Chapter 34:

Interview with
Dr. Joseph Mercola, D.O.

Ty: Well, I'm really pumped to be here with Dr. Joseph Mercola today. Joe, thank you for joining us.

Dr. Mercola: Glad to be here.

Ty: Last time we interviewed was maybe about a year ago. We were on the other side of the United States. Now we're in California. I'm really excited to get your perspective on some new theories and some new research you've been doing on cancer. Let's begin with that. Share with us what you've been learning lately.

Dr. Mercola: Well, I have never previously been comfortable with treating cancer patients in my clinical career because I never really understood the key approaches one needed to not only prevent it but treat it. At least from a metabolic perspective, because there's many variables that contribute to cancer.

But thanks to Dr. Otto Warburg, who is an MD, PhD, brilliant biochemist of the 20th Century, and his disciples since then, primarily Thomas Seyfried and a variety of others and a book I read. Because I walk a lot hours a day. I read 150 books this year.

The most important one I read was *Tripping Over the Truth* by Travis Christofferson. Which really described this whole process of—and summarized very eloquently the material that I'd previously known but just made it really profoundly clear.

That in combination with my mentoring Ron Rosedale, who taught me the importance of insulin and protein limitation to a very specific level, really opened up my eyes. I had an epiphany. The lights went off and I clearly understood for the first time how you can treat most cancers metabolically and treat them very effectively.

It's tragic because most clinicians aren't aware of this and 1,600 people are dying every single day in the United States alone, 20,000 in the world every day. I'm really excited about it and I hope to have a book out in 2017 that describes the simple protocols. It's like 10,000 puzzle pieces and trying to put it all together, and refine it as you go along.

So, I'm connecting with some world-class clinicians and molecular biologists, really the top experts in the world on this. One nutritionist that worked for Dr. Seyfried who's treated over 400 cancer patients. Probably the expert in the world at this point. So, it's an exciting process.

Ty: Yes. It sounds exciting. Now, when you say you're treating or learning to treat cancer metabolically, what does that mean?

Dr. Mercola: Well, most clinicians that treat cancer and physicians believe that cancer is a nuclear genetic disease. But that turns out not to be true. Nevertheless, it's what most clinicians believe. Dr. Seyfried compiled a large amount of research that shows why it's not true.

Essentially, to summarize it pretty briefly, is that the mitochondria which are the energy organelles in our body that create our energy, the vast majority. They're like close to 90 percent. When they become damaged and dysfunctional, they send signals that actually triggers the damage in the nuclei.

The nuclear genetic damage is actually downstream a side effect from the more foundational primary cause which is damage to the mitochondria. The whole focus really needs to be on understanding how to engage the body, the two really important profound metabolic processes.

One is something called autophagy. Or in mitochondria's case, mitophagy. That is essentially recycling the cellular parts when it becomes damaged and injured. You've got to get rid of it. You've got to take the garbage out. Unfortunately, due to a variety of challenges, that process becomes impaired, inhibited or really blocked significantly in most people. That's what contributes to cancer. It's an impairment in autophagy.

The other one is the converse of that which is biogenesis or regeneration of mitochondria, mitochondrial biogenesis. So, if you can help regulate those two metabolic pathways, repair and regenerate and remove the damage to mitochondria, then you can help people recover from not only cancer, which is my primary passion because there's such an urgent need, people are dying every day, but also heart disease, the number one killer of Americans. Or other degenerative disease like Alzheimer's, Parkinson's, ALS, obesity, diabetes, seizures. It's pretty much about 75, 80 percent of the population that has some type or form of this disease.

Ty: That's interesting. So, you talk about autophagy. It's interesting. I've read the word a lot of times. I always thought it was "auto-phagy" because I had never heard anybody say it.

Dr. Mercola: Yes. If you look at it that's the way it looks like it's pronounced.

Ty: Autophagy. It's a problem that maybe detoxification or anything with that step, that two phases, right?

Dr. Mercola: Exposure to toxins certainly can contribute to mitochondrial damage. No question about it. That's an excellent question because it leads me to what do I believe? Maybe I'm confused. Seriously. But I doubt it. I believe the primary reason that most mitochondria become damaged is that we're providing them with the wrong fuel.

95 percent of the fuel in our body is fat, 5 percent is carbohydrates. So, it makes sense that metabolically we're designed to burn fat as our primary fuel. Problem is, most people are using carbohydrates and eating them on a regular basis which just essentially—there's a process that occurs within a mitochondrion where it consumes oxygen and typically that oxygen is converted to water.

If you have the ideal fuel, which is not carbohydrate, but if you had the ideal fuel, the number of damaging side effects, essentially dirty fuel, the pollutants so to speak, would be these reactive oxygen species. These reactive oxygen species, which usually occur in the mitochondria themselves, are very damaging.

They can damage enormous amounts of tissues, they eat the cellular membranes, proteins. But most importantly in mitochondria, they damage the mitochondrial DNA. Which then subsequently messes up the signaling to the nucleus and causes this profound plethora of complicated metabolic problems.

When you have carbohydrate, you just generate excess free radicals, essentially. If you can shift the body over towards eating more fat, and a specific type of fat, not just any fat. If you eat the regular fat you're going to cause more damage which is one of the reasons why we had a problem for the last 100 years. We've been eating the wrong type of fat for the most part. Not everyone, but most people.

If you get the body to convert over to eating the right fat and produce ketones as a primary fuel, then that will burn much cleaner, far cleaner, generate these far and less reactive oxygen species that causes less free radicals, which keeps the mitochondria healthy.

Also, the same process when you do that, the artifacts is that you optimize these diverse but incredibly important metabolic pathways like insulin, IGF1, AMPK, mTOR and PGC-1 alpha and probably a dozen others that interrelate. When they're optimized, like leptin, then like every metabolic pathway of your body is optimized and you are profoundly healthy.

One of the most important conditions that—I said maybe 80 percent of the population suffers from the other ones I mentioned. But 100 percent, every single person suffers from this one. You know what that one is? Aging. We're all aging.

There's a number of experts and researchers that believe that aging is a disease and that if we can optimize this then—the most perfect diet in the world will not let us live forever. No question. It's going to get us to maybe, easily, to 110. If you're really good with some of the variables it maybe a 120.

At least it will set the stage for where you can apply these other advances in technology. Stem cells, nanobots, a whole variety of other intriguing technological advancements that are emerging that will allow us to extend lifespans considerably. How far? We don't know. But it would be considerable extension.

Ty: Cool. You mentioned healthy fats. I used to be a competitive body builder. It's interesting that we avoided fats like the plague back in the early 90s. The bodybuilding diet was all carbohydrates, all protein, no fat. It was when the fat-free cheeses became popular and the fat-free everything.

They basically compensated by adding more sugar. But that was what was popular then. Then the Atkins diet became popular in the middle 90s. A lot of the guys that I was competing with switched over to try to go ketogenic.

The problem was they were eating bacon and peanut butter and all this other kind of stuff that we wouldn't really look at it as healthy fats. When you say the ketogenic or going to ketosis needs healthy fats, can you name some fats?

Dr. Mercola: Well, I don't like to refer to ketosis as a ketogenic diet. I call it a healthy fat diet.

Ty: Yes. What are they?

Dr. Mercola: Don't feel bad, because I made the same mistake. I think most of us did. If you're over 50 you probably were exposed to this low-fat myth. There was a good reason why it was propagated by Ancel Keys in the 50s.

Because in the early 1900s there was this shift towards industrialization of processing of fats which essentially allows to us to have refined vegetable oils which is fo the most part high in Omega 6 fats we were never designed to eat. In 1900 we ate less than a pound a year, 2000 we're eating 75 pounds a year.

That transition probably resulted in enormous amounts of disease and pathology and really the epidemic in heart disease we see prior to the 50s. That's when Ancel Keys jumped in. He was partially correct because it was a fat issue. But it wasn't what he thought.

Low fat wasn't the answer. It was just eating the right fat. He got it totally mixed up. So, that is the key. It's to eat the right fats. So, what's the right fats? We're looking at probably one of the simplest, singlest best ones is avocados.

Avocados are incredible. They're full of monounsaturated fats. Typically, oleic acid I believe. The key is they're a little bit pricey. If you live in a subtropical environment you can grow them yourself. I've got four avocado trees. It's ideal. But most of us don't and we have to go to the store. They're kind of pricey.

What you do is you wait for a sale. And you buy like 20 or 30 of them, 50, 60. But they have to be rock hard green. So, then you put them in the fridge. They last for up to three weeks. Then you take them out two or three days before you're going to use them depending on the temperature.

Then you've gotten them ready to serve. You can have two, three avocados a day. I typically have two. That's my range, two or three a day. At least two. If you're a smaller person, that's going to be a significant portion of your calories.

Ty: Yes. It's very filling.

Dr. Mercola: Incredibly filling. High in potassium and most of us are way too low in potassium and a lot of other important micronutrients. It's one of the healthiest fats you can get and it's a live, living food. It's the best. You want to eat real food. Avocado is certainly an example of that.

Then the other ones would be butter. Coconut oil would be another one. But avocado is still better. And then you can go to nuts. Not all nuts. And you can't go overboard on these. But the two healthiest would be macadamias and pecans. Because they're really high in fat, low in protein. You also mentioned when you were in the bodybuilding, I think today still many bodybuilders will have large amounts of protein.

Ty: Huge amounts of protein.

Dr. Mercola: That's your community. It's certainly not mine. In retrospect if I could rewind my life I would have preferred to, instead of engaging in endurance or long distance running strategies I did, to engage in bodybuilding. But I didn't. I made that mistake. Maybe it was better because I wouldn't have had the high protein. What types of levels are protein are bodybuilders typically doing?

Ty: I know guys that are doing 30-50 grams seven, eight times a day.

Dr. Mercola: So, 50x8 would be 400 grams. Up to 400 grams a day. Well, they are taking five, six times more than they need. How much protein do you need? It's a simple metabolic calculation. You can rewind this if you want to listen to it again. It's a gram per kilogram of lean body mass.

If you're 10 percent body fat, which is pretty low, then it would be 90 percent of your weight. Then you divide your weight in pounds by 2.2 to get kilograms. Or just about a half a gram per pound if you just want to simplify, of lean body mass. Why do you want to limit protein?

This is what Dr. Rosedale taught me. He was really one of the first healthcare professionals to understand this. Because he was an avid reader, and he still is, of the molecular biology literature, and understood that there's this profound, important and ancient biochemical pathway called mTOR.

Not many people know about it. It's short from mammalian target of rapamycin. Rapamycin is an anticancer drug and how this was discovered, which was discovered way after I finished medical school. You don't feel bad if you don't know about this because it's a recent discovery.

As a result of that, they learned that when you—the bodybuilders are taking extra protein because it works. When you take excess protein, mTOR signaling pathway is sensitive to nutrients, specifically amino acids. When you take a lot of amino acids you will activate mTOR to the max.

What does mTOR do? It builds tissues, it builds muscle. But guess what cancer does? It's building tissue too. So, you're activating cancer. So, the key is to get low cancer to be healthy—low mTOR levels that inhibit the mTOR. Not necessarily all the time but most of time because you definitely want to build muscle. There's no question.

You can have higher levels of protein, especially the branched chain amino acids which will stimulate mTOR really and profoundly. But only around strength training. If you strength train twice a week, then you will only take it twice a week. Not four times, eight times a day. That's just beyond crazy.

When you understand that and you limit the non-fiber carbs, and a non-fiber carb is you take your total carbs subtract your fiber and then you have non-fiber carbs. That's really these sugars. Even avocados or kale, there's still non-fiber carbs. There's sugar in there. Not much. But a little bit.

If you're eating the healthy foods, it's almost a non-issue because you're going to be under 50 grams. So only when you start going to processed foods is when you have to be concerned about this.

If you're under 50 grams of non–fiber carbs a day, limit your protein to one gram per kilogram of lean body mass, 75 percent of the rest of your calories are healthy fats that we talked about. Then you have given yourself really the ideal fuel that's not dirty.

That's clean fuel that will generate minimal reactive oxygen species that will really accelerate your body's ability to inhibit the formation of cancer or treat it if you have it and work synergistically with whatever type of treatment intervention you choose, whether it be conventional, like with chemo, or some unusual alternative approach.

It will work synergistically. To me, it's the foundation. It really is the foundation. When you were weight training, it wasn't how much you lifted, it was really you had to have the right fuel. If you have the wrong fuel, it was irrelevant. It's the same thing.

All these other therapies will tend to fail or not work as optimally if you don't have the diet right. That is the foundation theory. That's why I'm so passionate about helping people understand it and apply this so that they don't have to die prematurely from cancer.

Ty: Dr. Mercola, one of the important things that I think you just shared is the fact that we don't have to actually eliminate all carbs. I know people that are trying to get into this ketosis and they're eating meat, butter, cheese.

They're like ,"I can't do any carbs because it will throw me out of ketosis." The reality is there's a lot of carbs. It's about the net carbs—the carbs that are vegetables with heavy fiber. Those are good. We shouldn't stop eating those.

Dr. Mercola: Oh no. It's crazy. They're really important for us to stay healthy. You need carbohydrates. You have to have carbohydrates. The confusion is—there's a common confusion to think that the type of diet I'm suggesting or promoting is an Atkins. It's not. It's the furthest thing from Atkins.

The primary one is the one we just mentioned. Limitation of the protein. If you go over that, you're going to run into severe problems. You could theoretically go 90 percent fat and 10 percent protein. But that's not healthy because you need carbs.

Let's look at the cow. The cow you would think is eating high carbohydrate diet. That's just grass. Essentially that's almost all fiber, almost 100 percent fiber. You call it net carbs, I call the term non-fiber carbs. Those are the ones that are dangerous. They're the ones with the glucose and the sugars. That's in normal foods. You can have some. You just don't want to have a lot.

The cow eats 100 percent grass diet. But it really—what happens is when a cow eats, the grass goes down into the intestine and gets digested by the bacteria there, converts it to short-chain fatty acids. Butyrate, propionate and acetate.

Those go to the liver and the liver converts it to ketones. Ketones are water-soluble fats, very short. They go directly into the mitochondria. They don't need a carrier like L-carnitine. They burn very, very efficiently. You can make them, it's harder to do, but it's much better to have the carbohydrates, the fiber carbohydrates.

I think you should about, for every gram of non-fiber carbs, you should eat like two grams of fiber because these fibers are really important. They nourish the intestinal lining and their health and they prevent colon cancer and leaky gut. They're also a fuel for your beneficial bacteria. They suppress the pathogenic disease causing bacteria, fungi and viruses.

It's essential to have healthy carbohydrates. That's a lot of vegetables. They're not calorie dense. My salad is typically a bowl that's as big or twice as big as my head every day. There's not much calories in there until I put my protein in and my fat. It'll probably be 100-150 calories if we just count the vegetables.

Ty: A lot of sprouts?

Dr. Mercola: I think live raw food is important and I make my own sprouts. Every day I pretty much travel with them because they're easy to do. They're inexpensive. If you buy them at the grocery store you're going to pay $30 a pound. If you make them yourself you're paying 20 cents a pound. It's nice to see. It's good for the kids. You kind of see them growing, appreciate the miracle of life.

Ty: Yeah. Absolutely. Those are really the keys then with this type of an approach to cancer, is limiting the protein, high quality fats. Don't get rid of carbohydrates, eat the quality carbohydrates with the natural fibers. They get you down to your non-fiber carbohydrates being very small. That's the key.

Dr. Mercola: Got to have vegetables, especially healthy vegetables. Ideally organic because if it's not organic it's likely sprayed with Roundup. Or some other potent toxic—

Ty: Which is now a non-carcinogen or probable carcinogen?

Dr. Mercola: In 2015, the World Health Organization classified it as a class 2A carcinogen. It's definitely a carcinogen. That's what the experts say.

Ty: And we spray it on food?

Dr. Mercola: Not that much. Only 10 billion times, or 10 million times.

Ty: Just 10 million times. Wow.

Dr. Mercola: Collectively on the U.S. soil since it's been introduced. That's a lot of glyphosate. We say glyphosate, Roundup is actually more accurate because it's with a surfactant that makes it about 1000 times more toxic because it just works synergistically with the glyphosate.

Ty: Oh really? What we're talking about is even more carcinogenic than what's been declared as a carcinogen.

Dr. Mercola: Right. Because Roundup is much, much worse.

Ty: That's truly amazing. And we think that's okay.

Dr. Mercola: Confused and uninformed people may think it's okay but if you've studied it very carefully you'll realize it's not.

Ty: We don't think it's okay. As a general rule, still the country thinks that's the fact.

Dr. Mercola: The typical consumer is not aware of this.

Ty: Right. Let's talk about awareness in another area, Dr. Mercola, vaccines. Sixteen years ago, when my eldest daughter was born, we were beginning to learn about the dangers of vaccines that are possible. We went to the pediatrician and we voiced our concerns.

The pediatrician looked at my wife in the face and said, "If you don't vaccinate your child, you're not welcome here." Based on pressure from the pediatrician, we vaccinated her. Then she showed some symptoms of autism, not full autistic but she regressed. She stopped talking, she stopped walking right after the vaccine.

We learned shortly after that about the dangers of vaccines and began to do research. We've not vaccinated our two youngest children. That was the situation with us that just the pressure that we got, the lack of education that we had, we could have potentially harmed our child for life. But we all believe vaccines are safe and effective. Are they?

Dr. Mercola: It's a commonly held belief because they've been around for so long. They were initially done to eliminate smallpox. That was of course a while ago, well over 100 years ago, maybe 150. I can't remember specifically.

The belief is that the use of that vaccine was able to eliminate and eradicate that disease from the planet when it really wasn't. If you carefully study this, and I really don't have time to go into details, but there are books that discuss this very well and go into historical epidemics. There's issues with hygiene and sanitation. Suzanne Humphries, who's a nephrologist, MD, has written a book on this. I think it's called *Dissolving Illusions*, if I'm not mistaken, that is really excellent.

Ty: I'll be interviewing her in two months.

Dr. Mercola: She is just a magnificent woman. Really sacrificed her own career to spread this message because she didn't want to—she has integrity. Really had a conscience and didn't want to expose her sickest patients to these vaccines because she was seeing the harm and damage.

She was anecdotally observing this. She was required by hospital policy to do that. She said, "Why?" The frequent explanation was smallpox vaccine. So, she started to research

it. She basically quit her job and is living on a pauper's salary now, compared to what she was making, just to spread this information and message.

If you carefully examine it, but it's really a challenge because this is the most grounded firmly entrenched belief in preventative medicine and health and conventional medicine that the vaccines are crucial to be healthy.

In my belief, nothing can be further from the truth. It's your own immune system, by implementing some of the dietary changes that we talked about, and addressing some other factors and variables that are important, that you stay healthy. That optimizes your immune system.

It's your immune system that does the damage. Not these vaccines. It's okay. Our bodies were designed and created to develop an immune response. When they're healthy they create it. When you're exposed to infectious agent, it's going to form the protective antibodies. Not only for a short time like you do with vaccines, but it's going to do it virtually indefinitely and in most cases lifelong.

You have lifelong permanent immunity when you have a healthy immune system and you're exposed to an infectious agent. That's the ideal. Now they're doing these vaccines and it's like, oh maybe every 10 years. Maybe every five years.

There are third, fourth boosters of DTaP now. It's going to be 10 boosters. You're going to have to get it every year. It's just insane because it's not the way the body was designed to create an immune response. When you do it artificially, it's almost universally going to be less than ideal.

Ty: I think that's a good takeaway, is that that's not the way that we were designed to gain immunity.

Dr. Mercola: Really it wasn't.

Ty: So in light of that fact, last question, Dr. Mercola. We're sitting in a hotel in California. California last year passed a bill that requires children to be vaccinated before they go to school.

Dr. Mercola: Yes, it did. It was a tragedy. Well, I believe—certainly correct me if I'm mistaken, but I believe that requirement existed. What they did with that bill is they eliminated the philosophical exemption.

Ty: You're actually right. They eliminated the exemptions to rule—

Dr. Mercola: Which was great, California, of course, being the largest state. Not the largest by land mass but certainly by population in the country. So, that was an enormous loss. Fortunately, Barbara Loe Fisher and National Vaccine Information Center was integral with working with, I believe, somewhere like a half a dozen other states that attempted similar measures and failed because of her efforts.

The problem is because this occurred in Disneyland and they just used the media to the max, it was never a more potent intervention to trash people who believe there was some concern with the safety of vaccines.

So, they really decimated it. They were successful. They manipulated and distorted the truth and were able to convince a large portion of the population, or at least the legislators, and they didn't have enough influence to overturn that decision.

Ty: When you say it happened in Disneyland, you're talking about the measles—

Dr. Mercola: There was a measles epidemic purportedly in Disneyland.

Ty: A few cases, right?

Dr. Mercola: Yeah. I don't remember specifics. But if you examine it carefully you can see it was just blown out of proportion. It's just a smoke screen, essentially.

Ty: So basically with the Disneyland, we're looking at 100-200 cases and only one had serious issues?

Dr. Mercola: Yes. That's my understanding of what happened. It was relatively minor. I think that this one person wasn't even from the U.S., it might have been a foreign visitor. The challenge though is to—they're going to use these strategies.

Their intention is to use this for the greater good is their working philosophical premise. That it's okay to have a few people die and suffer because most people are going to be protected. I guess if that were true you could question the justification for that.

It may be potentially justifiable but the problem is it's not true because it isn't for the greater good. They don't have any screening systems in place to identify all the damaged individuals. When we look at it and carefully examine objectively the number of individuals who are damaged, it far exceeds any potential benefit that they're possibly imagining from receiving these vaccines.

There are some terrible one like Hepatitis B vaccines and Gardasil vaccines. They're just destroying so many people, girls and young children. It's devastating. You mentioned the autism one, I don't like to focus, they're clearly an issue. I've treated hundreds of children with autism. In many cases, it was clear from my clinical assessment that vaccines were a trigger but there's many other triggers too. It's the diet, it's so crucial, it's the toxins exposures, emotional and genetic influences.

It's very rare to have one single issue. It can be occasionally but it's a whole combination. The central point that you like to take home is that these vaccines are not without potential danger or damage. That's why they have the Vaccine Compensation Injury Act. It was passed by Congress already and it's very difficult to get this. But even being as difficult as it is, they've awarded over three billion dollars. That's because they can't deny that these people were harmed.

It's illegal, it's absolutely illegal in this country for the last 20 years to sue the makers of vaccines for any caused damaged. They're insulated from liability. So, that's why there's a federal program to compensate them and it's a work-around. The reason I mentioned that is that there's clearly a potential for harm. No question. No one will deny that.

As a parent—typically it's a parent evaluating this for their child, you need to make the responsible decision to carefully evaluate the evidence and look at the risk. Look at the side effects and see if the benefits warrant or justify that because you have to balance the scale for your child.

Your child is too young. They can't do it for you. You have to do it for them. If you do that and you carefully evaluate it, you may reach a different conclusion with the public health authorities and your pediatrician is telling you. That's the least conclusion I reached.

After I came out of med school, I vaccinated thousands of children. It's one of my biggest regrets in life that I did that. Because I didn't know any better. I trusted them, blindly trusted them that they were telling the truth.

Many physicians were like me. They believed that they're being told the truth. They don't have the time or effort or energy or resources to carefully examine it themselves. If they did, they would reach the inevitably—If they were objective, rational, that there's no other conclusion that you could reach, there's some serious potential problems here that have to be seriously examined.

You have to weigh the evidence. In some cases, if you've objectively done your due diligence and you reach your conclusion you want to vaccinate, then it's fine. It should be a choice. It shouldn't be forced on anyone.

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