An Interview with Dr. Stephen Sinatra
By Dr. Mercola

DM: Dr. Joseph Mercola
DS: Dr. Stephen Sinatra

Introduction:

DM: Welcome everyone. This is Dr. Mercola. Today, I am with Dr. Stephen Sinatra who is a very prominent expert in the cardiology field. He is board certified in this and has a prominent newsletter and distribution and really helps educate large numbers of people about the importance of different areas of health and lifestyle and natural ways that one can stay healthy and keep your heart healthy. Welcome Dr. Sinatra.

DS: It’s good to be here Joe.

DM: What I neglected to mention also is that you have a very comprehensive training, in addition to being a board-certified cardiologist, you also have some interest in the psycho-emotional component. I’m wondering if you can describe to our audience your training in cardiology and then these other areas too so they can understand what frame and perspective you’re coming from.

DS: It was back in 1975, I got my board in internal medicine and then I did a two-year training program in a cardiovascular fellowship. I was working in the cardiac catheterization laboratory and I was seeing an alarming number of young patients with sudden cardiac death. I mean it was unbelievable. I was seeing men in their 30s, women in their 40s. In fact, some of these cases, I ended up writing up in my book Heartbreak and Heart Disease. What I realized back then was that the emotions played even more of a program for these people in their character which led to them to develop heart disease and cardiac arrhythmia and then sudden death. I needed to learn more about the mind-body connection.

I entered a two-year Gestalt psychotherapy training program. It was here in Hartford. These were practitioners that were disciples of (indiscernible 2:45) out in San Francisco. It was a good two years. I learned a lot. One of the books on the reading list was Bioenergetics by Alexander Lowen. He was a Reichian-type therapist. He was a disciple of Wilhelm Reich who really broke from Freud in Vienna in the 1930s. It was Freud who said that everything was in your head but it was Reich who said, “No. It’s not the head, it’s the body.” In other words, the body tells the truth.

Lowen, who was one of the last students of Wilhelm Reich wrote the book Bioenergetics and another 20-plus books. I was so impressed with the book, it was on my reading list. I had to meet Dr. Lowen so I ended up going to a workshop in New York City. I was so moved by the work in bioenergetics, I entered the Boston training program in
Cambridge. I spent seven years in that program. I did 200 hours of personal therapy, about 60 hours of supervision, presented at major conferences, wrote papers and then I finally got certified as a bioenergetics psychotherapist. I think it was in 1989. I spent a long time learning the mind-body connection.

I got to tell you Joe, it was tough going into medical school and even tougher at an internship because when you’re in a fishbowl with all your peers and doing therapy on people and really getting down to the shadow emotions, you know, our dark side. It was a great experience for me.

DM: In some ways it parallels almost a degree in psychiatry which as we both know focuses more on the drug based model rather than seeking to go and address the issues at the core like you did with your training.

DS: Yeah. In other words there was no drug training in these aspects. Basically, I realized after spending 10 years in psychotherapy that heartbreak was one of the major causes of heart disease. That’s why I wrote that back in – I think I wrote that in 1994. It’s been a good run for me. I’ve had a lot of additional training since medical school. I’m still doing it now in vibrational medicine so it never ends. It keeps going on and on.

DM: That’s great. That was definitely an interesting experience that you went through in that. Having essentially gone through two separate training tracks professionally, do you have to use both of them as you’re practicing the discipline of cardiology and seeking to get people better in this area or do you rely on more than one or the other medical training versus the psychological training?

DS: I would integrate everything. One thing a bioenergetics psychotherapist does is, just like a person could tell the age of a tree by cutting down the trunk and counting the rings, a good bioenergetics therapist could look at a person and track the energy in the eyes, follow the voice, look at the breathing pattern in the diaphragm, look at how one holds their shoulders and get a sense of who that person really is and get a sense of their struggle or their search.

I used to combine all my psychotherapy training when people came in the office with complaints of having cardiovascular symptoms. I was able to get to the bottom line very quickly. I owe a big debt to my teachers in psychotherapy because it really helped me really adjust to getting at the person’s core problem. You know what it’s like in the office. People can sometimes camouflage their symptoms.

I’m sure you know about this better than anyone, it’s usually the last one minute or the last couple of seconds when a patient really comes out with the truth with the doctor when the consultation is over. They’ll say something very quickly and all of a sudden you’ll realize that that’s the truth and that’s the bottom line and that’s what you have to focus on. There is a lot of resistance in patients and a lot of body armoring. Cutting through that resistance and armoring was a really a gift for me in bioenergetics.
DM: Yes, indeed. Are you still actively seeing patients at this point? I know you have a newsletter and a website and a number of endeavors that you’re involved with.

DS: I don’t see patients in the office but I just ran a weekend workshop at Kripalu here in Massachusetts. I had a group of about 27 people. You would not believe the extensive heart disease in this group. Even on a group workshop, I felt like I was in the office for the entire weekend. I was giving advice and listening to the stories and really listening to their pain and suffering. Even though I’m not in the office seeing patients, I’m still doing a lot of doctoring but in a different way.

DM: Sure excellent. You certainly have seen a number of patients, tens of thousands I’m sure and helped many people, guide and coach them through healthier approaches than is traditionally offered them in a typical setting.

At this point, it’s no mystery that we have a massive problem with obesity and weight in this country primarily related to insulin resistance which results in high cholesterol. We have this situation, at least in the United States, where one in every four Americans over the age of 45 are now prescribed statin drugs which is I believe one of the most commonly prescribed drugs in the United States. That’s clearly one of the largest challenges.

I’m wondering if you can share with us your approach to how you have addressed this in the past with people and what your current recommendations are and the concept of whether high cholesterol is even dangerous to begin with.

DS: That’s a really good question. First of all, if you look at cholesterol, it’s found at the scene of the crime. I mean if somebody has a heart attack or a plaque rupture, yeah, cholesterol is there but it’s not the perpetrator. Clearly, it should not be given the weight it’s given. When people watch television and they hear about good cholesterol and bad cholesterol, that’s sort of a misnomer.

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Let’s face it, cholesterol is something your body needs. If you look at the MRFIT study where they looked at 180,000 men over a period of like – it went on from 10 to 20 years. Men with cholesterol of 330 had less hemorrhagic stroke than men with cholesterol less than 180. If you look at cholesterol numbers, the higher the cholesterol number would give you protection from hemorrhagic stroke. I’m not talking about ischemic stroke now but I’m talking hemorrhagic stroke.

If you look at cholesterol, we need cholesterol on our skin to activate vitamin D3 from sunlight. We need cholesterol to make our sex hormones. We need it to make our adrenal hormones. We need it for lubrication. We need it for really neurotransmitter function in the brain. When LDL is driven too low, it’s no wonder that a lot of patients develop memory problems or pre-Alzheimer’s or even total global amnesia which is really losing one’s memory. It’s very frightful and I have seen several cases.
The other thing today is cholesterol is sort of a dinosaur where when we look at the HDL and the LDL and the total cholesterol and triglycerides, I mean, 20-30 years ago, that was okay to look at but nowadays when we have cholesterol fractionization, when we have the MMR test, the VAP test, the LPP profile. We have so many sophisticated ways of looking at cholesterol and really dissecting it.

The truth about cholesterol is this, if you do have small particle LDL, high inflammatory LDL, if you do have Lp(a) which is really in mind the whole essence of the cholesterol picture. It’s really the truth of cholesterol. But if you have these small particles and they’re inflammatory and if you have dysfunctional HDL, we have small particle HDL where it’s not fluffy or buoyant well then cholesterol doesn’t matter.

But if you look at the way statins really work, statins happen to lower cholesterol but I don’t believe cholesterol really is the sole cause of heart disease. Like I said before, it plays a minor role. There are so many other aspects that in my mind play a much bigger role that I put cholesterol down at the low end of the spectrum.

I mean, would I give a middle age male a statin drug? Sure I would. I feel that the best indication for a statin drug is a middle aged male with coronary heart disease and a low HDL. The reason why I worry about men with low HDL is that they have very thick blood. In other words their blood viscosity increases. The ideal person for let’s say a statin drug would be like a 55-year-old male with a history of coronary disease with a low HDL. I mean, to me this person has the greatest to gain and the least to lose.

The problem I have with cholesterol lowering drugs is that they have horrific side effects. They’re grossly under reported. Basically, if you treat a young woman in her 30s just for high cholesterol and treating numbers, I think we’re doing a disservice to these patients. This is not smart medicine.

These cholesterol drugs do have a role if you use them – you got to realize why we’re using them. I really believe that they’re working at other mechanisms than lowering cholesterol. Even the major studies have shown that since 2005 that cholesterol is a factor but again a very small factor. The statin drugs are working on thinning the blood. They thin the blood. They’re anti-inflammatory drugs. They have so many other actions.

That’s why I believe in a middle-aged male this is where we should use them. We really shouldn’t use them in elderly people. We shouldn’t use them in young people and even women. I have been very disappointed as a clinical cardiologist in the efficacy of statins in women, even with advanced coronary disease. I have used them in women in advanced coronary disease when I have no place to go especially in women with very small vessels, narrowing of vessels where they need an anti-inflammatory and a blood thinning effect of a statin.
DM: Let’s just restrict our conversation to statins and the cholesterol because that’s what they’re typically promoted for. Even though they have the other benefits that you described and maybe that’s some of the reasons that other clinicians are using them but for the most part it’s administered to lower cholesterol.

You had mentioned a number of these sophisticated tests which more accurately defined one person’s risk. I’m wondering if you could comment on some of the simpler ways that one can differentiate cholesterol and find out if it’s an issue for you specifically. Because when I was seeing patients I would typically look at the ratios of the good, the bad, and the total cholesterol, so the HDL ratios. And then also the triglyceride to HDL ratio as a far more sensitive indicator if a person was at serious risk or had other risk factors. And if this might be a useful tool to use to sort of narrow the scope of those who really may benefit from it.

DS: You’re absolutely right. Certainly the triglyceride ratio is really important. I would be much more concerned about people with high triglycerides because that’s sort of a tip off for metabolic syndrome. If you do fractionate cholesterol – by the way, every clinician should fractionate it now because the test is so good. For example, for triglycerides, if you have a lot of what we call VLDL3 (very low density lipoprotein 3), this is a very highly inflammatory form of triglyceride. You would certainly be much more aggressive.

Now if you fractionate the LDL and you have fluffy LDL, a large buoyant particle LDL, it’s not oxidized, it’s not inflammatory. I mean who cares. I really don’t care about high numbers if they have a non-oxidized fluffy LDL cholesterol.

On the other hand if they have a lot of small particle LDL and a lot of particles, this is where the lipoprotein profile measures the number of particles, then these particles are more inflammatory. The more particles you have and the smaller the particles, well then they could get inside the endothelial membrane of the blood vessel and then cause more inflammation. In these patients, I would be aggressive in using statins for their anti-inflammatory nature but only if they had coronary calcification or coronary disease or metabolic syndrome.

I still wouldn’t be treating small particle LDL in the absence of any documented coronary disease. I would niacin for example. Niacin can change small particle LDL and make it fluffy. Certainly, the tocotrienols. I had good luck with delta tocotrienol. That would help. Even nattokinase, I have seen not only thinning the blood but again, I would see LDL becoming more buoyant.

I would reserve statin drugs for, again, documented cases of coronary artery disease and again particularly males and middle aged males. If I did have cholesterol problems or inflammatory cholesterol subtypes, I would try to treat the patient with weight loss and exercise and nutraceutical support first before I would consider a statin drug. That’s basically what I do.
DM: I’m wondering if we could hear your approach with respect to diet because in my experience specifically triglycerides and more generically anyone who has elevated cholesterol tends to be in my experience related to the fact that they are having too many grains and sugars in their diet.

It’s not a mystery when fructose is the number one source of calories in the United States and then falling behind that are the grain carbohydrates. When one has these on a regular basis there is a tendency to contribute to insulin resistance which of course will cause the liver to produce more cholesterol and the wrong types of cholesterol and raise triglycerides and increase conditions like metabolic syndrome.

I’m wondering what your experience has been in having people integrate these types of approaches and successfully optimizing these ratios and these other cholesterol profile patterns.

DS: You’re absolutely right. When I wrote this book Sugar Shock with Connie Bennett, I really brought to light that sugar is your enemy. It’s your foe and your enemy. Fat is not your enemy. The problem with saturated fat got a bad rap particularly in the Eisenhower years and the McGovern years. That’s when the corn oil margarine came out and when that came out a couple of decades ago, we saw an alarming increase in coronary disease because they were trans-fats. Coronary disease was really accelerating at a large rate.

We all agree that trans-fats are horrific. However, saturated fat is very resistant to oxidation. Eggs got a bad rap because if you ate eggs they were like pure saturated fat and maybe we turn it into cholesterol. The doctors always felt that cholesterol was the cause of heart disease because of Ancel Keys in what he did in the seven countries study. Again, it made sense but the cholesterol was only a hypothesis. It wasn’t a fact in causing coronary disease but sugar is. There is no doubt about it.

All of the high fructose corn syrup, sodas that we’re drinking today. All the sugars we’re using in the diet. All the cakes, pastries, candies, white flours, etc. You mentioned the grains. When you’re using an abundance of these foods, you are going to get an insulin response and you’re going to overshoot. If you look at the most horrific inflammatory hormone it’s insulin. It causes inflammation of the basement membrane of the vessels. It’s that one lining of the basement membrane which is the endothelial cell membrane. Insulin is the most endothelial unfriendly component around.

If you don’t want to get inflammation of your coronaries or any blood vessels for that matter, we need to restrict sugar in the diet. What I would always tell my newsletter subscribers is never use white sugar, don’t drink sodas, be cautious with ice cream, sherbets, in other words, sweets. Don’t make them as part of your daily diet.

Even when you and I had dinner together in Chicago, nobody at the table had dessert. I always tell friends and family that they did go out to dinner with me that we don’t order desserts unless it’s a nice healthy dessert. I think the American people in general, were
eating far too much sugar in our diet and it is inflammatory and it does lead to coronary disease and metabolic syndrome.

Again, sugar is the enemy. Fat is your friend in a way especially the monounsaturated fats and the omega-3 fats. They are very friendly to our body. Remember, we don’t get an insulin response from monounsaturated fat. That’s why olive oil and walnuts and Macadamia nuts are so good for you because you’re not going to get an insulin response. When you don’t get an insulin response basically you’re protecting your coronaries well as you can. We’re on the same page about sugar Joe, I can assure you about that.

DM: I thought we were. Getting down to the specifics of what one can eat in a diet, if one understands and believes this and is seeking to integrate that into their dietary approaches and selections then that limits the carbohydrates and really the more common recommendation is to eat a lot more grains in their diet than would seem to be reasonable to leading to a healthy approach.

There are only three primary macronutrients which is grains, fats, and proteins. If you cut down the grains, you have to increase something else. For the most part, we don’t want to massively increase our protein intake because that could lead to problems if you have kidney disease. So that means you only have to increase your fat.

I have a specific kidney problem too that even requires me to restrict my protein even more to the point where I’m only eating about 70% of the my diet as fat but it’s healthy fat. It’s things like butter, egg yolks and avocados and nuts and seeds.

DS: Coconut.

DM: Absolutely coconut. Four tablespoons of coconut oil a day. What I noticed since I’ve been doing this is that – just as sort of a comment and response to the dessert mentioned is that really the desire for desserts kind of disappears when you’re filled with healthy nutrition. Do you enjoy it? Sure. Could you have it? Fine. But it’s not like you have to exert tremendous amounts of discipline to choose not to eat it.

I think that’s an important point to bring to bring up as people seek to apply these principles that once you’re getting the nutrients you need, there is not going to be this enormous sense of cravings and feeling deprived that you’re really missing something.

DS: Correct. One thing about fats is when you eat healthy fats, a lot of people feel satisfied. That’s why avocado I think is one of the best foods you can eat. If you look at avocado, you got some monounsaturated fat. Like I said before, you’re not going to get an insulin response. It’s got glutathione in it, vitamin E in it.

Also, there is data, I wrote about it in my newsletter that when you eat avocado, it also allows for greater absorption of other carotenoids especially lycopene and lutein and
even beta carotene. There is something about avocado that really works synergistically
with the body. I included it in one of my top 12 healing foods. I love avocados.

**DM:** I have a whole avocado every morning with four egg yolks. There is a synergy there of course with the nutrient absorption that you referred to. One of the other benefits of an avocado that may not be obvious and that you didn’t mention is that it’s very high in potassium. There is a large number of research data that suggest that the potassium to sodium ratio may have a very powerful influence on our health. That of course just is easily done by having lots of vegetables.

**DS:** Right. In fact, I saw that article on the potassium-sodium ratio. (indiscernible 25:40) showed this about 20 years ago that a Harvard alumni who ate 3000 to 4000 milligrams of potassium a day had far lower stroke than their counterparts that only had 2000 to 3000 milligrams a day. If you can get 4 gm of potassium in your diet a day provided you don’t have renal problems or renal insufficiency, you’re going to do yourself a world of good.

That recent article that just came out, I’m talking about it in my next issue of my newsletter. Potassium is a winner that’s why coconut water is going to be king these days because coconut water or coconut juice is just loaded with potassium and it has very low sodium. It’s a great beverage to take.

**DM:** Yeah. It’s the healthiest alternative to Gatorade that we know but it still has significant sugar in there. I guess it’s a better alternative to soda but it really should, in my view, should only be used for someone who is really engaging in a sport or activity or they’re having dehydration where they have to have that fluid replacement and electrolytes because it is phenomenal. There is nothing that beats it actually. It really is the king of the electrolyte replacement fluids.

This is great. Now that we have established a dietary approach, I think the next step is to have your experience with respect to those individuals who for whatever reason, for the reasons you mentioned or their specific position or their own research suggest to them that they’re going to benefit from taking a statin. So they’re on a statin. This is a large number of people. It’s 25% of the people over 45 in the U.S. It’s millions and millions of people who are on these drugs. Can you describe the cautions or the precautions that should be implemented for someone who decides to go on these therapies and the reasons why.

**DS:** I have been really privy to the side effects of statins for years. The reason being is, I first started using Coenzyme Q10 back in 1982. I’ve been using CoQ10 for almost 30 – actually, 1981 so it’s been 30 years. When the statins came out in the early 1990s, there was an article by (indiscernible 27:59). I think it was in 1993 talking about the skeletal side effects of statins with muscle pain, myalgia, weakness, difficulty from getting up from a chair etc.
They reported that since statins block several biochemical pathways in the production of cholesterol, in other words, statins are great cholesterol killers but in the same process they knock out other biochemical pathways. One of the pathways is squalene which I think is really essential in preventing breast cancer in women.

The other major pathway is a CoQ10 pathway. Anybody taking a statin drug, we have to be concerned about immune system dysfunction as a possibility because of the squalene reduction. But more importantly, we have to be concerned about the CoQ10 reduction because CoQ10 is one of the most important nutraceutical or natural endogenous like a vitamin-like enzyme that's produced in the body that supports the immune system. If CoQ10 levels go down, we could get immune system dysfunction and basically we could get also inflammation.

One of the major problems with the statin drugs is that CoQ10 levels will diminish. So in anybody taking a statin drug, they must, and I have to really emphasize this, they must take Coenzyme Q10 as a supplement. You won't be able to get it back in your diet. Even if you took in 5 lbs of wild salmon a day, you're not going to get near enough the amount of CoQ10 to protect your immune system and your vascular system.

So anybody on a statin drug I recommend at least 100 to 200 milligrams preferably 200 mg of a high quality ubiquinone or CoQ10 or any ubiquinol. It doesn’t make a difference to me. I like ubiquinone. I’ve been using a very bioavailable water-soluble ubiquinone for years.

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**DM:** Ubiquinone is CoQ10.

**DS:** They’re both CoQ10 for the record and they’re both very good. I just feel that if you protect the person while they’re on the statin by keeping their CoQ10 levels up, then you can prevent heart failure in these patients. Remember statins are a cause of diastolic dysfunction. Diastolic dysfunction is a problem that precedes heart failure or systolic dysfunction by 10 or 20 years. It’s definitely been shown with patients taking statin drugs that they are prone to diastolic dysfunction and patients on statin drugs can get it.

In addition to muscle cramps and neuropathy, and liver problems and mind-body problems, cognition problems, statins have a lot of baggage. Like I said, they’ll do a lot of good for the male with coronary disease but in any person taking a statin you must give CoQ10 to prevent a lot of these musculoskeletal side effects and fatigue for that matter. A lot of these patients won’t have the fatigue to take in a statin drug.

**DM:** Let’s just discuss one of the points you made with respect to being in a diet. Actually, we'll discuss that later. Do you feel that generally, people who are put on statin drugs outside of the risk factors that you mentioned which is probably the majority of people. Maybe give an estimate of how many people you believe are put on them
inappropriately. But whatever this percentage is do you think that actually the statin drug is causing more harm than good and actually increasing the risk for heart disease and other complications rather than decreasing it?

**DS:** What you said is very true. Statins are really good drugs for, like I said, the middle aged male with coronary disease or coronary calcification particularly those with low HDL. The problem with statins is they’re actually prescribed for so many other people. The side effects of statins are grossly underreported. I just feel that the over utilization in statins will cause their own plethora of side effects.

Remember the Baycol disaster that occurred in 2001-2002. Baycol was a very potent statin that killed a lot of people because they had such lysis of their muscles where they were putting hemoglobin into their kidneys and causing kidney failure. We called it rhabdomyolysis where the muscles were just so inflamed they were bursting. A lot of people died and the FDA recalled it.

A lot of other statins do this as well; however, patients don’t report it to their doctors. They have difficulty getting out of a chair. They feel weakness. They have muscle cramps following doubles tennis. They walk the dog and they get tired legs. They don’t tell their doctors about this but these are statin side effects.

Even in my last workshop in the (indiscernible 33:32) I had a patient, a gentleman there who was getting nocturnal muscle cramps at night and getting skin rashes. He was on Crestor. To me that's just a tip off that he’s having side effects from the statins but yet he didn’t think to tell his doctor because he thought he was just getting older.

We have to be really mindful that statins again, they can do good for a small part of the population but unfortunately, they are over prescribed because a lot of doctors are treating numbers instead of treating patients. We got to realize that whenever we prescribe a statin, we have to individualize it for every patient that we write the script for because if we’re using statins to treat high cholesterol, I just believe it’s not smart medicine at all.

**DM:** You also mentioned, as I alluded to earlier the fact that CoQ10 is available in the diet although in relatively small quantities. But it is really impractical to use it as a source of CoQ10 because ultimately we’re designed to produce our own. That’s why taking statins is such a problem because it’s just on the metabolic pathway that’s designed to produce CoQ10. So essentially, you shut off the supply and you’re not going to get enough from your diet so you need to supplement.

I’m wondering for the general population, for the three out of four Americans over 45 who are not taking statin drugs, do you think there is any indication or value to taking this on a regular basis for other reasons? Because in my understanding is that as we tend to grow older that our body’s ability to produce this is somewhat diminished and CoQ10 is such an important nutrient in our body as an antioxidant and other functions
that there may be benefit to considering using it as a supplement to improve our health and longevity.

**DS:** I've been using CoQ10 for 30 years now. For me, it is the most important antioxidant membrane stabilizer around.

**DM:** That's a powerful statement. Why don't you expand on that. That's a really powerful statement.

**DS:** To me, it's king and I'll tell you why. Today, everybody is suffering from mitochondrial toxicity. What does that mean? Let's look at the Gulf War syndrome for example. Beatrice Golomb just did a study on this at the University of San Diego and she just brought to light...

**DM:** She is just a great wonderful lady. I have had a chance to interview her previously. She's just an outstanding physician.

**DS:** Yeah. I'm going to interview her for my newsletter. She believes like I do that statin drugs are mitochondrial toxins. And again, when we use a statin drug we have to again, use it for the right person. However, a lot of wrong people or not the right people are placed on statins.

Let's look at the Gulf War syndrome because it's really important. We have maybe 100,000 veterans who have Gulf War syndrome. Why do they get it? First of all, what is it? It's a situation where a lot of these veterans had musculoskeletal pain and joint pain. They had cognition problems, depression, hostility a little bit. They had insomnia. They had respiratory difficulties, shortness of breath and they had GI problems.

What caused it? There are a lot of theories. There are theories about burning oil pits and uranium and maybe vaccines from anthrax and emotional stress and radar and toxic EMF in those days in the service, high powered communications. All these things culminated in a perfect storm where everything I had mentioned is really a mitochondrial toxin even nerve gas elements. They were given the vaccinations, being in the heat. There were so many factors that will cause mitochondrial toxicity.

What Dr. Golomb did is she used a mitochondrial support. I have always called CoQ10 like a mitochondrial fertilizer because remember, mitochondrial DNA unlike nuclear DNA has no defense mechanisms built in. If we give a lot of mitochondrial toxins or we're around let's say insecticides, pesticides, mercury or other heavy metals, radiation, EMF, etc then our mitochondria become very vulnerable. As Bruce Ames would say, they would drop out and then they would die and then we could get tissue impairment and eventually pathology.

**DM:** You and I both went to med school and many of the listeners have biological training then they know of mitochondria but for those of our listeners who don't maybe
you can expand on what the mitochondria are and their purpose and function because that really helps deepen their appreciation for what you’re saying.

**DS:** The mitochondria are little organelles the cytoplasm of the cell. If our listeners remember from high school biology, there is a nucleus in the cell and there is like these little organelles called mitochondria and inside the mitochondria is where our energy is formed. We call it adenosine triphosphate or ATP. This is where the energy in our body is formed. This gives you and I the energy to talk right now.

In World War II the German war criminals knew that a very quick death was to take cyanide because cyanide would poison the metabolic cycles in our body. We call it the Krebs cycle and we only have enough ATP for 10 seconds. If you knock out your metabolic pathway with let’s say cyanide, you only have 10 seconds of ATP left and then you just seize and you die. Clearly, energy is a major problem for a lot of people in our society. A lot of people lose the bounce in their step. They don’t have the energy that they would like.

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They just feel tired all the time. Even after a round of golf, I would have my patients tell me that, “Dr. Sinatra, I just don’t have it anymore.” What’s happened in our society in the last 20, 30, 40 years, is that the environment is so toxic. It’s just like these Gulf War veterans.

What I was getting to is that we all have Gulf War syndrome that’s why we all have to take CoQ10 because what Dr. Golomb showed is that in every single veteran, every veteran with headache or insomnia or GI problems or shortness of breath, whatever the symptom was if she put that veteran on high dose of CoQ10 or low dose CoQ10 versus placebo, they improved in every symptom. The average of that happening by chance is like one in a million. What she showed was that if you give CoQ10 to a Gulf War veteran they thrive. They improve.

There is very little difference between a Gulf War veteran and even people in our society today because we’re all under emotional stress. We’re all breathing in radiation. We’re all being exposed to electromagnetic forces of toxic EMF. We’re eating trans-fats. We’re exposed to mercury. We’re exposed to insecticides and pesticides. On a lesser degree, as compared to a Gulf War veteran but basically we all need to take CoQ10.

What Beatrice Golomb also showed us is that the same symptoms that these Gulf War veterans had are very similar symptoms that people with statin intolerance have. On my website HeartMDInstitute.com, I did a whole thing on one of the side effects of statins. The whole profile is similar to the Gulf War syndrome. So when people are taking statin therapy, I said it’s like being at war with yourself, where your own immune system turns on you.
I just feel that in this day and age in the year 2011 and when we go into the uncertainty of 2012, I’m going to come out with a strong statement. I believe everybody should take CoQ10. I just feel that it’s such a powerful and unique and extraordinary nutraceutical. You need it to turn over your mitochondrial enzymes – we just knew this – for mitochondrial support.

By alone, CoQ10 is great but when we give CoQ10 in combination with the carnitine and magnesium and ribose, then you get the perfect combination for mitochondrial support. That’s why people on metabolic cardiology approach they absolutely thrive. I just feel it’s a great combination for people. But for starters let’s start with CoQ10 because that’s the leader of the pack in general at this time.

DM: Thanks for that great explanation. You’ve been on it for 30 years. That’s a powerful testimony of your belief in it. Now with respect to dosing, it’s my understanding that ideally you don’t take all your dose at one like some of our nutrients like astaxanthin or vitamin D or other fat soluble nutrients. We could take them once a week and we would be fine but with the water soluble ones like CoQ10 they have to taken more frequently. And then could you address the dosing and could you also address any potential dangers or side effects that one might have from them if they’re taking too much.

DS: Let me address the side effects because it’s so simple. In the Huntington’s chorea study and the Parkinson studies, people were getting over a gram of CoQ10 a day. Actually two grams in the Huntington’s chorea study. The side effect profile was just about nil. I have used very high doses of CoQ10. I have used gram doses in patients awaiting heart transplantation who needed higher doses of CoQ10 especially those patients who are on statins at the same time. I saw a very few side effects.

The one side effect that I want to caution people about is that if the heart is very starved for CoQ10, in other words, if the serum level is very low, then you want to start giving the patient very low levels like 10 mg once a day or even twice a day and just go very slowly.

In fact, in a rabbi I was treating, I wrote about him in one of my books on Lower Your Blood Pressure in Eight Weeks. I could not treat this 90 lb male with a supplement because he had too much of a caffeine effect. He was little man about 5 feet tall, 90 lbs. I had to literally treat him with just wild salmon to build up a tolerance to CoQ10. Eventually, he was able to take supplement pills of CoQ10 but even on 10 mg, he would get like a “caffeine effect” on his heart.

But I can tell you using CoQ10 on thousands of patients, I have heard that comment I would say a couple of dozen times. Very rarely you’ll see somebody with some diarrhea or GI complaints. Maybe in 1 in maybe 500 patients you might see a slight rise in liver enzymes. I have used CoQ10 with Coumadin in lots of my patients. Remember CoQ10 structurally, metabolically looks a lot like vitamin K2.
I suspect in somebody’s body if they’re on Coumadin or warfarin the body may turn around and look at CoQ10 as an antagonist but I haven’t seen it. Although three cases were reported in The Lancet back 15 years ago but again, I had not seen a contraindication with warfarin and CoQ10. I know doctors make a big deal out of it but again, it’s something that I haven’t seen personally.

Would I be a little cautious with CoQ10 and warfarin? Just draw your INRs. If the INR is stable certainly the CoQ10 is not contributing to any blood thinning or blood clotting or what have you. CoQ10 like carnitine is a very safe nutrient to take. The reason being is our body makes it. If our body makes it like carnitine it’s very safe to take. The side effect so far is basically nil.

Dosage really depends on how sick you are. I find that the sicker the patient usually the higher the dose of CoQ10 I have to go to. I don’t (indiscernible 46:53) a healthy patient who just wants to take CoQ10 to support energy perhaps delay aging and it’s got a nice antioxidant effect or a bioenergetic effect. A good quality CoQ10 50 to 100 mg a day is fine. If they are elderly over the age of 70, I would double the dose. I would go to 100 to 200 mg a day because usually after the age of 40, CoQ10 levels significantly drop and precipitously drop in 70-year-old women and 80-year-old men. That’s when the age really makes a drastic difference.

Again, that’s why fatigue is a big component of people in their 70s and 80s. The sicker the patient, if I’m treating somebody waiting for a heart transplant 300-600 mg or more of CoQ10 in divided doses. If I’m treating hypertension a couple of hundred milligrams. Arrhythmia a couple of hundred milligrams. World class athletes who need extra ATP turnover, I’ll treat them almost like a heart transplant person. I’ll give them several hundred milligrams of CoQ10. But the typical athlete, I only give 100 to 300 milligrams a day.

Mitral valve prolapse are very common. I find that a combination of 400 mg magnesium and usually 100 to 200 milligrams of CoQ10 will do the trick in alleviating a lot of the symptoms of mitral valve prolapse which is really due to diastolic dysfunction of the heart which is really a very, very common entity especially in 2011.

DM: One of the questions I had too is regarding to the timing of the dose. Because it’s water soluble, do you find it beneficial to split it up to two or three times a day or just take it all at once?

DS: Absolutely. In fact, in my Metabolic Cardiology book I have a whole timeline on CoQ10. In it at the international conference on CoQ10, it was only a few years ago, we realized that multiple dosing of CoQ10 you get higher blood levels. The same thing is true with the carnitines. Anybody I use CoQ10 on I always tell them b.i.d or twice a day dosage is really good so morning and late afternoon.
With CoQ10 I usually like to take it with food. If they’re taking CoQ10 alone I usually tell them to take it with food whether it’s ubiquinol or ubiquinone because I do believe absorption is better.

**DM:** Do you think fat helps the absorption?

**DS:** Yeah definitely. But again, the newer CoQ10 today have such good delivery systems that you can even take it with water on an empty stomach and it will almost be as good but I still prefer it with food.

**DM:** It sounds great. One of the reasons you alluded to that someone might consider was for the anti-aging benefits.

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That was actually one of the reasons why I committed – it’s one of the six supplements I take or so a day because of the research I encountered on animals that showed quite impressive prolongations of lifespan. I’m wondering if you could comment on your experience with that since you’ve studied the literature quite a bit on CoQ10.

**DS:** Actually it was back in 1994 at the HRM meeting. Can you believe it Joe? We’ve been going to that meeting for a long time but it was at either the first or the second meeting, one of the presenters from California, his name escapes me right now, but he showed rats. The average lifespan of a rat is two years. What he showed was that rats who were given CoQ10, at the end of their life time, they had more energy, better coats, and better appetites.

As opposed to the rats not getting CoQ10. They had very diminished energy. They weren’t jumping out of cages. They weren’t rearing and their hair was falling out. There was sort of an "antiaging" effect. Although the rats did not live longer than the control counterparts it was not significant but they lived a little bit longer.

I did my own research in the animal model and the mouse model in CoQ10 and I found that CoQ10 given to both older and younger mice had more energy. I found that in the older mice they were traveling through a maze very quickly. They were sharper. They had a better memory and they also had more rears. That means getting up on their hind legs. I reported that in the medical literature because they had more locomotor activity.

There have been other studies to show that CoQ10 may extend lifespan not so significantly but what it does is the quality of the life. In other words, the quality of the animal and particularly the measurements of activity, speed of cognition, hair, connective tissue, all these elements there was a marked improvement from CoQ10.

If you look at even, you know, what do we use CoQ10 for? Even in the American Journal of Cardiology study, the AJC, the bible of the land back in November 2008
showed that in patients with heart failure if they had higher blood levels of CoQ10 they lived longer. That was a human study. And then if you look at macular degeneration which is really – it can start as young as the 50s but it usually is found in the older populations; 60s, 70s and 80s but if you use a combination of omega-3, CoQ10 and a little carnitine, that’s a great antidote and a wonderful healer for macular degeneration. So clearly, CoQ10 has something to do with aging.

I believe it protects the mitochondrial membrane. I believe the sinequanone of the aging process is a disruption of membranes and CoQ10 being a membrane stabilizer is just a perfect remedy for what I would call “slowing the aging process.” I believe that CoQ10 absolutely supports the aging and delays aging at the same time. Supporting it I mean by giving people a better quality of life and delaying symptoms of the aging process.

DM: I couldn’t agree more because it’s really about the quality not necessarily the quantity although certainly most of us would like more quantity but not at the loss of the quality.

DS: Remember, heart failure is on the rise in our society. You didn’t happen to see that Archives of Internal Medicine article about diastolic dysfunction?

DM: No. I missed it.

DS: It was June 27th. I actually wrote a letter to the editor. They turned it down. I was shocked. Women get more diastolic dysfunction than men. What diastolic dysfunction is, you know, it takes more energy to fill a heart with blood than to empty the blood of the heart with blood. It takes actually more ATP to do that.

There was this article in the Archives of Internal Medicine that showed that this diastolic dysfunction when these researchers looked at echocardiograms over a period of years they showed that diastolic dysfunction was more common in women. I have taught about this for years in my newsletters but more common in women. It precedes systolic dysfunction or systolic heart failure by a decade or two. This is huge because again, when I talked about the Gulf War syndrome and mitochondrial toxicity and remember, the Gulf War veterans had more shortness of breath which I believe was due to diastolic dysfunction but you would have to do an echocardiogram to prove it.

The point I’m making here is that since we live in a society where mitochondrial toxins are prevalent everywhere including the use of pharmaceutical drugs – most pharmaceutical drugs are mitochondrial toxins – that we are vulnerable to diastolic dysfunction. That’s why shortness of breath is a major symptom of the day.

When this Archives of Internal Medicine came out only a month ago, it demonstrated that not only is diastolic dysfunction on the rise but basically it’s very dangerous because it precedes the heart failure. The editorial as well as the article stated that
doctors aren’t interested in it nor do they want to learn about it because there is no solution for it.

But Joe, you and I both know, the solution for diastolic dysfunction of the heart or shortness of breath is basically mitochondrial support. I would give the awesome foursome being CoQ10, carnitine, magnesium and ribose but the start CoQ10 for a mitochondrial support and preserving ATP production is really the best way to start.

We’re all aging quicker right now in this time, in this very toxic sort of very hostile environment. We’re aging quicker so we need sort of a magical silver bullet. I never believed in silver bullets before but this is one of them that I just felt like I feel like for the last 30 years it’s really served my patients well and served me as well as can be. I just feel a big debt to CoQ10. It’s literally my top nutraceutical in my entire history as a physician.

DM: I really greatly appreciate you sharing your wisdom in the three decades of experience you’ve had with this professionally and clinically and helping us better understand it from your experience. Ultimately though it is a supplement and I think the word supplement reminds us that this is in addition to, not in place of a good diet. So even though it is a magic nutraceutical because of the profound benefits it can have it doesn’t diminish the importance of adhering to healthy lifestyle choices that we talked about earlier such as the diet and the exercise and the emotional components.

I think it’s important to remind people here that there is a danger because we’re all sort of exposed to this perpetual conventional medical thinking that there is this drug solution for something. Yes, these supplements are far better, usually far less expensive and virtually without side effects for the most part than the drug alternative that so many people are given that it’s easy to have that same sort of line of thinking to just substitute this for that and not really pay attention to the more important lifestyle changes. Certainly, as an addition to that, it can be a very powerful strategy.

I just want to mention that and then, you know, we’re closing. We’re going to have you on again because you’re such a wealth of information and we’ll talk about some things such as electron deficiency syndrome and metabolic cardiology. I’m wondering if you could just comment on that and maybe give some closing words as to what counsel you might give to people who are struggling with either current cardiac issues or want to take an aggressive preventive approach.

DS: I think what I like to close on is that there is great hope for people with heart disease. I just feel that there is so much hope for these people. Remember from medical school, the survival of heart failure was worst than cancer. That’s what our professors told us, that the five year survival for heart failure was like 50%. It wasn’t good. In other words, having a heart failure diagnosis was worst than cancer.

But today in 2011, I mean I have treated people for heart failure for four decades and I treated patients with ejection fractions of 10%, 15%, 20% that are still alive today.
What’s happening? Why is that so? What I have learned over the last four decades of being a cardiologist is that when you give ATP support to the heart – it’s more of a metabolic cardiology approach with not only CoQ10 but ribose, carnitine and magnesium – when you give ATP support to the heart, remember ATP not only restores cardiac function, it’s bioenergetic effect, it enhances pulsation but it repairs cells.

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It’s one of the most important thing for repairing cells. I don’t know if you saw that article in Science. It was April 2009 where our own stem cells, our own intrinsic stem cells have a way of repairing the body. When I read this article in 2009, I had this incredible joy come into my heart because I realized that it wasn’t metabolic cardiology that was curing these people but what metabolic cardiology was doing.

When people take CoQ10 for years especially with ribose and the other nutrients that I mentioned, what they are doing is they are buying time for their own intrinsic stem cells to take over and really heal the body. I have learned in the last few months that our cells in our body are constantly turning over and our intrinsic stem cells are replacing a lot of the damage in our body.

When I saw people with literally dead hearts 20 years ago or 30 years ago, now with normal ejection fractions. I believe that cardiomyocyte renewal was responsible for that and I believe that when you give people ATP support it repairs and restores and rejuvenates these cells. It allows for the stem cells to take over. You said it before and the way you said it was we need healthy food. We need healthy water. We need lifestyle changes. That’s why it works.

You and I have been around enough in medicine to know that the body has a way of healing itself. The body’s innate intelligence will heal itself. Unfortunately, pharmaceutical drugs can screw it up lots of times. We’ll both use some pharmaceutical drugs in emergencies when we have to treat a child with asthma whatever works works. If we have to treat a patient with heart failure, we’re going to give him diuretics and morphine.

But basically if we allow the body to heal itself and support its natural innate wisdom especially with a good healthy diet and nutraceutical support in the form of supplements, oh my gosh, and positive intention. That’s the triad. We have to have positive intention, to get rid of our negative thinking. When we do that, good lifestyle, good healthy organic food, good healthy waters, good supplements, positive attitude, healing occurs.

I just want to tell listeners that if you have heart disease out there, please don’t become a victim of your illness but there is great hope for people with cardiovascular disease. I have seen it over the years for four decades. I just feel that there is so much we can offer these patients. I just hope when people listen to this show, if they are sick with heart disease, they’ll ask their doctor about other alternatives because they do work.
DM: For individuals who are impressed with your information and want more details about what you have to share because this is only really the tip of the iceberg literally of what you can help them with in cardiology. What books would you recommend or what website or resource would you advice?

DS: TheHeartMDInstitute.com website that’s a purely informational website where I have a lot of streaming video. I think you and I were doing video at the same time. It’s really amazing. That has a lot of good video and a lot of good instruction. Then there is www.DrSinatra.com. Grounded.com has a lot of my books.

I think a discussion about the earthing energy would be wonderful in the future. We’ve done a lot of science with that. I just had a paper come out this month in fact on heart rate variability and grounding. There is a lot out there for people to really see. It’s just having the belief and having the openness to consider that. There is an incredible world out there in healing. That’s why you and I go to conferences all the time.

The worst thing about being a doctor is it takes 60 or 70 or 80 years to learn it and then you die. That’s why. How many conferences have you and I seen each other at, you know, trying to learn and trying to really wrap our arms around illness. I become very humble in my days but very enthusiastic at the same time because over the years I’m seeing what works and what doesn’t work. Again, I have such great hope for illness in the future.

DM: That’s an interesting point to close on to. It really is one of the great tragedies of life that we acquire all these knowledge and then we die. All these incredible wisdom just gets lost. There is a number of clinicians and individuals and researchers who are really involved in anti-aging research and seeking to treat aging as a disease and really radically extend the lifespan. We’re not talking about months or years, we’re talking about decades or even hundreds of years. That’s an intriguing concept. I don’t know that we’ll ever live to see that but I’m fairly convinced that there are some compelling information that says that in some point in the future, they’ll be able to do that and then we won’t have this challenge of losing all these wisdom.

DS: Right. Again, I think if we don’t rely on the pharmaceutical dark age, that’s the problem. Once we rely on pharmaceutical drugs we’re disempowering our patients. What we need to do is empower our patients to help heal themselves. Again, it’s nature’s simple healers that does it. It’s really basically the simple things. Again, positive intention is another one. If we need pharmaceutical drugs, at least we have that option. But to rely solely on them I think you and I are both on the same page that this is one area where we need to use less of and use more of lifestyle characteristics and proper lifestyle changes that can really help heal the body.

DM: Thank you for sharing your information with us today and for all the work you’ve done over these decades to really advance the state of information and knowledge and
understanding that we have to help people provide these natural solutions so they don’t have to rely on these toxic drugs and to sustain themselves and really address these potential problems. Thanks again and I’m sure we’ll have you back soon.

**DS:** Alright Joe. Thanks a lot. God bless. Have a great day.

**DM:** Thanks. Alright bye.

**DS:** Bye.