CHRIS WOOD: I'm Chris Wood, senior healthcare analyst here at Health and Wealth Research and chief investment officer at disruption research firm RiskHedge.

Here with me is my colleague and coeditor, Dr. Mike Roizen, who works with me on the monthly newsletter, Healthy Returns. He also contributes articles to our free weekly letter, A Rich Life. Dr. Mike is a major celebrity here in the US and worldwide. He is the chief wellness officer at the famous Cleveland Clinic, one of the most prestigious academic medical centers in the country. If you’re looking for cutting-edge medical science and technology, the Cleveland Clinic would be it. It’s no wonder that the rich and famous are getting examined and treated there, from Fortune 100 corporate executives to movie stars and TV personalities. John Mauldin, chairman of Mauldin Economics, is one of Dr. Mike’s patients. So is America’s favorite talk show host Oprah Winfrey. Dr. Mike is also the chief medical consultant for the TV hit show, The Dr. Oz Show. He has written over 20 books, including the bestselling Real Age series, and most recently, the books Age Proof and his latest work, What to Eat When. Nine of his books have gone on to become bestsellers.

Aside from books, Dr. Mike has authored over 200 peer-reviewed scientific articles and served on FDA advisory committees for 16 years.

Dr. Mike, you’re a certified internist and anesthesiologist but your real passion is wellness. How did you get from there to here?

DR. MIKE ROIZEN: Well, Chris, what happened is I was at the University of California, San Francisco, and double-boarded in both anesthesia and internal medicine as you said, and asked to run cardiovascular anesthesia and a stepdown unit in preoperative care, and when we looked at what mattered to outcome, it was the age of the patients more than anything else. So if you were undergoing aortic reconstruction, and you were 65, you had threefold the increased risk of complications and death as someone who was 55, and if you were 75 you had
ninefold. So I thought, why don’t we try and figure out how to make people younger in the two weeks surrounding their operative period. That was one of the secrets of how we got mortality and morbidity so much lower at that institution and subsequently at the University of Chicago and now at the Cleveland Clinic.

CW: So correct me if I’m wrong, but your first bestseller was the book, *Real Age*. Can you explain the concept of real, meaningful biological age versus chronological age?

MR: Sure. So that goes with how I got into wellness. So everyone had a chronological age, let’s say 65, but if you were smoking, for example, and you smoked a pack a day, your real age would be older. So, actually I worked with a guy named Charles Becker whom many people know because he actually won the Nobel Prize for Net Present Value of Investments, and he helped do, he was at the University of Chicago, and he helped me design the Net Present Value of Health Changes. So all your real age is is the net present value of your lifestyle and other choices. So for example, if you take what we’ll talk about later, a healthy diet, you can be 27 years younger than someone who eats the worst diet in America at age 55. So at 55, you could be 67 from eating a really bad diet in terms of mortality and morbidity, or you could be 42 or 41 by eating a really good diet.

That’s the net present value, but the same thing goes for supplements. So by taking a multivitamin, for example, half of one in the morning and half of one in the evening, you get to make yourself about two-and-a-half years younger. It’s a pretty powerful way of putting the net present value of your health choices. So you get to make yourself greatly younger or older, and we termed it “real age” as opposed to your calendar age because your real age is the actual risk you have in your body. It’s a free website at realage.com, if you will, and anyone can do it. Sixty-nine million people have gone there and done their real age, and I believe it’s about one million a month go there, a hundred thousand new people every month.

CW: Eating the right things to stay healthy sounds like a really simple thing, but it’s really not, because nobody knows what the right things are. For example, in 1992, the USDA Food Pyramid looked quite different from today. The biggest part of that pyramid, that means the stuff you were supposed to eat the most of, was
grains in the form of bread, rice, pasta, and cereal. Today that would cause an outcry in the health community. And then we’ve seen a lot of fad diets over the years too. On the one hand we have the high-fat and high-protein and low-carb diets like Atkins, Paleo, Ketogenic. On the other hand we have the forks over knives crowd, who say eat carbs and starch but no fat. Then there’s the health food crowd, who says you shouldn’t eat any animal products, and many so-called low-fat foods from the store are crammed full of sugar to compensate for the loss of flavor.

This is all so confusing. Are there some simple guidelines you can give us on how to eat healthy?

MR: Well, there are simple guidelines and our executive chef and the head of the Culinary Medicine program at the Cleveland Clinic and our Wellness Institute makes it really simple.

Chris, you should only eat foods as if you’re in a marriage relationship. That is, you want to eat foods that you love and that love you back. So if you love French fries and they kill you, you shouldn’t be eating them. On the other hand, if you love avocado and it loves you back, which it does, you should enjoy that.

So it’s pretty simple. There only are five foods or five food groups that really make your real age older, or that really do have a death wish for you, that is, aren’t good at relationships. Those are foods with transfat. Now, they’ve been banned in the US and Canada, so most of us can’t get it except they sneak in from time to time. So transfat is one of those. I’m not even going to talk about that in terms of examples, because it mainly is fried food and food fried in vegetable oils that are fried over and over that get transformed into transfat now. The second is foods with saturated fat, but it’s not because of the saturated fat. So if you look at the original book, Real Age, you’ll see we say in there you will want to avoid red meat, and egg yolks, and cheese, but we didn’t know why, and we said it wasn’t the cholesterol, because they don’t raise cholesterol anywhere near to the degree in which they make you older.
But what we found in 2009, and it was found at the Cleveland Clinic, so I can be proud of Stan Hazen and his group for finding it, but in fact it has now been replicated in nine other institutions, is that food with carnitine, that is red meat and, yes, pork is a red meat, and lecithin, and choline such as egg yolks and cheese, in specific configurations seems to, and does, change the bacteria inside you over a period of as short as one week. And the good news is if you get rid of those foods totally, within one week, your bacteria changes back to healthy bacteria inside you. But when you have, for example, two six ounce steaks in a week, the bacteria that love that steak predominate, and those bacteria produce as their waste product from the carnitine—so it doesn’t matter whether it’s grass fed or not—but they produce from the carnitine an inflammatory substance that is called butyl butane and trimethylamine. The trimethylamine goes to the liver and creates trimethylamine oxide, which ends up causing inflammation and is a more powerful inflammatory agent and cause of heart disease, stroke, and memory loss than is in fact the LDL cholesterol 260. So there isn’t a physician who wouldn’t treat that. You probably should avoid more than four ounces of red meat or an egg yolk or cheese a week.

The butyl butane slowly causes liver damage. Now, if you’re only going to live to 30, meaning where our ancestors did, it wouldn’t matter, because your kidneys have enough reserve. But if you’re going to live to 130, or 100, or 95 anyway, you don’t want kidney damage, so you want to avoid the red meat and the egg yolks for that reason. So one is transfat, two is foods with saturated fat because of the amino acids or proteins that come with them. The third, fourth, and fifth all do the same thing. They raise your blood sugar too fast. So it’s added sugar, added syrups, and simple carbohydrates. Because they raise your blood sugar, that causes two problems. So one, if you have too high a blood sugar, that turns into triglycerides, which goes to your visceral fat, or what we call your omental fat or the fat around your middle, and that causes inflammation in you.

But the second one is even worse than that. It causes a dysfunction of proteins. So when you have too high a blood sugar, that sugar attaches in a covalent fashion to your proteins. So hemoglobin A1c, which we measure in as a mark of type II diabetes, is just the hemoglobin with a sugar attached at the A1c position. And what that does is it causes that hemoglobin to not be able to release oxygen
normally, and that’s one of the reasons we think diabetics get ulcers on their legs and get kidney failure and get heart attacks, strokes, and memory loss.

Another one of the proteins it affects is the grout protein between cells binding your arteries. That weakens it so when normal blood pressure comes down, it can cause small tears. You patch those small tears over with LDL cholesterol, and that becomes atherosclerosis. So that’s the real reason we don’t want three, four, and five, simple sugars, added syrups, and simple carbohydrates because they raise your blood sugar too fast and too much.

So it’s pretty simple. Everything else is something you can love. If you love, for example, I love salmon. It’s good for me, it loves me back. That’s a food I can have a great relationship with. If I love hummus, or if I love, if you will, beets, those are fine. Those are great things to enjoy. I love, for example, apples, and, you know, a lot of fruit and vegetables I love as well as ocean trout and salmon. Those are all things and avocados and walnuts. Those are all things that love my body back. So what I like to do is focus on all the choices I have that are great for me.

But despite that, when we did the real age test on me, I was missing a whole mess of vitamins and minerals from my diet, even though I was eating what I thought was colorful fruits, vegetables, and food that was only good for me.

CW: Very interesting. Thank you.

Okay, now let’s cut to the chase. After all, today’s podcast is called *Dr. Mike’s Fab 9 Supplements to Age-Proof Yourself*. So you’re saying that 99% of all people are deficient in some of the most essential nutrients, and therefore should take a range of supplements to stay healthy. Is that correct?

MR: Well, it’s both we’re deficient in them and we’ve learned of some supplements that have very low risk and high reward to help you. So that’s part of the Fab 9. But let me go to the vitamins and mineral we’re deficient in first. So in an ideal world, I and you and all of our listeners would eat the right vitamins, minerals, and micro and macro nutrients to power our body. But when we looked at the first 26 million people who did the Real Age Program and we had the
nutritional idea of what each of them ate, well, 99.97% of them didn’t get what was recommended and in fact, only seven percent got more than 20% of the daily value of all vitamins and minerals. That’s huge, if you will, so we were 80% deficient, if you will, as a group. Not everyone eats as well as I do, but even I was deficient, and I tried to eat a variety, a rainbow of fruits and vegetables. But if you read that, if you think about that, only 7% of us get even 20% of everything that a conservative federal panel of authorities want us to get to prevent deficiency disease, not even optimal for health, and most of us, in the longevity promotion field believe that deficiency numbers are well short of what is optimal, that is, a disability-free as possible longevity.

So, what I would say is, there are a bunch of vitamins, minerals, and supplements that can help you live longer with less disability and live more optimally, and we have data from at least four studies in humans on nine of them. We have a bunch of others that we’ll talk about, I assume, in future podcasts, but there are nine we should talk about today that are what we call… it’s almost easy to say this is what every person over the age of 35 as a guy or over the age of 45 as a woman should probably take because the benefits greatly outweigh the risks.

CW: So supplement number one is something that you say between 67% and 93% of all people are deficient in. What is it and how will it affect us if we had optimal blood levels of this substance?

MW: So it’s vitamins D2, D3. We don’t even know whether D2 or D3 is the better one for us to take, so you can take either of them because they readily convert, but vitamin D really isn’t a nutrient. It’s a hormone and under the conditions of our great-, great-, great-grand forefathers, they didn’t need to get vitamin D from food, rather they made it from sunlight and that’s why dark skin arose. It was the original skin of our common ancestors and protected us against intense equatorial sun while allowing for adequate vitamin D production in your skin to foster healthy growth and development. In these eras, the levels of vitamin D in the body based on what we know about levels achieved by populations living outdoors with frequent sun exposure within the range of 50 to 110, and I’ll give you the units, it’s milligrams per deciliter, but I’m just going to talk about the absolute levels and I’ll talk about milligrams per deciliter.
So when our ancestors migrated out of Africa and away from the equator into fewer hours of less than 10 hours of sunlight, the dark skin really made enough vitamin D reliably very poorly, and a mutation favoring lighter skin that didn’t block the sunrays was advantageous. The more famously light skinned people, in fact, were from the far northern climates. Vitamin D, quite simply, is why that happened. They say something about the importance of the effect of vitamin D when it controls calcium absorption and skeletal development, but it also influences our energy metabolism, our native energy, and probably much more importantly includes our brain function, our peripheral nervous system function, and the way our immune system functions to get rid of cancer cells and, if you will, infections. We know, by the way, just as an aside, and I know, Chris, that I probably haven’t even said this to you in preparation for this at all, but the vitamin D controls, we think it controls what we call the proofreader gene that reads all the other genes in our cell and makes sure when our cells duplicate that they’re okay. If you don’t have the amount of vitamin D, that’s when you can, we believe, get cancer cells duplicating, because you haven’t proofread your genes when they get copied.

But in any case, if you live in a line between Los Angeles, Atlanta, or north, that is, you live in New York City or you live in Philadelphia or you live in Minneapolis or Chicago or anyplace north of Atlanta and Los Angeles, between 67 and 93% are currently in the winter, and actually the lowest levels are in April, vitamin D deficient with blood levels below 30. Remember I said we think 55 to 110 is ideal. Well, we’re below 30 and if you look at many populations, over 90% are deficient. And the reason is that even if you’re out in the sun all the time, the sun doesn’t have enough energy to convert inactive to active vitamin D. So say you’re a skier and you’re up in Denver, Colorado or you’re in Montana, or you're helicopter skiing even in Canada, you’re not getting vitamin D produced even if you’re out in the sun all day. One, you’re covered up probably, but two, even if you were uncovered the sun doesn’t have enough energy to help make vitamin D. We know from research that a blood level of 35 nanograms per milliliter protects us against cancer and the side effects of aging such as dementia. Higher levels are associated with reversal of diabetes and protecting us against erectile dysfunction. So from our groin and toes through our brain it is important. For those under age 50 one test
of our level will help determine the supplements we need, but after age 50 we Boomers start to malabsorb this, and our skin makes active forms of vitamin D less effectively. So I advise Boomers to get a blood test annually to find out what supplementation they need to get to 50 to 80. Until then, I tell people over the age of 50 to take 2000 international units a day. Toxicity, which is usually from calcium-based kidney stones, doesn’t seem to occur until the level is well over 100 milligrams per deciliter.

CW: Fascinating. Now, on to supplement number two. You say we should take a multivitamin, but you want people to split it in half and take half in the morning and half in the evening. Why is that and there are hundreds of brands and types of multivitamins out there. How do I pick the best one?

MR: Let me first go and say, so if you’ve got kids or grandkids in the age where they are able to have sex and also potentially be pregnant, whether male or female, they should be taking a multivitamin because it helps decrease congenital defects by 80%. If you take it three months prior to pregnancy it decreases pediatric cancers in kids up to age six by 65%, and it decreases autism and autism spectrum disorders by about 40%.

But now let me talk to the rest of us who are probably listening to this and over that age, especially if they are subscribers to many of the Mauldin publications. I guess our readership is generally over, out of the pregnancy/potentially pregnant age for many of us, although that may be changing as we get what Patrick Cox calls a reboot, but we’ll come back to that sometime in the future.

Let’s now talk about, we told you that we have an imperfect diet, about 99%, 99.7% of us do, and if you had read the headline in The New York Times, The Washington Post, the Los Angeles Times, or any of them, The Wall Street Journal, et cetera or even on any of the TV shows, Fox, et cetera, they said get rid of your multivitamins, they’re useless. And that was the 10-year data, and that was correct on cardiovascular disease and even on cancer, but the 20-year data show a huge benefit. Now before I go to the huge benefit, I’m going to talk about why half in the morning and why half in the evening, why I split mine already today and have
taken half in the morning and I’ll take half in the evening since we’re recording this in the middle of the day, if you will.

But the point is that you urinate out the water-soluble components, the ones that aren’t fat soluble, the Bs and Cs, et cetera, are the water soluble and you know that you urinate these out within 16 hours because you see the color change of your urine. It usually turns a brighter yellow. That’s because you’re getting rid of those water-soluble components. So to keep a stable level, you want to take, which is where we think it is most effective, you want to take half in the morning and half in the evening.

Now, why do I say it’s a benefit? Well, in the Health Professional’s study over 20 years, it decreased non-prostate cancers in men and women by about 18%. If you had a cancer, even if you were doing all the things that you were supposed to do on preventing recurrences, it prevented recurrent cancers by over 20% in the Health Professional’s study.

How about for cardiovascular disease? Well, this is really, truly amazing. In the 20-year data, it decreased cardiovascular disease and death from cardiovascular disease by over 25%. So anyone who says throw the multivitamin out, I think should be forced to read these studies and say why they disagree with them. These are randomized controlled trials. We keep getting more studies, so we may get more, but remember, at 10 years, there wasn’t a benefit. If you think you are only going to live 10 years longer, then maybe you shouldn’t take a multivitamin, but I think almost everyone who is listening to this call has a real chance, as Patrick Cox would say, of getting a reboot and living much longer.

Now, the next thing you asked was, which one should we take? Well, it turns out that three companies had to settle a price fixing suit on the raw materials of multivitamins and multiminerals. That is over 98%, I think it was 99.3%, of all multivitamin raw materials and multimineral raw materials were manufactured or produced by three companies. They are all European companies. Roche, BASF, and DSM, I believe, were the companies, so from a raw materials standpoint they are all roughly the same, so what you want to do is look at the ones that have roughly 100% of the daily value.
Now let me give you a caution. Somebody will say, well, someone told me to take Biotin for my hair. Should I take extra biotin? The answer is yes, the Biotin is great for the hair, but don’t take it with any of the other Bs because then you get too much and too high a supplement level is associated with increased breast cancers, and what’s found for the breast usually turns out to be true for the prostate, so you only want to take 100% of the daily value with the exception of probably B12, where you can take as much as you want. But other than that, you want to get about 100% of the daily value and not more than that.

CW: The next two supplements, number three and number four, are calcium and magnesium. I read that you need adequate magnesium levels so your body can absorb vitamin D and calcium perfectly, however you shouldn’t take calcium and magnesium pills together because they compete for absorption. Can you comment on this, please?

MW: Well, there’s a debate on this so maybe you should take one in the morning and one in the evening, but there are studies that show that when you take them together, they inhibit the absorption of each other, and there are studies showing that when you take them together they increase the absorption of each other, so we’re not clear on that, so the easy way is to say, okay, I’ll take one in the morning and one in the evening rather than the two together. And calcium protects your health in many ways, including building bone strength, helping nerve functioning, and reducing your risk of certain cancers.

Generally, folks get about half of the calcium they need a day, which is 1200 milligrams, so you want to take a 600 milligram supplement. You don’t want to take more than that, because more than that increases your risk of prostate cancer in a supplement form, and you don’t want that and, as I said, what’s normally found for prostate is also found for breast, although we haven’t determined that yet.

Magnesium, 300 milligrams a day, helps counteract the constipation that is associated with calcium, and the ratio of the two is important for both cancer prevention and for nerve functioning, so I think you should take both of them, and
magnesium is important for controlling blood pressure, blood sugar levels, as well as sleep. So I believe that both of them are beneficial and unless you’re taking a lot of high-magnesium foods, we don’t know of side effects of getting too much magnesium unless you’ve got kidney failure.

That brings up another point. I would go in with either this podcast or the writing of it or just telling your physician what you are taking and why and give him the link, so that your physician can understand why you’re doing this and get his or her blessing before you do it.

CW: Thanks for clearing that up. Next up is supplement number five, DHA omega-3. That means fish oil, right? Why do we need that?

MW: Fish oil is not fish oil is not fish oil. That is, what you want is DHA and in the MIDAS study, if, in a randomized fashion, if you got 900 milligrams a day on average, it decreased your memory score, that is it decreased the deficiency of your memory score, making your real age about six years younger. So it’s 900 milligrams about six years younger. I like a six-year-younger memory. But you can get that from two six-ounce portions of salmon, wild salmon, a week, or 18 ounces of ocean trout a week, but since even I, who love salmon, don’t invariably get that, I take a supplement with DHA a day, and I take about 600 milligrams a day although I often take 900 as well in a week where I’m not getting any salmon.

So the point is there are four or more different fish oils, such as EPA and DHA and AHA and even omega-7, which we’ll talk about later, is in some fish. Those are beneficial to a degree, we think, but the only one that’s been shown in randomized studies to be beneficial for brain function is DHA, so the one you want to get is you want to look on the label and get DHA, 900 milligrams a day, or if you’re eating a bunch of salmon and doing it regularly enough, you want to make sure you get whatever is needed to boost you to 900 milligrams a day.

CW: Now, for supplement number six, you are recommending something that some people may view as controversial. You are recommending that everyone should take two baby aspirin per day, one in the morning and one in the afternoon.
But aren’t there risks to taking aspirin over a long period of time? What are they, and do you still think that the benefits outweigh these risks?

MR: Yeah, I think the benefits greatly outweigh the risks but let me go over the data a little bit so as to help people make their own choice. So low-dose aspirin in the morning and in the evening, 81 milligrams, and why do we say in the morning and evening? Well, it’s because although the anti-clotting effect, and that’s one of the risks, you’ll bleed more, the anti-clotting effect of aspirin lasts about 36 hours from one baby, the anti-inflammatory and anti-cancer risk appears in about 34% of people to last only 16 hours. Since we don’t have good ways of testing which of the 34% of people, I just say oh, that’s because the side effects of two don’t appear greater, that is two a day, don’t appear greater than one.

So the point is one in the morning, one in the evening, take it with a half a glass of warm water before and after. Why? Because 70% of the side effects are GI bleeding, bleeding in your gastrointestinal tract from the aspirin landing on your stomach lining or intestinal lining. If you take enteric coated, it’s better for it to land in the water and dissolve in the water. That’s why you really don’t want enteric coated.

Now, it decreases 11 cancers by 20 to 60%, including the common ones like colon cancer and rectal cancer and esophageal cancer. It’s one of the best things to take if you’ve got gastroesophageal reflux disease because it decreases the chances of Barrett’s Esophagitis turning into cancer. So it’s a great choice there. It also decreases lung cancer and prostate cancer and a bunch of others.

The reason it’s been studied and is controversial is does it prevent first heart attacks. And in the randomized studies, in what we call “intention to treat” analysis, I know I’m going into the complex science here, but this is why you need to have a complex science because many of the science writers who write for lay publications don’t know enough to read the science perfectly, and you need it read perfectly, in the studies, they used “intention to treat” analysis. That means all the people assigned to one group were compared to all those assigned to the other, the aspirin takers compared with the people assigned to non-aspirin takers. But it turns
out that in the aspirin-taker group, only 60 to 80% in the three recent studies took
the aspirin reliably.

Conversely, in the group that wasn’t supposed to get aspirin, well, they said, well,
maybe aspirin is a good thing, and between 18 and 40% of the people in the non-
taker group took aspirin on their own. And if you compared rather than the
“intention to treat,” that is the groups as assigned, to the actual takers versus non-
takers, there was a 47%, that’s a huge number, almost 50%, 47% reduction in heart
attacks and strokes in the aspirin takers compared to the non-takers. So huge
cardiovascular benefit, huge cancer benefit. Why has the FDA not approved the
indication? Because the FDA is, their advisory groups are assigned by diseases, not
by the total body.

So in cardiovascular disease, because the “intention to treat” analysis didn’t show a
benefit as I told you, it was only the takers versus the non-takers, when it came up
for vote it was 18 to 1 against approval. There is a side effect which I’ll talk to you
about, that is increased bleeding. And so they didn’t. But then, The Wall Street
Journal interviewed all those people on the panel, 19 of them, and they found out
that 18 of the 19 actually took baby aspirin on their own. And you say, well, why
didn’t they vote for it? Because they were just judging “intention to treat” on heart
attack risk. They weren’t allowed to judge either stroke risk or cancer risk, because
that’s a separate panel that looks at GI cancers and a separate one that looks at
breast cancers, et cetera, so you don’t combine them. You don’t combine the
benefits even though you get one side effect and a lot of benefits. You don’t
combine it with data in those study groups. So that’s why it wasn’t found.

Now, I already went over some of the things you shouldn’t take aspirin for. If you
have a high risk of bleeding. Let’s just say that you do extreme sports. You like to
ski without a helmet on. Well, you shouldn’t take aspirin. Or you drive without a
seatbelt. Well, you shouldn’t take aspirin. So high-risk sports, people who are at
high risk of injury, you box, oh heck, you should never take aspirin even if you’re
a 90-year-old boxer, no matter how old you are, you shouldn’t take aspirin if
you’re boxing or at risk of extreme sport injury.
So I have a couple of crazy friends who are over the age of 70 and ski like crazy people in Colorado, but they don’t wear helmets because they’ve been “doing it a long time.” I’m sorry. They should not take aspirin and they are crazy, if you will.

So the point is, aspirin, half in the morning, half in the evening with a half a glass of warm water before and after. Check with your doctor and make sure you are at low risk and not have other drugs that you’re taking that interact with it as well.

CW: That’s very good to know. Thank you. So supplement number seven is omega-7s, which you talked about a little earlier. How are they different from omega-3s and where do you get them from? Do they also come from fish?

MW: So omega-7s come from macadamia nuts and fish. And the study started by looking at people who were high macadamia nut consumers in Japan and in the Hawaiian Islands, and it turns out that the non-saturated fat in macadamia nuts is largely omega-7 and was associated with a decrease in metabolic syndrome, that is diabetes and the kidney disease and increased LDL/decreased HDL and was associated in studies done at the Cleveland Clinic in mice models with Alzheimer's with the absence of atherosclerosis and prevention of Alzheimer’s disease. We have some studies in humans from Mass General, we have studies in lambs from the University of Clemson and other universities in the south and we have some studies with inflammatory markers at the Cleveland Clinic. We don’t know side effects of taking pure palmitoleic acid. That’s omega-7. Many of the omega-7s come from non-fish sources and I’m going to warn you about those. The macadamia nuts are fine but many of them come from other things, other plant sources, and are associated with palm oil as well as palmitoleic acid. The only difference between them is whether there is a saturated or unsaturated bond at the 7 position and it’s hard to separate them. The palm is unfortunately a carcinogen, so you shouldn’t have palm oil at all, and that’s why when you get the omega-7, you want to look for it as being 100% from a fish source so that you’re getting the correct omeg-7 without the side effect of the palm oil. So it’s a little hard to tell everyone to get omega-7 if they go to their drug store because most of the bottles at the drug store are from the plant source that has palm oil with it too that they haven’t separated well. And the only reason that I know this is because from the Freedom of Information Act, you can get from the FDA the percent of palm oil and
other oils, the percent of each oil in the supplements, and I’m crazy enough to have done that. So the point is, the one that is pure is palmitoleic acid, that’s what you want to look for and so that’s the omega-7 that you want, and that helps decrease inflammation and at least in animal models, decreases the production of Alzheimer’s disease by decreasing brain inflammation substantially.

CW: Supplement number 8 is probiotics. Is there something we need to keep in mind when buying probiotics? What types of good bacteria should be in there and in how many billions? It also seems not all probiotics are the same. I know someone who suffered from Irritable Bowel Syndrome, IBS, for years and finally got rid of it with soil-based probiotics whereas other probiotics didn’t do anything for them.

MW: Yeah, we don’t have outstanding enough data, but you want a lactobacillus GG and a bifidobacteria and you want a variety. Let me go over a little bit about that. What a probiotic is is it’s a bacteria that’s a beneficial bacteria for you to take and it has to get by your stomach acid, so lactobacillus GG was developed by two guys whose last name is GG. That’s how the name came about and they developed lactobacillus that has the special property of being acid resistant. The bifidobacteria I like is a spore form so actually the stomach acid breaks down the spore component of it to give you the active culture and you need, remember you’ve got 10 trillion bacteria inside your gut, so getting four hundred thousand or even four hundred million doesn’t do you much good. You need a lot. And so we say get four billion live culture but you don’t want live culture, you want spore form or the lactobacillus GG that resists your stomach acid. And the reason I’m going over this is many of the bacteria you get says four billion live cultures. You take it and you get less than four hundred thousand surviving your stomach acid because stomach acid kills the bacteria. That’s a protection we have.

Unfortunately, with probiotics now, we’re still in the infancy of studying the microbiome, which is the bacteria that are in and on you, and we know that a variety of bacteria inside you, that is having a microbiome with a variety, is associated with living longer and with fewer disabilities. We don’t know how to do that and how to modify that, and so taking a probiotic that has a mixture of lactobacillus GG and bifidobacteria is what I like to do, or at least taking a variety.
Now you can get a variety with kimchi or with sauerkraut or fermented food. You don’t get much with yogurt or with any of the commonly fermented foods that most people eat because the stomach acid is destroying them.

So you want to get a probiotic and we think it’s beneficial. We don’t know what side effects it has. We know, for example, certain bacteria like lactobacillus GG increase your bone density. Surprise, who would have thought that, but that’s what randomized trials show, so there appears to be a group of benefits. We’re studying this and people will learn more and more but until they do, we don’t know of any harm from a probiotic and we know of a bunch of benefits, so that’s why I still advocate it.

CW: And last, but not least, supplement number 9 is coenzyme Q10 or CoQ10 for short. Will you tell us a bit more about this and what we need it for?

MR: Yeah, so, CoQ10, clearly if you are taking a statin, like Atorvastatin or Rosuvastatin, the old Lipitor and Crestor, you want it, because they decrease the production in your mitochondria. Your mitochondria convert glucose as sugar into electric energy. They, in fact, transform that into ATP, and that’s how all of our cells get their energy to function. And CoQ10 is necessary and it decreases as we get older. So taking it as a supplement seems to protect against inflammatory processes harming your energy level. It seems to protect against the statin decrease and lack of muscle energy. In some people it decreases in fact the muscle pain, not in everyone, that statins have caused or are associated with, in 15% of people.

So the usual dose is 200 milligrams a day, 100 in the morning, 100 in the afternoon, or you can take it all at once, and it decreases high blood pressure. It decreases your risk of diabetes. It does a lot of things that we don’t understand why it does. It decreases cramping and pain so we think that it’s beneficial and we don’t know what side effects it has, so we recommend 200 milligrams daily. In some people with neurologic disease such as Parkinson’s it decreases symptoms if you take much, much more, 1200 milligrams in some people, but for most of us, 200 milligrams a day is what we would recommend that has really good human data on being beneficial without risk.
CW: So you’re saying everyone should take these supplements, but you and I recently read about personalized medicine, which is becoming a huge trend. There’s also a personalization trend in the supplement industry. That means you should take vitamins and minerals geared to your individual needs. You’re on the board of a company that’s working on that. Can you tell us a bit more about it?

MR: Yes, the company is Persona Nutrition, and people are going to hear more about it from Mauldin Economics, but let me just say what it is. It is just like PillPack, which puts the medications that are prescribed for you in little plastic envelopes that you get to take morning or afternoon or evening. Well Persona Nutrition, which you’ll hear about, does the same thing for all the supplements you’re going to take, and also helps you figure out what supplements should be right for you or which ones in addition to the Fab 9 are right for you. As I said, you’ll hear more from Mauldin Economics and the Health and Wealth research letter about that, so stay tuned, keep looking for it. It will be a benefit, I think, for you. That’s how I get my supplements. They’re all put into one little pack, so I know what to take in the morning, half of that multivitamin is there and maybe the magnesium half in the evening, half of the multivitamin is there and maybe the calcium, actually it’s usually the reverse. The calcium is usually in my morning pack and the magnesium in my evening, but in any case, it’s a nice pack, and you can hear all about it from the Health and Wealth research people and Mauldin Economics.

CW: Thank you so much, Dr. Mike. This was extremely informative. I sure got a lot of value out of it and I hope our listeners did, too.

MR: Thank you.