatever. Remove and detox. And also, on the other hand, increase our antioxidants with a focus on Vitamin C. Of course, not just Vitamin C, including Vitamin C. Of course, others magnesium, Vitamin D, and Vitamin K2, and a couple of other amino acids. Now, so therefore, if we can reverse that process, the non-healing wound process, we may be able to prevent, improve, or even reverse ASCVD or coronary artery heart disease. That's the hypothesis. Which I learned many years ago. Now, let me review literature, briefly. This, as far as I know, was the first Vitamin C to reverse CAD study back... Published in 1951 by Dr. Willis. I believe he was a Canadian doctor. He reported, actually in '54, he reported that out of these patients, it's a small study, but anyway, only 500 mg Vitamin C three times a day, basically 1500 mg a day, he was able to reverse 60%, or six out of 10 of these patients.

0:46:18.8 DC: And, so that was what? 77 years ago. And I believe at that time, because we had much less environmental pollution, our food was not as much polluted, ultra-processed, or adulterated as today. So 1500 mg of Vitamin C was sufficient at that time, I doubt today. That probably won't, but that was way too small today, I believe. Now, back in the 1990s, Dr. Pauling and Dr. Rath, they collaborated, and Dr. Pauling himself reported a couple of cases of reversing coronary heart disease, as shown here. And basically, for example, one of them, a 62-year-old lady was 50%... Was basically after, I believe, 19 months on this Vitamin C protocol, and he reported 50% resolution of LAD stenosis and 75% resolution of RCA stenosis. 75 reduced to 40%.

0:47:31.7 DC: And also, Dr. Rath and his colleague reported that back in 1996, a group of 55 patients, these are the CAD patients, they follow the CAC, the Coronary Artery Calcium score, over one year. The CAC progression was slowed with a cocktail of Vitamin C supplement compared to the other group. Basically, in this relatively large 55-patient study, they were able to slow down the progression of calcium deposition in the coronary artery disease. This, to me, was very interesting. And because CAD was the number one killer, has been the number one killer for a number of years, such a major disease, the global burden of disease is so huge, so many lives at stake, so much money involved, I would have thought we should have further studied this, however, unfortunately, there were no follow-up on these studies. Why? Why is that? Is that because of lack of money? No, right? And we should follow every suit because this is so promising. And of course, politics is money. Now, let me share with you some of our stories. So basically, after studying all these many years ago, I believe that... I already presented to you my understanding. So we started approaching, managing disease in this way. And like I said, I've been practicing this kind of on myself for over 10 years now. Now, this is a first case I summarized a few years ago already, this last year.

0:49:23.2 DC: Anyway, a 62-year-old man was documented a coronary heart disease, he was symptomatic with angina pectoris, requiring nitroglycerin, 'cause when he exercised, he had chest pain. He had two CT Angiograms confirming his stenosis before he started. And basically, the very

last one before he started showed the two areas of stenosis. One is the LAD proximal end of 25 to 49% stenosis. In the mid portion, it was moderate stenosis 50 to 69%. And long story short, 20 months later, actually he had, had another CTA in between, I didn't include here, to show the gradual improvement. But I just jump to the last one. 20 months later, basically February 25, 2022, and repeat in the same hospital of CTA, both areas of stenosis completely disappeared. And the patient also reported no more symptoms. He described here, he said he could climb 11 or 10 flights of stairs in one breath. And I said, "Well, that's better than me, I probably need to take some breaks." So, this is our first complete resolution of his CTA. What did I do? Basically, I had advised him to go on low carb ketogenic diet. Why? Because diet, the toxins, the majority of our toxins, I believe, coming from diet. So reduce as much as possible ultra processed foods. Reduce carbohydrates. If you can, go on ketogenic diet, eating healthy, yes, saturated fats, stay away from seed oil, the plant oil, the soybean... Soy oil, and that kind of oil.

0:51:26.3 DC: Using butter, lard, olive oil, coconut oil, chicken oil, duck oil, if you can, or avocado oil. This type of, basically low omega six fats. I want higher and saturated fats. Saturated fats are better for you. I don't have time to go into the detail in that one, and at this time probably. This is another patient very interesting I wanna show you, just recently, this is 64-year-old lady, and in June of 2022 as you're shown here, these were Chinese reports. Anyway, severe stenosis of LAD 60 to 70% stenosis, and also showed on the CT, showed the pulmonary nodules. And the right report shows July of 2023. Basically about 30 months later, the 60 to 70% stenosis reduced down to mild, which is about... Mild meaning like 20%-ish. And also the lung nodules no longer present. Okay? And we didn't particularly target the pulmonary nodule but which is one stone, two birds here. Actually there's more, let me show you. Now, later on, the daughter of the patient further noticed that her senile plaque, the age plaque on the cheek was gone. The very left picture was taken in 2020, October 2020, outdoor, on the outside, you can see clearly on the left cheek was a senile plaque, right there, age spot. And the left, the middle picture was taken at night indoor, July of this year, and you can see vaguely a plaque right there. And because one was day, one was night, some people question that, I said later on ask actually December this was taken before my conference this time.

0:53:21.3 DC: I told them, I say can, you take another picture outside outdoor, therefore for similar comparison. So the right picture practically you can't really see much. There's still vague, very vague... You can see very vaguely. So basically in three years you can see the skin senile plaque rapidly disappearing as well. That I didn't show here, also the ultrasound shows thyroid nodules were decreasing in number and in size. Now, interesting here, why do I show this one? Is that, is because we were... She came to us for coronary artery heart disease. However, she received more than one. Actually, I was gonna see one stone two, three, but actually four including the thyroid. Why? Because whether it's age spot, thyroid nodule, lung nodule, or coronary artery disease, actually if you check other body parts you will see more probably is that, all these things have a lot of things in common. The basic disease process is it's a inflammatory process, whether it's coronary heart disease, it's inflammatory disease.

0:54:32.3 DC: The lung nodule has a strong inflammatory component. The age spot is the same thing. The toxin buildup, the antitoxin insufficient antitoxin capacity, and the inflammatory. These are the common themes. So when we target the common theme toxin overload, too much free radical, antitoxin insufficiency, you resolve many of these, or you improve, or you resolve, or you can prevent. Now, another patient of mine, here, this is a... Yeah, this is a 60 some year old, similar age to me. He came to us a couple of years ago primarily due to a carotid plaque in the carotid

artery. He also had Hashimoto's thyroiditis, was elevated at all two antibodies. He had multiple other problems including depression, angina, and men's sexual drive reduction, and also gallbladder, cardio cystitis and chronic issues.

0:55:37.1 DC: Now, only one year later, I didn't include my... Anyway so he reported here, 11, a couple months later basically the carotid plaque is gone. And his gallbladder is smooth. No more cardiac cystitis issue here, and very importantly also Hashimoto's antibodies all become negative. Actually, autoimmune disease is the category that we have reversed of most patients, this type of disease has been increasing. Why? Because of the pollution, I believe a lot of inflammatory disease, again, a lot of pollution. Now, included here this is not a exactly cardiovascular, I mean atherosclerosis disease, but I saw the picture that was very fascinating. This is a varicose vein in a 37-year-old male on the leg, as you can see on the left picture clearly, the... Engorge the veins right there clearly. This man also has hypertension and overweight. Now, he came on to our program and we also gave advise him go on low carb, intermittent fasting, and also Vitamin C. We have a package called Total Cell Nutrition. Basically, the optimal level of various vitamins and antitoxins of course including Vitamin D. Vitamin D is one of the major nutrients that we include in every patient. And not only that we oftentimes use high dose Vitamin D, 5000 to 10,000 is our routine dosage, okay? Oftentimes we go higher than that.

0:57:14.6 DC: Anyway, long story short, eight months later you can see clearly the picture here, the varicose vein is gone. The point I'm making here is that yes, this varicose vein and our atherosclerosis may be slightly different. However, do not forget it is also a blood vessel wall integrity issue, Blood vessel wall Integrity requires a lot of vitamins. A lot of nutrition. So when you supplement nutrition we are able to reinforce the blood vessel wall, re-establish the integrity of blood vessel wall as demonstrated in this case, he's also blood pressure used to be 150/100, back to normal he took off. And I mean he's no longer on blood pressure medicine, he's lost about six to 7 kg. Probably that's interesting as well. Okay, now this is a summary I didn't show you I was trying to find the other cases here because I changed the computer on the traveler, I took a smaller computer. I didn't have the other cases here, I was going to show you another. But anyway, we have reversed six or seven ASCVD cases.

0:58:31.0 DC: Since this is about ASCVD I was thinking of including all the others but next time maybe. Not only that, we have also reversed or improved many other metabolic diseases, including diabetes, hypertension, obesity. Yes, we have reversed, we have improved three cases now with all lab documentation, the osteoporosis. Okay, their bone marrow density improved, which is very hard to improve. Yes we have three cases already. And also like I already mentioned that the psoriasis, skin rash, Hashimoto's, SLE, Crohn's disease, you see ITP, we have, but yes, vitiligo as well, alopecia. We have reversed or improved many of these diseases. This is the major category because there's so many of them. Yeah, surprisingly, this is, I mean I never thought I would manage schizophrenia patients, but we have two cases already, schizophrenia patients, so both are adults, one is a 37-year-old woman, the other is a 67-year-old man.

0:59:45.9 DC: Both of them came on to our program with our dietary approach and also molecular medicine. Their symptom, their clinical status improved radically. Their energy level is much higher, their medications, psych medications have been reduced, overall significantly improved. We also have managed many other women's issues, including PCOS, PCOS, ovarian, irregular menstruation, and cancer. And yes, we have, yes, we have cured, meaning five years without cancer and improved many other cancer patients. Now, in summary, so this is my understanding of

integrating these various medicine approach. Basically, again, as a clinician, my goal is not to prove which theory is right, which theory is wrong. To me, the only thing that is right is able to improve or reverse patient's disease. That is the, nothing beats that, okay? I don't really care which theory is right, which theory is wrong, who is right, who is wrong. And whoever can help my patients is right, that's it. So basically, we all know holistic approach to patient management is the key. So starting from lifestyle. Lifestyle, you cannot make any money, but that's critical.

1:01:08.6 DC: If you live a healthy lifestyle, half of your diseases will be probably gone or significantly improved, at least. So it includes face spiritual, emotion, sleep, exercise, nature, exposure to sunlight, blah, blah, blah. I don't have to go through this, but specifically I want to point out is that cut down the carbohydrates. If you can go on intermittent ketogenic diet, also intermittent fasting is critical. Cut down ultra-processed foods. Try to reduce the polluted and toxin foods. I summarized in the little right figure right here. And also nutrition. In nutrition, the category of nutrition, pay attention to mitochondrial function, pay attention to oxidative stress, and of course, that's antioxidants. These are critical. What is also molecular medicine, also molecular nutrition?

1:02:06.2 DC: In my view, it is the optimal and high dose vitamins. In high dose vitamin, many of the world's famous, actually, surprisingly, a lot of vitamins and nutrients, when you push higher amounts, of course, safely, it shows a lot of amazing effects, okay? We know a lot of those famous doctors Dr. Pauling is also a molecular medicine expert, of course. He proposed the high vitamin C. Dr. Michael Hollick, he was also a molecular medicine Hall of Fame inductee, and the world's famous vitamin D expert. He's been doing a lot of studies in vitamin D, and also recently, he published a paper showing high dose vitamin D3 for autoimmune diseases actually is safe. We've been using that as well. And a lot of, actually, high dose vitamin B, including from Dr. Lansdale, I think he was famous for vitamin B1, high dose, and we know high dose vitamin B1 is great for nutrition, I mean neurological diseases like Parkinson's, okay? So many other doctors, we know Dr. Levy is well known for vitamin C and magnesium and many others as well.

1:03:23.6 DC: So in the nutrition field that do not, if you are not doing also molecular, you're not really doing nutrition actually, in my view. So many of the vitamins have been pushing for high dose vitamin. They are not only safe, but they also showing you can do you miraculous results. Amino acids, glycine, taurine, lysine, proline, have an anti-aging and cardiovascular protective events. We've been using practically all of them. Toxin. Toxin is a major category. Actually, probably it's as important as nutrition, and if not more. Why is that? It's because we have a way overload of various toxins in our society today. Toxins come from external and internal, from various metabolic environment, food, drug, and the boxed foods, and all the others. Mitochondria function support. This is critical. I'm very interested in. Not only not only this, but also, methylene blue.

1:04:36.9 DC: I'm not gonna talk much about the light, the near infrared. This is, either all or can help. The mitochondrial nutrition hormonal balance. This is primarily the functional medicine area. This is also of critical value. And also Regenerative medicine including stem cells and others as well. This basically completes my toolbox of approach to disease and anti-aging approach. So whatever is, applicable, I will use these. That's how I approach health and disease in the manner I listed here, 1, 2, 3, 4. Because the higher the number, that tends to be the more expensive. Finally myself, I've been approaching this. I've been using this, to myself I've been using this for like over about 15 years or so, and, in, at my age, 60 plus, 64 this year now.

1:05:38.8 DC: And I've been very active. I can show you, I mean, as you can see here, I've been active on the batting court. Actually here. I won a competition here, playing against people average about 15, 20 years younger than me. So here I want to say is that exercise endurance is a key hallmark of your mitochondrial capacity. I think my mitochondrial is... Mitochondria is the energy producing organ sub organelle in our body. If you don't have mitochondrial health, you don't have health. Mitochondrial deficiency is associated with practically every disease, including aging, particularly cancer as well. So if you don't have Mitochondrial health, you cannot last long. I mean you exercising. This won't last long. You don't have energy. Now here I wanna show you the insulin resistance.

1:06:34.7 DC: As I mentioned, insulin resistance appears to be a key mechanism in practically all, metabolic diseases, including cancer. Yes, including cancer and coronary artery heart disease. Now, the typical, traditional one is HOMA-IR this, you can see mine was slightly elevated back in 2019. Now it's perfect. The other two, one is the triglyceride HDL, and you can see it back in 2015. Mine was high, 2.5. Now it's perfect. It's, under one perfect and, triglyceride glucose product. This is yet another insulin resistant, index. And, as you can see on the right, this picture here and the 8.5 is correlated with the lowest risk of mortality and luck, I'm glad to report that mine has been around 8.5, Between 8.5 nine-ish, at the ideal level for the last, quite a few years. So all the three major insulin resistant markers for me have been improving or staying at optimal levels for many years. And do not forget, I been eating high fats, a lot of red meats, a lot of eggs, a lot of butter for like 10, 15 years.

1:07:51.8 S2: Exercise. A lot of exercise, a lot of also molecular medicine, including C and D. Now, here is a recent, I mean, four years ago my, bone marrow density scan that was done 2019. As you can see here, mine was at the top compared, as you can see, my bone marrow density scan was better than 80, 90% of people at their age, 20, '20s, or sorry. My bone was pretty hard. I don't take any calcium supplements. I am against supplementing with calcium supplements. They are killers, actually. The below here are some other books. One is the death by calcium, the other is low carb medicine to reverse coronary artery disease. Okay? Also, I did a CAC scan, coronary artery, heart calcium score, and mine was less than 20 very ideal for the age group. I'm hoping to reverse it next. I'm gonna repeat that one probably next year or so. Hopefully that can be reversed because the CAC score can be reversed. There has been study, and as you can see, I take a holistic approach, getting sunshine going to the Forest Park and hopefully on the right here is that I'm among my badminton court at age 80. Here are a couple of our books, that are in Chinese. Alright, thank you very much. And do you have any questions? We'll, we're happy to entertain you. Any questions you may have. Thank you.