



Transcript of “How to Upgrade Your Brain with Coconut Oil & Ketones with Mary Newport”

Bulletproof Radio podcast #13



Warning and Disclaimer

The statements in this report have not been evaluated by the FDA (U.S. Food & Drug Administration).

Information provided here and products sold on bulletproofexec.com and/or upgradedself.com and/or betterbabybook.com are not intended to diagnose, treat, cure, or prevent any disease.

The information provided by these sites and/or by this report is not a substitute for a face-to-face consultation with your physician, and should not be construed as medical advice of any sort. It is a list of resources for further self-research and work with your physician.

We certify that at least one statement on the above-mentioned web sites and/or in this report is wrong. By using any of this information, or reading it, you are accepting responsibility for your own health and health decisions and expressly release The Bulletproof Executive and its employees, partners, and vendors from from any and all liability whatsoever, including that arising from negligence.

Do not run with scissors. Hot drinks may be hot and burn you.

If you do not agree to the above conditions, please do not read further and delete this document.

Dave:

Today's cool fact of the day is about blushing. You can thank your sympathetic nervous system for that rosy red hue that hits your cheeks when you trip in public or you say something silly on your first date. Whenever you're embarrassed, adrenaline in your body automatically speeds up your breathing and your heart rate, and sends more blood than normal to your face, which is why you get that blush. But there's an upside to it. Recent studies that we've come across show that we've come across show that blushing actually helps strengthen your social bonds and increases empathy from others, meaning that people may actually judge your embarrassed response less harshly if they see you blush. So blushing is basically good for you.

Today we have an awesome interview with Dr. Mary T. Newport. If you haven't heard of her yet, you will know her name soon. She cured her husband's Alzheimer's disease using coconut oil and ketones, which are basically the fat molecules that your body makes in response to coconut oil, and your body can burn ketones for fuel. After she struggled to find a way to help her ailing husband, Dr. Newport stumbled on evidence that ketones and ketogenic diets, like portions of the Bulletproof Diet, could be an effective treatment for degenerative diseases even beyond Alzheimer's. She began testing her hypothesis on her husband and got amazing results almost right away. After some more research, she realized that ketones have a host of other health-improving effects. If you want to improve your health, or become more resilient to disease, or just increase your cognitive abilities, you'll definitely want to hear what she has to say on our show today.

Dr. Newport did her training at the University of Cincinnati, and spends her days practicing with extremely young infants, which is kind of interesting because, as you'll hear in the show, that was the first time she had heard of MCT oil, was for use on babies.



- Co-host: Now we're going to have our exclusive interview with Dr. Mary T. Newport about coconut oil and ketones.
- Dave: Dr. Newport, welcome to the show.
- Dr. Newport: Thank you very much. Thank you for inviting me.
- Dave: Tell us a little bit. How did you get interested in treating Alzheimer's disease and how did this affect your husband? I think our readers are going to be interested in hearing that.
- Dr. Newport: Right. Right. Well, as you say, I'm a physician. I'm a neonatologist, so I take care of sick and premature newborns, so this seems like it's way out of my area. But my husband Steve has early onset Alzheimer's disease. He's going to be 62 this coming February, but started having symptoms when he was about 51 years old. He was an accountant that worked for my practice, and started having problems with making payroll errors, and procrastinating on getting tax returns done. Then when he started having trouble remembering if he'd been to the bank and the post office, we knew something serious was going on. He was also depressed at that time, so initially it was thought that his memory problems might be related to depression.

But as time went on, he continued to get worse. His accounting skills, even though he was using them every day, he basically gradually lost all of that. Around 2004, he was officially diagnosed with Alzheimer's disease and started on Aricept at that time. About a year later he was started on Namenda. He's been on those drugs for quite a long time. By 2008, he was actually doing very poorly. He had an MRI that showed that there was quite a bit of atrophy of the brain, and specifically in the areas that are consistent with Alzheimer's disease, as well as the rest of the cerebrum was shrinking. He was losing weight. He had lost about 10 pounds over 3 weeks. I realized he wasn't able to fix meals for

himself while I was working. Even though he said he had and he thought he had eaten, he hadn't eaten.

Things were kind of getting pretty bleak. I was always on the outlook for clinical trials. In 2008, in May of 2008, there was a new drug that was becoming available. It was a vaccine. The whole point of the vaccine was to clear the beta amyloid plaques from the brain. We set him up for screening at University of South Florida. There was a center called the Bird Alzheimer's Institute there. He had been evaluated there before. We went for the screening, and he needed ... There was a test called the Mini Mental Status Exam. It's a 30-point test. He needed to get a score of at least 16 to qualify for the study. He qualified in every other respect, except that he got only a 12 out of 30 points and needed 16 to qualify for the study. So we were very, very disappointed. But we were told to come back a couple weeks later and try again.

In the meantime, there was another drug study that became available. It was an oral medication instead of an I've medication to help remove also beta amyloid plaque from the brain. I set him up for screenings 2 days in a row for these 2 drugs. The thing that happened was the night before the first screening, I started thinking, what if he gets accepted into both studies. You can only be in 1, and we're going to have to choose. I decided to get on the internet and look up the risks and benefits, just learn as much as I could about these 2 drugs. I happened upon a press release for a third treatment. It didn't say what it was. It was called AC1202. It said that in their studies it improved the memory of half the people who took this treatment.

I thought that was very interesting, because none of the Alzheimer's drugs make that claim. You never hear that with

Alzheimer's medications. I got on the internet again and tried to find out what I could about AC1202, and happened upon their patent application. It was a very lengthy application. I learned a lot about Alzheimer's while I was reading this. One particular aspect ... Well, people are familiar with plaques and tangles that know about Alzheimer's. But another really important feature of Alzheimer's is that the brain develops insulin deficiency and insulin resistance. So effectively, the brain becomes diabetic. It's even been called type 3 diabetes, or diabetes of the brain. This was first published around 2005, so it was relatively new information in 2008. I hadn't heard too much about it before.

So then the whole point of AC1202 was to address this problem of diabetes of the brain. What happens is that when you have diabetes, there's a problem with the insulin receptors. Cells require insulin to get glucose into the cells. If you don't have enough insulin then you're going to have trouble getting glucose into the cells. Basically glucose, or sugar, is the primary fuel for the brain and the other organs of the body most of the time, unless you're starving or on a ketogenic diet. Back in the 1960s, they discovered that the brain could use ketones. Dr. George Cahill and his lab up in the Northeast learned that the brain could use ketones as an alternative fuel, and that's what happens when we're starving, that we switch over to using ketones after we use up our stores of glucose, and ketones can fuel our brain and other cells of other organs of our body.

Then also in the late 1960s, it was discovered that if you consume oils that contain medium chain triglycerides, or if you consume medium chain triglyceride oil, which is also called MCT oil, that your liver will convert this to ketones, and that these are taken up very quickly by the brain and can be used by the brain for fuel. The people who were developing AC1202 were basically studying MCT oil. What they found was that when people with Alzheimer's

or mild cognitive impairment were given AC1202 or MCT oil, that in fact, even just with the first dose, almost half the people had an improvement in their cognitive scores with cognitive testing. Then they did a longer study with 152 people, showing that over a period of 45 days and 90 days and even 6 months, that people improved, or at least stabilized, and it was nearly half of the people that improved.

Because I am a neonatologist, I was familiar with MCT oil, the reason being that we added it to the feedings of premature newborns back in the early 70s and through the early 80s until they started adding it to infant formulas. It's actually a component of every infant formula. If you look in the ingredients you'll see that. The other thing, while I was reading through this patent application, that I learned, that I did not know up to that time, is that MCT oil is actually derived from coconut oil. It's extracted from coconut oil. We all know the coconut oil's out there on the shelf. It's in the health food stores, and now a lot of grocery stores are carrying it.

It was about 1:00 a.m. at this point, when I learned all of this. His screening was scheduled for 9:00 a.m., so I didn't have time to run out and buy coconut oil. But we went on down to the screening, and again we were disappointment that he scored only 14 this time out of the 16 that he needed, and so he did not qualify for the study. The doctor there, she said, "Well, let's have him draw a clock." It's a very specific test for Alzheimer's. So he drew a clock. Well you can see it on my website. I have pictures of his clocks on there, and I have an article on there that you can print out that tells about all this. Basically, he drew several little circles, not even 1 big circle, but several little circles and a few numbers, just kind of randomly. It didn't really look anything like a clock.

The doctor told me that he was actually bordering on severe Alzheimer's at that point, which was kind of a shock in a way. He was worse than I thought. I was really surprised by how poorly he could draw that. On the way home, I started thinking what have we got to lose. I'm going to swing by a health food store where I had seen coconut oil, and buy some. So I bought that. Then when I got home I started researching more about coconut oil. I had to remind myself what medium chain triglyc- ... what medium chain triglycerides were, and I got a composition, fatty acid composition of coconut oil from a government website and figured out what were the medium chain fatty acids and what percentage of coconut oil was medium chain fatty acids, and it was about almost 60%.

Looking at the patent application, they had given the people 20 grams of MCT oil as the dosage, and so that equated to 35 grams, or a little over 2 tablespoons of coconut oil. The next morning, I pulled out the jar of coconut oil for breakfast, and I made some oatmeal. Coconut oil's kind of solid at room temperature, so it needed something to melt it. I put that into his oatmeal and he ate that. His screening was scheduled to 1 o'clock in the afternoon. We drove down. I tried to prep him on the way down, to remind him what the date and the day of the week and the season and all of that. He really wasn't remembering any of it on the way down. I was pretty discouraged. I thought, well, he's probably not going to do any better than he did yesterday.

But when we actually got down there, it was about 4 hours after he had eaten. They took him away to another room, and they did the MMSE test, and he came back. He didn't think he had done very well. A nurse came in then and she started checking his blood pressure and talking about drawing blood. I said, "Wait a minute. What's happening? How did he do?" She says, "Oh, he got an 18 on the study." So he actually got 2 points higher than he needed to

get into this clinical trial. He qualified in every other respect also, so they were basically going forward with the rest of the testing for the clinical trial. Obviously, we were elated. I didn't know at that point if it was really the coconut oil, or if it was just good luck, or a lot of prayer, or what. Or all of the above.

I decided to continue it. I got some coconut cookbooks, coconut oil cookbooks, and basically I started giving him a measured amount for breakfast every day, at least a little over 2 tablespoons, and then started cooking with it at other times of the day. Really what we found was, almost right away, he was much more alert. He had been very sluggish in the morning, not very talkative. He'd have trouble finding utensils and getting water from the fridge, and that kind of thing. Very, very slow. He would come, now he would come out of the bedroom alert and talkative and joking and could find his utensils. It was just like the light bulb came back on. That's exactly how he described it. He said it was like the light switch came back on the day he started coconut oil.

Dave: I wanted to share something with you, a way of getting coconut oil, or MCT oil in, in the morning. Oatmeal works, for sure. One of probably the most popular things on my blog is called Bulletproof Coffee. It's a low toxin form of coffee that's blended with MCT oil and grass fed butter, instead of milk or cream.

Dr. Newport: Oh, wow.

Dave: In the morning I'll do 30 grams of MCT. I just turned 39. I used to weigh 300 pounds. I weigh about 200 pounds now, and have for more than a decade. MCT oil is a major part of it. But it's interesting that it blends well into a hot liquid, and you actually get a foam on it when you do that right with coconut or with, what I prefer is the straight extract. You might try that. When you say the lights came on. When you add a little caffeine, and the MCT helps the caffeine get into the brain, it's not a bad morning.

- Dr. Newport: Yeah. That actually sounds like a great idea. We kind of abandoned the oatmeal after about a year. We were actually trying to get to a lower carb diet, which he's on now for quite some time. He also got very tired of oatmeal. He said, "Can we do something else with this. He actually will take it straight sometimes. We started mixing MCT oil and coconut oil. There's a little bit of a story to that, too. Do you want to hear that?"
- Dave: Yeah. Let's talk about that. If you have any comments along the way about butter or grass fed butter, and MCT or coconut, and any of the studies on butter and memory, talk those in, too, because we talk about them a lot on the podcast.
- Dr. Newport: Interestingly, butter is about, I believe it's about 13% of the fatty acids are medium chain and short chain fatty acids. The short chains are also ketogenic. Butter is much preferable to margarine if you're going to eat one of the other. Butter is actually quite good for you. I often wonder, I'd love to do some kind of a study to see if people who drink whole milk and eat butter all their life, as opposed to skim milk and margarine, if one group is more likely to have developed dementia or not as they age, just that little thing.
- Dave: I think the biochemistry is pretty predictive there, but I'd like to see the study to prove what we think from a biochemistry perspective. I advise people to avoid those things. I have a sort of an infographic that's things to eat, things not to eat. Those are on the don't eat them, because there's pretty good evidence you don't want to do that.
- Dr. Newport: Right. Right. The hydrogenated oils in the margarine are not good for us.
- Dave: Exactly. I don't have Alzheimer's, and don't think it's run in my family, although some dementia has happened, usually later in life, and probably related to blood pressure lower medications. But are there other things that people who don't have Alzheimer's, a benefit that you've seen just in the work that you've

done with MCTs. Does it make people who are already healthy perform better?

Dr. Newport: I think so. I noticed for myself. I have a history of Alzheimer's on both sides of my family, but I don't feel like I have memory problems so much, at least not yet. I'm 59 at this point. But I started eating coconut oil right alongside Steve when we did this. He takes probably about twice as much as I do in a day. But I have the equivalent of 4 or 5 tablespoons a day, either as coconut oil, coconut milk, grated coconut. We've really gotten into coconut. Then we do eat, like we'll drink goat milk if we have milk. That's got some medium chain. And breast milk, human breast milk has a considerable amount of medium chain fatty acids. Goat milk is fairly equivalent to human breast milk in that regard.

The infant formulas have the MCT, and they have coconut oil to try to mimic human breast milk. So there's a reason why medium chains are part of our diet, or should be part of our diet. I noticed that, I felt like I was able to read a lot more, to stay on task better, and retain information better, since I started using coconut oil. I just remember having every now and then a little subtle memory issue, and I thought maybe it's because of my age. But I don't feel that anymore.

Dave: Thanks for saying that. I love hearing that. I've had exactly the same experience. The whole point of the Bulletproof Executive is how to be more resilient and how to perform better. I recently gave a talk about how I hacked myself to deal with information overload. One of the things I mentioned was MCT oil. Hearing you, as a medical professional, saying that you noticed that effect, too, it's really cool. I'm really happy that you just mentioned that.

Dr. Newport: Yeah. My sister, one of my sisters, she's had a similar response, and she noticed, like if she would go on vacation and not bring any with her for 4 or 5 or 6 days, when she came home she thought, "Oh, do I really need this or not." And then she would start taking

it again, and then she realized, "Oh, yes. I do much better. I can focus better. I can write better, think better when I'm taking this." She noticed a difference when she restarted it again. That was pretty interesting. She has a daughter that's, she's in her 20s, and she's a teacher. She feels that she can get through her lesson plans, getting all that, and focusing on that much better, too, and she's young.

Dave: I travel internationally quite a lot. There's something that I will not travel without, if at all possible. I put a couple ounces of MCT oil in my little baggie you can carry through the x-ray machine at the airport, like in the shampoo bottle. Because ...

Dr. Newport: That's what I do. That's what we do when we travel.

Dave: You do it too. Okay.

Dr. Newport: Yep. We ... I actually got to give a talk about this at the Alzheimer's Disease International Conference in Greece about a year and a half ago. We brought Steve and our younger daughter. She's now 25. She came with us. I was really nervous because we were going to be gone for 10 days. I thought what if I can't get coconut oil or MCT oil in Greece? I put it into my suitcase and brought a lot of little bottles that I had made of the mixture of MCT and coconut oil.

I brought enough to get us through the whole trip. But I also had to keep several doses on my person because of the duration of the airplane trip. I did put it in the little shampoo bottles, the ones that hold up to 3 ounces, and I could do a couple doses in each bottle for Steve, and that worked really well. I put little stickers on it that said it was MCT oil for Alzheimer's. I just wrote on the labels, and I put a copy of my article in the bag with it, just in case they wanted to know what it was. We didn't have a problem with it, which was great.

Dave:

Oh, excellent. So you're having exactly the same experience. A lot of readers, people who read the blog or people who listen to the podcast, oftentimes are sort of saying the same thing. "I really don't want to go without it, because once I get used to feeling like this, I really like it." I'm hearing this from college students. I'm hearing this from mothers who have young children. Of course for them, getting more MCTs means better breast milk. It's so important. But they're also feeling better. Their energy comes back faster. It's almost kind of ridiculous that medium chain triglyceride oil has this profound effect, but that you've seen it for Alzheimer's. You've seen it for some other things as well, I think.

Dr. Newport:

I have. I've had some people with Parkinson's. There's a man with ALS, Lou Gehrig's disease. To me, that's like the worst. Most of these people maintain normal cognition, but they become weaker and weaker and weaker until finally they can't eat and they can't breathe. It's a horrible disease. But this man contacted me after he had been using coconut oil for about a year. He watched a YouTube interview that I have, and he started taking ... He got himself up to 9 tablespoons a day. He contacted me after a year, and he had actually stabilized over that time. This is a disease that you do progress over a year. You just do get worse. He had actually increased the muscle mass in his legs.

Now he's almost 2 years out, and he's still stable. He has not gotten worse, and his muscle mass has continued to increase in his legs. He said one of his legs felt like it was dead to him, and the life came back in it. He could feel that leg again after several months. His doctors decided, they said, "Well, you can't have ALS." They told him you can't have ALS, because you would be getting worse. I had another lady, same thing, where she was an earlier stage of ALS, but she stabilized also. Her doctor told her, "Well then we've got the wrong diagnosis." Not that maybe what you're doing there might actually be working. I've had several people lately with ALS now contact me. I refer them to him because of his experience with it, that he can ... They can ... He's trying to do a

little social clinical trial kind of thing with it. So it's very, it's interesting.

I've had a lady with glaucoma. You think, how could that be related. The eyes are an extension of the brain, and neurons are involved in diseases like glaucoma and macular degeneration. This lady who has glaucoma, she said that she took MCT oil, and she happened to be sitting at her computer, and she thought that the screen was shades of gray. She thought that was the normal screen. The screen became pink. She started seeing color on the screen, and it was news to her that it was even in color. She thought, "Well, that's rather odd." So she repeated this experiment several days in a row, and every time she'd take the MCT oil, about a half hour to 45 minutes later her screen would come in in color. I thought that was pretty interesting. She's kept in touch with me too, and about a year and half now, her glaucoma's been stable. She hasn't gotten worse.

Dave: The effect is noticeable within a half hour.

Dr. Newport: Yeah, it is. It is. It's very quick that the brain takes up, I mean that the liver converts it to MCT and the brain takes it up. The other thing too is, in addition to the ketones, the medium chain fatty acids themselves can act as a fuel. They know for certain, there are studies showing that it's taken up by muscle, and that it's oxidized in the mitochondria of muscle and used directly as a fuel. It does cross the blood-brain barrier. Studies haven't been done yet to absolutely prove that it's taken up by brain mitochondria, but it might also be another alternative fuel for the brain, just the medium chain fatty acids. So that could explain why even with relatively low levels of ketones, you're having this kind of an effect, that the medium chains are also acting as a fuel.

Dave: So, Dr. Newport, we've talked a little bit about Alzheimer's and Lou Gehrig's disease. Are there any other neurological conditions

or diseases in general that can be treated with ketones or ketogenic dieting, or MCT oil supplementation.

Dr. Newport: I've heard from people with Parkinson's disease, MS. It's just a handful of people from each. I think part of the problem is just getting it out there to the right people. My husband had Alzheimer's. He responded, and so that was basically the people I was targeting right away. But as various people with different conditions have tried this they've seen some benefit. Let's see Huntington's chorea. I've heard from a couple of people that were in early stages of Huntington's that feel that they've stabilized, that some of their symptoms improved. The thing that's common to all of these diseases is that there's some part of the brain or nervous system that has trouble with taking up glucose into cells.

So if they do PET scans, glucose PET scans, they will find certain areas of the brain or spinal cord that don't take up glucose normally. These are people that might benefit by having ketones available as a source of energy. Theoretically, Duchenne muscular dystrophy might respond to this, but I have not heard from anybody with that yet. Autism, some forms of autism. I have heard about some children that seem to respond. Then Down syndrome, all of the people with Down syndrome will develop Alzheimer's when they get into middle age. They have an extra chromosome. The extra chromosome that they have, has some of the genes that are involved with Alzheimer's, and so they develop it prematurely. They basically all will develop Alzheimer's if they live into their 30s and 40s.

Acute brain injury, the brain basically has difficulty using glucose for a period of time after an acute brain injury, but could use ketones. That could be benefited. Then of course, type 1 and type 2 diabetes. All of the cells, except the liver, can use ketones. As the organs become insulin resistant, people develop problems with

blindness, retinopathy of diabetes, and nephropathy, which is the kidney damage from diabetes. Those 2 things are very common. There was actually a paper showing in mice that had diabetic nephropathy, kidney disease, that ketones were able to completely reverse it over a period of 6 weeks, which is very interesting. So other organs besides the brain can benefit in people that have type 1 or type 2 diabetes from taking medium chain fatty acids.

Co-host: Now, Dr. Newport, that's an excellent segue, since you mentioned that study. Many of the listeners to this podcast and readers of our blog are very critical thinkers and love to look up studies, just like we all do, about these kinds of things. I was wondering if there are any particular studies that pop out to you that really just highlight how effective this kind of treatment is, or any studies that support what you're talking about, that you could name off the top of your head, that people could go look up after the interview.

Dr. Newport: Well, on my website, I have some hypothesis papers from Dr. Richard Veech, and Dr. Theodore Van Italy. You can actually print them out. I have the PDFs there. That's a good place to start. The one by Dr. Van Italy is a very thorough, well-written discussion and overview of how this would work and what types of diseases might respond to this. My website is www.coconutketones.com. If you look under scientific articles, you can find a list of some of the articles that cover the basics. Then there are articles by Samuel Henderson, Loren Constantini. They're the people that developed AC1202. There are references on there. I believe I have a bibliography. It's over 150 references that you can print out a copy of the references. I don't have all of the PDFs of the papers available. But actually if somebody were to email me, if they have a specific reference in mind, I could email back the complete article for most of the things that I have in my references there.

Dave: That is an amazing offer, and thank you for being so willing to share knowledge with people. I'm pretty sure that some of the members of the [inaudible 00:31:04] forum or the Silicone Valley Health Institute may have reached out to you in the past, because

we've been passing those papers around. We'll make sure in our show notes to have links to your site. In fact, we'll have the transcript of this entire session so people can search it, and whatnot, and we'll make sure that they can find you and that they can find these papers, because that's really important stuff.

Dr. Newport: Right. Right.

Dave: I had another question along those lines. I mentioned some of the things I do, like I take 30 grams of MCT oil in the morning, in my coffee and all, and I recommend different sort of dosing protocols for people, as a bio hacker, which means I work in computer security, and I basically hacked my metabolism and a bunch of other things, raised my IQ, and just changed my performance profile pretty dramatically. The uses are a little different, but I have a guy who I'm coaching who lost 75 pounds in 75 days using MCT oil on a daily basis. I actually told him maybe going slower would be smart, but that wasn't his goal. So he did what he was going to do and it worked out very well. But what's the normal dosing protocol? Let's say someone who's 40 or under, who's interested in just feeling better, getting a little bit more energy, having their brain work a little bit better, how much MCT oil would you recommend that they start with, and progress to?

Dr. Newport: Right. Right. Well, one of the main adverse effects of taking MCT oil is diarrhea. So if you try to take too much too fast, you're going to have this rather sudden, explosive diarrhea. Even though my husband tolerated over 2 tablespoons of coconut oil, a lot of people don't. I usually tell people start with 1 teaspoon 2 or 3 times a day with food. If they tolerate that, then increase by that amount maybe every couple of days. The other thing you want to do is also substitute it for the other fat in the diet. Because if you just simply add it to what you're eating, you potentially could gain weight, even with MCT oil. It's used as energy. But the other, if you get too many calories in a day, you can put weight on.

But basically, as you're adding the MCT, you might want to subtract some other fats from the diet possibly, and/or reduce carbohydrate intake to kind of compensate for some of the calories. But the thing about the MCT is that it is used right away as energy. It's not stored as fat. I would say, for somebody who ... I would say to maybe try to get up to somewhere between 3 and 5 tablespoons a day, somewhere along those lines, as MCT oil and/or coconut oil.

Dave: I have 2 questions that arise from that. One is more of a comment. I was concerned when I started using MCT about the higher fat. This was years and years ago. But for the last 2 years, I sort of ran a self-experiment where I've been eating between 4,000 and 4,500 calories a day, including at least 5 tablespoons from all sources of MCTs, and I've actually gained muscle and stayed lean, like with a 6-pack, without exercise.

Dr. Newport: Yeah. I'm sold. If you can eat that many calories.

Dave: Well, I have a history of obesity. I have stretch marks. The first half of my life, I was 300 pounds. Well, not all the first half, but I was overweight the first half. Being born at 300 pounds is a little expensive. What it seems like is that there are some other secondary things, like mycotoxins. These are the toxins that come from molds that are found in the environment and that are found in our food supply, and those mycotoxins are linked to most of the degenerative diseases that you've mentioned in one or another study, as well as to obesity. Have you come across any research in what you're doing with coconut oil or MCTs about mycotoxin content of coconut oil. Because I've found some brands actually have reasonable amounts of mycotoxins, and some manufacturers actually test for it. The MCT oil that I use is pharmaceutical grade, basically. It's very highly purified. But if you're eating raw coconut oil, is this a concern for you, and have you noticed a difference between brands?

Dr. Newport: Yeah. There's different ways of processing coconut oil. I have been learning more and more about that. But you'll find refined versus

unrefined coconut oils. There's a process called DME. It's a micro expeller process that they use basically fresh coconut. They use it immediately, and they extract the coconut oil from it immediately. That's probably the best method to avoid getting contaminants from molds and that type of thing. There are other methods where they actually dry the coconut and it's stored for a while, and it's shipped somewhere else. In that process it can acquire mold, and then it's processed. They use chemicals to bleach it and process it.

It's probably best to stay away from refined coconut oil and look for micro expeller pressed coconut. DME is another name for that process. You would get fresher coconut, less likely to have mold attached to it. The MCTs, that's kind of new to me, but I'm always learning new things about this, that I hadn't thought too much about the MCT actually containing mold. But I imagine that that would be possible depending on where it's taken from.

Dave: There's also a new source of MCT that's coming from non-coconut. It's some sort of genetically modified bacterial thing they're doing.

Dr. Newport: I had not heard about that.

Dave: I believe it's to canola oil as a source. I'm kind of concerned about that, but I haven't actually tried it. I'm not sure that I want to try it. But you haven't come across that either.

Dr. Newport: No I haven't. I mean, they would have to, there's no medium chain in canola oil, so they would have to do something to the fatty acids themselves to shorten the length of the fatty acids.

Dave: There's no food in canola oil, as far as I can tell.

Dr. Newport: There's no ... Right. I know. It's touted as a healthy oil. A lot of people deliberately take canola oil because they've been told that it's a healthy fat, but it's really not. It's very heavy in omega-6, and soybean oil is too. It's not particularly good. The polyunsaturated fats, for so many years they were touted as reducing your

cholesterol and all of this. But they actually pick up free radicals. They have sites on the fatty acid that are available to pick up free radicals that can damage mitochondria and damage the cells. People can definitely get too much omega-6 fatty acids, particularly if they use canola oil and soybean oil and don't get enough omega-3. Omega-3 also is a polyunsaturated fatty acid, and it also could pick up free radicals. But we do need a certain amount of omega-3. It's just that our diet, on average, the average person in the United States tends to have way too much omega-6 and not enough omega-3.

Dave: Do you think that contributes to degenerative disease, including or excluding Alzheimer's and some of the others.

Dr. Newport: Oh, I think it could. I think it could. I think there are a lot of things like that in our diet, like hydrogenated fats, too, and trans fats can contribute. For example, if soybean oil is hydrogenated, the polyunsaturated fats in it, there's a tiny bit of omega-3 in it, and the omega-3 is the first to go. Hydrogens are added to those fatty acids, and it eliminates ... The omega-3 means that that's a site that is not occupied by hydrogen. When you hydrogenate it, those sites are filled in by hydrogen, so you lose the omega-3 right away from soybean oil when you hydrogenate it, and then you lose some of the omega-6 in there as well. But it also creates a molecule that's bent in the wrong direction. That's why it's called a trans fat instead of a cis fat. These fats don't fit normally into cell membranes.

A cell membrane is extremely important as far as what gets in and out of the cell. When you start inserting trans fats into the cell membrane, it makes them stiffer and the cell doesn't live as long. It affects what gets in and out of the cell. I do think that these kinds of fats can contribute to neurodegenerative diseases over time. It's just best to avoid them. You don't need to have those in your diet.

Dave:

I feel really fortunate that ... I just started mentoring a group of very high potential young people, people under 20, who are backed by the Peter Field Foundation. It's called the 20 Under 20. I just gave a lecture to them as well. I'm sort of thinking, what is the impact going to be if even before you're 20 you start cutting the bad oils out of your diet, you add MCT oil, and you go on a lower toxin, healthier fats kind of program, just for the entire duration of your adult life. I am suspecting that it's going to make huge differences both in performance for someone in their 20s, but also just when they're 60 they're going to be out there competing against 40 year olds. They're going to maintain their cognitive and their energy levels. Do you sort of see that same effect if you put on your very futurist hat without making medical claims doctors aren't allowed to make.

Dr. Newport:

Oh, yeah. I do. I do. I do think that this could be a great preventative tool to prevent diseases like Alzheimer's and Parkinson's. There's a study by Cunnane, C-u-n-n-a-n-e. He's a Canadian. Well, he's the main author on this study, or the first author on this study. But they actually looked at ketones. They did ketone PET scans, which is interesting. Most PET scans are using glucose, but this was a ketone PET scan. They found that the amount of energy used by the brain as ketones is directly proportional to what you're plasma levels are. He discusses a little bit about using MCT as a strategy for prevention, and that by keeping a level of 0.5 millimoles, which is what you can get after you take a dose of MCT oil, such as the 30 ml that you were talking about, that you could potentially provide 5% to 10% of the energy to the brain as ketones.

It just so happens that, for example, people that are at risk for Alzheimer's, that they have a deficit, an energy deficit in the brain of about 5% to 10%, even in younger adulthood. So by taking MCT oil you can make up that deficit, by providing ketones to the brain. It's a very interesting paper. Again, I've got copies of it on my computer that I can set if anybody wants a copy of it.

Dave: That's going to be really interesting to dig into. I certainly want to check that paper out, just for my own bio hacking principles. Now here's one more final question that's a little bit geeky, but I just have to ask it. There's 4 links of medium chain oils that are considered medium chain. Are some of those links better than others, in your experience?

Dr. Newport: The shorter the chain is, the more that will be converted to ketones. That's kind of just a generality. But then the body appears to be able to use the medium chains, whatever's left over. As far as other effects, for example lauric acid, it's a C12. It's a 12 carbon chain. It's about half of coconut oil. There's not very much of it in MCT oil. But it's very antimicrobial. It's antiviral, shown to actually kill certain viruses in the herpes family and HIV by dissolving the lipid capsule around the virus. It's antifungal. It's active against things like Candida. It's antibacterial. A number of bacteria are killed by it. And antiprotozoal. So of the medium chain fatty acids, apparently that's the most active antimicrobial.

A medium chains fatty ... like when they say breast milk is anti-infective for a newborn, they're referring to lauric acid in the breast milk. As you get from the C12, which is lauric acid, to C10, there's still antimicrobial effect, but it's not as strong as with the lauric acid. That's one of the reasons that I mix the MCT oil and coconut oil for Steve. There have been several different microbes that have been implicated as possible causes of Alzheimer's, one of them being herpes simplex virus type 1. That's the type when you have fever blisters on your mouth, it's caused by herpes virus type 1, usually. It can be type 2, but it's usually type 1.

People who are a certain genotype, it's these alpha lipoprotein E's, who are E4, as my husband is, they have a very strong association of fever blisters with having that genetic type. The nerves that come out there to the mouth originate deep in the brain, and

happen to be very close to where Alzheimer's originates, where the problem originates in the brain there. There's research, there's a group in England, and several other groups now, that have been studying this. They've been able to show that in the beta amyloid plaques in the brain, about 90% of these plaques contain the DNA of the herpes simplex virus, which is very interesting. They contain other things, too. Heavy metals, you read about that. Even chlamydia has been found in these plaques.

They've showed also that if you infect mice with herpes simplex virus, they will develop plaques and tangles just as Alzheimer's patients have. They feel very strongly that at least for some people that herpes simplex virus might be the cause of Alzheimer's disease. So then the coconut oil, that's one of the reasons I keep the coconut oil, because it's anti herpes simplex virus, basically, the lauric acid in it.

Dave: That seems like a good recommendation to use some MCT and some coconut oil. The reason that I do the same thing is that MCT oil is mostly capric and caprillic, but coconut oil is roughly 7% and 8% of those 2 substances. So the total is 15% of the C8 and C10. I basically put a hunk of butter, a little hunk of coconut oil, and then a big squirt of MCT oil in my morning coffee to blend and get a nice head of foam that looks like a latte and tastes like a religious experience.

Dr. Newport: It tastes very good.

Dave: I feel really good.

Dr. Newport: Yeah, yeah, yeah. You know, coconut oil, it's interesting, the thing we found out about it right away was it seems to enhance the flavors of foods. It's hard to explain. You just have to try it.

Dave: It is. In fact, if you've never tried this, try straight MCT oil, which has very little flavor, on sushi, sushi that has a little bit of rice in it

even. It will make sushi the most satisfying, tasty thing. I know people from Japan who really know their sushi that have tried this and their eyes get big, and they've had sushi forever.

Dr. Newport: Yeah. I put MCT oil on salad. I just put a little bit of other salad dressing. But it's amazing how much ... You could just put the MCT oil on it, and I'd be perfectly happy with it. In the past, unless it had salad dressing of some kind on it, I wasn't just going to eat a handful of lettuce or salad. But MCT oil does really bring out the flavor. It's interesting.

Dave: It sounds like you've discovered all of the little things about MCT oil that I've stumbled on, and a whole bunch of things that I didn't know about it, particularly the things you just mentioned around Alzheimer's. I'd like to thank you for being on our podcast today. It's been really fascinating. You are one of the leaders in helping educate people about how health MCT can be for them, not just if they have Alzheimer's, but even whether they're prenatal babies, or all the way to when they're older. Thank you for all the work you've done, and all the research, and all the energy you've put into helping people learn about the benefits of this. I personally appreciate it.

Dr. Newport: Oh, you're very welcome. Thank you for making those comments.

Dave: You can find links to everything we talked about in the show notes at BulletproofExec.com, and we post a full transcript of every one of these shows. Everything you've heard so far is available and searchable as sort of a public service for free on BulletproofExec.com.

What We Cover

1. How Dr. Newport got interested in treating Alzheimer's disease and the story of her husband's recovery.
2. Why you need to understand the mechanics of Alzheimer's in order to maintain your brain function.
3. The tipping point which made Dr. Newport believe ketones could enhance mental performance.
4. The exact protocol she used to treat her husband's Alzheimer's disease.
5. Other diseases than can be treated with ketones.
6. How trans and hydrogenated fats disrupt your brain function and health.
7. Why you should consider ketones as a possible method for extending your life.
8. What makes coconut oil different from other sources of MCT's.
9. The most eye opening studies that support Dr. Newport's research.
10. The supplements you can take to speed the production of ketones.
11. The foods highest in MCT's.
12. The dosing protocol you should use if you want to start experimenting with coconut oil and ketones.
13. The resources, websites, and books you can use to learn more about this topic.

Links From The Show

Featured

CoconutKetones.com

[Alzheimer's Disease: What If There Was a Cure? by Dr. Mary T. Newport](#)

Food & Supplements

[Extra Virgin Coconut Oil](#)

[Medium Chain Triglyceride \(MCT\) Oil](#)

[L-Glutamine](#)

[Kerrygold Grass-Fed Butter](#)

[Grass-Fed Meat](#)

[Boron](#)

[Silicon \(Found in "Bone Restore"\)](#)

[Vitamin D3](#)

[Magnesium Citrate \(Natural Calm\)](#)



Phosphorus
Hydrolyzed Collagen Protein
~~Paleo Pemican Powder~~ Upgraded™ Whey Protein
Vitamin K2+Vitamin D3
Upgraded™ Glutathione
N-Acetyl-Cysteine
Vitamin C
NOW Food Super Enzymes
(Lipase & Betaine HCL)
Solary Digestive Enzymes
Ox Bile Extract
Mochi
Citrus Pectin
Activated Charcoal

Gear

Whole Body Vibration Plate
FAR Infrared Therapy Device
CES Ultra Unit

Books

Alzheimer's Disease: What If There Was a Cure? by Dr. Mary T. Newport
The 4-Hour Body
The Better Baby Book
The Rotation Diet by Martin Katahn, Ph.D.
The Amazing Liver & Gallbladder Flush by Andreas Moritz

Listener Q & A

- 1.What are your recommendations for fixing an autoimmune disease?
- 2.How do you heal extreme injuries like bone fractures?
- 3.Do some people never regain the ability to digest fat?
- 4.What does Dave eat on a daily basis?
- 5.Are steel cut oats healthy?



6. Could mycotoxins be the worst part about grains?
7. What should you eat to cure prostate cancer?
8. Should you be using tDCS to reduce cortisol levels?
9. Is all MCT oil created equal?
10. Are flu shots safe?

Biohacker Report

(A review of the latest studies and research.) “

[Protein, Not Sugar, Stimulates Cells Keeping Us Thin And Awake, New Study Suggests”](#)

[“Tuning out: How brains benefit from meditation”](#)

[“Dietary Supplements Instill Illusion of Invincibility”](#)

Updates

The Bulletproof Forum is live! If you want to start getting more in depth answers and asking longer questions, head over to <http://bulletproofexec.com/forum>, or click on the link at the top of the site. Every member of our team will be actively monitoring the forum and responding to your questions. We will also be pulling questions from the forum to be answered on the podcast.

We are now offering the Bulletproof Toolbox when you sign up for our email newsletter. Enter your email in the form below to get instant access to a list of resources and videos including the Bulletproof Diet.

Questions for the podcast?

Leave your questions and responses in comments section below.

You can also ask your questions via...

[The Bulletproof Forum](#)

[Twitter](#)

[Facebook](#)

Listener Questions

Andy

What are your recommendations for someone with an autoimmune disease – specifically ulcerative colitis would be. Both in general and in terms of the Bulletproof Diet? Currently I follow the LEF foundation's protocol(http://www.lef.org/protocols/gastrointestinal/inflammatory_bowel_disease_02.htm), vitamin wise. I also take GABA, Ashwaghandha, 5-HTP, resveratrol(not really bulletproof, but it helps), ALA/ALC/Carnosine and melatonin. I live in Japan and follow a fairly bulletproof diet, low wheat, bulletproof coffee every day, lots of raw egg yolks, etc. I have actually found the higher saturated fat, lower carb diet to be great for my symptoms, contrary to what the experts would tell you! I also culture my own raw milk, organic probiotic enhanced kefir, which works awesomely well. One thing I haven't yet tried is removing nightshades from my diet.

Sean

Do you have experience with healing extreme injuries like bone fractures (broken bones)? Diets similar to yours will manage inflammation, but dollar for dollar, which supplements and/or foods have you found to be most valuable in healing?

Sasho

I am trying the bulletproof diet and I have tried a high-fat diet in the past, but every time I do it, I feel weird, spacey, un-grounded etc.... you know, the low blood/brain sugar symptoms... so how do I approach this to get results? I have tried to stick for 2-3 weeks, hoping to adapt and start converting fat for energy. My body just doesn't seem to like processing fat.

Mike

I am interested in starting the Bulletproof Diet. I see the food charts and the number of recommended servings per day, but can you give me an idea of what and when you eat on a daily basis? Right now I eat on average every 2.5 – 3hrs. I eat steel cut oats now, is the something you recommend I stop eating?

D Almeida

There is a lot of epidemiological evidence that wheat products aren't that great for health, but the research of paleo-types usual focus on gluten, though research on that has been less than conclusive. Have you ever considered that the mold/mycotoxins from wheat could be what everyone should be focusing on?

Mike

I'm curious if any of your readers had success with your diet and prostate cancer. I have low grade p/c and eat kinda like an americanized macrobiotic diet. I do eat little fish, (wild salmon-sardines mostly) grass-fed meat only on occasions. My grains are brown rice, amaranth, quinoa, yams and root veg. as pumpkin, squash, etc., the rest is plenty veggies, some beans, some fruits, (mostly berries) The fats I consume are avocados, coconut oil, evoo, little pasteurized grass fed butter, and nuts, mostly almonds and walnuts. Not afraid of fats but I do not want to overdo it. My blood test #'s are really good. The only supplement I take vitamineral greens, and citrus pectin plus vit D in water.

Andy

What do you think of the recent hype around tDCS:
<http://www.nature.com/news/2011/110413/full/472156a.html>. Have you tried it? Would you recommend it? It would seem to be a rather cheap, safe and effective means of lowering cortisol and boosting concentration for a number of hours.

Shane

There are a lot of different companies that sell MCT oil, an I'm trying to figure out what the difference is. Is there anything special about the MCT oil on Upgraded Self, or is it all pretty much the same?

Zingbo

Since we're entering sniffle season and I seem to be the only person in my office healthy enough to not be bedridden right now, I have a question for you guys: are flu shots bulletproof?