Saturated Fats:
A Special Interview with Dr. Aseem Malhotra

By Dr. Joseph Mercola

**JM:** Dr. Joseph Mercola

**AM:** Dr. Aseem Malhotra

**JM:** Saturated fat is not healthy for us, but is that the truth? Hi, this is Dr. Mercola helping you take control of your health. Today we’re joined by Dr. Aseem Malhotra, who is an interventional cardiologist consultant in London, in the UK, and who also works as a consultant with the Obesity Service over there. He’s going to give us more specific information exactly what he is doing. But the reason he’s on this program is he’s really quite a bit of publicity last year for his excellent article that was published in the British Medical Journal that really takes the other physician about saturated fats. We’re going to have a really interesting dialogue about saturated fats.

Welcome and thank you for joining us.

**AM:** Thank you, Dr. Mercola. It’s a pleasure to be here.

**JM:** Before we begin, I stumbled over your introduction. Maybe you can just highlight what your role is as a cardiologist in the UK health services.

**AM:** Sure. I’m a consultant cardiologist. I originally trained in interventional cardiology. Over the last few years, I’ve developed a real interest in the whole issue around obesity, how this epidemic creeps upon us in the last few decades. But primarily, my focus, Dr. Mercola, has been to try… What can we do as individuals collectively (the medical profession) to help curb demand on the health system?

A lot of that is being driven by diet-related diseases. According to the Lancet Global Burden of Disease Reports poor diets now contributes to more disease and death than physical activities – smoking and alcohol combined. This is a global problem. Obviously in the United States and in the UK, we have very high prevalence of obesity and type 2 diabetes.

For me, this is where my journey started. Really, as an interventional cardiologist, we can do life-saving procedures with people who have heart attacks through heart surgery. But to be honest, rather than saving them from drowning, I’d rather they wouldn’t be thrown into the river in the first place. This is really kind of where my focus has shifted.

**JM:** Terrific. Can you describe to us your journey and transition from the dark side as an interventional conventional medical physician to really an enlightened healthcare professional who really understands the foundational issues that are largely responsible for promoting all the disease, which is, of course the foods that we’re eating and the lifestyle associated. How did you make that transition?

**AM:** It’s a really important point you raised there actually about the transition. I think for many of us, as clinicians sort of moving more towards intervention, I think the realization that what we can do in medicine is really quite limited at the treatment end and actually the whole “prevention is better than cure” phrase and psyche is very true.
For me, personally, Dr. Mercola, when it started was actually… I just treated a patient several years ago. I was then a trainee cardiologist. I was up in the middle of the night. A patient comes in with a heart attack. A man in his 50s. We do an emergency stenting procedure. He had a blocked left anterior descending artery (LAD). Within the space of maybe 30 minutes or so, we had finished the procedure. In effect, we restored the blood supply to his heart muscle very quickly. It’s about three in the morning.

The next morning during the ward round, when I was doing my rounds, I went to speak to him and giving him the usual advice to make the symptoms – stop smoking. He had a bit of a potbelly, so I started to combine dietary device. Just when I was telling about healthy diet, how important that was, he was actually served burger and fries by the hospital. He said to me, “Doctor, how do you expect me to change my lifestyle when you’re serving me the same crap that brought me in here in the first place?”

For me, at that moment, I had an epiphany moment, because I had a realization looking around me as well. A lot of healthcare professionals are overweight or obese. The hospital environment is actually promoting junk food. This is when I actually started to think about this whole issue about if we’re really going to overcome obesity. Obesity was in the headlines very regularly that it was increasing its prevalence in the UK. The first thing we need to do is actually set an example in our own workplace in the hospital. The hospital environment should be one that promotes good health, not exacerbates bad health.

I actually started my journey by writing an email to Jamie Oliver, the chef, celebrity chef. He actually did a lot of work on campaigning on improving food for school children, in school canteens. I basically wrote to him and said, “Jamie, is this something you’d be interested in doing: improve hospital food?” From there on, I went to meet him. I had been with him and other health professionals. For me, that’s sort of when the campaign started. It was first and foremost in hospitals.

A couple of years later, I ended up going to the British Medical Association Annual Conference. I put a motion forward saying there should be a policy from the BMA that we should ban the selling of junk food in hospitals. It got an overwhelming majority vote. That’s one of the things where my journey started.

**JM:** Excellent. I’m not sure if you saw the article published. Earlier this month, May of 2016, there was an article written by a U.S. physician documenting that medical mistakes are now the third leading cause of death in United States. It’s not really well recognized because that’s not the diagnosis that winds up on the death certificate. They only use ICD and codes, and having accidental medical mistakes is not one of them. It’s really intriguing that your journey started in a hospital situation serving them this – the food is one issue, but also it’s a very dangerous place to be for most people.

**AM:** Dr. Mercola, it’s a very, very good point you said. Because actually, the third most common cause of death actually after heart disease and cancer related to this is prescribed medication. The FDA reports…

**JM:** Properly prescribed medication.

**AM:** Absolutely. These are essentially because of the side effects. The FDA has reported over 100,000 deaths in the last couple of years in 2014 because of side effects of medication and has tripled in the last decade. There’s a real problem with overmedication. Part of that is because there are obviously very powerful vested interests that pushed drugs. They even coax academic institutions and guideline bodies. People aren’t getting all the information to make decisions, whether or not they should take medications.

In particular, Dr. Mercola, I’m sure you know this, the elderly are most vulnerable to side effects. If you’re over 65 and you fall because you’re dizzy or because you’re overmedicated, for example, and break a hip, about a quarter of these patients will die within a very short space of time. This is a major
problem, especially also we’ve neglected or detracted from lifestyle changes, which are going to be much more impactful on your health and without side effects.

**JM:** Thank you for expanding that. I don’t want to make the mistake of preaching to the choir, because most people viewing this are aware of this. But I want to really provide them with new and exciting information, which will essentially empower them to have a dialogue with others. Because the conventional wisdom literally for 60 years is that saturated fat is dangerous. I want to precede that, because I think there’s an important story here that leads up to this.

Ancel Keys I think has properly been given the credit for promoting the low-fat diets and vilified by those who understand natural medicine. I believe that you support that concept, too. But the point I want to bring up and dialogue with is that when Keys came up with his process of a recommendation of a low-fat diet, it was… You actually are in the process of completing a film on this whole concept of the Mediterranean Diet and Keys and his hometown, where he stayed a good portion of his life.

But there was an epidemic of heart disease that started about the beginning of the 20th century. For 50 years, heart disease has been progressively increasing. It really wasn’t an issue at all prior to the most part of the 20th century. There was a problem. My belief – this is what I want to discuss – is that it was in fact due to fats, but it was due to the wrong fats.

In the 20th century, the average person probably had less than one pound a year of refined process omega-3 vegetable oils. By the 1950s, probably about 50 pounds a year, and by year 2000, it increased at about 75 pounds a year. It seems that the fat in itself isn’t the issue (we’ll talk about that in a moment), but it’s the type of that that’s so crucial.

This massive amount of highly refined polyunsaturates far in excess of what we were designed to for optimal health I suspect would lead us to this epidemic of heart disease that catalyze Keys to provide this research justification for his recommendation. I’m wondering what your thoughts are on that. An impression.

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**AM:** I think you’re absolutely right. Actually, there’s a very interesting statistic from a credited Swiss report, which I read last year on fat. I’ll come back to the issue you mentioned about saturated fat. But what’s interesting is if you look in the United States, between 1961 and 2011, those 50 years, 90 percent of the calorie intake has been a result of carbohydrates and refined industrial vegetables that you’re talking about.

I think you’re absolutely correct. The heart disease epidemic in terms of cardiovascular, the mortality peak, between 1960 and 1970, it started to rise about 1920. Clearly now, when we look at our data, it’s quite clear that the so-called fats that are responsible for that with trans-fats and very likely as you say, polyunsaturated vegetable oils very high in omega-6 fatty acids. We know now that they actually oxidize LDL and are pro-inflammatory.

Within all of this as well, Dr. Mercola, the other issue was, which wasn’t recognized much later on, was smoking problems. Smoking problems was very high. We know it when you see populations when the smoking reduction occurred from regulatory efforts that the heart attack admissions drop very rapidly. That’s because just 30 minutes after smoking increases platelet activity.

Just a quick example, Helena, Montana 2002, they brought in a public smoking ban. Within six months, there was a 40 percent reduction in hospital admissions for heart attack. When the law was rescinded, when the tobacco law bill came in, the hospital admissions came back to preceding levels. When you
combine all those things, it’s very clear. The dietary factors – trans fats, refined polyunsaturated vegetable oils, and smoking – are probably the three most important factors.

**JM:** Yes, of course. There are other issues too. Of course, the lifestyle issues and refined carbohydrates seem…

**AM:** Absolutely.

**JM:** I think more than likely, my guess, if I was to pin a causal factor, it could be the types of fats we’re eating, primarily the polyunsaturates and the trans fats. Trans fats are really difficult to separate up from saturated fat, because they typically come together.

There are loads of studies being done from really well-respected peer-reviewed journals that physicians and public health authorities, the confidence is that what they were recommending was correct. But if you tease out the details, as I’m sure you’ve looked at these, you’ll find typically that no one’s really separated out the trans fats from the saturated fat. Even at the time when these things were done, it wasn’t known other than some brilliant researchers.

I interviewed Dr. Fred Kummerow who was the Ph.D. scientist who actually discovered there was potential to really identify the issue of trans fat. But it really wasn’t for 50 years before it was finally widely adopted and accepted as reality and actually banned from the food supply. It was this lack of professional appreciation of the dangers of these.

If you can comment and walk us through the issue of this, what I described basically, the confusion between saturated trans fats and how that all got lumped together and essentially became the worst food ingredients you could ever have. Even today, as we are recording this interview, I would guess the vast majority of public health officials and certainly health professionals still believe saturated fats is bad for you.

**AM:** Absolutely. I think I see a validity that the whole confusion around lumping trans fats and saturated fats together certainly has got into this issue, this problem in the possession of many decades and even today, that saturated fat is harmful. In addition to all of this, the relationship between saturated fat and cholesterol. We know many different types of saturated fatty acids, which is another fair part of the whole confusion as most people don’t realize there are many different types and they may likely have different biological effects. I’ll come on to that in a second.

Many saturated fats will raise LDL, the so-called bad cholesterol. But even with an LDL there are different subparticles. The large type A particles are less atherogenic and are influenced by saturated fat. But also saturated fat increases HDL, the good cholesterol.

What’s interesting and something that people don’t fully appreciate is when you look at the calculators that doctors use to predict people’s risk of heart attack or stroke or cardiovascular disease over 10 years, they actually use a total cholesterol divided by the HDL ratio. In effect and quite often what happens when people eat more saturated fat, the HDL may increase the same or even more and actually the ratio may actually not change very much. It can even improve, especially when you start reducing refined carbs and sugar, which will affect the triglycerides.

Overall, what’s interesting is the saturated fat, even though it may raise LDL, your lipid profile may actually refine or improve, especially when you cut the carbs. But on top of that, I think what’s interesting is that, even when you look at LDL, Dr. Mercola, that has been grossly exaggerated as a risk factor for heart disease. With the exception of people who have a genetic abnormality and have familial hypercholesterolemia, the mechanism that for premature heart disease may be different.
Certainly when you get over the age of 60, when you look at cardiovascular association between LDL cholesterol and cardiovascular mortality, it diminishes. It becomes almost negligible. Overall mortality, there is an association inversely with LDL. The higher your LDL, if you’re over 60, the less likely you are to die.

What is the major issue when you look at heart disease and heart attacks? Insulin resistance. There are some very good mathematical modeling studies showing that insulin resistance certainly even for a young man is the most important risk factor for heart attack. But that’s been neglected. The reason it’s being neglected partly is this flawed science and overanalysis on cholesterol. But also because there hasn’t been a good market. There’s never been any effective drugs that target insulin resistance. Therefore because of the reason a big market around something to sell, there aren’t many people that know about it.

As you and I know, if you target insulin resistance through the right kind of diet and lifestyle changes, stress reduction, right kind of exercise, that’s going to have the biggest impacts on your health.

**JM:** Yes, indeed. When you mentioned insulin resistance, there are lab tests relatively inexpensive that can be done. That would be a fasting insulin, not a postprandial insulin. What type of ranges —? I suspect it might be with different units. In the U.S., it would be below 3. I’m not sure of the units. That’s micro-something per… Do you actually routinely check for that when you’re consulting with patients?

**AM:** Dr. Mercola, that isn’t something… That’s a good point you raised, but it’s not something that’s routinely offered as a test in the National Health Service. I think some people do it privately.

**JM:** Why am I surprised?

**AM:** I think some people start doing it privately or wherever they can check it. For me, actually a good surrogate, as you know, for insulin resistance is your HDL and your triglycerides. You combine that with waist circumference. That’s actually a reason to be a good surrogate. That links it to the whole metabolic syndrome. One of the things that’s my [inaudible 18:03], if you like, is this whole excess on body mass index. Obesity isn’t the issue; it’s actually metabolic syndrome.

I actually say that there isn’t anything as a healthy weight, only a healthy person. The reason I emphasized that is we know 40 percent of people with a normal body mass index will harbor the same metabolic abnormalities as people with obesity. That’s high blood pressure, type 2 diabetes, impaired glucose tolerance, cardiovascular disease, and fatty liver disease. The focus should really be on the roots of all of that which is insulin resistance.

If you have metabolic syndrome and you’re admitted to the hospital with a heart attack – about 66 or two-thirds of people now in the U.S. who are admitted to the hospital with heart attacks have the criteria or definition of a metabolic syndrome – you’re 50 percent more likely to either die or be readmitted to the hospital within a year. The metabolic syndrome of the things we’ve talked about – high triglycerides, low HDL, hypertension, high glucose tolerance, increased waist circumference; three of those five you’ve got metabolic syndrome – is actually an adverse prognostic indicator.

**JM:** There are actually even better mostly research tools that assess an insulin resistance. It’s followed by some of these others which would be leptin, which is relatively easy to test for, but some others like mTOR, mammalian target of rapamycin, and IGF-1. These are really profoundly important controls, hormonal controls that the body has primarily in response to diet and lifestyle. But insulin is a good marker.

You can use glucose, too. There is such a thing as a 24-hour glucose or continuous glucose monitoring, which will help you assess that. Interestingly, the new continuous insulin monitoring systems have just come into the market. It would be profoundly interesting to see what happens with that.
AM: Sorry, Dr. Mercola. Just sort of coming back again. Sorry. I know we digressed a little bit. The saturated fat issue, because I know that was primarily the main question you asked me about. What was interesting is the Cambridge Medical Research Council did a study that was published in one of the *Lancet* journals looking at the association between dietary saturated fat, plasma saturated fat, and type 2 diabetes. This was published in 2014.

What they found, which is very interesting, is that dietary saturated fats that were found in dairy products were actually inversely associated quite strongly with the development of type 2 diabetes, in effect protective. But plasma saturated fats, these are saturated fatty acids found in the blood that was strongly associated with increasing the risk of developing type 2 diabetes, were actually ones that were endogenously synthesized.

Basically, the liver is producing these saturated fatty acids in response to dietary carbohydrates, sugar, and alcohol. This is fascinating. In effect, for a layperson, it’s saying that if you have full-fat dairy in terms of cheese or yogurt, the likelihood is that’s going to protect you from type 2 diabetes. But too many carbs, sugar, alcohol is going to increase the risk of type 2 diabetes by affecting saturated fats in the bloodstream.

JM: It’s been my experience as I was exploring a very, very high-fat diet typically overeating some fat, with low net carbs that a lot of dairy needs to be avoided, primarily because it’s a high source of net carbs, which is total carbs minus fiber. They convert. These net carbs convert to glucose. Raw milk, even raw milk would be a source of high carbs. But butter is just almost pure fat, so that works well and provide you with not only the benefits of the fats, which is primarily saturated.

AM: When I advise my patients, actually I tell them to choose butter with anything. In fact, I tell my patients specifically, “Pease do not buy anything marketed as low-fat or proven to lower cholesterol,” because there’s no evidence of any benefit. In fact, we have evidence of no benefit now. Much better to have butter and of course the additional benefits, potentially of vitamin K2 from grass-fed butter. There is some good observation or data suggesting that it actually protects against heart attack and cardiovascular mortality.

JM: It’s stealth almost as vitamin D was 20 years ago. There’s no question we need K2. In fact, we just recently put together a supplement that has the vitamin D and K2 together in the right doses. Even in the U.S., it’s very difficult to find one that combines and easily can increase blood levels.

I’m wondering if you have looked at and researched and come to any conclusions on the percentages of fats in the diet. It does become particularly important that you’re eating high-fat diet. You want to make sure that the composition or the relative ratios are correct. Have you given some thought about the percentage of– basically the three types of fat saturated, monounsaturated, and poly? What would you recommend or advise?

AM: There are a couple of things to be said here: first of all, I think when you look at the PREDIMED studies or the primary prevention trial on the Mediterranean Diet supplemented with extra-virgin olive oil, four tablespoons, and nuts versus the advice to follow a low-fat diets.

What was interesting about it is this is a primary prevention trial, several thousand participants, about 57 percent women, 43 percent men. They followed these people who have high risk of developing heart disease or heart attack over a number of years. What they found was there was a 30 percent risk reduction within about 4.8 years of the composite end point of heart attack – stroke or death, primarily given death and stroke.
The reason I mentioned that is it’s interesting that the so-called higher fat Mediterranean Diet was 41 percent total calories from fat versus the advice to follow a low-fat diet, which is about 37 percent. That was actually still a relatively healthy diet.

**JM:** There’s an insignificant difference. They’re almost identical.

**AM:** That’s interesting, because this was pointed out. I mentioned this when I wrote my article in BMJ that even a four percent difference in fat, specifically they were identifying olive oil and nuts, still had a significant impact. What makes that interesting is if that diet composition was higher in fat and certainly lower in carbohydrates, the benefits if you compare it to the American-Western diet may be well at being much greater.

But what was interesting also is this is an energy on restricted diets. They didn’t restrict the amount of calories. I think this brings us to another point as well, Dr. Mercola. Actually the calorie focus thinking has damaged public health in my view. All calories are not the same. Actually if you eat a real food diet, which gets the staple of certainly vegetables, olive oil, nuts, oily fish, avoid refined carbohydrates, avoid the refined polyunsaturated vegetable oils, and you eat until your full, you’ve got most of the solutions for combatting the increasing chronic diseases there. It’s actually much simpler.

What I would say then is I wouldn’t specifically, as far as I’ve seen and I’m very open to the evolving science on this, I try and follow my own advice and practice what I preach. But I don’t count calories and certainly I don’t count… I try and eat until I’m full. As long as I’m covering certain areas of foods that I’m eating for cardiovascular health and for whatever is the best evidence that we have available to reduce the risk of dementia and cancer. It’s a pretty similar diet overall to prevent all these diseases. I think if we do that, we don’t have to be looking specific percentages on how much you should be having of whatever. I think as long as you have your basic nutritional requirements, then you’ll be fine. I think to move towards food-based guidance.

But I think you’re right even within that, the current dietary advice where they say restrict 30 percent of your calories, total calories are fat, less than 10 percent saturated fat is completely wrong and misguided. Although I know in the United States – you must correct me on this – I understand that now there has been a lift in the restriction of total fat, but there’s still a restriction on saturated fats to less than 10 percent of calories.

**JM:** Yes. That’s the new USDA Guidelines 2015. They were releasing every five years. That was the update. The definition of high-fat diet. Most of the studies that looked at it are relatively similar to the one you quoted, saying high-fat diet is 40 percent fat. That is just crazy. You read the abstract and you read the titles, they all have: high-fat diet is terrible. Because 60 percent of it was protein and carbohydrates when maybe collectively those should be 20 percent, instead of 60 percent. You’re going to have a whole different component.

If you’re in a really high-fat diet, something between 75 and 85 percent, then the percentage has become appropriate. The conclusion I’ve reached is that perhaps 90 percent of the fat should be saturated or monounsaturated. Maybe less than 10 percent; somewhere between five and 10 percent, polyunsaturated. Clearly you need them. They’re unquestionably essential fatty acids. But most of us get far too many omega-6s and not enough omega-3s. We don’t need that many. The bulk of that calorie should be saturated or monounsaturated. That’s the point I was trying to discuss.

**AM:** Absolutely, Dr. Mercola. I think you’re right also, in particular if you look at people who have type 2 diabetes, a very good article in *Annual Review of Nutrition*, the lower the carbohydrate intake, certainly the ketogenic diet for people with type 2 diabetes, which is less than 10 percent of their total calorie
consumption from carbohydrates. Actually they have the biggest levels in HbA1c, and the benefits were even independent of weight loss. I think this certainly benefits…

I think we all know that one size doesn’t always fit all. But certainly the default diet that we have at the moment is definitely bad for most people and we need to change that drastically.

**JM:** I also wanted to get your feedback with respect to the article that you wrote last year in the *British Medical Journal* because it was widely received and you got media all over the world. That article is so controversial. Some of the interviews that I watched were really pretty comical. The people interviewing had no business to have dialogue with you. I’m wondering if you can comment on the response to your article and the media and your colleagues.

**AM:** Yes, Joe. The actual title of the article is “Saturated Fat Is Not the Major Issue”. It came out in the *British Medical Journal*. It was published in October 2013 initially. Also we’ve had several articles since then. But basically, the reaction was – to a cardiologist saying saturated fat isn’t the cause of heart disease caused a lot of stir. It hit the headlines in the U.K. It was a front page on three newspapers. I was giving interviews to Fox News Chicago, to CNN International. It went global.

I think that people were a little bit taken aback, because obviously we’re heading lots of different areas where one people thought fat causes obesity and saturated fat causes heart disease. There was a lot of kickback. This was a peer-reviewed editorial and a lot of the references I used were good-quality research to really at least draw attention and get people thinking about it. With many of these things, you’re attacking conventional wisdom, you’re taking on certain hypotheses or ideas that some people’s careers have been built on, people in very powerful positions.

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That’s before we started talking about the fact that the sugar industry had benefited from this low-fat message and low-saturated fat message. There were a lot of very powerful vested interests that certainly wouldn’t have been happy irrespective of whether I was correct or not with what I was saying. That did cause a backlash.

What was interesting and something I couldn’t have predicted then, Dr. Mercola, is that several good-quality studies from Cambridge Medical Research Council then came out to actually support essentially what I was saying, that we cannot say that saturated fats is a cause of heart disease. I think that was something I couldn’t have predicted, but I was very pleasantly surprised by that.

**JM:** Interesting. Have you seen a shift or change in the recommendations from the dieticians who provide consultation and information to their patients in the U.K.?

**AM:** No, I haven’t, unfortunately. They’re still clinging – the guideline bodies, the dietician associations – on to this saturated fat raises cholesterol and that is the cause of heart disease. They just laughed about it. They’ve always implied it. But in terms of social media, in terms of discussions going on with people and academics, more and more people seem to be… Let’s put it this way. They’re less vocal in pushing this message. It’s just the old conventional wisdom still persists. But I’m very confident this will change very soon. It has to change.

**JM:** Yes, it does. It’s an important message. The reason I’ve become so recently passionate about it, sort of out of tangent, is there’s 1,600 people in the United States every day that die from cancer. Every day. Most of them are because they’re eating the wrong fuel. They’re eating fuel, primarily carbohydrates. That’s their primary fuel. As a result generating much more reactive oxygen species and secondary free radicals, which causes inflammation and a whole variety of other pathologies that lead to diseases like
cancer and heart disease and diabetes, or gets them sick and puts them in the hospital, which is the third leading cause of death. That’s just being in the hospital and being exposed to medical mistakes.

That’s why this is such a critical part of the equation to have some really good arsenal to combat the almost invariable media response to the vilification of fats and saturated fats in particular. We know now through the studies that were done and that you really highlighted well in the last few years that it’s not the case. There’s been more research coming on to support this. I think we could stand on pretty solid ground.

When I first started saying saturated fats weren’t bad, I can remember being on Dr. OZ a couple of times, dialoguing an argument with him about this live on air. Even today, there’s still a challenge. But it’s an important one. I think we really need to know where we are.

**AM:** I know. Dr. Mercola, you clearly headed the game there. But I think you’ve probably noticed yourself that resistance to that message now seems to be diminishing I think.

**JM:** It is. Yes. I’ve got some peripheral questions for you on a comment that you made at the beginning when you were doing your interventional cardiology. You mentioned that you’re treating a patient with an LAD blockage, the left anterior descending artery. It relates to statins. Because I’ve interviewed to Dr. Stephen Sinatra who’s a cardiologist also, and it’s his position, he’s justifying the use of statins on males who have left anterior descending structure or narrowing. I’m wondering what your thoughts are on the use of statins. Do you believe there is ever an indication for them, or they really should be avoided wholeheartedly by nearly everyone?

**AM:** In terms of statins, it’s a very, very god question. It’s something I’ve been very involved in discussion, debate controversy if you like.

**JM:** Excuse me, let me interject here for a moment. The other reason why it’s good is that one in four adults in the U.S. are on these statins, over the age of 40 - it’s going to one in three. It’s a really pertinent issue.

**AM:** The first thing I would say to you, Dr. Mercola, that statistic that one in four going to one in three people in the United States are on statins, to me, I find very worrying. I’ll explain why. Now, in terms of statins, again, this is a drug that was marketed over the last three decades as being a wonder drug. It’s driven a multibillion dollar industry. We’re only now realizing…

**JM:** It’s actually a trillion dollars in sales collectively. A trillion dollars. It’s not multibillion – trillion.

**AM:** That’s extraordinary. We’re only realizing now that the benefits of statins have been grossly exaggerated and the side effects underplayed. One of the reasons for that is that most if not all of the studies that drove the guidelines and the information around statin prescription were industry-sponsored studies. When you look at those studies, one of the things that we have neglected in medicine generally is this issue around absolute risk and relative risk.

The reality is if you look at the “published data” – I want to come back to this in a second. If you have established heart disease and you got heart attack, taking a statin every day for five years, there’s a one in 83 chance that that will save your life. That means 82 of 83, it’s not going to save your life. That information isn’t something that is given by chance to any patient. That is really important. Actually that’s a much more informative and transparent way to understand the benefit they’re going to get.

On top of that when you look at people with lower risk, otherwise healthy people, there is no mortality benefit. People should know that if they haven’t had a heart attack, according to the published literature, they are not high risk and they’re going to live one day longer from taking statins.
Now, what do we know about side effects? It’s only been recently established that statins do directly cause type 2 diabetes in probably about one in a hundred patients. That’s within a few years of taking statins. You’ve got to have that trade off. Then you look at other side effects.

Dr. Mercola, I prescribed statins. I’ve treated thousands of people with heart disease over the years in my career. I still see patients on statins. One thing that’s become more and more clear is when you look at side effects, it becomes unacceptable to the patient.

I personally define that for an individual. When they come in and I’m worried about side effect, I say, “Is this interfering with the quality of your life?” If it is, it’s unacceptable. That figure now is more like one in five up to one in three potentially. Muscle pain is clearly one of the most significant ones that people experience, and fatigue, which is more common in women. We’ve got all of that information. It makes them think, “Hold on a minute.” Benefits of statins have been exaggerated, the side effects underplayed.

But what’s most extraordinary is only a few months ago reputed French cardiologist, Dr. Michel De Lorgeril, of Grenoble University… In fact, he was one of the leading researchers around the Mediterranean Diet Trials, a very respected chap. He has written a review where he is actually questioning whether statins benefit anyone. He pointed out several discrepancies in a lot of the original trials, whether it’s statistical manipulation if you like, conflict of interest, or compared to different trials.

He’s actually suggested that maybe nobody benefits from statins even people on statins for prevention. He says that unless we get access to the raw data, independent analysis, the actual claims about the benefits of statins is not evidence-based. Now, I’m not personally saying that. I’m saying this is really intriguing and certainly raises as many questions about the whole prescription of statins. This is something that people need to know about. Even if we use the published literature at face value properly, people would be better informed. That’s the way forward in my view.

**JM:** Are there any situations or clinical scenarios where you would prescribe a statin for an individual?

**AM:** I think at this point, we take the default option, according to published data, that if people have a heart attack certainly I would prescribe a statin. But I would make them very well aware of the benefit and the risks with it. It doesn’t often happen but I do that consistently with my patients now.

I think that’s probably one where I would say that’s where the benefits from the published literature certainly seem to be for mortality. But for otherwise healthy people, people at low risks, I would say that there isn’t a mortality benefit.

If someone’s desperate to take a statin, I’ll give them that. I’ll give them information and say, “If you’ve got 10 percent risk in the next 10 years, there’s about one in 140 chance that the statin will prevent you from having a non-fatal heart attack or stroke. It won’t prevent various illness. But you’re more likely to develop type 2 diabetes.” If you give that information to the patient and they still want to take a statin, I’m happy to prescribe it for them.

**JM:** I would prescribe some more information to improve the transparency. This is the information that isn’t widely known even among enlightened physicians like yourself. That is statins are essentially mitochondrial poison. They inhibit an enzyme called HMG-CoA reductase, which is how they work to lower cholesterol. But that same enzyme is also responsible for a number of other things like making coenzyme Q, which is responsible for the muscle pain and the fatigue.

[----- 40:00 -----]

Then it also facilitates the conversion of vitamin K1 to K2, which we talked about earlier. Another important nutrient for heart health, cardiovascular health. Finally, it actually blocks the formation of
ketones, which is really an essential part of mitochondrial nutrition and overall health. If you can’t make ketones, you’re really impairing your whole body metabolism and raising your risk for a variety of other diseases.

As a cardiologist I’m sure you’re familiar with the fact that the primary fuel for cardiac muscle cells is fat. It’s not sugar, it’s not carbohydrates; it is fat. The cardiac cells are one of the most metabolically active cells in your body. I think they are the most. I think they exceed the brain. They’re working 24/7. You’ve got to provide them with high-quality fat to burn and provide the right fuel. You can’t do that if you’re taking a statin, because you’ve blocked and opened it up.

**AM:** I think that’s a really important point that you raise. The whole issue about fatigue is certainly most likely related to the impact on mitochondria. There’s one really interesting study tried up by Beatrice Golomb from University of San Diego if I’m correct. She actually did a double-blind and randomized controlled trial on women, middle-aged women on low to moderate statins, and found up to 40 percent of them within a few months reported significant fatigue. That is really interesting. Of course, that’s not life-threatening, but it’s certainly something that interferes with your life.

**JM:** It’s a metabolic blocker. It could contribute to other pathologies. It’s no surprise that they’re in a fatigue. It’s exactly what you would predict when you induce that type of mitochondrial poison. I have a personal curiosity about the National Health Service in the U.K. with respect to some of the tests that are offered. You mentioned that serum insulin isn’t offered. How about something like ferritin and vitamin D?

Probably insulin is not as important as measuring your ferritin and vitamin D. To me those are the core, because if you have too high iron (we’ll talk about this for a moment), that’s another mitochondrial poison. You’re going to accelerate the production of reactive oxygen species by taking hydrogen peroxide, which is produced from the metabolism of oxygen – instead of going to water, it goes to superoxide and hydrogen peroxide.

If you have high iron, it’s catalyzing hydroxyl free radical, which is the most pernicious destructive radical known to man. In a nanosecond it’s going to damage mitochondrial DNA, membranes, and proteins. Checking for iron I think is maybe as important or maybe more important than vitamin D. Because most adult males, like us, we have too much. You need to get rid of it.

**AM:** I’m presuming that this is a dietary source from red meat?

**JM:** No. It’s an artifact of human physiology. Basically, we’re designed to live through the age of reproduction, and after that point, nature doesn’t care about us, so we die. It’s not really optimizing for longevity. It’s not optimizing for reproduction. We don’t excrete much iron. We retain almost all our iron. The benefit of that from an evolutionary perspective is that if we got injured, wounded, and bled out, we’d survived. There’s a benefit there.

In women, it’s not an issue because they’re menstruating. That’s probably the primary reason why most women, premenopausal, have a decreased risk of heart disease. That’s well documented. Previously, when I was in med school, it was thought to be due to hormones, the estrogen. We now know it’s more likely related to lower iron levels.

**AM:** Fascinating. We routinely can check there. It’s not something we do often. We usually…

**JM:** But it is available. You can check it.

**AM:** We can absolutely.
**JM:** Vitamin D, I would assume is also available.

**AM:** Yes, absolutely.

**JM:** That’s good to know. Because I’m on a mission to educate people about this, and physicians more importantly, like I did with vitamin D 16 years ago. It’s interesting I have an issue with myself and my dad does. He was in the hospital literally a few days. I think he’s still maybe in the hospital today just being discharged for pneumonia. It’s a shocking illustration of what we discussed earlier, how medical mistakes is the third leading cause of death. They almost got my dad this week.

Because he has beta thalassemia. He has high ferritin levels, which is the accurate way to measure total body iron, not total body iron percent serum transpiration or serum iron. Here, he had a low serum iron for whatever reason, and they wanted to give him iron injections, which literally almost would have killed him. I couldn’t believe what they’re doing.

Thankfully, one of the strategies that you take… The key to living well and healthy is to understanding what your risk factors are, including one of the major risk factors for most adults, going to the hospital. Thank God they exist. Hospitals every day save your life. There’s no question about it. Undisputed. But you’ve got to be careful. You need an advocate for you, someone. Hopefully a relative or a friend to be with you, so those types of mistakes aren’t made.

My sister was there with my dad. She stopped them cold and wouldn’t let them administer that, because she knew. I trained her. She worked with me as my medical assistant for many years. She knew that that was not the case. He was saved. Almost all of us are going to wind up in the hospital at some point for whatever reason. You need an advocate for you there, because frequently, you’ll not be fully mentally alert to check on your drugs, therapy. You’re sedated. You need someone who’s alert and understands what’s going on to protect you from honest but nevertheless potentially fatal mistakes.

**AM:** Absolutely.

**JM:** I guess that’s the comment I wanted to make. Actually I alluded to the fact earlier that you’re in the process of finishing up a film, which I suspect we are going to be broadcasting later this year. Maybe you can tell us a little bit about that, the Mediterranean Diet. It seems fascinating. I can’t wait to watch it.

**AM:** Yes. Actually the title of the film is The Big Fat Fix. It’s really a journey to look into how did we get things wrong about the Mediterranean Diet. Did we get it completely wrong? We went to visit the village where Ancel Keys spent six months of a year for 30 years doing his research to look at a village where they had very high longevity scale, to try and find out what the secrets were and how did get misinterpreted.

Then hopefully bring the viewer to a kind of protocol that incorporates many of the components of the Mediterranean lifestyle, the right way forward, so people can actually help reduce risk of obesity, help reverse type 2 diabetes, and improve their cardiovascular health. This is really what the film will show. Where did things go wrong and where do we go from here?

**JM:** We’re really excited to be reviewing that later in the year in Florida. In the meantime, do you have any website, Facebook page, or social media account that people can connect to if they want further information from you?

**AM:** My website is DrAseem.com. I kind of blog on that. There are a lot of information about me and my articles, my academic publications, my newspaper articles, and kind of interviews I do. That would be the website for people to get to.
**JM:** Perfect. Thank you for everything you’re doing. It really takes someone quite courageous to have these views that I believe are useful to many other nutritionally oriented physicians. It’s certainly a stark contrast to your colleagues. I’m sure you’ve suffered quite a bit of professional [inaudible 48:26] and criticism as result of your position.

**AM:** Thank you, Dr. Mercola. I really appreciate that. I’m writing a book at the moment as well that will come out next year that will cover all of the behind-the-scenes stuff. It should be an interesting read.

**JM:** You’ve got to give me a copy of that, so we can promote it. Thank you so much.

**AM:** Thank you.

[END]