

Dr. Mercola Discusses Linoleic Acid

Introduction

You are in for a real treat.

Why?

Because it will teach you in great detail about what is likely the primary contributor, the single largest reason, why you're going to suffer some chronic degenerative disease in the future, like heart disease, cancer, dementia, obesity, diabetes.

If you understand this and implement it properly, I can promise you that you're going to likely prevent most diseases in your entire lifetime. And this is particularly important for cancer, which is rapidly becoming one of the most common causes of death.

And I'm sure you've experienced, certainly as I have, many friends or relatives who were diagnosed with cancer, then ran to the conventional oncologists and got a dose of chemotherapy that destroyed their immune system. And it is vital, absolutely crucial that you understand that once you've been given chemo, the likelihood of you achieving a successful recovery from cancer is dramatically reduced. So if that's the only pearl you get from this presentation, it may save your life or someone you love.

This is why it's so important to implement these strategies, and specifically this one, reducing your intake of linoleic acid or LA preventively or prophylactically so you don't come down with these conditions.

Now, since I published my original video that I posted earlier in 2023, there is an update because I had a peer-reviewed paper published in a very high-impact journal called *Nutrients*. It's published in July of 2023.

The History of Seed Oils in Our Diet and Their Impact on Disease Rates

Now, most people simply don't realize that in the 1800s, 99% of the fat consumption was from animals. Today we're getting close to 90% of the fat we eat from seed oils. Hard to believe, but it's true.

We had a radical reversal of the types of fats we eat in the past 150 years. Now, this is important because even the conservative RDA advises that you only need a mere 2% of your diet to be linoleic acid. But it's the rare person who is consuming LA at this low level, and that's merely the RDA recognition.

It's likely you only need half of that or a mere 1% of your calories from LA. This amount is virtually impossible to avoid getting if you're eating food because it's – LA is just about in every food you could possibly eat. And this is one of the reasons why I pragmatically believe that LA is not, not an essential fat. Even though your body isn't able to make it, if you eat virtually any food, you will have more LA than you need. You are simply never going to become deficient in linoleic acid.

Now, the U.S. as a country, actually has the highest intake of LA per individual of any country in the world and on average consumes six times the RDA for LA. But some consume far, far more than that. It's

absolutely astonishing that the U.S. now spends a whopping \$4.5 trillion annually on health care. Yet despite spending more than any other nation, we have some of the poorest health outcomes in the developed world.

What Makes the US So Unhealthy?

Now, despite the size of this outrageous investment, the health outcomes in the U.S. lags behind virtually every other wealthy country in the world. For all the money poured into health care in the United States, we have shockingly little to show for it in terms of health and longevity. Now, there are many factors that contribute to this, but likely the single largest contributor is the increase in LA intake, largely in the form of seed oils. But there's other foods, and we're going to discuss that in a moment.

But America wasn't always so disease-ridden. In fact, the population was relatively healthy until the introduction of seed oils shortly after the U.S. Civil War. There are many fascinating correlations between seed oil consumption and chronic diseases, not only in the U.S., but in 25 other countries from around the world.

Seed oil intake increased, conditions like heart disease, obesity and cancer began to skyrocket. This historical data convincingly implicates seed oils as the root driver of our current epidemics of chronic and metabolic disease. Our health radically deteriorated in lockstep with the rise of these seed oils in the food supply.

LA's Effects on Obesity and Diabetes

So let's take a look at this graph and find out what happened with obesity during the last 130 years. There was approximately 1% of the population in the 19th century that was obese. And now, today we have around 45%. Now, that's for obesity, not just merely being overweight. And the rates are heading to 50% by 2030, the end of this decade. That's a 45 times increase.

Now, let's look at diabetes and let me give you an example. In 1890, there were 2.8 people per 100,000 in the United States with Type 2 diabetes. So less than three out of 100,000 people had died of Type 2 diabetes. Today, the number is likely 300,000 if you include all the people with prediabetes. That's a whopping increase of nearly 10,700 times.

Now, diabetes and obesity are intimately related and strongly correlated, just different versions of the same underlying metabolic dysfunction. But as you can see, in the 19th century, there were virtually no diabetics, but 1% of the people were obese. This is because there are many, many causes of obesity, although most are related to seed oils and LA intake. There are clearly other causes.

LA Is More Damaging Than Sugar

Interestingly, these numbers support the assertion that obesity by itself is not necessarily a risk for the disease. It is likely only an issue if it is caused by excess LA consumption. Now, some health experts want to pin the blame for this increase on sugar. And I'm sure you've seen that. I certainly have. You may even believe that. But let's examine the data.

From 1935 to 2016, the percentage of calories from sugar in the American diet rose only marginally from 22.5% to 24%. That's an increase of a mere 1.5 percentage point. In absolute daily calories, sugar intake went up a mere 86 calories or 1% over the entire time frame.

Meanwhile, the consumption of seed oils skyrocketed from around only 7% of the total calories, which is still three times the RDA to a staggering 29%, nearly one-third of the modern American diet. So while sugar edged up slightly, seed oil experienced exponential growth over the same time frame.

Seed Oils Are Impacting Vision

Researchers documented the relationship between seed oils - the No. 1 contributor to irreversible vision loss in those over 50. What they found, and it was rarely documented as a vision loss in humans prior to the introduction of seed oils. And this vision loss is given a name. It's called macular degeneration, sometimes called ARMD, age-related macular degeneration, and the magnitude of this epidemic is truly astonishing. Physicians didn't obtain the skill set to examine the central macular region of the retina until about 1850. That's when we first documented this occurrence of this disease.

But from 1850, for the next 80 years, there was only 50 cases of macular degeneration documented in the entire world. This is almost 1 every two years. Today, we have over 200 million cases existing worldwide. That's a staggering increase. And you thought that diabetes and obesity number were outrageous. Well, this is an increase, folks, of 500,000 times.

This comparison is absolutely mind-boggling. From 50 known cases as of 1930 to over 200 million cases today dwarfs the increase of virtually any other disease. But we haven't discussed heart disease yet.

What's Causing a Radical Increase in Heart Attacks?

So let's examine the history of heart attacks, which is now the leading global cause of death, and see what it was before the introduction of seed oils around the United States Civil War. Just like obesity, heart disease was exceedingly rare. The first heart attack in the United States wasn't even documented until 1912, when Dr. James Herrick documented it. The heart attacks before 1900 were a very, very rare event.

It's hard to believe, but it's true that there were only a handful of cardiac deaths in the entire world before 1900. Now it's a leading cause of death. 25% of the deaths in the United States. And that's conservatively, at least that many people have heart disease. Since there was only a handful of people who had heart disease in 1890, the increase is an astonishing, a shocking 5 million times.

Now, these data are just correlations, but they're very compelling correlations. And the rapid growth in the diseases following the introduction of seed oils implicates dietary changes as the primary driver of this epidemic.

Unlike most healthy fats that you take in from the diet, LA is not readily burned as fuel. Your body much prefers to store, to burn saturated fats and then monounsaturated fat. So instead your body chooses to store and embed the linoleic acid that you eat into your cell membranes, which is one of the primary reasons why LA stays in your body tissues so long. Years, literally. And that's only if you start to radically decrease your intake of LA.

Linoleic Acid's Mechanism of Action

So how does excess LA cause the damage in your body?

Now, many experts believe that it does this by increasing inflammation in your body because one of LA's metabolites is arachidonic acid, which is the precursor to many mediators of inflammation such as prostaglandins, leukotrienes and eicosanoids, which all contribute to increased inflammation. They vasoconstrict and they increase blood clotting.

But it turns out that this is not likely the mechanism at all for a wide variety of reasons, but it doesn't appear to be the case. And that excess LA likely causes damage to your body, by an entirely different mechanism. We now believe the damage from LA is far more related to oxidative damage. This is because LA is prone to this excess oxidation, because there's two double bonds, and the double bonds are susceptible to this type of damage.

And when LA is oxidized, it's converted into highly reactive and toxic aldehydes, like 4-hydroxynonenal, and malondialdehyde, and acrolein, and glyoxal. And there's literally hundreds of more toxic aldehydes that are toxic metabolites of LA that are induced by this oxidative damage.

Now these aldehydes, they're cytotoxic. That means they can kill cells. They're mutagenic. That means that they can cause mutations in your DNA. They're atherogenic or they promote heart disease. They're genotoxic. They damage your DNA. Carcinogenic. They cause cancer. Obesogenic, which means they can cause obesity. And diabetogenic, meaning they cause diabetes.

LA Builds Up in Your Body Over Time

So in many ways, LA is like tinder building up in forest over time. And low amounts, some tinder is actually healthy and helps fertilize the plants in the forest. But excessive accumulation provides fuel for massive deadly forest fires. And Morley Robbins, who's an expert in iron copper, describes excess LA as this tinder that excess iron can actually spark into flames.

Now I'll cover the iron issue in a future, but the priority now is in removing the dangerous linoleic acid, tinder, from your tissues to prevent this oxidative damage, just as when you manage forest and remove the tinder and prevent catastrophic wildfires.

Now it turns out that LA likely has an additional mechanism of action that causes calcium to enter inside your cell, and the calcium outside your cell has a concentration that is 50,000 times higher than inside your cell. Calcium entering your cell causes your cell to do a number of things that are potentially not good for you, such as increasing superoxide and nitric oxide, and these molecules combined nearly instantaneously to form a dangerous free nitrogen species called peroxynitrite, which also causes large amounts of tissue damage.

This is interestingly a very similar mechanism as to how EMF damages your body, which may help explain why lowering your LA levels will not only lower your risk of cancer overall, but radically reduce the damage that your body takes from cell phone exposure and Wi-Fi.

PUFAs Are More Harmful Than Saturated Fats

Now, trans fats have become infamous in recent decades, but few people realize that they can only form from fats containing at least one double bond. The more double bonds that a fat has, the greater the likelihood than the risk it has of generating these trans fats.

This helps explain why PUFAs, these polyunsaturated fatty acids like LA, are so dangerous because they have multiple double bonds that readily are able to convert artery-clogging trans fats when exposed to heat, chemicals and pressure.

Now, in contrast, saturated fats, which have no double bonds, cannot create trans fat, despite years of misplaced warnings. Additionally, these toxic oxidative metabolic byproducts of LA also cause something called reductive stress in your mitochondria. You probably don't know what reductive stress is. Not to worry, because over 99.9% of health care professionals don't know about it either, but it's simply the precursor to oxidative stress. And I'm sure you've likely heard of that.

Reductive Stress Affects Your Mitochondrial Health

I'm going to give you a preview now and share one of the most important ways to reduce reductive stress. It's to, very simply, lower your LA intake. And I would suggest radically lowering it because that's the primary cause of reductive stress.

Now, this reductive stress does some serious damage to your mitochondria, which are the structures inside your cell that if you're healthy, create about 85% of the ATP or the cellular currency of energy in your body. Now, when your mitochondria become damaged or dysfunctional from excess LA, they simply are unable to produce cellular energy as efficiently as they were designed to. And if the damage is severe, they actually die prematurely. This is why one of the most common symptoms of mitochondrial dysfunction is fatigue or lack of energy.

And the key point to know here is that the LA you eat today will likely stay in your tissues for quite some time, depending on how aggressively you eliminate LA from your diet.

My Simple Strategy to Avoid LA's Damaging Effects

Now, the half-life of these seed oils and LA specifically is nearly two years, about 650 days. And if you're very diligent in removing the LA foods from your diet, newer studies show that it would take about three years to return the LA levels in your tissues to healthy levels. But the good news is that most people feel better and start to get major benefits in about six to eight weeks.

So what is the most important strategy that you can do right now for you and your family to lower this ticking time bomb?

Thankfully, it's a simple strategy. In fact, it's only 10 words. So let me give you those 10 words: Eliminate processed foods, chicken, pork, seed oils and restaurant foods.

That's it. Only 10 words. So let me emphasize the key points again so it sticks into your memory. Eliminate processed foods, chicken, pork, seed oils and restaurant foods. That's all you got to do. But the devil is in the details. So let me expand on that for you.

Eliminate All Processed Foods and Seed Oils From Your Diet

It's going to be vital to eliminate all processed foods, as seed oils are the primary ingredient in most all processed foods. In fact, sugar is frequently identified as a culprit for producing many of the chronic epidemic diseases that we're experiencing. But when you look at the studies more carefully, what you'll find is that sugar is an artifact of being in processed foods and what else is in processed foods? The seed oils, and usually at much higher concentrations. So their sugar is unfairly vilified when the seed oils are likely doing and responsible for most of the damage.

Now, I'm not suggesting that processed sugar is good to eat by any means, but it's the seed oils that are causing most of the destruction, the damage to your tissues. Interestingly, there's nearly a universal consensus among natural health experts that avoiding processed foods and even worse, ultra-processed foods, is absolutely crucial if you ever hope to regain your health and progress to optimal wellness.

So in addition to avoiding processed foods, you'll also want to eliminate all, and I do mean all seed oils. So which ones am I referring to? The big ones, of course, are soy, corn and canola, but it also includes things like cottonseed, grapeseed sunflower, safflower and rice bran. These should also be avoided.

Avoid Olive and Avocado Oils Too

Now, although oils like olive oil and avocado are very common and they are not seed oils, they are fruit oils, but I strongly suggest that you avoid these for the first two or three years or so. Or if not, use them very sparingly, because they do have LA in them. They could be as low as 3%, but some - like some really good varieties, but it could be as high as 20%.

But the more important thing is, is that up to 80% to 90% of these oils are adulterated. They're contaminated with seed oils. So you must be very diligent about identifying ones that aren't. And this can be hard to do and certainly very expensive. Certainly, if you're in a restaurant, you can almost be virtually guaranteed and absolutely certain that they're going to be adulterated olive oil and avocado oils because they just can't afford them. So I would not order it, especially if you're in a restaurant and I would stay away.

But if you find a healthy version, you could probably limit them to a tablespoon or two in a day and probably get away with that. And if you're absolutely certain that it's not adulterated.

Now, isn't it interesting that the food industry misleadingly mislabels these seed oils as vegetable oils? They greenwash them for marketing purposes.

How Canola Oil (and Other Seed Oils) Are Made

Now this 5-minute public relations video I'm including here on how canola oil is made is not to vilify canola oil, although it's not a good oil, because it's seed oil. But to give you an idea of how the processing occurs for all seed oils because the process is nearly identical whatever the seed is, they just use a different seed. So if you haven't previously seen this before, I'd encourage you to watch it as it will enlighten you to the reality of just how seed oils are produced.

Canola oil is a commonly used type of cooking oil. It's derived from the seed of the canola plant, which North American farmers have been growing for about 30 years. The plant blooms in the summer, producing bright yellow flowers. Farmers harvest the seeds from pods which form after those flowers die off.

Canola oil is one of the healthiest cooking oils. Compared to olive, sunflower and soybean oils, it has the lowest level of saturated fat, 7%. It also contains more healthy omega-3 fatty acids and is high in monounsaturated fat, which lowers cholesterol.

Processing the Oil From Canola Seeds

When the canola seed arrives at the processing factory, it contains foreign material, mostly plant pieces. So the first step is to clean the seed in a vibrating sieve. The seeds smaller than the openings in the sieves mesh fall through to a conveyor below. The foreign material remains on top. A conveyor moves it to a storage bin, where it's collected for sale as cattle feed.

The seeds pass by a magnet. It removes any metal that may have fallen in during the journey from field to factory.

Next, the seeds enter a roller mill. They pass between two steel rollers, which crush them into thin flakes.

Extracting the Oil

A conveyor then feeds the flakes into a screw press. It has a large revolving screw-shaped shaft, enclosed within a slotted cage. As the shaft turns, its threads squeeze the flakes with high pressure, forcing out the oil, which then drains out through the slots.

42% of canola seed is oil. This screw press extracts nearly three-quarters of that. The remainder is still trapped in the pressed flakes. Now referred to as canola cake, the cake exits the other end of the press and moves on to a second extraction.

Refining the Oil

This one, a 70-minute wash with a solvent. This chemical extraction process removes all but a trace of oil. The factory then grinds the cake into protein-rich meal, which it sells as animal feed. The extracted oil stored in large tanks now enters the refining phase.

First, they wash the oil for 20 minutes with sodium hydroxide. During this wash cycle, they spin the oil at high speed so that the centrifugal force separates the natural impurities, which the factory later sells to soap manufacturers.

After this cleaning process, the canola oil is visibly clearer. However, it still contains natural waxes, which make it look cloudy. So, the next step is to cool the oil to 5 degrees Celsius. This thickens those waxes, so they can be filtered out. The waxes don't go to waste either. The factory uses them to produce vegetable shortening.

In the factory's lab, technicians recreate production on a small scale to ensure performance and quality. Meanwhile, back in the factory, after washing and filtering the oil, they bleach it to lighten the color, then use a steam injection heating process to remove the canola odor. The oil is now fully refined and ready for bottling.

Bottling the Oil

The equipment first turns the plastic bottles upside down and injects filtered pressurized air to blow out any dust or dirt inside. Then it turns the bottle's right side up again to position for filling.

Just before a nozzle starts filling, it applies a vacuum. If there's no suction, indicating a leak in the bottle, the machine automatically ejects that bottle from the line. Each bottling machine in the factory fills 22,000 bottles per hour. The labeling machines work at the same speed. They spread glue on the back of each label, then apply the labels edge to the bottle. The bottle spins, wrapping the rest of the label around itself.

As the bottles come off the labeler, a robot separates them into groups of 12. Then it picks up and deposits each dozen in a shipping box. From field to factory to your pantry, where once opened, canola oil has a shelf life of about a year.

They are an aberration created by modern industrialization and were never, never meant to be used for human food.

The Two High-LA Meats to Avoid at All Costs

So now that we've reviewed processed foods and seed oils let's move on to chicken because it's one of the most common foods consumed in the United States, and it's largely thought to be healthy. But even organic free-range poultry is problematic. And this is because of what they're fed. Almost every organic free-range chicken you think would be the healthiest food you can get. But it's loaded with LAs.

So why is this a problem? Because chickens are not ruminant animals.

Ruminants Vs. Monogastric Animals

Ruminant animals are animals that eat pretty much exclusively grass and vegetarians. Essentially that would be cows, buffalo, lamb, sheep, deer, elk, bison.

Now, these ruminants have multiple compartments in their stomach that harbor bacteria, which can hydrogenate or saturate the double bonds in the linoleic acid from all the seeds and the grains that they're eating and convert the PUFAs essentially to saturated fats.

Now chicken and pigs do not have this capacity. They don't have multiple compartments in their stomach. They're monogastric animals, and they simply aren't able to hydrogenate these fats into saturated fats, just like we can't. And this is also true for pigs. Same deal.

Even Free-Range Animals Are High in LA

So even if you're getting free-range organically fed chickens or hogs, and even though all their feed is organic, they will have high linoleic acid. Virtually 100% of this is due to some complex regulatory environments that exist that prevent companies from selling animals healthy food. Commercial feed for animals is under strict regulatory processes that limit their ability to integrate healthy food that is low in LA in the feed.

So even though they're using organic ingredients, the problem is those ingredients are seeds and grains, which are very high in linoleic acid. And this is going to be a problem because these animals are going to have 20% to 30% of their fat as LA. So it seems prudent to avoid eating these animals.

Why Most Nuts and Seeds Are Not as Healthy as They Seem

Now, when it comes to seeds, I used to believe that they were one of the healthiest foods around because they're so nutrient dense. But I didn't realize that they're loaded with a ticking time bomb of LA.

Now, this is also true for most nuts except macadamia nuts, which are pretty low in LA. And many other nuts like almonds, they're not only high in LA, but they're loaded with oxalates, which can be especially toxic. So those should be avoided. But again, if you have one or two almonds, it's not going to be a dealbreaker.

Avoid Non-Dairy Plant Milks

On the other hand, I would certainly avoid almond and soy milk, and pretty much all the non-milks that are in the dairy case because they're nearly always loaded with high LA and other ingredients that will damage your health. So stay away from them.

So please, though, be sure to avoid using any, any plant milks. They are highly processed foods, should be avoided as almost every single one of them are absolutely loaded with LA.

Properly Calculating Your LA Intake

So this brings us to an important aspect of just how much LA is going to cause you health problems. I believe your goal should be to lower your LA intake to less than 2% of your total daily calories, as that is what our ancestral intake was. Initially, that's what the RDA is too.

Now, fortunately, there's an easy way to calculate this with a free application called Cronometer, and the software is relatively straightforward to use. And it took me a few months to learn how to really maximize these capabilities, and I can rapidly accelerate your use of the software and the convenience of it. So if you decide to integrate Cronometer into your program, that will be very helpful.

But if you're like most people, your intake of daily calories is 2,000 to 2,500 calories. The ideal limit of LA should be about 5 grams, 5,000 milligrams, because there's a thousand milligrams in 1 gram. And that's per day. Now, many people are getting significantly more than that.

Some people are even getting more than 80,000 milligrams of LA in a day. But you want to limit your intake to about 5,000 milligrams or less. So remember, until you get your LA levels normal, which takes about three years, it's best to get as low LA intake as you can.

LA, in Small Amounts, Can Be Harmless

Now, it's important to realize though, that LA is not, is not a metabolic poison. It's not a toxin like mercury, where if you had any amount of LA it's going to hurt you. That is not the case. If you consume LA quantities lower than 2% of your total daily calories, it's not going to harm you in any way, shape or form. In fact, it's going to probably even contribute to your good health because it's a requirement. You need some of this in your diet. It's only when the LA intake exceeds 2% of total daily calorie intake that it becomes an issue.

But the problem is that nearly everyone does this and is consuming about 10 times more than that amount, if not more. So let's go back to seeds and nuts, which ostensibly appear healthy, and they certainly can be, if your daily LA intake is below 5 grams or 5,000 milligrams.

Let's take a real-world example, though. Let's start with walnuts. How much LA is there in one walnut? Well, we could look it up in the Cronometer, easy to do. And if you do, you'll find that one whole walnut has 2.5 grams of LA or 2,500 milligrams. This means that two walnuts, two walnuts, a mere two walnuts would put most everyone over their ideal daily limit of LA.

This is why I believe it is best for everyone to avoid seeds and nuts for a few years. Not forever, but just for a while. But if you have a few occasionally, it's not a dealbreaker either. It's not going to harm you. You just want to have a routine process where you radically eliminate these seeds and nuts until you get your tissue levels of LA down.

What About Seed Oil in Supplements?

Now, this also applies to supplements because there's some confusion on this and some supplements are derived from sunflower oil, which has one of the highest LA contents of any seed oils, about 68%.

Now, when you're looking at supplement labels, it's unusual for a supplement to weigh more than a gram, 1,000 milligrams. Typically, they're closer to 500 milligrams or about half a gram.

Now, if the entire capsule was filled with sunflower oil, which it isn't, it's just there to hold the supplement. And the most you would get is about half of that or 250 milligrams or more likely that amount is going to probably close to a third or about a hundred milligrams, which is 1/50th of your daily LA intake. In other words, it has about as much LA as 1/25th of one walnut.

So unless you're taking loads of supplements with seed oils, it's simply a non-issue for you. You can relax, you don't have to be as worried about it, you don't have to be concerned because the supplements aren't going to be an issue unless you're taking the supplement that some health care professionals are actually recommending. Brian Peskin being one of them, who's one of the most prominent ones that does this, and he claims that omega-6 fats like LA should be taken as a supplement. Not seed oils, but healthy and derived from healthy sources.

But nothing could be further from the truth. If you have any essential fatty acid supplements in your pantry cabinets, I'd strongly suggest tossing them in the trash. Why? Because it's literally physically impossible to get to develop an LA deficiency if you're eating real food.

Almost Every Food Contains Traces of LA

LA is just about in every food. So let me give you a little example. I typically eat about 1,000 grams of watermelon at least every morning, somewhere between 2 and 4 pounds of this fruit a day. And this isn't subtracting the weight of the rind. Now, I'm not recommending that everyone do this, but it seems to work for me with my current diet and exercise regimen.

Now, most people would think there's simply very little of any fat in watermelon, but they would be wrong. It has less than 1% of its calories as fat, but still most of all that fat is LA, linoleic acid. So my watermelon breakfast and first food that I have in the morning is anywhere from 500 to 750 milligrams of LA. Not much for sure, but it's a perfect, a perfect illustration that virtually every food has linoleic acid and you'll never become deficient in LA in your life unless you're involved in some type of bizarre laboratory experiment.

Let me give you another illustration of what my biggest source of LA was previously: eggs. Now, the typical egg has about three-quarters of a gram or 750 milligrams of LA. If you eat four eggs like many people do, you're getting 3 grams or more than half your daily limit of LA just from the eggs. It's mostly on the yolks.

These eggs are so high for the reasons I previously mentioned earlier. Nearly every chicken, even free-range organic chickens are given feed that is loaded with LA. Now you can avoid this if you don't feed your chickens high-LA grains. I have about nine chickens and I feed them barley, white rice and sprouted split peas and fruit. And if you feed them like this, you can lower the LA per egg to under a quarter of a gram or about 180 milligrams of LA. So eggs can be a relatively healthy source of food, tremendous source and low in LA if you're raising your own chickens.

The Best Way to Avoid LA When Eating at Restaurants

Finally, let's discuss restaurants. Now, if you're like most people, you likely believe that if you eat at a healthy restaurant, you simply don't have to worry about your food choices and somehow you're magically protected. And the restaurant will only serve you healthy food.

I got news for you. Nothing could be further from the truth, as when you are dining out, you relinquish control of your food choices. This is a concern because virtually all restaurants cook exclusively with seed oils and this is primarily because of the cost involved. They could use butter, but it's far more expensive, so most don't.

And it's important to remember, though, that virtually all the sauces and the salad dressings in the restaurant are also loaded with seed oils. Even if they tell you it's not, because a high-quality olive oil is very expensive, since in most all of the unadulterated olive oil is going to cost you about \$40 or \$50 for a quart and it's simply unaffordable for most restaurants to provide this.

Now, if you're going to use the oils as a salad dressing, what you can do is just simply take an avocado and slice it up, and that would be a source of oil for you. That is certainly far superior to avocado oil because it's impossible to adulterate avocados, unlike avocado oil.

And if you're cooking, there are far better options. Butter or ghee are simply the best oils to cook with as they have the most saturated fat. Now, you could use coconut oil as it is also saturated fat, but many don't like the taste. And even more importantly, since it's a plant oil, it essentially has no fat-soluble vitamins, which are important, like retinol, vitamin A or K2.

Try This Technique the Next Time You Dine Out

So we've discussed the downsides of eating in a restaurant. But I got some really good news for you, because I've come up with a very novel strategy to help mitigate your risk when eating out. And I want to share it with you right now.

You know, I rarely dine out in restaurants, yet I do accompany friends when traveling, and I've strategically helped navigate healthy food choices for myself and for my friends. Now, the simple key here is to befriend your server. They've got to be a really good buddy of yours. Otherwise, this strategy is not going to work. It's going to fail miserably. You've got to be really affable and friendly with your server.

So when your server comes to you, take your order at your table, you simply explain that you or your friend has just ordered has a severe allergy to vegetable or seed oils, and then take your phone out and show them that it has 911 on speed dial and you just don't want to make a scene in the restaurant and call the paramedics and the ambulance because it's going to be so highly disruptive to the restaurant.

So you're going to need the server to be your devoted ally because someone must supervise the person that's actually going to prepare your food and cook it for you in the kitchen. And this is because typically, direct requests from customers are frequently dismissed.

Summarizing My Strategy to Avoid Excess LA

So now that I've share my restaurant tips, I want to go back and reemphasize the simple strategy of highlighting the importance of avoiding seed oils two more times, as this is such an important foundational step that you and your family need to take if you ever hope to avoid chronic diseases.

Now, after over 50 years of committing my life to the diligent study of how to optimize health, I firmly believe that eliminating all processed foods, seed oils, chicken, pork, nuts, seeds and restaurant meals is one of the most important strategies that you can implement right now to take control of your health, both presently and long term.

By rigorously avoiding these common yet harmful foods, you can significantly reduce your risk of virtually every chronic degenerative disease known to man. Certainly, the two leading killers, heart disease and cancer. But it is also the secret to eliminate diabetes and regain your healthy weight again.

It will also virtually eliminate your risk of dementia, age-related macular degeneration, which is the leading cause of blindness in the world in people over 50, and also autoimmune diseases and NAFLD, which is nonalcoholic fatty liver disease.

Cooking at Home Can Help You Control Your LA Intake

Home cooking with unprocessed whole foods is a powerful step that is totally within your control. So let me repeat this yet again for a third time, a little bit differently to make sure this vital point stays with you for the rest of your life. Your health trajectory is largely defined by your dietary choices.

There is likely no more impactful change you can make for your health by fully removing processed foods seed oils, chicken, pork, nuts, seeds and restaurant meals from your diet. I believe this to be perhaps the single most effective strategy for securing your ticket to optimal wellness now and into the future. While difficult, balancing these pervasive foods lays the foundation for your future health resilience.

Now, you have an opportunity for some serious self-reflection. Do you believe this point is deeply embedded in your memory? If not, I want you to replay this part of the video as many times as it takes until it is. I know it sounds silly, but this is literally a life or death scenario. I have so many friends and relatives that have come down with cancer and opted for conventional treatment. And when they finally got to me, it was simply too late. There was nothing I could do for them.

Now, now is a time to treat cancer so you never get it. It only gets exponentially more difficult, if not impossible, but to reverse once you have it. And if you ever do get cancer, guess what the No. 1 most important thing you can do immediately? It's to lower your intake of LA. So why not pre-treat yourself now and provide yourself with a powerful shield to protect you from not only cancer, but most all other diseases. Now, I hope you agree with me that now is the time to take control of your health and lower your LA intake.

Vitamin E's Role in Minimizing LA's Toxicity

Now that we've emphasized the most important step, which is avoiding the most harmful food, I want to cover a key supplemental safeguard: vitamin E. Because it can help minimize the creation of these toxic aldehydes I referred to earlier that are produced from linoleic acid until you're able to reduce your LA tissue levels through these dietary changes.

It's also one of three supplements that I believe most every adult over the age of 40 should be on. The other two are niacinamide and pregnenolone. However, the type of vitamin E you choose is really important. This is because most supplements unfortunately may do more harm than good. So let me teach you how to identify and choose the best, most protective form of vitamin E.

Now, the scientific name for vitamin E is tocopherol, and the reason it is called tocopherol goes back to the 20th century when vitamin E was known as a fertility factor in both men and women. So what is vitamin E addressing that is causing infertility? Well, you might be surprised, but it's really quite simple. It's excess estrogen.

It's one of the main players, and excess estrogen plays a major role in cancer, too. So if you implement this strategy for LA protection, you'll also have an impact on cancer. Now, if you give a woman enough estrogen, she will not get pregnant. We also know that estrogen is an anti-fertility factor in males.

Vitamin E's Impacts on LA

I am sharing this because vitamin E could almost miraculously prevent most of the damage done by LA. It can also reverse or prevent many of the issues associated with excess estrogen. This is important because LA has remarkable parallels to excess estrogen in terms of its metabolic and anti-health effects.

You see, when you eat excess PUFA or LA, you increase your body's production of estrogen. So when you increase LA, estrogen levels go up, and that's not a good thing. Now, both LA and estrogen, interestingly, both increase the flow of calcium from outside the cell to inside as I mentioned earlier, because the concentration of calcium outside is 50,000 times higher than inside.

So this excess LA is going to cause an influx of calcium inside your cell and this increase in calcium will cause superoxide and nitric oxide to increase inside the cell also. And when they do this, this magical combination, you can increase a very pernicious reactive nitrogen species called peroxynitrite. And that causes pervasive damage to tissues in your body.

Now, both LA and estrogen also increase a potentially dangerous process in your body called lipolysis, which is simply the liberation of fatty acids from your fat cells into your bloodstream where they're mobilized. This then increases the oxidation or simply the burning of fats in your mitochondria, which is precisely what you want to avoid, as ideally, you want to be burning glucose in your mitochondria, not fatty acids.

Vitamin E Has Additional Benefits, Too

Fortunately, vitamin E can help neutralize this damaging effect of LA, because vitamin E also has two major additional health benefits. It actually inhibits lipolysis. This is a process you want to slow down because liberating LA from your fat cells into your bloodstream is not a good idea because it exposes you to potential oxidative damage. This is precisely what vitamin E can do and it can prevent this.

Vitamin E also directly inhibits the activity of an enzyme called aromatase. This is an enzyme that converts the male hormones like testosterone and DHEA into estrogen. And even better, which like the icing on the cake, it serves as an estrogen antagonist, meaning it binds to the estrogen receptor to block it from actually working. This dramatically lowers the damage from excess estrogen. Vitamin E works very similarly to the drug Tamoxifen, which is used to treat estrogen receptor-positive breast cancers.

So now that I told you the reasons why I firmly believe nearly everyone needs to be getting vitamin E in their diet or as a supplement, it's important to understand that due to the high LA burden, very few people are able to get enough vitamin E from their diet to suppress this oxidative destruction from LA, unless they're supplementing.

Vitamin E Supplementation Frequency

But the good news is, is that supplementation is relatively short-term. You're not going to need to take it for the rest of your life at all. If you can keep your LA intake to below 5 grams a day for three years, it's likely you may not even need any vitamin E after that. Or if you do, it's just only a few times a month.

However, you can, if you decide for some strange reason to go and binge in high LA food, you could take vitamin E preventively to prevent some of the damage because it stops the oxidative conversion into these metabolites, these toxic reactive aldehydes. But once your LA levels get low, you only need about 2 milligrams of vitamin E or 2 units per gram of LA.

And remember, I said you should be eating no more than 5 grams of LA a day. So that would be about 10 milligrams of vitamin E a day. That's a very, very low dose. It's important to remember and recognize that the vitamin E is an oil or fat-soluble supplement. It stays in your fat tissues for some time. So even if you were taking in 100 milligrams or 100 units of vitamin E, you would only have to take it like once every 10 days or so, so few times a month. That would meet your needs once you have low LA levels.

Finding a High-Quality Vitamin E Supplement

Now that you understand the background of why I believe it is so important and why most everyone should be taking a vitamin E supplement until you get your LA levels normalized, I want to review a process to help you understand and identify an ideal vitamin E supplement. This is important because there are studies that show vitamins from foods may improve a clinical condition. But there's a key thing. If you're taking those vitamins from a supplement, it may be more harmful than beneficial.

Now, there was a study that was published in 2015 that reviewed this very issue with vitamin E intake and lung cancer risk among female nonsmokers. This was a study that looked at diet versus supplemental vitamin E in 72,000 subjects. It was a large study and they did 12 years of follow up, and they found 481 women, nearly 500, were diagnosed with lung cancer.

What the researchers found in this paper is very interesting, that the dietary vitamin E was correlated very strongly with a lower risk of lung cancer. This means that the higher the level of vitamin E, the less chance of getting lung cancer in these women. But they also found in stark contrast to the dietary vitamin E, when women took supplemental vitamin E, this was associated with an increased risk of lung cancer.

Now, it's important to understand that this is only a correlation study. And correlation, of course, does not mean causation. Nevertheless, it provides us with a warning to consider if we choose to supplement with vitamin E.

What to Look for in a Vitamin E Supplement

So I'm going to help you understand why most vitamin E supplements should not be taken. It may have contributed to some of the observed results in an increase of lung cancer in this study that we just reviewed with female nonsmokers.

First, you must realize that most vitamin E supplements are synthetic. Yes, they're synthetic, they're manmade. This is a major warning alarm, that is because it's different than the vitamin E you're going to get from your diet and real food.

So how can you tell if a vitamin E is synthetic? Well, all you have to do is read the label. Fortunately, they make it pretty simple and easy. Synthetic vitamin E is called alpha-tocopherol acetate. The acetate is a key. If the label says "tocopherol acetate," it's screaming that it's a synthetic vitamin E.

L-Isomers Vs. D-Isomers

What you need to pay also attention to is the orientation of the optical isomers in vitamin E. Now, most foods and nutrients in biology have a specific orientation, either right- or left-handed, and typically most of the biological ones are right-handed. This is an optical isomer. It could be like your right hand and your left hand, and one works and the other doesn't. If you have both isomers, it's called racemic. Where you have both the left-hand and the right-hand isomers.

Now another name for these right- and left-handed isomers are D and L that stands for right and left. Biologically, there's usually only one optical isomer that works well. With vitamin E, it's a D isomer. This is the one that works in your body.

The L isomer is essentially useless. Yet in synthetic supplements, 50% of the vitamin E in that supplement is in the useless L isomer and to make matters even worse, many synthetic versions use an ester version of vitamin E, which only has about 50% of the activity of the natural product.

So the total activity with many of these vitamin E supplements is reduced by about 75%. And there's nothing to do about the damage that these non-active isomers and other ingredients are doing, which may obliterate any benefit that the natural vitamin E has.

Look for D-Alpha Tocopherol

So the first step in identifying healthy, good vitamin E supplements is to make sure that you're not getting synthetic vitamin E but the real deal vitamin E extracted from food. Now, if that's going to be the

case, the label is going to say on the vitamin E is going to be D-alpha tocopherol. No racemic DL or no acetate version.

So let me give you some other tips about what the label should look like. As you can see here on this label, it says that this is the D-alpha tocopherol. This is not DL or racemic, this is the pure D isomer.

Now, you might also have noticed that it's a vitamin E from sunflower oil, which has a very high percentage of LA, as I said earlier, but it's virtually an insignificant amount, probably less than 50 or 100 milligrams total. And as your goal, remember, is to keep your LA intake under 5,000 milligrams, it really won't negatively impact your LA intake at all.

Now, you'll also notice that the dose is 134 milligrams, which is equivalent to a unit. You really wouldn't want to use much more than this as it's unnecessary. More is not better. There's a Goldilocks dose. You don't want to take 400 units. You certainly don't want to take 1,000 units. You want this sweet spot, Goldilocks dose, which is about 100 units or 100 milligrams.

You'll also see at the bottom of this label that there are other vitamin E isomers specifically beta, gamma and delta types of vitamin E, which are also only in the effective D isomer. Additionally, there is the complete spectrum of tocotrienols: alpha, beta, gamma and delta also only in the D isomer. So you can use this label as a template, as a guide to help you select the healthy vitamin E supplements.

It's important to get this right, which is why I'm spending so much time with you as it is addressing one of the most vital factors that's taking down your health. And nearly everyone watching this would benefit from taking the appropriate vitamin E supplement.

The Ideal Vitamin E Dosage

There was one study published in 2015 in the British Journal of Nutrition that showed that you actually need about 1 unit of vitamin E for every 2 grams or 2,000 milligrams of linoleic acid. So there's a more recent study published in 2023, which actually found that this dose of vitamin E actually worked in rats to prevent a disease called nonalcoholic fatty liver disease. And this is important because it's become a global epidemic and it's estimated about 25% of the world has NAFLD.

In my best guess, it's probably closer to half the population that has impaired liver function due to excess linoleic acid uptake. So your liver is important. Because your liver is the largest store of glycogen in your body that can be shuttled to your blood and given to your body and delivered there if you need sugar. There, sugar is stored in your muscles. But that sugar can only be used by your muscles, it can't be used by any other tissues.

So if your liver is dysfunctional with NAFLD, you will not be able to store as much glucose in the form of glycogen and you will need to raise your cortisol levels far more frequently to compensate and have your body create glucose from protein, primarily. So this is why you want to make sure while you're in transition to lowering your linoleic acid, to make sure that you have enough of the right type of vitamin E.

Addressing Your Omega-3 to 6 Ratio

Finally, let me address a question that many people have, which is the omega-3 to 6 ratio. And they believe that if you increase your omega-3 intake, you can mitigate some of the damage from excess omega-6. Please understand that the omega-3 fats are also PUFAs and have many double bonds, in fact, more than the omega-6. They can easily be damaged even more than LA. That is why an excess of omega-3 can be every bit as dangerous as an excess of omega-6 because it's also a PUFA.

Unfortunately, you simply cannot fix the high omega-6 level with extra omega-3. So don't even think of trying this. Doing this is going to make your health worse. The key is to radically lower your LA intake.

Now, fish oil is a common source of omega-3 and has many touted benefits that may more likely be related to eating a whole food or a whole seafood rather than a fish oil supplement. Because fish oil supplements are big business, they are among the most popular supplements in the United States and globally the market is approaching \$3 billion in sales every year.

One of the big issues with most fish oil supplements is they use a chemical process, something called transesterification, which transforms the oil into a synthetic product, just like the vitamin E we were talking about a few minutes ago. It's far removed from the actual omega-3 that you get when you're eating real seafood.

The omega-3 fats are put into a configuration called ethyl ester, and this is completely unnatural. The omega-3 fats in seafood are in a different triglyceride or phospholipid form. And the problem with the ethyl esters is that they're the least bioavailable form of omega-3 that you can possibly have. So if you choose to get extra omega-3, it is typically better to get it from a clean seafood source that is free of heavy metals and chemicals.

So this concludes my LA update, and I would encourage you to review my original video even if you've already seen it, because repetition is the best way to learn. This information is so vital. And the initial LA video will play immediately after this update ends. Now, remember, you need to know this material on LA cold. Not only for yourself, but to teach others that you love and care about so we can all take control of our health.

Watch My Original Video: Linoleic Acid – A Toxin Lurking in Your Food

Fats are important because they are the primary building blocks of the membranes in all of your cells. But just what are fats? Well, quite simply, they're storage units composed of individual fatty acids.

Now, fat typically has more than one fatty acid and is distinguished by the specific combination of fatty acids making it up. Most fat molecules are composed of a glycerol head and three fatty acid tails. Each tail is a long hydrocarbon chain, which is simply a carbon skeleton bound to hydrogen atoms.

Saturated Vs. Unsaturated Fats

When all the carbons are fully bound to hydrogens, the fatty acid is said to be saturated as all the bonds between the carbon atoms are single and the carbon chain has a straight shape.

A fat molecule made entirely of saturated fatty acids is called saturated fats. Due to their straight tails, saturated fats tend to be solid at room temperature.

On the other hand, when the carbon chain has fewer hydrogen atoms, it is said to be unsaturated. Instead of binding to a maximum number of hydrogen atoms, some carbon atoms bind to each other with a double bond. A presence of double bonds may actually bend the carbon chain, which creates gaps between the molecules, making them less compact. As a result, unsaturated fats are usually liquid at room temperature.

A fat molecule that contains only one double bond is called a monounsaturated fat “mono,” of course meaning “one,” while one that has multiple double bonds is called polyunsaturated fats. And “poly,” of course, means “many.”

Oxidative Stress Can Impact Your Health

When you eat too many seed oils, which have omega-6 fats in LA, it's going to radically increase your risk of becoming fat and obese. But it doesn't do this by directly depositing this fat into your body, in your tissues. It does it through an indirect route. It does it by increasing oxidative stress in your body. Let's define what oxidative stress is in simpler terms. It simply occurs when there are too many free radicals in your body.

But what is a free radical?

Well, these are unstable molecules that can damage your cells and cell membranes and DNA and stem cells and mitochondria, and they can contribute to a wide variety of health problems. But they're primarily unstable oxygen molecules, although there can be some nitrogen molecules also. Now they're unstable because they have an uneven or an unpaired amount of electrons.

When you have too many free radicals, you actually rapidly accelerate aging and create a wide variety of diseases. When these seed oils are damaged by oxidative stress, they form really harmful byproducts that contributes to inflammation and chronic degenerative disease.

So remember, nature loves balance. So when you lose an electron and that molecule becomes unpaired and unstable, it seeks to rebalance itself and it gains an electron and steal it from other molecules. Now this can create a very serious domino effect that cascades into a self-perpetuating cycle of more and more free radicals.

Not All Free Radicals Are Dangerous

Now, even though most people believe that all free radicals are dangerous, it's not quite true, because it's important to understand that some free radicals are actually beneficial as you create them in your mitochondria, in the process of creating cellular energy. So the issue is excess free radicals, which result from excess omega-6 fat in the form of seed oils.

So now that you have a better idea of what a free radical is, let's help you better understand what damage they do in your body. You can do this by imagining a fragile glass vase that has many small

cracks, just like how the cracks in the vase can make it more likely to break, the double bonds in the seed oil fats make them more susceptible to damage from free radicals.

So what are some of the common exposures that can create these free radicals that can damage the seed oil fats?

Well, there's a wide variety of them, but I'm going to list a few of the most common ones, such as tobacco smoke, air pollution, especially indoors, pesticides and herbicides, ultraviolet radiation from sunlight. We have ionizing radiation from X-rays, and especially from CT scans, non-ionizing radiation from cell phones and Wi-Fi, and heavy metals such as lead, cadmium and mercury, excessive alcohol and industrial chemicals.

Now, it's also important to clarify that omega-6 fats are not inherently dangerous, and in fact, it's almost impossible to eat food and not get some of them in your diet. But normally it's supposed to be in the range of 1% to 2%. They only become dangerous when they're in excess amounts because they can be damaged by the pervasive oxidative stressors in your environment that I just identified.

Now, the omega-6 fats are probably the single largest contributor to excess oxidative stress in your body because they have so many unstable double bonds, which are just highly susceptible to damage.

What Are PUFAs?

We collectively refer to polyunsaturated fats as PUFAs, which is short for polyunsaturated fatty acids. So PUFAs remain liquid in the refrigerator because of the double bonds that they have. The more double bonds they have, the more likely they will be a liquid in the fridge.

Now, the double bonds are the key, the absolute key to understanding why PUFAs are so highly perishable and susceptible to oxidative damage. These double bonds are very vulnerable to damage by oxygen, heat and pressure. But the question you might have is, "If PUFAs are so toxic to life, why were they created in nature?"

Well, plants and animals that live in cold environments have to mobilize their biology to survive the cold and creating unsaturated fats, like PUFAs, is how they accomplish this. This is because saturated fats harden at relatively moderate temperatures. For example, if you put the butter in the refrigerator, it's going to become hard.

An animal or plant living at high latitudes like most of North America, which has cold temperatures, especially in the winter, they simply can't survive if they have saturated fats as their primary source of energy storage. So in direct proportion to the coldness of the climate the plants and animals lived, they remove hydrogens from the fats and convert them to PUFAs, which makes them liquid at colder temperatures.

However, the more unsaturated fat or less hydrogen it has, the downside is it makes them highly susceptible to oxidative damage. Conversely, when you place seed oils at room temperature or your body temperature rises even higher, typically at 98 degrees Fahrenheit, they quickly start to harden into solid masses because of this oxidative damage.

Now if an organism or plant is going to live outside of a cold environment, they simply have to minimize the amount of PUFAs they have. The warmer the environment is, the more saturated their fat has to be to survive because the highly unsaturated PUFAs simply turn to a glue, plastic-like material that is totally incompatible with life.

The Problem With PUFAs in Plants

Additionally, the PUFAs in plants have other problems. This is because they create seeds, and it's not just PUFAs in the seeds, there are other items in there which are potentially damaging and dangerous to biology. The plants need to create a storage form of nutrition in their seeds to support their offspring's survival and development.

And one of the ways plants do this is to use self-generated pesticides to ward off predators, and they're incorporated into the seed as a self-defense mechanism. The problem is that these pesticides generated by the plant actually block digestion in any animal predator that eats them. And they do this because the seed is the most important part of the plant that can grow new leaves if a predator eats them. But the seed is essential to the long-term survival of the plant and it needs to protect them at all costs.

And in fact, the worst toxin as far as animals are concerned, are typically in the seeds of plants. This is just another reason, independent of the PUFAs, why you want to have serious second thoughts about eating large amounts of seeds or nuts because of these self-defense mechanism that the plants have for predators.

Linoleic Acid: A Pernicious Toxin

So, now that we have reviewed the fat basics and you now understand what PUFAs are, we are going to discuss the primary pernicious toxin in your diet, which is omega-6 fat, specifically linoleic acid, because this fat makes up the majority of many people's total daily calories.

Linoleic acid actually makes up the bulk, about 60% to 80% of omega-6 fats. And is the primary contributor to disease. PUFAs are only a toxin when they're consumed in excess quantities. But the problem is nearly everyone is consuming exponentially more than what is ideal.

Prior to the 20th century, somewhere around in the 1860s, a mere 150 years ago, the average intake of linoleic acid was under 2% of total daily calorie intake, which is close to the biological optimum range, which is around 1% to 2%. This is historically what all our ancestors ate prior to the 20th century.

LA Consumption Is Now at an All-Time High

Today, however, LA consumption is over 25% of total calorie intake for the average person. So when linoleic acid is consumed at these levels, it is all but guaranteed to cause tissue metabolic damage that radically increases your risk for virtually every chronic disease known to man. It will also radically accelerate your biological clock, resulting in premature aging and death.

The single greatest change to the human diet in all of history was the introduction of industrially processed seed oils after the Civil War in the United States. Before that time, the Western world, for the

most part, only consumed animal fats like beef tallow and ghee, which would be examples. Eastern societies used cold pressed fats like coconut and palm oil. Vegetable oils or seed oils, like we know them today, they simply never existed until the mid-1800s. The consumption of these toxic fats increased over the next century, to the point that nearly 90% of added dietary fats came from seed oils.

Omega-6 fat consumption, as a percentage of the typical diet at that time, accounted for nearly 1/100th, 1% of total calorie intake in 1865, and increased to more than 1/4th of total calories by 2010. That, my friends, is a 25-fold increase. And in my view, the primary explanation for the radical increase we're seeing in virtually all chronic degenerative diseases.

Seed oils are exponentially more pernicious to your health than sugar because they last far longer in your body. The half-life of LA is about 680 days or approximately 2 years. This means that it will take you about 6 years to replace 95% of the LA in your body with healthy fats.

LA Contributes to Just About Every Chronic Disease

This, my friends, is the primary reason why it's so important to keep your LA intake as low as possible, because the oxidative stress and mitochondrial dysfunction from excess LA, are responsible for just about every chronic disease known to man, including cancer, dementia, diabetes, heart disease and obesity.

In the United States, nearly 43% of adults, 20 years and over, are obese. Well, in total, nearly 74% or three out of four people are overweight or obese. While these statistics are already alarming, the American Obesity Association suggests that by 2025, a mere two years from now, 50% of Americans will be obese. And they predict that by the end of the decade, 2030, 60% of us will be obese. Not just overweight, but obese.

It's also interesting that the U.S. has the highest obesity rate in the developed world and consumes more seed oils per person than any other nation. As you can see from the graph, the obesity epidemic is not new. It's been around for quite a while. It actually began in the early 20th century as seed oils entered the food supply and gradually displaced natural animal fats.

Seed Oils and Heart Disease

In the 19th century, heart disease was virtually unknown. In fact, during the 19th century, there were only nine papers reported in the literature documenting heart disease. The first heart attack was reported in 1912 in the U.S.

Heart disease continued to be a rare event until the 1920s, when the integration of seed oils into the diet began to progressively increase and then ramped up significantly when a campaign against saturated fats started with Ancel Keys when he published his diet heart hypothesis in 1953. He looked at six countries and found a positive correlation between fat consumption and heart disease. The problem is that he left out other countries because the inclusion of those countries simply did not support his hypothesis.

In 1961, Keys wrote the first official recommendations to vilify and reduce the intake of saturated fat and cholesterol and to replace it with PUFAs such as seed oils and linoleic acid. The advice was then used in the 1977 U.S. dietary guidelines.

These cheap industrially processed seed oils were marketed as health foods, if not drugs, and as expected, their consumption dramatically increased. Public health authorities disparaged animal fats, resulting in a nearly uniform negative public perception of saturated fats. For the last 75 years, Americans have been targeted with discrediting propaganda against saturated animal fats, even though conventional medicine has advised you to substitute seed oils to replace saturated fats from animals to prevent heart disease.

Oxidation of PUFAs Leads to Heart Disease

Human trials have conclusively demonstrated that seed oils do not decrease atherosclerosis or more importantly, decrease your risk of dying from cardiovascular disease. There is a widespread medical myth that atherosclerotic plaque is caused by too much LDL, low density lipoprotein, and cholesterol in your blood. Yet this is not what the research shows. Instead, science tells us that the mechanism driving the atherosclerosis is the oxidation of PUFAs, specifically LA, in your LDL membrane.

This is because excess PUFAs lead to fragile cell membranes that can easily be damaged by oxidation and free radicals. Atherosclerosis is not caused by the amount of cholesterol carried by your LDL, but by oxidative damage to the LA that the LDL contains, which is also called oxidized LDL. It's been shown that oxidized LDL is a far, far better predictor of heart disease than simple LDL.

A surefire way to induce cancer in many animal models is to feed them seed oils. Imagine that. Animals typically develop cancer once the LA in their diet reaches 4% to 10% of their total caloric intake. Disturbingly, most Americans eat approximately 25%, or 2 to 4 times, as much of their total daily calories from seed oils.

We're far over the threshold for safe levels of these fats based on the laboratory work in animals. Remember, our ancestors typically consume less than 2% of their calories as omega-6 linoleic acid. There's even evidence showing eliminating seed oils from your diet will dramatically reduce your risk of sunburn and you can also dramatically lower your risk of the most common cancer: skin cancer. This is because susceptibility to the ultraviolet radiation damage is controlled by how much LA is in your diet.

So hopefully you're beginning to understand just how dangerous these PUFAs are. So how do we avoid them in our diet? The key question.

Lowering Your LA Intake

Well, first of all, let's talk about eating in the restaurant. It is the rare, and I'm telling you, the rare restaurant that provides low LA food that they're serving. This is because it is far cheaper to use seed oils than to use beef tallow or butter to cook with. They also use seed oils in most of their sauces and salad dressings and certainly any pastries they're creating.

Finally, it goes without saying that virtually any fried food should be avoided, as they are invariably the worst of all foods, having heated seed oils full of toxic seed oil metabolites. Now it is possible to eat healthily in some restaurants, but it would be the rare exception. If they are using butter or tallow to cook with, the food they are preparing will be low in seed oils.

Although not as healthy, it is possible to even fry foods in beef tallow, as McDonald's used to do is cook their French fries in beef tallow, until the Center for Science in the Public Interest, or CSPI, did a smear campaign on beef tallow in McDonald's French fries in July of 1990.

So your safest and typically least expensive strategy is to seek, to consume the majority of your meals at home or prepare them at home and bring them with you when you travel or go to work.

Seed Oil Dangers

What other types of food you should be eliminating, ones that you should be focusing on?

You see, I've compiled a table that provides a comprehensive list of the most commonly consumed oils and their approximate LA content. In general, the lowest LA-containing fats would be the best choice. Instead of avoiding all oils, a healthier choice would be to use the cooking fats of our ancestors: butter, ghee and beef tallow.

These excellent cooking fats not only would be the lowest in LA, but also provide important fat-soluble vitamins A or retinol, D and K2, not K1, but K2, and notice these are animal fats. Vegetable fats, even saturated vegetable fats, like coconut oil, do not contain these important micronutrients. These are only available in animal fats.

The majority of Americans simply fail to get enough vitamin A or retinol in their diet, and this can contribute to many chronic diseases, including cardiovascular disease and cancers. It also will adversely impact health, survival and vision.

Limiting Nut and Seed Intake

Now, a common myth out there is that seeds and nuts are healthy. I alluded to this earlier with the defense mechanisms of plants have. But most people are convinced, especially in the plant-based community, that nuts and seeds are heart-healthy, and really, some of the most important nutrient-dense foods you can consume. But as you can see in the table below, the LA contents of most nuts and seeds is exceedingly high. For example, pecans are 50%. This rivals the LA in most seed oils. The only exception is macadamia nuts.

So for most people, if you're going to actually quantify the amount of LA or omega-6 fats, it's going to be about 5 grams. If you weigh a lot more, it's going to be maybe closer to 10. So somewhere between 5 and 10 grams a day. You certainly don't want to get the typical 80 grams that the average person is eating.

So even though these seeds, most all seeds and nuts, are high in LA, that doesn't mean that you should never have them. Remember, the key here is to limit the total amount of LA you're consuming. It should be about 1% to 2% of your total daily calorie intake. Does not have to be zero. That's not the goal. The goal is just to lower it below this threshold.

So if you're going to have seeds or nuts, it's okay to have them, but you really have to dramatically limit them. Just not a handful, but several or a few. Because they're going to add up. And macadamia nuts are

interesting because they only have 2% of their fat as LA, which means you can have 10 to 30 a day without significantly increasing your LA level.

Now, another myth that we need to address in helping you understand how to optimize your intake of LA is that of olive and avocado oils. Because they're not the health foods that they're widely promoted to be. And almost everyone that I lecture to on this topic has questions about olive and avocado oils.

Olive Oil Dangers

So olive oil has increased more than 10-fold in the United States over the past 35 years. In his book, "Real Food Fake Food," Larry Olmsted was an investigative journalist and a food critic, revealed the dark side of this otherwise healthy food.

Olives and olive oils are well-known for the many health benefits, especially for the heart. But using adulterated olive oil will hardly do your health any favors. In general, people believe the U.S. FDA is policing and regulating food fraud, but nothing could be further from the truth.

The FDA's primary focus is to make sure the ingredient label is accurate and tracking food-related disease outbreaks. The FDA does little to nothing in terms of preventing illegally adulterated foods from being sold.

Why is this important?

Because the vast majority of olive oil and avocado oil is adulterated, and the test reveal that anywhere from 60% to 90% of them sold in the U.S. grocery stores and restaurants are adulterated with cheap, oxidized seed oils, such as sunflower oil or peanut oil, or even worse, non-human-grade olive oils, which are harmful to health in a number of ways.

Now, this is even true for extra virgin olive oil. Cheap seed oils are added and will not, will not be listed on the label. Nor will most people be able to discern that their olive oil is not 100% pure. Chances are you eating poor-quality olive oil for a long time, or you've never tasted a pure, high-quality olive oil to begin with. So you don't even realize there's anything wrong with it.

And remember, avocado oil is just as bad as olive oil. Now, many believe that avocado oil is as healthy as olive oil. But this is simply not the case. 2020 studies show that 82% of avocado oil is adulterated, mislabeled or poor quality.

Animal Protein's Impact on LA

Now, you can basically divide animal meats into two types: meats coming from animals with one stomach or monogastric, and those coming from animals that have multiple parts of their stomach, which are also called ruminants.

This would be a polygastric animal, and this includes cows, buffalo, sheep, lamb, goats, deer, elk and most other game animals. Ruminants have low LA in both their meat and milk no matter what they eat. This is because their stomach has a biohydrogenation chamber that contains bacteria that can convert the high LA fat that they eat into saturated and monounsaturated fats.

This is in contrast to animals with one stomach, like chickens and pork, that are fed a diet very high in LA, typically corn and soy, which drives high levels of LA in their tissues, just as we do ourselves. Because we don't have the ability to hydrogenate those PUFAs.

Interestingly, the difference in LA in ruminants that are 100% grass fed, as they were designed to be eating, and those that are fed corn and soy is only about 0.5%. So if you had a grass fed organic steak, which is the best way to get grass fed and organic versus a GMO corn-fed steak, is maybe 2% in the grass fed and maybe 2.5% in GMO corn-fed. So it's not a big difference. So from an LA perspective, it's not much difference between CAFO beef and grass fed only beef.

However, grass fed beef is far preferred because it has less glyphosate, hormones and other toxins. But if you're in a pinch and you're detoxing regularly, you could have non-organic meat of the ruminants, but it is not the preferred approach. So it is preferred to get most of your animal protein from ruminants.

Avoid All Chicken and Pork

It would also be wise to avoid or seriously limit all chicken and pork because of the way they're fed.

It is the extreme rarity to find any chicken, or pork or hogs, that are fed noncommercial foods that are loaded with soy and corn, which causes the problem. In fact, chicken is probably the primary source of LA in the diet of most people in America.

This is because nearly all conventionally raised chickens and pigs are fed corn, typically GMO varieties that are farmed with glyphosate. But even if they are fed organic corn, the problem is that they're loaded with LA, and most chickens and pork have over 25% LA in their tissue.

This is true for chicken eggs too, but they're acceptable, because most of us aren't going to be eating more than four eggs a day. And a chicken egg has less than 1 gram of LA.

If you're seeking to implement this approach, it probably will be your highest source of LA in your diet, unless you're raising your own chickens. And then you can lower it down to about 0.25 grams if you're not feeding them commercial chicken feed.

Keys to Success

Do yourself and your family a favor and embark on a journey of eliminating all, all seed oils from your diet today to ward off virtually every chronic degenerative disease. Remember, they stick in your tissues for six to seven years, which is why you want to be really diligent.

It's going to take a while to get out of them. Once you've done the process and you're 5 years down the road, you can be a little more liberal with your ingestion because you're healthier and you don't have a massive storage of these highly toxic oxidative oils in your tissues.

So how do you do that?

Avoid all seed oils and even fruit oils, like olive oil and avocado oils, because they're so frequently adulterated with cheap seed oils. Cook with ghee or butter. Ghee is a bit better because it has a higher smoking point. Or you can use beef tallow.

Avoid all, and I do mean all processed foods because not only are they loaded with seed oils, but they have many other additives and adulterations, which are not going to move you towards health. They're probably one of the largest sources of LA in your diet are the processed foods and the ultra-processed foods.

Avoid eating at restaurants. Similar problems. Almost every one of these restaurants are using massive amounts of seed oils to cook with and put in their sauces and their dressings, and it's not uncommon for many restaurants to tell you that they're not using them, but you've got to be hyper vigilant.

If you're going to be in a restaurant and if you're not a vegetarian, one of the things you could do is to get a steak or some meat, but you can't have it with any sauces and make sure they don't put seed oil on them and they cook it. In the meantime, you want to avoid chicken and pork and use substitute meat from ruminants, like the most common in the United States, would be beef and lamb.

And these you should focus on and concentrate as your primary meat sources.

This Is One of the Most Crucial Strategies to Take Control of Your Health

So no matter what health problems you're struggling with, in my over four decades of focusing on natural health strategies to optimize human biology, I am absolutely confident that it is one of the most foundational strategic interventions you could deploy to improve your health. It is fundamental, foundational to every treatment strategy that I know for virtually any disease.

So this is the foundation.

Be sure to watch this video a few times so you understand it, and then you and your family will be able to reap the unbelievable health benefits of avoiding these dangerous seed oils and LA in your diet.