

Doctor Mercola: All right. Welcome everyone. This is Doctor Mercola, today with Carole Baggerly, helping you take control of your health. Today we flew Carole in to our Chicago office to award her for the annual game changer award. And I want to tell you she didn't know until like a minute ago. She was just coming for an interview.

Carole Baggerly: I'm delighted.

Doctor Mercola: Carole, you may remember from past inter- ... actually, here's the award so you can hold it while I'm discussing, this is your award. She's totally surprised.

Carole Baggerly: Wow. Thank you.

Doctor Mercola: Carole is a breast cancer survivor and a CEO of a big company in the aerospace industry and decided to retire from that position and put her full time dedicated efforts to a variety of projects, but it all started with vitamin D, the Vitamin D Action project. Not only are we honoring Carole today, but thanking you for supporting her because she's done so much good. It's your participation that made the difference. And a lot of people were complaining that we're charging 90 dollars or 80 dollars for a test, but you have to fund research and you can't get grants from the government to do this. And she's changing the whole system. Not only was it in vitamin D, but she discovered through the research the optimal doses, 8,000, like no one knew this before. But then we also found that, we funded studies in prenatal care so now it's going to be approved by the FDA and they're going to reduce the-

Carole Baggerly: Preterm birth rates.

Doctor Mercola: ... pre-term birth rates and preeclampsia and all this stuff. Now the new thing is with breast cancer and I don't even know about it because I just heard about this stuff this morning so why don't you tell us about that?

Carole Baggerly: I would be delighted to tell you about that. But I want to do what you also just did with these marvelous groups of participants. When we first started offering a vitamin D test which was in 2009, the major reason for that was because the participants in the seminars that I did, they couldn't get a vitamin D test. The doctors wouldn't offer it.

Doctor Mercola: It's more available now.

Carole Baggerly: It is more available now, but what we especially appreciate are all of those people out there that continue to enroll in our project so we can get the data to help spread the word. Because it's not just a test, what people are participating in is a master information gathering and research project.

Doctor Mercola: Truly a game-changing process.

Carole Baggerly: It is. And we couldn't do without-

Doctor Mercola: You cannot do this-

Carole Baggerly: ... all of you.

Doctor Mercola: ... in the conventional system.

Carole Baggerly: No.

Doctor Mercola: No, you can't.

Carole Baggerly: No, you can't. I would love to tell you about breast cancer.

Doctor Mercola: Okay, good. I'll take that award for you because you have to-

Carole Baggerly: I think so. I think that's a good idea.

Breast cancer is what initiated my entrée into this whole project, as I think you know. In 2005, I had breast cancer and, as many of you know, I was appalled by the treatment. There just had to be a better way.

Doctor Mercola: That's a rationale response, by the way.

Carole Baggerly: Well, it was pretty emotional to me.

Doctor Mercola: It's irrational, it's definitely emotional and irrational.

Carole Baggerly: For two years after that diagnosis, I spent doing nothing but research, all day, into the nights which is, "What else can there be?" Then I found, quite accidentally in one sense, a research paper published in 2007 in February, I remember the day, by Doctor Cedric Garland of the University of California, San Diego.

Doctor Mercola: Is he still with us?

Carole Baggerly: Oh, yes, very much so.

Doctor Mercola: Okay, good. His brother is the one that passed.

Carole Baggerly: Frank Garland is no longer with us.

It showed a 50% reduction in breast cancer could be achieved by getting a serum level up to about 50 to 60 nanograms per ml. I was aghast. I looked at that picture-

Doctor Mercola: But that's prevention, right?

Carole Baggerly: That is prevention.

Doctor Mercola: But you weren't in prevention, you had it.

Carole Baggerly: I had it.

Doctor Mercola: How do you reconcile those two? What's the difference between prevention and treatment?

Carole Baggerly: Recurrent. Well, there's prevention, there's certainly treatment and then there's recurrence. The prevention, now we can show and we have research that just came out literally months ago showing a full 80% ... 80%, 80%, not 50, 80%-

Doctor Mercola: That's four out of five people, folks.

Carole Baggerly: ... that's right, could be prevented by nothing more, nothing more than vitamin D.

Doctor Mercola: This has not been known.

Carole Baggerly: This has not been known, not clearly.

Doctor Mercola: Largely as a result of your efforts for participating in this project, we've been able to compile the data, do the appropriate statistical analysis of research. This is going to be published, right?

Carole Baggerly: It is published.

Doctor Mercola: Oh, it is published. It's already published. This is the funding that you helped support and never been known. She's uncovered this, 80%. That is just astounding.

Carole Baggerly: The end of this statistically significant for those of you that might be wondering about that, it is very significant. You will see the charts in a separate part of this and it's very clear. The major issue that exists right now with the clinical research is that the trials, number one, are not given high enough doses to get the serum levels to 60 nanograms per ml so they won't see it. There's not one single trial going on right now.

Doctor Mercola: And that's the difference. The therapeutic dose from your research is about 60.

Carole Baggerly: The researchers, we have a panel now of 50 researchers, vitamin D experts from all over the world, that say the recommended serum level is between 40 and 60 nanograms per ml. Since they said that, they said that back in 2007-

Doctor Mercola: Yeah, it's not new, that's 11 years old.

Carole Baggerly: ... since that time, there was a study published also about some African groups that still don't wear clothes and don't wear sunscreen and that, believe it or not,

is exactly where the physiological level is. That's what they were, in that kind of range-

Doctor Mercola: 40 to 60.

Carole Baggerly: ... plus or minus a little bit. So we know that that area is safe. So it's like, "Why not?" That's the question I would have right now. But anyway, by getting to 60 nanograms per milliliter from, and you have to, "From what?", the what is the 20 nanograms per ml that the current recommendations say are enough.

Doctor Mercola: Still? To this day?

Carole Baggerly: Oh, yeah. Oh, yeah. Oh, yeah.

Doctor Mercola: That's criminal. That is absolutely criminal. That's criminal, negligent malpractice. The facts have been uncovered, we know what this reality is.

Carole Baggerly: Right. That is a major hindrance to progress right now with vitamin D, is that the published official reports from the government say 20 nanograms per ml is enough, and it's not. It's just flat not, not even for bone health. But past the incidence of breast cancer which can be prevented by 80% ... I want to come back to that in a minute.

There are a number of websites that we look at and we pay attention to that talk about breast cancer prevention. And they talk about diet, which is good, they talk about exercise, which is very good, and a whole bunch of other factors, all of which are good and wholeheartedly recommend. But if I can cut 80% of it with one thing, by golly, that ought to be first. Keep doing the diet, that's good for you, and the exercise, but don't forget the vitamin D, that's major.

Doctor Mercola: I am torn when I think of the foundations like the Susan Komen Foundation who is ostensibly, their primary purpose is breast cancer, right? And all these pink ribbon campaigns just make me disgusted. You see the flight attendants on some airlines wearing them, their campaign weeks. They've never uncovered anything like this with the hundreds of millions of ... I may be out, it's large amounts of funding, probably hundreds of millions. And they've never uncovered something that can eliminate 80% of the breast cancer, 80%.

Carole Baggerly: There hasn't been a change in incidence rates in over a decade, not a decade. Fewer women are dying of it which is good, but right this minute, I just looked at some statistics this morning, there are over three million women, three million women, right now living in the United States-

Doctor Mercola: With breast cancer.

Carole Baggerly: ... who have had breast cancer. It's not necessary, we can change that.

Doctor Mercola: I still want to go back to the question I had earlier with respect to, if you've already been diagnosed with breast cancer and you've ignored this information largely as a result of the suppression of the truth from the conventional medical circles, there is value, obviously, you're still around telling us about this. But do you have any more insights as to dosing? And some people believe that even higher levels than 60 nanograms per milliliter are beneficial. The other indexes we were talking about, because we do have a lot of international viewers, and nanograms per milliliter-

Carole Baggerly: Is nanomoles per liter.

Doctor Mercola: Is nanomoles per liter which you have multiply by 2.5 to get the equivalent, if you wanted to do the calculations there.

Carole Baggerly: That would be 100 to 150 nanomoles per liter.

Doctor Mercola: Is there any benefit to going higher, especially if you've been diagnosed and you have had levels in the 30s or 20s ranges?

Carole Baggerly: That is one of the things that I will appeal to all of you out there who have had breast cancer especially, Please enroll in this next phase of the project if you haven't already because that's what we will be tracking. But, there is adequate research that shows a minimum of a 50% reduction in recurrence and right now the statistics show that there is somewhere between a 6 and 25% recurrence once you've had breast cancer which is grotesque. It's just grotesque. We took back again to serum levels, we took our chart with all of its plot and everything to see what is it look like and there are some data out about recurrence in serum levels, not much, but some. And the segment of the data that's available totally tracks the flow of our existing chart on prevention, which means to me, that it's possible you could prevent at least 50 to 80% of recurrence. And that's what every woman lives with who has had breast cancer is,-

Doctor Mercola: This fear.

Carole Baggerly: ... "I'm going to get it again," fear constantly. Constantly.

Doctor Mercola: But with res- ... you can't get to that level of recurrence until you've actually treated the original cancer. Is there any information on that and are higher doses beneficial in the initial treatment phase? So it's great that-

Carole Baggerly: Higher doses are-

Doctor Mercola: ... it prevents it and it prevents recurrence.

Carole Baggerly: ... beneficial during the treatment phase, they have shown that. Furthermore, they-

Doctor Mercola: And what type of doses are we talking about?

Carole Baggerly: I don't know about doses. I'm back again to serum levels.

Doctor Mercola: Serum levels is what I meant to say because I get that. If you don't get that, you need to because there's so many variables, sun exposure being the primary one or lack of sun exposure for most people. But the doses are going to be different depending on your physiology, your [SNIPS 00:12:28], your [sinenuclear 00:12:30] type [homomorphisms 00:12:31] and receptors and other variables. So you've got to measure the blood levels. This is what our appeal is, to continue and help us with this research to use vitamin D action-

Carole Baggerly: The serum level attainment during breast cancer treatment, if women haven't already achieved that 60 nanograms per milliliter, which most of them have not, overwhelming majority have not, 80%. Plus, the drugs that are given, especially the chemotherapeutic drugs, given during cancer treatment, breast cancer treatment, deplete the body of vitamin D. So many, many, many oncologists now recognize that that's the case and recommend that a woman up both her dosage to achieve that serum level and to minimize the responses or the-

Doctor Mercola: That's a good thing.

Carole Baggerly: ... negativity of chemo. Oh, yes. Oh, yes.

Doctor Mercola: The other component of that too which is a bit of a tangent, but it's really important as breast cancer's the number one cancer in women, is that if you choose to go with the conventional route and get chemotherapy, and I'm not saying, "Do that or don't do that," but if that's your choice, there's enormous benefits and I think the evidence is beyond clear at this point, that fasting the day before and the day of will have a magnificent opportunity to radically improve not only the efficacy of the chemo or the radiation that you're receiving, but also radically decreases side effects. So if you do that with a D level of at least 60 nanograms per milliliter, you radically improve your likelihood of success. So it's a great combo and a simple thing. Vitamin D is probably one of the cheapest vitamin supplements on the market and fasting is less than free. It doesn't cost you anything.

Carole Baggerly: Here's your money back because you didn't eat.

Doctor Mercola: And time which is an even more precious resource.

Carole Baggerly: We are really, really, really actively encouraging all women to be involved in testing their vitamin D levels on a regular basis, even once you've gotten it to that 60 range. Make sure you test every year because the bodies age, what you eat, drink, weigh varies and it's really important to maintain so that's important too.

Doctor Mercola: I have the privilege of being able to walk on the beach every day in sunny Florida. I've been doing an experiment because I've measured my levels every month for the last year and of course, they drop a little bit in the winter, but they really didn't drop below 60. I thought they would go to 70, 80, 90, but I'm between 60 and 70 and I can't get it over 70 even in the middle of the summer which is interesting. I think at some point, your body, that feedback, that magnificent feedback that we have which is what is my personal preference is. Obviously, the vast majority of people don't have that opportunity or the time to be out in the sun on a regular basis. If you can optimize your lifestyle and circumstances, that would be the best because there's other benefits than just vitamin D. There's [near-infrared 00:15:42], there's a lot benefits of regular sun. That's the way we were designed to get it.

You started with vitamin D, but we've recently expanded your expertise out into different areas and we're doing, we have been doing for the past year or two, maybe three, Omega 3's. So definitely want your feedback on that, and then to make an announcement here, first time you've heard it, is that we are in the process and we haven't figured out which tests, but you'll have access to a whole wide variety of different laboratory tests that can be done through the mail without a doctor's order unless you're ... there are probably some other caveats in there like New York or New Jersey or something, but anyway, will allow you to be able to do that.

So that's exciting, and again, we're able to fund these projects which admittedly don't bear fruit for a few years, because we have to get the data, compile it, and analyze it, and then find out this amazing information, publish it, and change it.

And actually, before we get to the Omega-3, I want to step back to the vitamin D, because magnificent stuff, those preterm births [crosstalk 00:16:46] this is huge. So I mean yes, breast cancer, that's a huge issue. An even further step as to prevention is to make sure that children are healthy when they're born. So why don't you talk about that?

Carole Baggerly: One of our goals very shortly after we started, kind of our tag line was called Moving Research into Practice, because the more I got into it, the more I realized that the research, the clinical research, the biological research, is there for many of these things, and yet the implementation process isn't happening. And you can't expect a new success story actually to be implemented for somewhere between 15 and 25 years.

Doctor Mercola: A sad reality.

Carole Baggerly: And so we work not only on the science but on the methodology. Really important. And one of those areas was pregnancy. Drs. Carol Wagner and Bruce Hollis of The Medical University of South Carolina published a beautiful paper in 2012 with vitamin D given to pregnant women, and they had doses of 400 IU, which was, again, the minimal required-

Doctor Mercola: We almost [crosstalk 00:17:57]

Carole Baggerly: ... and 4000 IU, which was the highest dose they gave, and-

Doctor Mercola: And again, sort of a tangent, half the dose that you determined through your study that is required by most people.

Carole Baggerly: Right.

Doctor Mercola: And that was the highest they were using.

Carole Baggerly: ... when they published the paper, they had a lot of very important information in it, and indeed also showing that one of the metabolites of the vitamin D intake, the hormonal piece actually achieved its maximum at about 40 nanograms per mL, which would imply that that would be the minimum amount that you would want to get in your body. Okay, but in their first publication, there was no indication of anything about preterm births. None whatsoever.

Doctor Mercola: Wow. That was 2012.

Carole Baggerly: Yes.

Doctor Mercola: Six years.

Carole Baggerly: But, the but is, I'm a mathematician, and I said, "Dr. Wagner, may I please have the data? I want to look at the data and analyze it not by dosage but by serum level and see what difference it makes." And that's what we did. We published a paper called Post Hoc Analysis, which is after the fact. You know, we re-looked at the data. That got published.

Doctor Mercola: Wasn't part of the initial design study.

Carole Baggerly: No, it wasn't part of the initial design, and it showed this 40% to 60% reduction in preterm births. I mean, it was like, if you analyze it properly, and I will say the word properly, by serum level, not by intake, you get the interesting results. And I want to, it may not be appropriate here, but I want to take it anyway, a side thing here ... the biggest problem with the implementation of vitamin D right now is the methodology that is used to analyze the data. Almost every time you see a report that comes out that says we tested for use with cardiac events with this, this, this, and this, and there was no effect. Take a look and see how they analyzed it. Did they analyze the data by serum level or by dosage?

Analyzing by dosage is really targeted to give you no result, so we, Grassroots Health, have already-

Doctor Mercola: And even by serum level, they may use 20 nanograms per milliliter-



Carole Baggerly: ... exactly.

Doctor Mercola: ... as their dose.

Carole Baggerly: They're not getting high enough up. But back to the preterm births, because the research itself was done at The Medical University of South Carolina, MUSC for short, they know about it. They know about the research. And so I talked with Dr. Wagner, and we met with Dr. Roger Newman who was overseeing the OB department, and we said how can we implement a full change in standard of care; it's not a pilot, it's not a test. We want to change the standard of care so that the women, all pregnant women, coming to MUSC get tested and get their serum levels up to 40 nanograms per mL, and we then went to work putting together all the how to, because they agreed to do it. They said yes, let's do it. I mean, this is phenomenal.

But it really took their knowing enough about it to do it. And after more than a year now, close to two years of doing that change in care, we have again demonstrated in a what we call a field trial, it works. The 60% held up. And some of the phenomenal data that we have on that is that the so-called ethnic disparity issue between the dark-skinned women and the light-skinned women for preterm births essentially went away. When you get them to the same serum level, that doesn't mean that- [crosstalk 00:21:57].

Doctor Mercola: It's all about vitamin D.

Carole Baggerly: It was all about vitamin D.

Doctor Mercola: Here's the exciting extension of that. This is [inaudible 00:22:02] research, but-

Carole Baggerly: It's all exciting.

Doctor Mercola: Well, I know, but it gets even more exciting; it's exciting on steroids, EOS, is that it means almost nothing, because we have a [inaudible 00:22:12] and some people say this might change a few people's lives, but what we're beyond excited is changing the entire medical community.

Carole Baggerly: Yes.

Doctor Mercola: And this information has been presented to the FDA for like the first approval of a vitamin for a medical condition that has been ... I think the previous one was, I forget what it was, it was some, was it fiber for heart disease or ... it was a long time ago, but it was, they hardly ever do that, and its life of this is going to pass. And beyond that is setting the standard for insurance companies, third party reimbursement, so virtually every pregnant woman will be able to access. And again, this is largely a result of your participation of the project then I think we helped fund this project too, or some of the other projects. Is there another university at Cleveland Clinic? Or? Well, I forget the background details, but

there's research going on to substantiate this and get this established nationwide as the established standard of care. Anything to add to that?

Carole Baggerly: It's happening. It's slow. There are different kind of things and back again to your audience, there's just a medical school audience kind of thing. One of the reasons we named Grassroots Health Grassroots Health is because we knew this was new, and we knew and still know that the real innovations and the real step forward people are the individuals. With breast cancer and certainly breast cancer prevention totally dependent upon you as individuals. I mean, people don't go to a doctor and say how I can prevent it.

Doctor Mercola: No.

Carole Baggerly: It doesn't happen.

Doctor Mercola: They'll give you a vaccine for that.

Carole Baggerly: Right. That's true. Or a mammogram.

Doctor Mercola: That's right. That'd be more preventive.

Carole Baggerly: Right, right.

Doctor Mercola: Somehow that has just been interpreted as preventive medicine for breast cancer is annual mammogram screening. What a hoax. [crosstalk 00:24:27]

Carole Baggerly: And that's not preventive, it's early detection.

Doctor Mercola: It's early detection, right. More specifically and that is almost defrauded in many cases.

Carole Baggerly: I think that they, meaning the people who do that or support that, really kind of gave up on the prevention idea sometime ago when they didn't see the drugs, and they didn't see the genetics, and they didn't see all of that, and they just didn't know about vitamin D. But it's been there for more than 30 years as an effect on breast cancer. So it wasn't new, but they didn't know. [crosstalk 00:24:57]

Doctor Mercola: ... for the cost literally of one mammogram, you can prevent breast cancer.

Carole Baggerly: That's true.

Doctor Mercola: It's crazy. Truly prevented in 80%. Not everything; like I say, there's other variables, but 80% is a pretty significant percentage.

Carole Baggerly: It's very good. The preterm birth thing and the changing of standard of care within the hospitals from an implementation standpoint, has a totally different

process than appealing to individuals. And what we have seen within the confines of the environment that we're working in is what we at Grassroots Health need to have in order to make this go smoothly and quickly, really is to be able to offer the hospital grants. That's how they work. And so we do not currently have funding for that, and so it's like, it's a different category of stuff that we'll be doing within Grassroots Health, which is soliciting the development of the ability to provide grants to hospitals to implement this, because it costs them time and money.

Doctor Mercola: [crosstalk 00:26:05] It costs them time and money, and MUSC I guess did that out of their own internal funding?

Carole Baggerly: They did a lot of their own internal stuff. We did get some funds from a couple of insurers in the area.

Doctor Mercola: Okay. That's the key.

Carole Baggerly: Right.

Doctor Mercola: Because you need to fund these hospital studies to provide the raw data that the insurance companies can look at to make the policy changes that would allow them, because it's a numbers game. As a mathematician- [crosstalk 00:26:31]

Carole Baggerly: It is. It is.

Doctor Mercola: ... you fully appreciate that, and they can see that for a relatively small amount they can radically reduce their expenditures. So it's a really good investment from their perspective, but they need the data first.

Carole Baggerly: They need the data, and the hangup that the insurance companies have right now is that the way that environment is currently structured, they can't recommend or prescribe treatments. That's just legally not their role. And the, back again, to my statement about the research methodology being poor right now, they are sitting back looking at the research reports and saying it's not convincing yet.

Doctor Mercola: Right, right.

Carole Baggerly: But it's not convincing because the research hasn't been presented right.

Doctor Mercola: Or done properly.

Carole Baggerly: Done properly. So actually, in early spring, Grassroots Health will be offering a course to researchers and statisticians on how to do nutrient research properly.

Doctor Mercola: Excellent.

Carole Baggerly: Yes. And-

Doctor Mercola: [crosstalk 00:27:31]

Carole Baggerly: ... we will let you know about that and everybody, because we can see that that's where ... it's not the intent of the researchers, and the researchers know the biology; it's mostly in the statistical treatment and the knowledge thereof, and so that's where that is.

Doctor Mercola: Well, this is really surprising, because I must admit, I was somewhat skeptical when we first started organizing. I didn't really think it was going to get a lot accomplished, but I mean, you beyond exceeded- [crosstalk 00:27:59]

Carole Baggerly: I mean really now?

Doctor Mercola: I know. Obviously, you proved yourself, but I didn't think it was going to be this ... I thought they might get some results, but nothing like this. I mean, you are changing the standard of care, which is just beyond phenomenal. So, any initial insights or preliminary data on Omega-3 research?

Carole Baggerly: Yes. I want to back up one level from that, but yes, there is, and I will tell you. We have expanded our software for the user community and will be releasing some new modules within the next week or two to allow you to track all kinds of nutrients. All kinds. Not just vitamin D and Omega-3.

Doctor Mercola: Is this self-reported or ?

Carole Baggerly: Self-reported.

Doctor Mercola: Okay.

Carole Baggerly: Intake as well as lab results. That's why we're adding more labs. But anyway, on the Omega-3s, we've only been doing that for a little over a year in terms of gathering the data, and we don't have a lot of people who've had a second test, but number one, number one, it is very clear is that it helps reduce pain levels.

Doctor Mercola: That's good information.

Carole Baggerly: Absolutely. Since pain on our kind of priority list of what are you experiencing, what's your biggest complaint, so to speak; it's called pain. For everybody, any age.

Doctor Mercola: How about fatigue? That seems to be another symptom.

Carole Baggerly: We don't get that too much.

Doctor Mercola: Really?

Carole Baggerly: Yeah.

Doctor Mercola: Interesting, because a lot of [crosstalk 00:29:24].

Carole Baggerly: As a complaint.

Doctor Mercola: Yeah. Interesting.

Carole Baggerly: I don't know that they don't have it. But pain. And so we see some significance there, but it's tracking adding to the vitamin D levels. So, having both tests being able to tell you that they're working together, they really aren't independent, and that's the way vitamins and nutrients are; they work together. It greatly reduces the pain level. And I want to talk about that combination to ... we just entered into doing a research project with the Children With Diabetes Foundation. And guess what their treatment protocol is to prevent type 1 diabetes?

Doctor Mercola: Vitamin D?

Carole Baggerly: Vitamin D and Omega-3.

Doctor Mercola: Omega-3.

Carole Baggerly: And we will be tracking that and its influence on the preliminary kind of data that says you have or you don't have type 1 diabetes, and it's already in six months showing results.

Doctor Mercola: Wow.

Carole Baggerly: Showing results.

Doctor Mercola: Because this is one of the worst diseases to get, because it's so unfair. Most all the illnesses that we get are self-induced. Not all, of course, but the vast majority, well over 80% from my experience. The good thing is if you have the opportunity to change it, but the problem with diabetes type 1 is that, you know most of the time it's due to circumstances beyond your control, at least we thought beyond our control, is this nebulous autoimmune disease. You radically reduce your life expectancy and you decrease your hassle factor and living and it's just a ... the only solution is a pancreatic transplant, because we can't control it well. [crosstalk 00:31:12]

Carole Baggerly: There is a beautiful study, back again to one of our experts, Dr. [Garland 00:31:17], that we work with ongoing, he published, I believe it was in as early as 2008, which is a few years ago, a beautiful U-shaped curve where the horizontal axis was the latitude and the middle point being the equator, and he plotted the incidence of type 1 diabetes, and it almost goes down to zero at the equator and it comes up on the poles.

Doctor Mercola: Wow, that is so extraordinary.

Carole Baggerly: So the idea that type 1 diabetes is associated with vitamin D has been known, not attended to, but known-

Doctor Mercola: Associated, correlated with. [crosstalk 00:31:59]

Carole Baggerly: Yes. [crosstalk 00:31:59]

Doctor Mercola: Which is not causal necessarily.

Carole Baggerly: Does it matter?

Doctor Mercola: Well, it does matter, because ...

PART 2 OF 3 ENDS [00:32:04]

Doctor Mercola: ... necessarily.

Carole Baggerly: Does it matter?

Doctor Mercola: Well, it does matter 'cause you can make some pretty significant logic mistakes.

Carole Baggerly: That's true.

Doctor Mercola: But it certainly gives you the impetus to do the scientific study and evaluation to pretty much develop a causal relationship, rather than associate..

Carole Baggerly: There was, at a Children with Diabetes Meeting that I was just recently attending, Doctor Michael Clare-Salzler, a diabetes researcher at the University of Florida, said what we have done with our protocol, basically this field trial idea where people record their information, we record it, we analyze it, so forth and so on, in his mind has changed the face of clinical trials.

And what he is proposing, which I truly love, is he actually made the statement is, "We need to do our clinical trial after you've done yours and/or at the same time, but not five clinical trials before we implement it, especially if something is as safe as Vitamin D and Omega 3. There's no excuse for not proceeding because," he said that "when we do these randomized clinical trials, we have certain outcomes that we look for, but we've got 300 people, not 3,000, not 30,000." If we started and said these are the outcomes we're gonna look for, and certainly do the clinical trial to the point of knowing that it's safe. Safety is always a big concern, okay?

But then you pick it up with this field trial to test the same things. You might come up with very different outcomes, very different things that we ought to

then use the clinical trial to test. So he sees an enormous opportunity to change the way that research is done for all nutrients. Don't you love it?

Doctor Mercola: That's very subtle. I just wanna combine some of the observations though. This is exciting. We've known about the connection between auto immune disease, which Type I Diabetes is, and other auto immune diseases and Vitamin D like MS, 'cause it's the same-

Carole Baggerly: Oh big time, big time.

Doctor Mercola: ... similar type of association. So if you are able to successfully get the prenatal implementation of Vitamin D established as the standard of care, and have 60 nanograms per milliliter in all pregnant women, you will virtually eliminate Type I Diabetes, type gone. That is just beyond extra ... and you'll radically reduce MS 'cause there's other variables than Vitamin D. But Type I Diabetes is just extraordinary. So that is beyond exciting. And I would suggest that you ... It's a long term problem because obviously you have to have the children of the pregnant woman be evaluated. But that should be long term tentative care. And you'll probably not find any diabetes, Type I Diabetes.

'Cause it has been historically the other name for Type I Diabetes is Childhood Diabetes 'cause it usually occurs in child hood.

Carole Baggerly: There's another ... And the area that we really wanna get to, and we'll be doing a study with this with Doctor Wagner and Doctor Newman at MUSC, is preconception. Let's get way back here. There was a study done at Harvard by Doctor Scott Weiss and his focus is on asthma. And he showed that if a woman comes into her pregnancy with at least 40 nanograms per milliliter, they were zero cases of asthma of that child, period, zilch. So there are opportunities so far out there and ...

Doctor Mercola: It's exciting, isn't it?

Carole Baggerly: Yes it is.

Doctor Mercola: You've picked a really good deal. Oh, I'm wondering if you've differentiated in your analysis/evaluation the difference between oral intake and sun exposure with those levels? Or did it make a difference? Probably wouldn't, I would think.

Carole Baggerly: On the health outcomes that we track, it doesn't matter. We have a large group of people who use only sun exposure or tanning exposure to get their Vitamin D. And we can't tell. And the group is large enough. We can't tell the difference on the health outcomes that we track. One of the interesting things though is those that use tanning and/or just sun exposure have been surprised, quite honestly, that their intake still goes down in the winter, implying that, "Oh, you really are still getting something from the sun or from other sources."

So that is there. I wanna come back to other nutrients 'cause you mentioned something else ... like the thing. Magnesium is a very very very important nutrient that works together with Vitamin D. And we have seen people that take Magnesium at at least the 400 microgram level per day, which is-

Doctor Mercola: Well, milligram.

Carole Baggerly: Milligram. Thank you very much. Right.

Doctor Mercola: But that is still really-

Carole Baggerly: It is low. It is low.

Doctor Mercola: ... way under dose, just like Vitamin D. Not as massively under dose, but it's still way under dose than you need.

Carole Baggerly: The Vitamin D level for quite a number of people all of a sudden goes up.

Doctor Mercola: Interesting.

Carole Baggerly: So, people who have complained over the years, "I can't get my Vitamin D level up."

Doctor Mercola: It's the magnesium.

Carole Baggerly: By increasing their magnesium intake, all of a sudden, the Vitamin D level goes up, which again is why we really need to track the Vitamin D ongoing. It's just kind of like you can see what happens-

Doctor Mercola: Doctor Carolyn Dean had noticed that too and was recommending that. And I'm wondering if you've noticed anything, if you're tracking Vitamin K2, because that also works similarly with Vitamin D. It has many of the similar benefits of Vitamin D.

Carole Baggerly: Exactly. We don't have the data on that doc, but we will. That's back again to our new system has the ability to track a whole bunch of nutrients.

Doctor Mercola: Unfortunately, Vitamin K2 is one that you can't easily measure.

Carole Baggerly: Nor can you measure magnesium except by intake. I mean, you can do blood tests, but they really don't tell you much.

Doctor Mercola: They're not that great. They're really ... Well, serum RBC levels would be the closest. Some people will contend that hair analysis might be useful. Well that's great. Any other news and exciting things we can anticipate?



Carole Baggerly: Growing awareness, which you've definitely helped contribute to. Thank you very much. The very fact that when my husband and I took our first trip all around the United States in 2007, looking at Vitamin D and meeting with the researchers, on the shelves of a conventional drug store or something you might see some 400 IU capsules, period, that was it. And now you go in to almost any drug store any place in the United States, and you see up to 10,000 IUs sitting right there on the shelf. This is enormous. This is enormous.

Doctor Mercola: It is. It's a great accomplishment achievement. But I'm wondering, getting back to your research, if you've teased out any details with respect to dosing. Obviously the dose, if you're gonna do ... Single dose is 8,000. Is there a difference between 8,000 a day versus 50,000 a week?

Carole Baggerly: There are some biological differences with how the body handles that kind of dosing. And we always recommend daily dosing. And I will tell you my logic on that. Doctor Hollis, also from MUSC, they tested pregnant women and then they tested the lactating women after they had their babies. And they discovered, somewhat to their surprise, that what goes through to the infant is actually D3. It's what you take. It's what the capsule is made of.

Doctor Mercola: Interesting. That is interesting. You're such a great researcher.

Carole Baggerly: It's not the 25 OHD. And so, in order for the baby to get at least the 400 IU, the mom had to be taking at least 6400 IU in order to produce enough in their breast milk daily because that D3 degenerates in the system very quickly. To take it weekly, it wouldn't be there.

Doctor Mercola: Wow. 'Cause you're just going back to the 125 D, which is the theoretical active form.

Carole Baggerly: Right. So my kind of philosophy is I don't know the biology yet, nor has it really been written about, and the great detail which this kind of big interval dosing does, although Doctor Vieth has done a lot, Doctor Reinhold Vieth. If it matters that much in lactating women, what else does it matter too that I don't know about? And there is so much unknown, that I'm not going to risk not taking it daily.

Doctor Mercola: And there's another historical and cesural perspective.

Carole Baggerly: Of course.

Doctor Mercola: No one ever swallowed Vitamin D pills 100 years ago. Right? The only way we got it was either through food, and it's a very small contribution, virtually insignificant, but it was through the sun. And ideally, you're supposed to be exposed to the sun on a regular basis. So there should be no danger to take it every day. And in fact, it should be the optimum should be the ideal. A lot of

nutrients, you have to be careful, you can't take continuously. But Vitamin doesn't appear to be one of them

Carole Baggerly: Vitamin D is good. And again, if you're monitoring your serum levels, there's no danger. The 50,000 a week is probably not as bad as it could be. But Doctor Scragg just published a paper on dosing of 100,000 IU once a month. And his main outcome was cardiovascular events. And 100,000 IU once a month is about 3,000 IU a day. So on average, it's not much. But it showed nothing, no benefits whatsoever.

Doctor Mercola: Wow. That is fascinating.

Carole Baggerly: And yet ... and some years ago, they did a dosing for women to help prevent osteoporosis and falling or whatever and they gave 400,000 IU once a year, as I recall, it was either 4 or 5. And it actually increased the numbers of falls. So there is danger these big doses, even though the average might look good over a year, an instantaneous dose of that. But anyway, we just published in a newsletter this last week something which had Reinhold Veith's information in it about the so called [inaudible 00:43:10] dosing. And he certainly is an advocate for daily dosing.

Doctor Mercola: That's good 'cause he was one of the researchers that actually supported the bolus dosing initially. But he shifted. I didn't realize. That's good. So you know, what I neglected to mention early on is that as individuals we leave a legacy, and one of my legacies, I think probably one of the biggest ones is that I was one of the first journalists, physician journalists, to strongly advocate the use of Vitamin D clinically. When I first started doing that over 20 years ago, it was not widely accepted. The general thought is 2,000 units a day will kill you, and everyone essentially doesn't need it. All you need is the RDA.

And it was heresy to say anything but that. So largely because of your participation [inaudible 00:44:03] physicians, I think we were one of the big catalysts for changing the conventional system, that they now accept it. It is not disputable. There's no controversy at all. But you took it the next leg and established the scientific support to implement this. So it's great.

Carole Baggerly: Thank you.

Doctor Mercola: So let me give you a big hug.

Carole Baggerly: I will be happy to have a big hug. Unh!

Doctor Mercola: Ahh. All right.

Carole Baggerly: Thank you.

Doctor Mercola: Okay. Any other closing words?

Carole Baggerly: I would like to invite everyone to stay in touch and stay participating, and watch out for a monumental new announcement about My Data, My Answers, which is a new software implementation that we are doing which allows every user to individually track or choose what trackers they want to do from the standard questionnaire, plus add custom trackers, meaning if you wanna track how your toe hurts today, you can do that.

Doctor Mercola: All right. Good. We should do another interview on that.

Carole Baggerly: Yeah. I'll be happy to.

Doctor Mercola: And then we can really encourage people to focus on that.

Carole Baggerly: Sure. Of course.

Doctor Mercola: But in the mean time too, look at what, for those of you who have already participated in the action, for those of you complained about the prices should be free, well if it's free, you don't support this type of research that can change the standard of care. That's such an extraordinary kind of thing.

Carole Baggerly: Well, we want the value, back again to the analysis, to be of sufficient value to the users. That's really why we've kind of worked on the software stuff is to give them so much value that they can see what's really happening.

Doctor Mercola: And there's no charge for this program, I'm assuming. Is there?

Carole Baggerly: No.

Doctor Mercola: Yeah, it's free.

Carole Baggerly: Thank you.

Doctor Mercola: You're welcome. Well, thank you again.

Carole Baggerly: My pleasure. And thank all of you again.

Doctor Mercola: It's kind of one of the coolest things to make a difference. And you certainly have.

Carole Baggerly: Thank you. I appreciate it doc.

PART 3 OF 3 ENDS [00:45:58]