Lifestyle Or Tech: What's Best For Your Heart? Transcript

(Transcripts are generated by AI and may contain errors)

Welcome and Dr. Chinnaiyanu2019s Background

Well, everybody, welcome back. Reversing heart disease naturally 2.0 summit. If you were watching last year, you saw an amazing amount of knowledge out of this wonderful friend and doctor, Dr.

Kavitha Chinnaiyan last year. She taught us a lot about Ayurvedic medicine and her deep, deep knowledge. And we're going to get there a little later in some of this Q&A I have with her.

But welcome back, Dr. Chinnaiyan. Thank you so much for having me. And pleasure to know you. I think around 20 years when you were a fellow at William Beaumont Hospital in Royal Oak, Michigan, now known as Corewell and before that, let's Angels of Mercy Hospital in Ann Arbor as resident and chief resident.

And before that, your medical training in India. But you have had one of the most remarkable careers and like we could do three interviews and people wouldn't know is the same person because you have so many different aspects to talk about, but you are one of the world's expert.

I think you're a master from the Society of Cardiac CT Imaging, where it's a very high level of academic distinction. So, you know, a lot about the topic we're talking about.

You can't reverse heart disease if you can't measure it. And you are an expert on measuring it. So, you know, we're talk to Dr. Jay Earls from Cleerly Health and in different interview, but it was a lot of case studies.

We didn't really talk about the big picture. And, you know, I still don't get in 2024 why people are recommended to get call and ask about mammography and prostate exams and cervical cancer exams.

But they're not recommended to get heart screening. I mean, what's your thoughts that start with coronary artery, calcium screening? I mean, a technology that's over 30 years old, it's inexpensive, it's available.

Almost every hospital some people call calcium scoring or CACs. But everybody listening hopefully knows that at their local hospital for about $100, they could actually find out if they have silent atherosclerosis.

Do you think it's time? Is there a calculator that tells us who needs one or do you just think everybody should get one? Like everybody gets recommended to get the other cancer screening.

Yeah, I think I think it's really important that time.

Why Coronary Calcium Screening Matters

And you know, when you look at the timeline of cardiovascular medicine and its history, we are, in my opinion, we are at the threshold of something big and that something big has to do with pulling together not just the individual patient and, you know, treating their the degree of blockage they have in their coronary arteries, which is all extremely important.

And a lot of our work over the last, I would say, 50, 60 years has gone into that, which is really understanding the history of coronary artery disease.

But now with the with where we are in world history and the evolution of imaging and big data, we are at that point where this knowledge that we have accumulated from population studies and from individual patients and everything that we have garnered in terms of our knowledge bank, in terms of interventional cardiology or drug development or biomarkers, we are at the threshold where it needs to be disseminated, not into large communities and populations.

And we do that through screening. And the fear has always been that there are not enough data. This is where I think this question of do you think everybody should get it?

The naysayers will say, Well, show me the data that screening people will actually prevent events will make a difference in their natural history, in the natural history of the disease as well as the impact it has on populations with regard to decreasing mortality, decreasing morbidity, decreasing all of the effects such as heart failure and admissions and and so on and so forth and of course, costs.

So we have enough data now where those things need to be studied over the long term. But we studied that by actually disseminating that screening test into the larger population.

So the answer is yes, it is. It is time to screen people for coronary artery disease. The issue with calcium scoring is who do we select? How do we select people for calcium scoring?

CT And if you if you screen everybody, then, you know, before a certain age, say, age 40, you may be missing non calcified plaque and, and not really getting all the information that you need.

So I go by, you know, in answer to the question you asked, how do you select people? Well, in 2006, Don Lloyd-Jones published this really impactful paper on calculation of lifetime risk.

So if by age 50, you don't have any coronary artery disease and you don't have any significant risk factors for coronary artery disease, he disease, then your risk of developing coronary artery disease or dying from it is quite low compared to somebody who has the risk or has coronary artery disease.

So age 50 seems to be a good kind of a threshold for screening for coronary artery disease and lower if you have risk factors and so on. But too young, it's not going to be useful.

And and then, you know, beyond age 50, again, if you're asymptomatic, I think it makes sense to do screening calcium scoring. Well, I couldn't agree more.

Been a advocate for wide use of coronary artery calcium scoring due to the easiness, the low cost, the very low radiation not no radiation but low radiation.

Nobody's allergic to calcium score. Nobody has to have a perfect low heart rate and it just accessible. It may not be perfect, but it's accessible. There's a statement in medicine that on average it takes 17 years for a new technology to permeate into practice.

But calcium scoring was described in 1990 and it became available in Michigan in 1995 and 1996 and sure was very expensive back then. But there really is no financial obstacle anymore.

You can drive down the University Hospital in Cleveland and get it for free if you're in Detroit or you live in Cleveland. It's just a nice aspect that that university has done for years and years.

I point out there of you saw because there's always literature. You, of course, have contributed several hundred articles to the medical literature and we'll stick to a medical topic right now.

We're going to transition to the other magical part of your life in a minute. But, you know, from the Intermountain Heart Institute, which is Salt Lake City, that they took patients who presented with heart attacks and they look for those they called them Smurf's modifiable risk factors.

The high blood pressure, high cholesterol, the high blood sugar, the smoking, the mom, dad, brother, sister, were there really heart disease? They reported that about a quarter of people that have heart attacks have no standard risk factors that a doctor would have warned them six months earlier.

You're at risk for heart attack, but they found coronary calcium in all those people. Of course, they were a group

that had heart attacks. And I guess, you know, that is the untested hypothesis when you find a patient that calcium score of 130 or 290 or 84 and they're young, you know, will they make lifestyle change?

Will they, you know, if appropriate, take an aspirin and exercise more and if needed, used pharmacology to deal with their numbers and their pathology.

But I'm glad to hear you say yes. I feel that calcium score is is is such a good test for not just yet. It's such a good test for risk reclassification.

Using Calcium Scores to Reclassify Risk

You know, because it's not just starting people on medications, but it's also downgrading risk because if you don't have calcium and if you don't have coronary artery disease, then, you know, numerous studies have shown that statins are not going to help you.

You know, it's not going to do anything more to your already, you know, predictably good prognosis. So it's both downgrading the risk, upgrading the risk when needed and trying to decide how to deal with you know, with your risk now, which is really powerful, when, you know you have something, you can do something about it. So, yeah, I agree that, you know, it's time for really increased uptake of these tests.

And I am glad you pointed out the use of calcium scoring CT imaging to deny the need to be on medication because a lot of listeners to this summit prefer natural approaches, prefer diet, prefer supplements, prefer lifestyle like exercise.

And you know, that's what we certainly are teaching and promoting. But yeah, there's no data when you have a calcium score of zero or very close to zero that lifelong statins will benefit.

It's unclear where that tradeoff is. If it's at a calcium score at 100 or somewhere near 100 and above that, statins may become more impactful. But even the American Heart Association in 2019 finally joined the the statement that a calcium score zero can be a consideration to not use statins.

And in my practice and maybe it's a reason to sometimes take people off statins, they're relieved that they really had no justification to take a drug all those years, you know, with the exception of some diabetics.

So, yes, so that won't give up their smoking where their risk seems to be quite concerning. But yeah, hallelujah. We can confidently stop medication and still have a low risk patients.

So that's wonderful. Now you've got a patient in your clinic. I know you've cut back your practice. I we're going to talk about why in a minute, because you a wonderful group of patients that love you so much, of course.

But you have a page with a calcium score zero. And you tell them the good news. How long might you wait to consider doing another one? Yeah, it really depends on, you know, their their the the bulk of their risk factors.

I would say. And so I'm not averse to repeating that calcium score maybe in about three or four years and see if if there is now a change. And if not, then we continue with the same plan and or, you know, if something changes in their clinical picture, then I might go directly into a corner C. T.

angiogram if they start developing symptoms. So things like that. Right. And that's where we're going to go in a minute. And I'll say, in my own case, I had access to a coronary calcium CT scanner at age 40 because my medical building in Troy, Michigan, at the time installed a new one.

And I, I didn't really need it. And I came out of zero. I did it at 50 and I did it at 60 and I remained a zero, which is happy news. I have gone on and done a coronary angiogram just because I'm a I'm a guinea pig and I like to be involved with new technologies.

So I can talk about that, too. But now I think for the low risk patient, which I would have qualified, that's probably the upper limit. I I'll tell you, my wife went about 12 years from her last her first scan, which was a zero, and this year went back 12 years later and remained a zero, which is wonderful.

But she has a I'll leave a generic a good friend who was also a zero 12 years ago and really we haven't really defined why I actually she has lipoprotein little age genetic inheritance she went from 0 to 212 years.

We're dealing with that asymptomatic atherosclerosis and probably in retrospect knowing she had inherited lipoprotein little I could have moved it up a little sooner but kind of lost track of her from a medical standpoint.

So now my wife, I didn't lose track of my wife, but I mean, I lost track of her acquaintance. And we're you know, we're using everything. We're talking about the summit.

So then there's this test. I don't know when the first coronary CT angiogram was done. We've been ordering them at Beaumont Hospital through the E. R. for a good 15 years. Maybe this was identified earlier than that, but it certainly exploded lately.

Why don't you tell the group, you know, the critical short form differences from having a coronary c.t angiogram versus the simple coronary calcium score.

Yeah, so, so incidentally, the first coronary angiogram, the the case report was published in New England Journal of Medicine in 1978, but often talking about, wow, saying we can we can detect sinuses.

So I think it was 1978 or is somewhere around then.

When to Repeat Calcium Scans

So it's it's been a while, so. I know. I'm sorry. Maybe what does a patient go through when they have a coordinated C D angiogram that's different than a calcium score? Yeah.

So the difference is with a coronary CT angiogram, we use intra vascular contrast. So we give contrast in Ivy Dye through a vein in the arm. It's a same dye that we would use with a cardiac catheterization where we take in, you know, we'd put in these catheters that go all the way to the heart and we inject dye into the arteries directly to take a look at the coronary arteries.

We get the same kind of information, actually more information with a C. T. angiogram. But then we give that contrast through a vein in the arm. And so the equipment is the same.

The difference between a calcium score and a CTA is that in a calcium score, there is no contrast. And with the c. T angiogram, there is contrast with a calcium score.

We don't really worry too much about breath, hold or heart rate and things like that, but with a CT angiogram and the images need to be more controlled.

So the heart rate has to be nice and low. The patient needs to be able to follow breath instructions. So those are some of the distinctions. But more importantly, most importantly, a calcium score only gives you a visualization of atherosclerotic plaque or these plaques in the arteries that are already calcified.

Whereas in coronary city angiogram we can see plaques that are both calcified and are not yet calcified. And that's important because a lot of the heart attacks and a lot of sudden deaths, for instance, would happen in the presence of plaques that are not yet calcified.

Right. So it's a little more complex. Obviously, there are people listening that may know they have an iodine contrast allergy. Yeah, a bit severe. It can be a real roadblock to getting a coronary CT angiogram.

There are people that run a high rate of 90 and need medication and sometimes it doesn't work and we can't get their heart rate down to a magical 55 or 60 or less.

And the study may be canceled. I've had people show up and go home because sometimes they can't get Ivy access tiny little veins and sometimes they can't achieve a low heart rate.

Maybe they're anxious, maybe they're claustrophobic, or maybe they have a autonomic neuropathy in their heart rates high and they're frustrated with just simply at the present time, can't do the test.

Tell us a little bit.

Coronary CT Angiography vs Calcium Scoring

I mean, in 2024 and beyond, I know there's a family of CT standards called photon counting scanners. How soon do you think our mutual hospital core? Well, we'll have one.

What's the difference to a patient? And if you can't get a photon counting scanner, this is the technology. Now, you wouldn't know. The difference is a patient.

You're inside a circle, but the circle has improved in all of that. What else? Like what's the second best state of the art scanner that's reducing the radiation dose and the breath hold and all the rest?

Well, the photon counting CT scanner would be the plan is for us to have it soon. And so hopefully even within the next few months, we should have one of these scanners.

It's a very new and it's an exciting technology where the main thing for for our purposes, our discussion here is that it has the ability to look into the artery in a finer detail.

And so if you have calcium, for instance, ordinarily it's hard to see into an artery when there's a lot of calcium because it obstructs our ability to look into the artery.

So with these newer scanners, it minimizes the effect of such things as calcium. And we are able to look into the artery a little bit more clearly and that and tell and really look into it and visualize the artery and see if there is something going on within that.

And because of its technology, it has it is inherently associated with low radiation. Now, with regard to what's the next best thing, there are many scanners out there now with different types of technologies using a single heartbeat acquisition and so on, which are inherently associated with low radiation dose.

However, the thing to to know is scanner technology is one thing, but imaging protocols is another thing. So you can have a scanner that has low radiation, but if you don't know how to image on that, then you will still have high radiation. So it's important to go to centers that really pay attention to their imaging protocols and really lower the radiation dose as the and use the scanner as it is supposed to be used.

Right. But a well-done coronary c.t angiogram could be as short as a five minute test with a Band-Aid. Go home has been compared to what I trained in.

And you trained him but didn't continue on invasive coronary angiography. The famous heart cath radiation done way more than a million times a year in the United States alone.

And it's holding up real good. I mean, a recent meta analysis I read, the real reason said three quarters of patients referred as outpatients, not the sick patient in the corner care unit.

They're probably going to go to the catheterization lab at the outpatient who maybe flunked the stress test or had some chest pain three quarters of the time you can do a coronary CT angiogram and avoid an invasive procedure

that has some risk and is much more expensive than a coronary angiogram.

So I agree with you. I think the future, it's not good necessarily for invasive cardiologists, but it's really good for patients that they can find out the same information.

It may be even more accurate. Maybe the last couple of minutes on this topic, I've had the pleasure of working with the Cleerly Health people and I know there are a few other companies now that are doing quantitative and plaque characterization, fancy words for the listeners, but we're learning things about heart arteries, how much shock like how much calcified plaque, how much the gnosis.

That's being measured with artificial intelligence. I've ordered these now in hundreds and hundreds of patients, but very often they pay out of pocket 1500 dollars to get the highest quality evaluation.

I'm not ready to tell most people or skipping the calcium score for $75. We're going right to a 1500 dollar test with iodine die and a little higher dose of radiation, some people out there are recommending you go straight to the corner c.t.

Angiogram. How do you feel about that? Do you think that should be selected? A little bit more limited than calcium score or free, free lunch? Everybody go for one.

Well, again, it depends on, you know, what the risk is and what we're looking for and what are we trying to accomplish with that? Because if you have somebody who is a diabetic, who has a very strong family history, who has seven death in the family, and and you have all at once you have a stacking up of the risk factors and you're not sure if this person has reliable symptoms, for instance, then ccta with a with the contrast I think is a better tool because especially when they're younger and the calcium score may not be useful, I think more studies are needed to see what the population effect of doing ccta instead of a calcium score would be.

The general argument and the general data shows that it doesn't has not really had incremental value to calcium scoring. And when the calcium score is done well, then the CT doesn't add as much in population studies.

And so until we have those data, I think it's necessarily going to be limited because of its cost, because of the risks of the contrast and because of the higher radiation dose.

And also, there's a lot more scope to do a ccta wrong. And then a see, you know, calcium score drunk or improperly. Right. Right. So I do think the future, though, is so bright for this tech analogy.

And the follow up, that's what I went over with. Dr. J. Earls and a different summit interview was, you know, watching plaque shrink, watching, measuring and documenting reversal of heart disease in the coronary arteries.

It's exciting. And I did go. For really that, you know, it's because now we as I was saying, you know, we're at this threshold where we can see atherosclerosis.

We can we can actually measure and we can quantify the natural history of coronary disease, which is super important for upcoming therapeutic applications.

Photon-Counting CT and Advanced Imaging

You know, whether it is drug delivery or whether it is newer drugs or it is immunotherapy or whatever, new technologies are emerging, they're going to depend on imaging.

And you can't cap a whole population, but you can do CTS on a whole population. So it's going to be driven by imaging, even biomarker discovery. You know, it's going to be correlated necessarily with imaging.

So I think imaging is now the it's the it's at the center of many different innovations in cardiology now. So I think people have gotten a lot out of this because there are listeners who are over 40, 45, 50 and have not had a

coronary calcium score.

And you got to go to your primary care doctor or your specialist to get a prescription and schedule it. And then some of you might want to consider these more advanced coronary c.t angiograms.

And be sure you do check out that interview I did with Dr. Jay Earls from the company called Cleerly Health. You'll see how it complements this. But, you know, you were a world famous cardiologist and I'm going to say seven, eight, nine, ten years ago we talked about you wanting to write a book and that gave you a little tiny push.

And it didn't take much push like the baby eagle at about to fly you've broken glass some but you know, you've actually cut back your cardiology, clinical and academic career to half time.

Yes, a half time or less, actually, because I am doing other things and teaching spiritual disciplines and from different Eastern traditions and traveling the world, leading retreats and workshops in various topics and taking people on pilgrimages and on challenging things where you understand your own personal limits and how to overcome them.

And yeah, having having a good time. I can tell by following on Instagram you go to some of the most exotic and distant and spiritual places, and sometimes show up in front of the Colosseum in Rome, too, with your husband.

So, I mean, did you know you always had this in you in cardiology was just phase one? Or did this kind of slowly grow upon you that you were going to pivot and take a risk? It's always risk taking.

Yeah, actually, I, I have been really inspired by you. You taught me when I was a fellow how to follow your heart. And I don't know anyone who follows their heart the way you do.

And you've inspired me so much, not just in writing a book, but actually in being fearless. And and no, I didn't know. You know, when I came into cardiology, I thought I was going to be like anyone else, just work and retire and, you know, have this career.

And actually, it was my own spiritual journey that kind of propelled me in this direction, on and off of teaching. And as you know, I led a program at the hospital for seven years called Heal Your Heart, which was a free program for the community.

And where I was teaching yoga, I was teaching, you know, the principles of lifestyle medicine to patients and and their families and so on. And that became the book The Heart of Wellness.

And that actually led to more openings into teaching other things from the yogic literature and philosophy. And whatever I was going through in my own inner journey, I was bringing it into my cardiology practice.

And then, you know, as I wrote more books and started teaching more, I realized, you know, it's one thing to be an armchair philosopher, you know, to sit in one place and talk about your limitations.

It's another to actually leap off the cliff and see what what you're made of. And I had to leap off the cliff. And it was not an easy decision.

From Cardiology to Spiritual Teaching

It was hard because, you know, I was at the peak of my career when I decided to take a step back and as at the peak of my academic career and publishing and and leadership positions and so on. But ultimately, you know, the the thing that comes from your inner journey is to realize life is very short.

You don't have not given endless chances. And I realized I can't wait until I retire to do something because I may not be around. And whatever I want to do, I need to do it now.

And so I just took the leap of faith and yeah, so here I am. And I actually didn't expect the beginning of your answer. And I humbly say, Great, I'm glad I played a little raw.

I No, you inspired so many people. You've definitely inspired me. I know how you fearlessly come into your own, and that's beautiful. Thank you. You're very kind.

Some people would say, you know, a wandering and chaotic path. But as many people post on Instagram, what looks like a straight line is really, you know. Exactly.

Circuitous route and challenges and questioning and, you know, were there moments are there still moments? You question what you're doing? I think you're in a pretty good groove right now with a pretty good following.

But I mean, you know, in what the reason I'm asking about that, because there's people that are listening that have to make lifestyle change, have to lose weight, have to change your diet, have to deal with negative family members and all the rest, you know, but it's it's friction to where they really want to be.

And you've had some friction where your colleagues supportive or do they not have a clue really what you're doing? Yeah, I have had really supportive colleagues.

I mean, incredibly, incredibly amazing group of colleagues who may not understand my decisions, but they support it. And that's really critical in a workplace, but also at home.

I'm supported by, you know, a family that, again, may not really understand why I'm doing why I would put aside a very successful career to kind of follow a path that has no guarantees, you know, and with regard to following, following is fickle.

Today you have a tomorrow you don't. Right. And you can't do anything for a following. You have to do everything because you're following your own essence.

And, you know, people come, people go. So what? You know, I, I want to walk this path. And if people want to come with me, great. If they don't, fine.

I'm still walking my path. Well, I give you credit for that and I deal with that almost every day, even on something as relatively non important as social media.

I mean, yes, it is. Speak my peace and I've actually been a little bit, you know, irritating to some of my other plant based physicians for not speaking out on some social topics because they might lose followers and I share with you that attitude.

If, you know, if you're so fickle as a follower that you won't acknowledge it isn't all broccoli in life. There is more than broccoli in life. And the only debate in life is not olive oil is good or bad.

That is a debate, but it's not the debate. There's really big issues going on in the world and people are being and they're usually not hurting about olive oil.

They're usually hurting about much, much deeper topics, whether they be political or family or isolation or trauma. Child. And, you know, you're dealing with these and, you know.

And and being in the in the public eye, you know, as you are, you are much more in that realm than I am. But one of the things that has become clear to me, particularly in the last year, is in order to be truly authentic to myself, you know, I, I don't have to I don't have to portray an image of of not making mistakes of of not slipping or falling.

That's not at all the case. You know, I slip and fall and I make mistakes and I get up and then I share what I learned from that fall. And and, you know, it's it's when we when we feel like even with the city and geography, I feel like I'm an expert.

Then I stop learning. And but if I'm always in the in the mode of, well, there's so much I don't know, then I'm I'm going to keep growing.

Authenticity, Gratitude, and Closing Reflections

And and it does take a particular, you know, mindset to to be to allow that of a of somebody with a public persona, to allow people to fall and fail and and still be okay with that and not, you know, because if you seek perfection, that's when things go wrong in this whole public space.

Well, I'm going to honor your time and honor your time with your family, your dog and your beautiful daughters and say, thank you so much. I want people to go over actually, I'm going to if I can end with a quote from a famous doctor named Kavitha Chinnaiyan that the true gift of the journey to radical gratitude is that we can look upon the entirety of our life with awe and wonder.

And I do want people to find your Instagram site @svatantra_institute and you can find an entire article about the biology of gratitude there. I mean, again, you go you go to PubMed and you'll see Dr.

Kavitha Chinnaiyan, the professor of medicine. And there's lots to explore there that was the first part of our discussion. But the second half of your life is so interesting, and I know I'm going to enjoy trying to understand 10% of it and learning with you again.

There's all these books over it's svatantra.institute, S V A T A N T R A dot Institute And maybe you know, I would recommend to people listening, start with the heart of wellness.

It's probably closest to the theme of this reversing heart disease and actually summit. And beyond that you want to wanted a Dr. Chinnaiyan's deep philosophical work God bless you and good luck I've read them I think I wrote some introductions to at least one of them, which is, again, they're kind of you, but you're looking forward to the next five, ten years.

And I am so much and I'm looking forward to five, ten years with you. Well, God bless. You as my friend and mentor. So kind. Well, hopefully we'll see each other, not just electronically, since we only live 25 minutes apart, but see each other over.

Maybe good food soon with your remarkable husband who's on his path already. Winning so many research award, awards and maybe many more coming soon. You guys are where?

When was the last year or two years ago you were in Sweden? Yes, last year. Last year. Not The big Sweden Medical Prize, the second biggest Swedish medical prize.

But you never know with the Chinnaiyan family what's coming next. So thank you so much for your time Thank you very much. Bye bye.