Introduction to Preventive Medicine

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A lot of dysfunction happens silently in the human body. We might have some cellular inflammation going on or subtle things that are occurring in the body that over time will build upon itself.

And by over time, I mean like truly several years, but it's something that we can catch very, very early. And when we see that there's things that are not optimized, we can intervene very early before it could ever manifest into a chronic disease or a chronic illness.

This is Doctor Talks. Well, hello again. Welcome to one more episode of Double Down with Dr. D. I'm Dr. D, triple board certified physician and the host of this podcast.

Today, we're going to talk about preventive medicine and longevity. My guest today is Christina Fred. Cristina, it is a family medicine nurse practitioner that now she is focusing on your prevention and your longevity.

She was working as a bedside nurse during COVID-19 and like for all of us, COVID-19 epidemic. really taught us a lot of things, not only about medicine, but about the way how we were feeling as practitioners.

So same happened to her. She questioned a lot of things and decided now to put a lot of effort on prevention and putting ourselves at our best, basically.

That fits perfect on my style, on my life medicine style, the way how I practice, because I do believe that everything starts with prevention. Welcome, Cristina.

Please introduce yourself to my audience. Thank you so much for that very kind introduction. I'm so excited to be here with you today. Again, my name is Christina.

I'm a family nurse practitioner. I have my graduate education. I went to the Christine Elan College of Nursing at Florida Atlantic University where I was really prepared and I'm excited to come into the community and really partner with people to achieve their unique goals.

So that's what we're here to talk about. And I'm very excited to be here. So we're going to make this fun, Cristina, and we're going to talk. You're young, you're beautiful, and I love it.

You really make me think inside of why we are always talking about preventive and lifestyle medicine, and then unconsciously we set that on a specific age and a specific generation.

And you said why it should be All the way since the moment that you were born, that you enter into a world where prevention should be available for you.

And I love that because it's true. I'm a pediatrician. I did pediatrics and medicine for so many years and preventive medicine, sure, but we take it for granted.

But now we're going to talk about really preventive medicine, how we are teaching all these new generations to take care of themselves.

Guest Introduction and Background

So are you ready for this? Let's do it. Let's dive right in. I'm so excited. All right. So I think the first thing that we can do together is define the generations we want to talk about.

So we don't want to talk about Generation Alpha because they're still so young, but let's talk about generation from the boomers all the way to Gen Z.

So I'm going to frame you where the generations fall chronologically. And I would like you to tell me, what do you think this generation was the approach of this generation on prevention and longevity?

So let's start with the baby boomers, right? Baby boomers were born in 1946 until 1964. They are in their 60s and 70s, and there is an anticipation that they're going to leave to 80s and 90s, actually one of the longest lifespans.

But because not a lot of things were available for them in medicine, they were not investing a lot in prevention. So at this point, a lot of the chronic disease are already there.

So that's the boomers, Cristina. Yes, so at that point, it's about finding a provider that you can really partner with, you can trust, and someone that will listen to you.

And then they would do a physical assessment, order some biomarkers, some lab work to get and investigate thoroughly, like what is happening in the body.

So then discuss with you, what are some practical things that you can apply at that sixth and seventh decade of life and moving forward if your goal is to live a long, healthy, disease-free or disability-free life?

Correct. So they are better than their parents, I guess, a generation above them, because medicine was ahead of the game. But at this point, I do believe few of them very healthy boomers, but they are less and less into prevention because it wasn't available.

The typical relationship with one physician who will do the regular checkups and to maintain the chronic diseases at bait is that what we are looking at this generation.

Now let's go into my generation, Gen X. So the skeptical, the practical skeptical are the Gen X. So Gen X were born between 1965 to 1980. So what happened with my generation is like we are very attached to traditional medicine.

How do you see us, the genetics, looking into preventive and longevity? Yes, Generation X is a very motivated group of people. They're oftentimes very well established in their personal life.

They have careers, they have families, and they're really interested in being the healthiest that they can be so that they can be around for their peers, so they can be around for their family, for their grandchildren.

They're in that special time of their life. So at this age is where we start to see a lot of people coming into the office and wanting to speak in depth about longevity, how they can expand their health span and their lifespan and get deep into the details on how they can achieve that practically.

So yes, there's many biomarkers, of course, and blood work that we can do to thoroughly assess and make sure that you are in this prepared to enter and to thrive in your last few years of your life?

Right. So I do believe exactly how I see my life. First of all, that we grew up with this traditional medicine, but we arrived to a point that we had access to other approaches.

So we start questioning. So now it's like, what's in the market for me? That I can make it better. Second, we're looking to our parents and our parents are boomers.

So we don't want to age with all these chronic diseases that most probably is not going to make a fun, long life as a

grandparent. So that's us. Jen is very interested in lifestyle.

They're not so much open to medication management. Of course, that's always an option. And I feel that they're typically open to it if it's necessary.

But if there's anything that they can do in that moment to really modify their risk and modify the probability that disease will pop up in the future, they're usually very active and wanting to prevent care or prevent disease.

But I think it's a shift of mine. It wasn't like this 15 or 20 years ago. I do see that shift as well. They're starting to question and a lot is like medication should be your second line, but first not everybody.

And it's a shift that happened to us like a few decades ago. Versus, now let's talk about millennials, which is exactly that population that you as a practitioner want to approach.

Millennials and gencies, they are the young generations and millennials are the biohackers. They are the ones who say, oh, no, no, I'm going to know everything that is out there.

Generational Views on Prevention

I have access to all this information and I want to apply it to me. So millennials born 1981 to 1996. They will next, hackers. Let's go and talk about are they the ones after the biomarkers and how do you approach as a preventive practitioner this generation.

Yes, the millennial generation is a very curious group. There's a lot out there in the media, you know, TikTok, Instagram, Facebook, you know, with people detailing how you should live your everyday life is red light.

What about heat therapy, cold therapy? Millennials are very curious about what are the actionable things that they can do in their everyday life to recover, to eat properly.

and all of these details. So I find that they come into the office and they're really wanting to see what's new and what's in the toolkit for people who have not yet or have not developed any disease, do not live with chronic disease, but really want to do something optimal to prevent the probability of that showing up down the line.

So they're a group that has lots of questions, is typically very excited to meet with us and very open to hear what we have to say. Right. So that's exactly between us and now the Gen Zs, which the Gen Zs is what we call the Empowered Anxious Generation.

And these Gen Zs were born from 1997 to 2012. And obviously, they are the kids of already our digital world 100%. So the millennials were the whole transition.

It started with us as young adults, but the millennials were the whole transition. And this Gen Z generation is really digital. So they really will have like a face-to-face with whatever screen can offer them.

Actually, they are very comfortable with telemedicine. The boomers are not. So how do a Gen Z, which is a very young generation, will be looking for some preventive medicine?

Right. So yes, Generation Z does have the reputation of being an anxious generation. I mean, social media can play a role in that. But I do think that, you know, when you're age 13 to 28, you're really coming to know yourself.

You're really coming to know other people, how you function. and where you want to go, which direction you want to take with your career, do you want to work.

So there's a lot of big decisions that you're making at that age that set you up for the future and what you want your life to look like. So a lot of times with the busyness of all of the decisions that we're trying to make, you know, healthcare and pursuing health kind of becomes a back burner afterthought type of thing, especially because they

feel like they don't feel sick.

So there is a lot of opportunity with this age group to really partner and also dive into their concerns if they have questions. it's more so about bringing awareness to Generation Z that yes, it's so important to find a provider that you trust, whether it's a nurse practitioner, physician's associate, or a physician, to really dive in and help you connect the dots so that it's one less thing that you have to worry about moving forward with your life.

I like that. I like that you're inviting them to find a provider because There is that autonomy that they should be investing on and since they are interested, because they are interested.

I wasn't when I was in my twenties, so because I'm a different generation. And even if I was younger, I was leaving my health up to my parents. This generation, it's taking control of what is happening to them because they've been empowered.

And the other thing that they are doing well is their mental health because they stopped with the taboo and the stigma that it happened during the times that Gen X were growing up.

And forget about boomers. It was not something that you will be talking about. And it was totally dismissed. Now it's a generation that they invest in their mental health and that totally reflects in their wellness.

So this is the two generations that I can see how you approach them and approach them with all your knowledge and all your care and you believe that the prevention starts very early.

So this is exactly the kind of people who will benefit from establishing a health provider. So now talking about the health provider, this is another thing that has been switching in medicine.

Would you agree with me that before it was this almost paternalistic way of talking to a physician and it was done? That was all that you would absorb from your medical care.

But now it's a total different world. Will you explain to my audience how It's totally changed how the relationship established is different and how that's way better and more of how you say that, more cozy, more welcoming into the medical care of someone.

Absolutely. Yeah. So in the past, the relationship between a provider and a patient was typically very cold. They didn't, you know, we have a tendency to not really invite patients to speak and to share their thoughts and you know, they say that we interrupt within just a few seconds of a person trying to express themselves.

So it kind of causes a little bit of disharmony in the relationship with the provider where patients don't feel like they can fully express themselves or they can really say what's on their mind because they feel a sense of time constraint or they feel that they could potentially be a burden.

So we have really done a great job at trying to shift that mentality and trying to provide patients a safe space, open the environment for them to really share how they truly feel.

What are their concerns? What are their deepest, most private thoughts that they are afraid to share? It's really safe to share with your healthcare provider because they can guide you and connect you with the tools in the community that are necessary to kind of help you navigate your health.

So it's become a more dynamic relationship where rather than you telling as a provider, you telling a patient what to do, it's more so allowing them to decide for themselves, empowering them with information that's safe, information that they can trust, and they can now make decisions for their own health and then circle back to their provider so that we can evaluate together if this is something that's working or where we need to make adjustments.

So we have shifted away from the framework of telling patients and creating a stiff and cold environment. And we've kind of opened the floor to something more warm and safe, which is what we're hoping that people will enjoy.

And I do believe they not only enjoy, but they are looking for that. It's very clear in their mind. So it's an answer that I will obtain from someone who's in their 20s versus someone that is in their 60s.

Someone in their 60s will say, whatever you say. I know what you were describing is called an informed decision and that's so essential in today's medicine.

And it's been proven if the patient doesn't take control of their own health and they don't make the decisions based on the information that we are giving them, it's the possibility of success to achieve whatever is our objective, prevention or amelioration of a specific illness, it's very low in comparison when someone is taking over control and is making the decision.

And it came out of this person like, yes, I think this is the best for me. Because at the end, any human being knows what's the best for themselves. So I think this generation is equipped to make those decisions and believe that they have the power to take those decisions.

And the other thing that I would add to that is the team approach. It's a new way, right? The concept of medical home came a few years ago and it has been very successful, meaning a lot of experts under the same roof.

So everybody approached the patient at the same state where the patient is and everybody agrees on what the objectives of these health parameters we're trying to achieve altogether.

So a team approach to health and to healthcare and to prevention. It is the new way and these new generations are obtaining that. So they will get their medical provider and then we can put them with their mental health therapist and then we can put them with the one that is teaching them slowly a good nutrition or how to take care of their medication.

It's another like let's say a health coach or a nurse that is specialized in teaching management of medication. And that it's actually a very intelligent way to put someone's healthcare instead of one specific doctor who says how things should be done, like it or not, very paternalistic.

I said so, but I don't care what other people think and makes some of the patients feel guilty when they don't follow the specific instructions because I know there is some providers that still practice in that very old fashioned.

Okay. So talking about old fashioned, now that we're there. So waiting for symptoms is outdated. So basically now let's talk about prevention. We don't have to wait for the symptoms.

So why? Because I feel so well and I'm so healthy and eat fine and do exercise X amount of times a week. I just going to sit down in my bed and not thinking to go and meet a provider like Christina, who is going to guide me through how to maintain my health, my optimal health as I am like built up.

How would you approach this patient who's listening to us and he said, well, I never thought about going to see a doctor. And now here it is, Cristina say, come over here.

I'm going to show you how you can start taking care of yourself. So walk us through. Absolutely. So on a personal note, yes, this is something that I hear all the time.

I am in my late 20s. So I hear this from my peers. I'm young, I'm healthy. I do everything right. Why would I need to find a, you know, a healthcare provider that would helped me along my journey.

And you know, honestly, it's essential because a lot of diseases we know, first of all, have a genetic component. So they might have been, there might be some dysregulation from a very young age that has gone silently for a very, very long time.

And you know, it has just never been caught. Disease symptoms, Truthfully are a manifestation of a downstream event that has been occurring in the body for several years.

So once you start to feel sick, like truly sick symptoms, you know, chest pain or shortness of breath or things of that nature, that actually probably began almost even decades before.

So yeah, a lot of dysfunction happens silently in the human body. In other words, it doesn't alarm us. We might have some cellular inflammation going on or subtle things that are occurring in the body that over time will build upon itself.

And by over time, I mean like truly several years, but it's something that we can catch very, very early. And when we see that there's things that are not optimized, we can intervene very early before it could ever manifest into a chronic disease or a chronic illness.

So yeah, very important to touch base with a medical provider, especially if you're in your 20s or even 30s, if you have never established a relationship with a provider, definitely just Open the door to that possibility for yourself because it'll be very empowering when you receive guidance that's tailored to you and your unique genetic profile so that you can really prevent disease.

But suppose that I am this 20 year old at one of your friends, right? And then I said, okay, I'll come and see you, Cristina. So walk me through what exactly you're going to be doing on me, which is, that's what it is important because otherwise just how to live healthy, I can just Google it or ask ChatGBT.

But why establishing that relationship with that provider will bring that benefit of prevention in my life? Right, so bringing your story to a person is incredibly important.

So when you come into an office or you meet with a provider, they will ask you so many questions. We'll start with, you know, what are you allergic to?

Patient-Provider Relationship and Shared Decision-Making

What is your past medical history? What about your family history? Are you taking medications or supplements? How has that worked for you? How has it not?

Have you experienced any big symptoms, you know, fatigue, brain fog or something that you feel could be wrong. So we go into depth with trying to understand you as a person and then we'll go into depth in trying to understand your unique environment.

So, you know, where do you live? Where do you work? What are your family dynamics? These all play into a person and how they're able to manage throughout life.

So we'll go into details, you know, very, very detailed about your diet. You know, what are you consuming? What is a typical breakfast, lunch and dinner?

What about snacks? What is your plate? What does your plate consist of? How about exercise? What are we doing for exercise? And these are all very honest conversations.

It's not to find the wrong answer or to make somebody feel bad, but it's more so just to see, okay, there's opportunity here for growth. There's opportunity here to make some changes.

Then typically, you know, we will do a physical exam on every single person. You know, a provider can really see in detail up close and feel and touch and see if there's any- Hands on.

Hands on are essential. Agree. It's an art and science to do a physical exam and patients really do enjoy that. They feel that you're being thorough and we really are.

We're looking for subtle clues on the human body that could give us insight into some process that's happening internally inside the environment of the person.

And then of course, yeah, based on that, we would order blood work. We would make sure that you're up to date with screenings. So if you were a young female, for example, pap smears would be something that would be essential for us to talk about.

So we would go into detail on preventative measures, like screening measures that are recommended, and then we would go even further to really analyze your day-to-day routine, the ordinary decisions that you're making every day that actually have a strong impact on your overall health.

Very good. And then let's open now the next chapter, which is the lab work. And now we're going to talk about our biomarkers, that you love your biomarkers.

So then what is this lab work? And we don't need to know the name of each result, but in general, what we are looking for from the preventive point of view.

Right. Yeah. Yeah. Like you were stating earlier, biomarkers are a buzzword that everybody throws around. But like, what is it really? They're just characteristics that we can measure that will give us insight into your body as a system.

So it could be something like a blood pressure. That would be a biomarker that would give us insight into your health. You know, it could be true lab work.

It could be imaging. It could be, you know, so many things, but when we're getting specific, it doesn't even need to be anything crazy. So honestly, a blood pressure would be a great place to start.

It's inexpensive, it's very affordable and easy, and that would give us some insight into cardiovascular health. Essentially, the top number of a blood pressure would just let us know how much pressure is in the arteries after your heart has pumped out blood into your body.

And so that's an important tool because once that number starts going up and up and up and higher and higher, that's what we call hypertension, which is high blood pressure, which can cause changes in the vasculature, which of course can lead to heart disease and strokes and things of that nature.

So a blood pressure is an incredibly powerful tool. Even though it's simple, it's powerful. We don't want to underestimate it at all. So that is definitely something that we would want to do on a young adult, someone in their second and third decade of life.

And then in terms of actual lab work, Something that we would want to look at would be a hemoglobin A1C. Essentially, that's just a measurement of your blood sugar control over a three-month period.

And that gives us some insight into how well your body and how efficiently you're able to use your glucose in your everyday life. You know, are those levels very, very high?

That could give us some insight into some insulin resistance that could be occurring in the body. and we would want to be active in preventing that from becoming worse because, you know, diabetes and pre-diabetes, these are diseases that we can catch early and really don't even need to progress if we implement the right tools to intervene at the right time.

I agree with all those. I consider those biomarkers. I like it because it's true. It's a word that is being just like made sexy to be cold. But on the other side, you know, blood pressure and blood sugar.

For a person, you will be just like, whatever, been there, done that, boring. So what's new? Yeah, there's so much new, right, but we also want to make sure that we have the basic foundational information.

So for example, if we come back with a hemoglobin A1c level that's elevated, and it's kind of in that pre-diabetic range, and this is, you know, shocking for an individual who wasn't aware that that could have been an issue for

them.

And if we're talking about new and novel approaches, there's something called a continuous glucose monitor that we can put on a person and we can monitor to see, you know, what is triggering blood spikes?

What is triggering your blood sugar to be elevated? What are stressors in your life? Is work causing a constant, you know, elevation in your blood glucose level that is reflecting in your blood work and is reflecting in your overall health?

What about the foods that you're consuming? Is, you know, a healthy food like a banana, is that causing your blood sugar to spike and remain elevated for a period of time?

So that's an example of like a new tool that a lot of providers don't necessarily accept yet, but I believe, you know, it's very powerful and insightful and it gives people real time, you know, picture of what's happening in the body versus an isolated moment in time when we're reviewing something like blood work.

Correct. So now you touch a very important point. It is true. This is when the new generation thinks outside of the box because traditional medicine kind of blocks a lot of things because this is not actionable, because this is not FDA approved, because what for?

Yes, I wanted you to bring up some examples of what's new because I can do blood work. They will work that has been done for all the primary care providers forever.

But what's underneath is not about the range in the lab, what's underneath. And there is certain new biomarkers. And many of those biomarkers are done mainly by functional doctors, like I know that you like to practice more in a functional medicine way.

And a lot of integrative doctors, that they use extra biomarkers that hasn't been let's say accepted or because it doesn't have all the research data behind yet, they prefer not to order them.

Why Prevention Matters Before Symptoms Appear

Yes, there is the financial part, labs, All these new biomarkers, markers, things that are giving you an insight on inflammation. Because inflammation is almost 90% of the diseases start with inflammation.

Because the 10 that is left is like a quick infection that will finish with inflammation. And that's it, because the rest of the diseases start with inflammation.

So it can tell you in advance before all the crisis start. If those markers of inflammation are starting to climb up, the importance, what I believe, it is that someone who's ordering them understand what those biomarkers are measuring and how to either act on them or control them and that they should be measurable in the future.

So you see that whatever action you're going to put from now until then made an impact. on those levels. So to attract all these generations who think that they don't need a physician, a part of the very traditional way that you mentioned, sitting down with a patient looking at their eyes and have a thorough conversation about their life, even questions that they never thought it was important, it is absolutely necessary to understand your world, your health, your metabolism.

And then next is what is new, right? This is exactly those biomarkers that I wanted you to talk about are almost the things that they were not available for the generations above.

Like the Gen X, we are exposed, but now the boomers, they were not. I totally agree with you with the example of the glucometer. It's a fantastic, fantastic example because it gives you such an insight on your unique and precise metabolism.

that not any other thing, it's not a random glucose or a fasting glucose that I take in the morning on an X day that is going to tell me how do you react to a banana.

So it is super important that those new things, and that's why I'm saying what's new, we can bring up to these new generation because they are preventive.

I totally agree. Is there any other biomarkers that you want just to put as an example? Especially from the functional perspective, I'm not a functional doctor.

I'm a lifestyle medicine doctor, but a lot of things overlap with functional medicine. And I do believe that many biomarkers that the functional doctors order should be ordered regularly to maintain, to keep an eye on any possibilities of initiation of an inflammation that is going to bring us to.

towards that disease. The second group of diseases that are not starting with inflammation, you mentioned them, which is all these congenital and genetic diseases, that they don't start with inflammation.

They might add inflammation afterwards, but infections and genetics are the only thing. The rest, everything starts with an inflammation cascade. Is there any other biomarkers you can think about it?

Sure, absolutely. Something like a DEXA scan traditionally is recommended for women who are about 45 years old or 50 years of age to see bone density.

But when we're thinking about new approaches, how can we be creative and how can we really thoroughly examine someone's state of health, we can even, you know, although guidelines don't recommend using a DEXA scan on someone who's in their second and third decade of life, it could actually be very powerful because that can influence how a person lives their everyday life.

So a DEXA scan essentially will look at your bone mineral density, like how strong your bones are. It will look at your lean muscle mass and how and where it's distributed.

And if there's any asymmetries, which asymmetries are normal, but if that asymmetry, if there's a very, very large gap, that could also give us a clue into an injury or some sort of disbalance that we would want to focus on when we're doing our exercise and our training.

And then it would also give us an insight into fat tissue. adipose tissue accumulation and where does it have a tendency to go in your body because everybody has again a unique genetic profile.

So although hormones can affect where the fat tends to deposit, your genetics also play a role in where fat tends to travel in the body. So yeah, like tools that we otherwise would use in specific groups of patients because they're recommended.

When you're using like a lens that's broader, we could even apply those same principles to younger groups of people in an effort, again, to get more detailed information about their health.

and then address the pillars of health, diet, exercise, sleep, and stress management to really optimize. Of course, there's more biomarkers that we can go into, things like when we're looking at lipids, you know, there's like April B, LP little A, and we can go into detail about that as well.

But just in general, some of these tools in traditional medicine were not taught in school. I mean, it's so new that providers aren't adopting it into practice because our education didn't really inform us.

And so it requires a provider who's actively engaged in learning and open to receiving new information and new research as it's coming into the forefront of the medical literature.

So yeah. I like that you touched the DEXA because obviously you know that this is my passion about it and that's

the clinic that I run here. I do consider that.

I was going a little bit into the biomarkers, but now they are talking about the tools that we have. Absolutely. So there is a lot of technology that can throw biomarkers and especially for this generation as well.

The DEXA scan, it's the same machine to do a densitometry, but what you were describing is a body composition. So it is the same machine, but it's different studies.

So deacidensitometry is already in traditional medicine. We use it as a screen tool to rule out any osteopenia or osteoporosis and to grade osteoporosis.

Preventive Visit: History, Exam, and Screening

And it should be in women after… it's 50 years of age or more, actually the whole recommendations always change and is all about to be as conservative as possible from the radiation point of view and from the financial point of view.

But a part of that, the body composition that is what you are mentioning, it is a biomarker because the fact that we can measure objectively with this tool will let us know how much your body it is suffering starting to create inflammation, starting in the process of developing a metabolic disease way earlier than when you notice that maybe now I need to go to a doctor who makes me lose weight.

And so why not we just check that before. Now, if you're already in the point of putting weight on, A body composition perfectly guides us towards how much weight to lose because it includes the lean mass and the lean mass is lost in the process of losing weight.

So none of these things were available when I was young and it is available to these new generations. more things that we do here and I know because you are in a concierge practice and I love the approach that you have with your partner as well and it's like once a year to offer this assessment to your patients and that assessment is what normally we do in this clinic and includes that body composition but another biomarker and I'm going to allow you to talk about it is the VO2 max.

For example, it's a biomarker and it's a biomarker of longevity, which is an awesome, awesome biomarker. So would you like to comment on it? Sure, we can talk about it.

The VO2 max exam is definitely a wonderful tool for somebody who's athletic or even somebody who just wants to see how well they're performing at the gym.

And so what it's measuring is how efficiently you are able to use fat stores to fuel your high energy or high interval training. So essentially, yes, you would be put on a treadmill and they would kind of increase the speed little by little and we're looking in real time to see how efficiently your body is using those, you know, fatty acids to actually fuel the movement and fuel the exercise and at what point you start to convert into using blood sugar.

instead, and that's usually at the peak of exercise. And that will give us some insight to how well conditioned you are. It's a little bit of a difficult exam because you will be pooped afterwards.

You will be incredibly fatigued. But it's something that we can do every few months or maybe once a year if it's somebody that wants to be very, very proactive and really be precise about measuring their athletic performance or their metabolic health, for example.

But it's a test that we could do at baseline and then revisit later. But yes, absolutely a powerful tool, definitely very new, not necessarily accepted in the traditional lens.

But again, that's where as a person you advocate for yourself and you go and you see which provider listens to me, listens to my concerns and wants to help me optimize and is open to helping me use these tools like a VO2 max

test or a DEXA scan.

when I'm in my younger years. Right. So just a little extra here. Yes, I think that athletes are the ones who seek more the view to max. It is highly accepted by especially sports medicine, but there is the place for non-athletic people as well to know where they're standing, even if they don't go to the gym.

But it's almost the baseline standard to, here you are, in your important pillar of physical activity or movement because we get used to a sedentary life and we think our body is comfortable in that sedentary moment and it is very important to know what happened to our body when we bring them to that stress level because it's a stress level but a stress from the positive way of a stress because our body has to go to a stress to remind our body that it's alive and then how it reacts and yes exactly what you explained is how where do you take your energy sources is that you're oxidizing fatty acids or you are mainly a carb burner.

And that gives us all the insight on your metabolism and how we can switch. Again, another actionable tool, you switch it. The athletes, they train themselves in a number of the VO2 max, without doubt.

They just always want to increase their VO2 max because they have that goal. But there is people that they are not that athletic and the VO2 max starts showing us when they start making changes in small movements that they put every day.

They can do from chair yoga all the way to 10 minutes walking that they slowly increase to 30 a day. Whatever it is, the changes that will reflect in that view to max.

An incredible biomarker. That's another biomarker that it is fantastic. Any other biomarkers that you would do regularly in your clinic? Any biomarkers in blood or, I don't know, in urine, in sweat, in saliva?

A test that you do regularly on preventive medicine? Right. Yeah, that's a powerful question. An LP little a is definitely a biomarker that is applicable to anyone at any stage of life.

If you've never had an LP little a ran on you, it would definitely be something of priority. And why is that? It's because it is genetically driven. It is a biomarker essentially that gives us insight into the LDL cholesterol or certain lipoprotein particles that have a tendency to be very aggressive and can predispose you to heart disease down the line.

So Lp little a is yeah it's a very specific test that you know once you have that number it doesn't really change throughout your life like that was probably your number when you were a child all the way up to you know when you're in your eighth or ninth decade or maybe you're 100 years old and older but that would definitely be a test to ask your provider for regardless of who you see because that can definitely help us understand what your unique risk is for developing cardiovascular disease and atherosclerosis.

So that would be something I would bring to the attention I love that you talk LP little A. Will you explain to everybody the importance? And again, in this generation, I agree, it's something that has been there for their life.

Nobody tested. They don't test it until now. Most of the insurance, they don't cover it. But it's so important to know, can you explain to our audience why it's so important Absolutely.

Okay, so there's cholesterol in our blood. So cholesterol is essentially packaged into these vehicles. They're called lipoproteins and they circulate throughout the body and are excreted and they bind to receptors on the liver and are removed.

There are some particles that are particularly, we keep an eye on, they're called LDL particles because these have a tendency if in high numbers to kind of rub against and bump against the artery wall.

Um, and some of those LDL particles have a little molecule attached to them and it's called LP little A and LP little A is incredibly eclogenic and causes, you know, if that particle rubs up against the artery wall, it really does

promote inflammation.

Biomarkers and Advanced Testing

It promotes blood clotting. so it could be very dangerous. But although this is a genetically driven risk factor, there's still so much, and we can't necessarily change it because your genes predetermine this, there's still so much we can do in terms of lifestyle.

So just decrease your cholesterol levels overall and reduce the likelihood that those particles will be bumping into your artery walls. So it's something that you would want to have in your awareness as soon as possible because it's a very powerful tool that influences how we eat, how we exercise, how we manage our stress to prevent the likelihood of developing cardiovascular disease down the line.

I like how you put it. This is how I try to explain as well, because I had the question before from patients. It's like, so if you can do nothing, if it's genetically determined, no, because in general, it doesn't respond neither to medications.

There is no status will decrease the LP little a. neither the changes that you do in your lifestyle. So they are like, so why I want to know? But you want to know, and earlier enough, because the rest, the other LDL, and just to clarify here, Christina say atherosclerotic changes means the production of plaques inside the arteries, which is the beginning of your atherosclerotic disease before you have a heart attack or a stroke or so on.

So your eye is narrow. So this lipoprotein little A is a little annoying protein that is always ready to create those plaques. If there is not enough LDL, then yes, it's there, it's annoying, but it doesn't have the ingredients to create that plaque.

So a lot of life changes can be directed towards your LDL cholesterol, which it is feasible to manipulate with the choices that you take daily. So that's an awesome biomarker.

You see, we just grab another biomarker. Yeah just never help people too because you know we have had several people at our practice that have an elevated Lp little a and they get really discouraged by that and you know they get a little bit afraid for their overall health but yeah we can really just if we know that that's your risk we can go heavy-handed or be more direct more addressing just overall total cholesterol because we know that particle number and concentration is the primary driving force in atherosclerosis.

So if we can reduce number of particles in your circulation, we can still really expect to live a long and healthy life. Correct. Correct. And what about homocysteine?

Will you give us a word on that? It's built by a marker. Yeah, we would definitely order that in individuals to see if there's subtle inflammation occurring in the body.

It's, you know, it's very easy to detect and it's a very early sign of inflammation. So definitely helpful. Again, inflammation could be influenced by so many things.

The environment inside of our body is very interconnected with the environment that's outside of our body. In other words, what is, you know, like, what are we doing for work?

What are we consuming? What are our you know, interactions with our friends and family? Is there any stress? Is there disharmony? And how does that affect inflammation and stress levels in the body?

Yeah, homocysteine is a very early sign of… Homocysteine, your intake of protein, when they get processed, you have a byproduct called homocysteine.

It's not an inflammatory marker per se, but the fact that you build them up is telling me that you don't have enough… Your body doesn't have what it requires to get rid of it because it's not It doesn't inflame by itself.

So what takes out homocysteine out of your body is vitamin B. Vitamin B12, the whole vitamin B complex. So what it tells me is that you are low in vitamin B.

And that homocysteine, the importance of that homocysteine, it is a biomarker of cardiovascular health, but mainly of cognitive health. So it's a little bit of a relationship with Alzheimer in the future because how it looks molecularly, it's almost like an amyloid type, like an amyloid protein.

So that's how it is. More than being inflammation bites. Because inflammation, when we are in an inflammatory state, we produce something. Those are inflammatory markers.

But a biomarker, like homocysteine, is not an inflammatory marker. Indirectly it is, but it's not directly. Let's put it that way. Normally what I do with inflammatory markers, the ones that I order are the CRP, the ferritin.

I do believe hemoglobin A1c is an inflammatory marker, so for sure. Well, Cristina, let's move from the biomarkers and what else is in that blood work that we can do in that first preventive visit?

Example hormones. What kind of hormones will you be just checking, looking, and what kind of actionable programs we can offer to our patients? Yeah, so we have several biomarkers that we would look at when we're evaluating somebody's health and reproductive potential.

So there's FSH, there's LH, these are essentially communication molecules where our brain is communicating with our reproductive or gonads and then stimulating them to respond, whether it be creating choosing and selecting an egg for that ovulatory cycle or whether it's producing estrogen in the body or testosterone.

So we could absolutely do that. When patients have specific concerns as well, whether it is that they're having a little bit of fatigue or they don't have consistent menstrual cycles, we would look even more with like a magnifying glass to see what's the communication looking like between the brain and the ovaries and what exactly is the response, the ovaries response to that message, that chemical signal from the brain.

So for the individuals that are in their second and third decade of life, yes, there are several hormones that we can look at. Of course, there's like female hormones and male hormones, but there's also thyroid hormones.

So we can see exactly, you know, there's a thyroid gland that sits on your neck. It's a butterfly-shaped gland. We can see through blood work how well the brain is communicating with that gland, if it's shouting at it or if it's whispering at it, and how well it's making hormones as a result of that chemical signal.

We could also look at your insulin levels. We can see how much insulin is circulating in the body. That can give us some insight, of course, to like With the beta cells in the pancreas, are they producing a lot of insulin?

This can give us some insight into potential metabolic disease and insulin resistance. What about blood glucose levels, fasting blood glucose? That also gives us some information about how well when you're waking up in the morning, how well or how high is your blood sugar?

Again, another insight into potential metabolic disease and insulin resistance, which again is like a foundational disease that kind of builds into other things potentially in the future like diabetes and heart disease.

So those are just some examples of some hormones that we can look at. Glucose in and of itself is not a hormone. It's part of the whole checking with the hormones.

What do you think about cortisol? Cortisol is a newer… tool that we're kind of using. Again, traditional medicine doesn't necessarily check cortisol levels, but we check cortisol levels, especially in the morning.

We want to see how high is that level. Is that level sustained for a while too? That is a very elevated level that can give us a clue into, oh, your blood sugar is kind of high.

You're not able to remove that stimulus from your cortisol. Cortisol is an important hormone or it's an important Well, yeah, hormone in the body essentially that wakes you up, it kind of stimulates the flight or flight response.

You know, it's essential for life, but when it's dysregulated or it's too elevated, absolutely can cause damage at a cellular level to tissues over time.

But that one, as a traditional doctor, I kind of always hesitate to order, to be honest. And I'm not questioning the functional medicine. I know there is a lot of reason behind functional medicine, but I haven't been able.

So I will only do it if I really have a specific syndrome in mind. If I really think there is a deficiency, is arysone in there? Or for the contrary, this is like a hypercortisolism.

Of course, and most of the time I do it asking directly to the endocrinologist because the timing, like you were saying, is super important. And because physiologically, the cortisol fluctuates during the day in a very specific peaks.

So at that point, you might going to need to either do what endocrinologists do. Diagnoses are so complex that at the end endocrinologists will take over with more sophisticated tests that requires multiple cortisol testing through the day or if it's something that I really need to act on immediately and a good example is if I take a glucose and a random glucose is very high and the rest of the diabetes diagnosis is not there.

So should I look for something more adrenal here? It will become more complex. That's why I don't see the cortisol, but I find that a lot of patients, they ask me to test their cortisol levels.

And I would love to take away that thinking that people believe that because the cortisol levels are so high, that explains why their anxiety is high and we don't order cortisol and I'm sure the functional doctors either to confirm that you are an anxious person.

Yes, we do release cortisol when we're anxious. It's part of our physiology and cortisol is one of the driven hormones on chronic stress and toxicity of your body, absolutely, but it should not be used in that perspective, right?

And I have a lot of patients come here and say, I need my cortisol down so I can start relaxing. So how can I do that? And yes, of course, you can put your cortisol down with relaxation, but it's not the way how it should be approached.

All right. So Now, we are already going to put everything together. This is a beautiful preventive visit from young people. We're talking now to Gen Zs and millennials.

We're talking about 20s, 30s, and maybe early 40s who want to come and see Christina and really start looking into how their health is doing, which I do believe everybody should be doing this at least once a year.

Hormones, Cortisol, and Personalized Follow-Up

She explained the importance of that visit. She explained the importance of a physical exam. She explains the importance of labs, regular labs, like baseline labs.

And we tried to dive into some new labs that we have available, the biomarkers. Then the assessment, which is some places like my clinic has the extra tools and the extra equipment to proceed with a DEXA scan, a body composition, a VO2 max.

We actually have the valve, which is again, a little bit of technology on how your movements and your posture and your strength is. And all this together should be giving you a full idea of how your body works.

And you should be knowing that yearly. The same way that you will maintain a house and making sure that

everything is working, their condition is working, the pipes are working.

The same thing, it should be your body. Now, Cristina, you're about to say, okay, your annual preventive testing and gathering data from your body, it's about to be over.

What actionable tools would you give to this patient before they leave? Obviously, if there is anything specific, think that it has to be fixed, but if in general, what other recommendations would you give to a patient that is about just to walk out and you won't see him until next year?

That's a powerful question. Yeah. Basically a lot can happen in an entire year and I would just have a conversation to really understand, like we just gathered all this information, but also communicate with that individual how ordinary decisions and choices that we make every single day really do contribute to your health down the line.

So for example, choosing to move today, even though like you had a busy day, you're stressed, you were tired, you don't want to, but what about stretching?

What about mindfulness? What can we do every day to take care of ourselves because this is important as we continue to chronologically age and just building awareness and being available to people.

If you have a question, I understand that people love getting their answers quickly and Google and there's so many resources now. But communicate with your team, open the door to conversation again, come on in if you have questions or if something changes.

A year, I feel that could be a long time. Things can change within just three months. So if you feel like you need closer care too, please don't hesitate to come and visit your team in a shorter amount of time.

Would you prefer that maybe a preventive visit should be like twice a year or how will you approach that? Absolutely. I think it's absolutely okay to touch base with your provider at least every six months, just to get a grasp on what's happening in your personal life.

How's your mental health? Have there been any changes? Of course, you know, blood work is blood work, but really just to continue that relationship is important because again, so many things happen in just a week's time in people's everyday life.

So yeah, I do believe that every six months, is totally appropriate and it's okay to aim for that even if you're a healthy individual. Correct. Well, that gives us a lot of insight on how to take control of your health earlier before you don't need to wait for any symptoms.

or any signs of that something is going wrong, again, not everything is going to be caught at that specific, right? Because there is a lot of approaches today, like there is the MRI scanning looking for something.

Do I agree with that? I'm not sure just because I am the kind of physician who when I order something or I draw in any specific lab, I know exactly what I'm looking for.

For me, this is just like, see what shows up and, but it does, I can see on the other side that it does have some benefits of. imaging that we are unaware, especially most of the people talks about any small tumors or small lesions in a specific organs that if he's been caught early enough, we could do something about it.

But certain things for me, and I know you're more functional, obviously the faster we can catch things and the preventive medicine is like foundational for functional, you might be agreeing with those you know, general MRI scanners who are trying to find any weird lesions in your body.

What's your approach to that? Thank you for that. That's a great question. So it's very controversial, the full body MRI scan, and we don't typically encourage people to do that just to do that.

If a person is very curious and wants that insight and really wants to know the detail of their anatomy and see if there's any silent lesion or cyst or whatever in their body, sure, we'll order it.

Why not? But if you're somebody who is typically more nervous or, you know, you know, doesn't want to know that information, it's okay. Like we really don't need to do a full body MRI.

If you have a specific complaints, you know, you are having some sort of breathing issue, for example, or if you were a person who smoked cigarettes for several, several years, the CT scan would be a better option and we would want to isolate that area in the body, have a specialist, a radiologist that specializes in that particular area of the body to evaluate those images and give us the information that we need.

So there is a time and a place for the full body MRI. But it's not typically something that we are openly just allowing anyone and everyone to do. But if somebody is curious, then we do believe that curiosity is okay.

So we would absolutely order if someone is interested in that, but it's not something we typically… I don't think that they even need a prescription for that anymore.

You can walk in in one of these places and Because no insurance is going to cover a full body MRI out of curiosity. I don't think so.

Closing Thoughts and How to Contact the Practice

They won't, but again, there's individuals that really strongly believe, like, let's put down, like, I will pay whatever, I will do whatever, I want all the information.

and they're very interested in gathering as much information as possible. So of course, you know, we're your advocates, we're your cheerleaders, and we're really ultimately, you know, gonna partner with you.

And if that's something that you have an interest in, then sure. Yes, but with the caviar that is not going to catch everything. It depends on the size of the lesion and there are lesions that are actually benign and you touch a point of anxiety.

I have patients that they have small little cysts in a specific organ and they can't not stop thinking about it. So those, and when it's really unimportant, you could perfectly go and die and come back next life and still have the same cyst and nothing happened to you.

But why? Why sometimes like fish and certain things? So me too, I have mixed feelings. I would say 10 years ago, I would say ridiculous. But today I say, okay, because there is the stories, you know, I can believe they found this small lesion, they were able to remove it and I'm fine now.

And yes, of course, that's a win. But on the other side, taking, taking everything in, in account, like all the details between. Right. Yeah, I agree.

Cristina, I think we have arrived to the end of our podcast. Do you want to add something else before I ask you how people can find you? Ooh, no, I mean, I would just say, I would encourage everybody to just find a medical provider that they trust and that they believe in and take that step of courage and, you know, make that appointment and come visit us.

We're happy to see you. You know, I know that Dr. D is also really passionate about bringing amazing information to consumers, like to people directly to you.

So yeah, be curious and continue on on your health journey. So Cristina, please tell our audience how they can reach out to you. What's the name of your practice and what's the best way they can connect?

So our practice is called ACE Longevity. We're located in Dalbury Beach, Florida. It was formerly known as

Curated Care. So, you know, our contact information, our website is curated.care.

That's how you can find our practice. And my personal email, if you want to communicate with me, is my first name, Christina, C-H-R-I-S-T-I-N-A, at curated.care.

And we would love to meet you and start a conversation. So yeah, that's how you can reach us. I hope that this was a helpful conversation and that you were able…

Well, it's an invitation more than a conversation. I love it. You opened my eyes on preventive medicine. It's an invitation, especially to the young population that believes that just because you don't feel anything, you don't have to take control of your health and maintain that optimal health.

So we spoke about prevention and we walk you through how a preventive visit will go through. And remember that prevention, it is longevity because the more you avoid diseases in the future, well, the longer you're going to live healthy, because that's what longevity is about.

It's not the numbers in the calendar. It's about the good, healthy years that you can live long. So to all my audience, thank you so much for staying until the end with us, and I'll see you on my next episode of Double Down with Dr.

D. Bye-bye, everybody. Thank you for tuning into Dr. Talks. We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices that empower your well-being.

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