

Dr. Gould: Alright everybody that must be me. Welcome to get your smile on. I'm Dr Joel Gould your Well,ness dentist, and we are broadcasting live from beautiful Manhattan Beach, California. Last week we went live, we had a little bit of a technical glitch and it put my skill as a live broadcaster to the test. Tonight hopefully we'll have none of those problems. I'm excited to get to my guest and what I wanted to sort of talk about for a few minutes. We've been talking about my health and my issues regarding my Sleep Apnea, and how that investigation took me down a strange road and led me to a very interesting vitamin called Vitamin D.

Vitamin D is not a vitamin, it's a hormone, and for any of our listeners you've heard me talked to different people on this topic, and it is in my opinion going to be one of the largest public health issues facing this country and the entire western world. Tonight I am bringing you one of the authorities on Vitamin D. He is a medical doctor, started out early on with an anti-smoking campaign, back at time and a place where people smoked. He refused to see patients that were smokers unless it was an emergency. He has been an activist in so many different ways. I'm going to talk to him about his career. I'm going to introduce my guest. My guest tonight is Dr John Cannell. I'm going to bring him on right away. Dr Cannell, are you there?

Dr. Cannell: I am. Thank you for having me.

Dr. Gould: My pleasure. Okay, welcome to *Get Your Smile* on. I want to talk to you about so many things but I want to let my listeners have a little bit of background about you. I'm really curious you know, you've done so many incredible, interesting things. You've been an activist for so many good causes. Where does it come from? Let's talk about you first. So you're a graduate from the University of North Carolina for your medical degree and from there you worked in I think emergency medicine. Tell me about the antismoking campaign that you were at the forefront of.

Dr. Cannell: Well, in 1982 I was in West Virginia had a clinic in the Old Field of West Virginia and I noticed that all the minor's smoke. To make a long story short the minors view Black Lung Disability as their retirement program. They don't have a retirement program so black long disability is a retirement program. The minors have learnt a long time ago that unless you smoke you wouldn't get Black Lung Disability.

Dr. Gould: Wow!

Dr. Cannell: It was incredible all the minor smoked and so my anti-smoking campaign stop when I realize that the system had because of pulmonary functioning test and the way they're connected; the system was actually making the minor smoke so that they could get their disability retirement.

Dr. Gould: Wow! That's an incredible story. Okay, so you took a leap in the school testing issues. How did that come about?

Dr. Cannell: Well, I just had this grain of social activism. I don't know where it comes from. But the public schools in the United States, of course, are not doing a good job. I notice one day that all the 55 counties of West Virginia were claiming they were above the national average on their standardize test. I said, "Oh great that's good news". Then I stopped and thought about it, and I said if Virginia is above average, what state is below average?

So I had my nurse and my X-ray technician and the people in my clinic call the Mississippi and Alabama and South Carolina and Arkansas and every place we could think of that might have low test scores. We ended up calling the state of education of all 55 states and they were sort of suspicious of us so we had to tell them a story. We said we were thinking of moving there and would you send us your test results and we got 50 glossy brochures from all 50 states showing how high their test scores were and that they were above the national average. So what I did is I discovered that all 50 states were claiming they were above the national average.

Dr. Gould: Wow! Alright, so basically you don't like social injustice. I love that. You really like to get behind your causes which is a little interesting. So I want to flash forward to later in your career. You became a psychiatrist and then from my sort of work or investigation on you, you became really interested in nutrition. How did that sort of come about?

Dr. Cannell: Well, before that I spent ten years after the education thing failed. I was not able to achieve any change in education, but I went into psychiatry, and psychiatry was going through a very dangerous hysterical phase about sexual abuse. They were doing something called Recovered Memory Therapy where you would go into see a psychiatrist for things like anxiety, and the psychiatrist would tell you that the cause of that anxiety was that you were sexually abused as a child and you've forgotten it. There were tens of thousands of psychotherapists in the United States practicing recovered memory therapy, and they promised that if you just came back a hundred times they would get to the bottom of it and recover the memory of your abuse and then you'll get better. That was a promise.

Many people believe this and they recovered the memories, and then they went home and accused their aged parents of the most viable crimes you could think of based on these recovered memories. It led to what is called False Memory Syndrome with the recognition that if you believe something to be true strong enough you'll get a memory of it. That's the memory works, memory is reconstructive. It's not a video cam it's reconstructive. Your memory construct itself all the time what you believe.

So the psychiatrists were doing recovered memory therapy destroying thousands and thousands of American families. Once you go home and say to your father, "You sexual abuse me when I was three years old". I mean that family is never the same. That father can never trust that daughter again. I mean, it's a permanent change and so I devise a strategy to end recovered memory therapy in which involved lawyers and lawsuits. But the end results was that recovered memory therapy was discredited and the therapists who were practicing recovery memory therapy could no longer get malpractice coverage. So recovered memory therapy ended just as quickly as it began and we haven't heard a Pete from it since.

Dr. Gould: Right. Well,, I know it's interesting I am speaking from Manhattan Beach

Dr. Cannell: I remember it was the McMartin Day Care scandal that brought this to the forefront. Was it not?

Dr. Gould: Yes, it was. Those people were all innocent. Nothing happened there that was a part of Recovered Memory Therapy. Children are especially prone to recovery memory therapy. If you think back on the 90s there were about 12- 15 day care cases around the country, and those stopped as soon as the recovered memory therapy stopped. So if you think about it there haven't been any day care cases in 15 years

Dr. Cannell: Yeah.

Dr. Gould: So they stopped. Those people were all innocent. All those people accused of daycare case sexual abuse were innocent.

Dr. Cannell: Terrible! Wow! Okay, so how did that get us to the next clause? This was a success you achieved something, you did good for society in general. Then what was your next move?

Dr. Gould: Well, with the death and Recovery Memory Therapy I didn't have anything to do, and so I was always interested in nutrition. I spent a couple of years just reading about what was known about nutrition on the National Library of Medicine. I ran across Vitamin D, and realized a couple things that one, people treated it like it was a vitamin. That is that you're supposed to get it in your diet, and that's not how humans get Vitamin D. They get it from their skin from sunlight striking their skin.

So it's not a vitamin it's a pro-hormone that's made in your skin, and it's turned into a powerful steroid hormone that regulates all kinds of metabolism. So the recommendations at that time were two hundred units a day was adequate Vitamin D. If you go out in the summer and sunbathe with your swimming suit on for about half an hour in the midday sun, you'll make about twenty thousand units of Vitamin D. So it seemed to me that nature was saying that you can make twenty thousand and the

government was saying you can take two hundred. It seemed to me you had to sort of believe nature or the government.

Dr. Gould: Right. Well, I know in previous podcasts we talked a lot about Vitamin D. I sort of laid a lot of the groundwork about the different studies showing the increased incidents of disease, the further you get away from the equator. So this is something that my listeners are aware of, and so everything that you're saying it's great to hear you say it, because you're an authority on this. So you recognize that at that point in time was it sort of something that was getting known or little known in general? Was this more of a revelation to you? Was there already an understanding that this might be an issue that needs to be discussed further?

Dr. Cannell: Well, there were some Vitamin D researchers who believed that Vitamin D was really important. But they didn't get any publicity then, no one knew they existed. So I started a non-profit, a Vitamin D council, and the idea of the Vitamin D council was simple. We wanted to educate professionals and the lay public about the importance of Vitamin D. That was our goal. We have drawn from two hundred visitors a year on our Google analytics to almost four million unique users a year on our website. So we have taken an active role in educating people about Vitamin D.

Dr. Gould: Yeah. Well, just so you know, I came across all this semi by chance. Having sleep apnea, I investigated it. I came up with a whole bunch of different topics and when I came to the Vitamin D issue, yours was one of the first websites that I came across. I had no idea what this was. This was at a time when I was just beginning to discover really that Vitamin D is something so completely different than any other vitamin and how important of a chemical this is in our bodies. It was really refreshing too.

Your site was informative. It had interesting stories. It is one of those things that where as I started to get into this, I really couldn't believe that as a practicing dentist and an educated person just living in two different countries, I had still really heard nothing of this. It was really kind of shocking for me to have these revelations that this could be such a major shift in our healthcare that this is still not known. So obviously more visitors is great, but did you think was going to get known more quickly or are you surprised by how slow it's been, and for people to start to get the message?

Dr. Cannell: Well, it's been slow in political time but in scientific time it's been quite quickly. There are now ten times more Vitamin D blood tests been drawn by doctors than there were three years ago. There are twenty times more Americans taking Vitamin D supplements than there were three years ago.

Dr. Gould: Okay...

Dr. Cannell: So there's rapid growth in it. There's an old adage in science that says "*Science progresses one funeral at a time*".

Dr. Gould: Why?

Wow! So as I got into this I just generally asking my patients, "Hey. Have you had your Vitamin D level checked?" What's funny is some people got offended and said, "What? My Vitamin D is fine! I drink milk!", with the understanding that they think that they're getting all their Vitamin D from milk. Or "I eat healthy!" was almost like an accusation like I was saying "Hey you're an unhealthy person if you don't know this." The correct answer is "I have no idea.", unless you'd had it test. Because no matter what you think, people think they're getting lots of Vitamin D, they think they're exposed to the sun, and then when we test them here at the office we find out that they're really deficient. So many people are, which leads me sort of to the next topic is about sun exposure.

Now, we've discussed in the past that Vitamin D supplements are great, and that technically they're about half as effective as the Vitamin D that you make yourself from the sun. But there's a huge controversy with sun exposure than the dermatologists and what I had learned is called the anti-sun lobby. The anti-sun lobby, it sounds kind of ridiculous that there's a group of people who are organized saying "Stay out of the sun", and I know that you are not advocating going out into the sun because that opens a whole different can of worms, but do you have any idea how this all started with this anti-sun lobby?

Dr. Cannell: Well, actually we do recommend going into the sun and I'll get to that in a minute. I want to get back to the Vitamin D blood tests. On our website we sell an in-home Vitamin D test kit that is run by the single, most experienced professor of Vitamin D measurement in the world. It happened also to be the least expensive in-home Vitamin D test you can buy in the United States. So people if they want to know their Vitamin D level go on to our website or just Google Vitamin D council, and you will come to our website and you can find out what your Vitamin D level is in the privacy of your home. In terms of sun exposure, we recommend safe, sensible sun exposure. It's not clear from the studies now what percentage of the benefit on these studies is due to Vitamin D and what percentage is due to other effects of the sun that are beneficial that we don't know about.

Dr. Gould: Right...

Dr. Cannell: We know there are some, nitric oxide is an example, melatonin is another example, and beta endorphins are another example. There's things that sunlight does to human skin that are undiscovered yet, that we don't know about. So the safe thing to do is to sunbathe when the time is right for brief periods, ten, twenty minutes, five- ten minutes on each side. That way you'll get the benefits of sun without any of the risk associated with the excessive sun exposure. But at the same time we recommend that people five thousand international units of Vitamin D a day, because people cannot sunbathe every day, they just can't do it. They're working, you just can't do it. It's real simple. We

recommend safe, sensible sun exposure and also five thousand units of Vitamin D a day with the largest meals a day for the rest of your life.

Dr. Gould: Okay. So I want to go back to a couple of things. First of all, I totally agree with you and I worked in Manhattan Beach, very close to the beach. I have tried on my lunch break to go get some safe sun exposure, and I don't want to do it in my parking lot. I don't want patients to be saying "What is Dr. Gould doing with his shirt off lying in the parking lot. So it's pretty much impossible to get that sun exposure except for your weekends. Then for all the people that live in climates where their sun isn't available everyday, it makes it even more difficult. What I'm kind of bothered by is the whole dermatologist anti-sun lobby because we're basically saying "Put sunscreen on after that ten or fifteen minutes if you're going to be out in the sun.

I kind of want to talk to you about UVA, UVB radiation and whether wearing sunscreen and not being exposed to UVB rays is giving people the false sense of safeness, when they're spending all day out in the sun, and they're not getting the beneficial effects of the UVB rays that produce the Vitamin D, but they are getting all the radiation damage from the UVA rays and not burning because they have the sunscreen on. What's your thought on that?

Dr. Cannell: Well, that's changed. Sunscreens on sale today block both UVA and UVB. It was a big change just a year ago. But the revelation that for years and years sunscreen blocked UVB but did not block UVA was sort of a scandal in the sunscreen industry. One thing that should be noted, the incidents of skin cancer has continued to increase with the use of sunblock. So you would think that the use of sunblock which has been going on for twenty or thirty years now in the United States would have resulted in reduced skin cancers. It has not.

Dr. Gould: Right. So what is your feeling of why that is?

Dr. Cannell: I think it's because when you put on sunblock, you block production of Vitamin D, and I think Vitamin D is actually involved in the prevention of skin cancers. If you get safe sensible sun exposure and you don't burn, sun-burning is the real villain here. If you sunburn you made a mistake, but safe sensible sun exposure raises your Vitamin D level and actually protects the skin and has an anti-aging effect.

Dr. Gould: Right. Well, these are things that I've been definitely bringing attention to because as I start to investigate this further, the number of things that are affected by Vitamin D is fascinating. I know that one of the things we talked about was autoimmune diseases. I've shared with my listening audience that I do have Crohn's Disease and this has been an issue my entire life. On reflection of my growing up, I really now believe that my health issues were primarily caused by Vitamin D deficiency in conjunction with my sleep disorder. I've had terrible clogged airway most of my life, and I think that set me up to be a victim of Crohn's disease which is in my family history.

One of the things that we talked about that I found so shocking was that my Vitamin D level went from below twenty up to thirty, my clenching and grinding of my jaw decreased and then when I got to just over thirty-five, my Crohn's symptoms pretty much faded away. So right now I believe though it's hard to tell because I don't want to do a blood test every second week although I'm curious to see how I'm supplementing myself both with sun exposure and supplements because I want to get to a sixty or seventy, and you mentioned that it wouldn't be unusual for someone like myself to continue to have those symptoms disappear. Is it something that you've known, that you've seen in literature?

Dr. Cannell: It's not in the literature but it's something that I've seen repeatedly. With autoimmune disorders, as long as the autoimmune destruction is still going on, as long as it's still present, the Vitamin D has an effect on autoimmune destruction. Whether it be lupus, rheumatoid arthritis, Crohn's disease, in then it helps in those situations.

It doesn't help in autoimmune diseases where tissue is already destroyed, like in type-1 diabetes the beta cells of the pancreas are already destroyed and Vitamin D won't bring it back. Or multiple sclerosis, the insulating sheath of the nerve, the myelin is actually destroyed and Vitamin D will not bring it back. So it has to be an active disease if there's hope for Vitamin D, and Vitamin D does not work in all autoimmune disorders that are active, so not all Crohn's disease patients will notice an improvement in their disease with higher levels.

Dr. Gould: Interesting...okay

Dr. Cannell: We don't know why.

Dr. Gould: Well, I guess there's still a lot of things we don't know. It is 2015 and we're just talking about this now. So in cases of M.S. and in cases of autism is it your opinion or does literature show that an earlier intervention with Vitamin D supplements or sun exposure is helpful?

Dr. Cannell: Well, with my autism theory, yes that's a theory but it's not been proven, of course because it's such a new theory. But that's my theory that the earlier you intervene... in fact I just reviewed a paper today that's going to be published. If you have one autistic child, a couple's had one autistic child; their risk of getting another autistic child is twenty percent. That's a well-known figure. A friend of mine did a study in which he recruited pregnant women and gave them all seven thousand units of Vitamin D during their pregnancy and gave them seven thousand units a day when they were breast-feeding so the breast milk was rich in Vitamin D. Then when the infants stopped breast feeding and started eating food the child was given one thousand units a day until they were three years old. They did tests on these Vitamin D children for autism, and they found that the incidence was closer to two percent than twenty percent in the Vitamin D supplemented mothers and children.

Dr. Gould: Wow. That's pretty incredible. Here in my practice you've got a lot of pregnant women. This is an area where there is a lot of young families. I ask across the board about Vitamin D. Some doctors are suggesting supplementation to these pregnant women and some have no clue at all, and I just find it really interesting that we're still at the state where it's not known.

Dr. Cannell: Our end game, well it's my personal end game, it's not the Vitamin D council's end game because that's a non-profit operation that I happen to work for but I don't run it, it's run by a board of directors. Personally, my end game is through the legal system. When the literature becomes more clearer that Vitamin D deficiency causes autism. What we need is family with an autistic child to sue their obstetrician saying "You should've known to give me Vitamin D supplements because you should've known that would've prevented the autism.

Dr. Gould: So that's what it takes in America...

Dr. Cannell: Yeah that's what it takes in America, as soon as there were a couple cases like that that were successful, every obstetrician in the country would be giving their pregnant women Vitamin D. That's how change happens in the United States. We like to think it happens scientifically, but the legal system has a lot to do with it.

Dr. Gould: It's always money when it comes down to it. Money is the thing that talks and part of why I've been enjoying my role here as wellness dentist talking about these different health issues is that coming from Canada I had a different perspective on what the medical system should be, and being a dentist I also am under far less influence from pharmaceutical companies and their studies that are geared to get doctors to prescribe their medications. So my perspective on this is kind of more one of shock that this is America and this is really what it takes. How far away do you think we are from the real mainstream in that it would include reasonably every medical doctor or obstetrician knowing this? Where do you think we are on the scale of the tipping point of this?

Dr. Cannell: Decades.

Dr. Gould: Geez okay.

Dr. Cannell: I won't live to see it.

Dr. Gould: Oh boy. Well, if I have anything to do with it hopefully you will, because this is something that upsets me a lot, knowing that in theory I can't prevent anything and I can't go back in time. But knowing the life that I had, I had a pretty miserable youth, from age twelve to about seventeen. It was pretty horrific. If doing this podcast and having you on the show can even get one parent to take their kids to somebody who will help them supplement their Vitamin D, or will go online and start to do this on their own, then I will feel satisfied that this is worthwhile for me. Just knowing that I

potentially had a completely preventable disease that shaped my entire life, it's pretty terrible. I really want to come out as strongly as possible to let everybody know.

On a worst case scenario, even if we're completely wrong, the idea that the sun gives you twenty thousand international units a day, there really should be no issue with people taking three thousand or five thousand or seven thousand. What I found is most of my patients, the more I educate them, the more willing they are to trust me and say "Okay I'll take ten thousand instead of saying "Ten thousand? That's tons!" So really it's a battle for their education.

Dr. Cannell: Do you know how much ten thousand units is? It's two hundred and fifteen micrograms.

Dr. Gould: That's a pretty small amount.

Dr. Cannell: Right. It sounds like a lot. Ten thousand units, but two hundred and fifty micrograms doesn't sound like much at all. But that's what it is. So part of the problem is this antiquated way we use of measuring the content of Vitamin D using international units. If we used micrograms it would be much similar.

Dr. Gould: Okay. We're getting close to the end of the show here, but this is a question that I've asked you and this is a question that I've asked myself and I don't believe that Vitamin D is the cure to everything, but after everything I've learned, Vitamin D deficiency is really the instigating cause to so many diseases. What would you say to somebody who has sort of not been aware of this before? What is the most compelling information you could give to somebody to make them understand that this is of critical importance and we all need to pay attention?

Dr. Cannell: Only that it's not a vitamin. It was never made to be put in the mouth, it was made to be put in the skin, and if you don't sunbathe you're deficient unless you take a supplement. It's that simple. Unless you sunbathe you're Vitamin D deficient, unless you take a Vitamin D supplement.

Dr. Gould: Okay. In the sort of list of issues that are caused by Vitamin D deficiency, is there anything in that category that really stands out to you, that you want everybody to know, in theory?

Dr. Cannell: Only that everybody's Vitamin D level is different and can't know unless you test it. The magic number is about fifty or sixty that's what you want your Vitamin D level to be at, and on the people listening to this podcast I'd bet only maybe ten percent of them have a Vitamin D level of fifty or sixty.

Dr. Gould: I would say it's probably even less. We tested my entire team here, and nobody was over twenty, not one single person. Pretty interesting.

Dr. Cannell: That doesn't surprise me either, and that's of Manhattan Beach in Southern California.

Dr. Gould: Yes, it is. So Maria my producer is listening. She's one of my patients as well, and we tested her, I knew that she was going to be deficient. Maria I'm going to spill the beans. She was thirteen, and so we are supplementing Maria, we're going to get her some Vitamin D and get her back to health. Dr. Cannell, thank you so much for coming on this podcast. I really appreciate all the incredible things that you've done for society. I think we need a lot more people like you just so that fairness and honesty and integrity can be restored to this country and to the world.

Dr. Cannell: Well, thanks for saying that, I appreciate it. Thanks for having me on the program.

Dr. Gould: Pleasure is all mine. Thank you, sir. I look forward to hopefully speaking to you again in the future.

Dr. Cannell: Okay. Bye now.

Dr. Gould: Alright. Goodnight. Alright everybody that was Dr. John Cannell and you can find more information about him and the Vitamin D council at [www.vitamindcouncil](http://www.vitamindcouncil.com). Obviously we do use some of their tests here in my office. I didn't want to get into drawing blood, going to the dentist is scary enough. But this is a test that we've administered in our office, because I'm so curious about this, and one of the things that we didn't talk to him about but we're going to be reviewing is how Sleep Apnea and Vitamin D are interrelated. So on that note I want to thank everybody for listening tonight, to "Get Your Smile On", I look forward to speaking to you all next week, and have a great night. See you soon.