Introduction to Preventive Screening

Welcome to another episode of the Reverse Inflammation, Summit Body and Mind, Longevity Medicine. And I'm your host, Doctor Robert Lufkin. In this program, we've talked about a lot about longevity and uh the things we can do to improve our health span and, and our life span. One of the most important things is to identify our risk for these chronic diseases that shorten our, our life. And today we get to talk about uh the power of preventive medical imaging, health screening. And we're joined by an expert in the field, Doctor Andy Manganaro, who's the Chief Medical Officer at Lifelong Screening.

Hi, Andy. Welcome to this episode. Hi Robert, how are you? Thanks so much for joining us before we get into the uh some of the fascinating work you're doing. Talking about that.

Maybe you could just tell us a little bit about your background and how you came to be interested in this fascinating area. Sure, happy to uh well, let's see. We go all the way back to college only because to tell you that I was actually a philosophy major uh before I decided to go into medicine, uh I did my training mostly at New York University Medical Center and then did research at U C L A uh for a number of years in cardiac physiology and then went into private practice after I did some academia.

Um I've been the Chief Medical Officer for Lifeline Screening uh for about 16 years now. Uh by trade, I'm a cardiothoracic and vascular surgeon for more than 30 years.

And of course, during that time, I saw all the results of the ravages of atherosclerosis and vascular disease. In general. I particularly had an interest in the prevention of stroke.

There was so much death and terrible disability could be avoided by identification of previously unknown disease and successful preventive measures. Preventative vascular screenings aimed to identify those with sub clinical disease at a time when lifestyle changes in medical management can make a difference.

So if we can get to folks who have abdominally or aneurysms, uh before they rupture, the difference is that if they rupture and they make it to the hospital, the overall mortality is over 90%.

On the other hand, if we get to them before the rupture, we can fix it with a mortality of 5% or less. So think about that 90% mortality versus 5% mortality. If you can only know that you have it for, you can do that with an ultrasound examination.

May I just interrupt you one point here?

Why Early Detection Matters

Andy, is it just for our, for our audience who in includes uh uh people with various levels of uh health care, uh health care familiarity, the abdominal aortic aneurysm, the aorta is a major blood vessel that we all have.

And the aneurysm is a dili or an abnormal widening of that. And rupture is when it breaks open and this is a, this is a, a catastrophe. Yeah. So anyway, excuse me, for the interruption, please. I'm glad you did.

And I, I really should preface uh what I say by that. So my point being that if you know about these otherwise unknown problems, because there are no symptoms associated, for example, with abdominal aneurysm before they rupture.

But if you can know about it, you can do something about it. And in some cases like with a AAA that's an abdominal oric aneurysm, uh you can fix it surgically or with an endovascular graft.

Now, there are, for example, are other things like causes of stroke. You know, your audience, I'm sure all knows that when someone has a stroke, it's terribly debilitating.

And there are so many that occur through the United States with no warning. Uh in general, the first sign of a stroke and 80% of the occasions is the stroke itself.

There are no symptoms or warnings uh except in a very few number of them. And there are a number of causes of stroke, for example, uh hypertension, high blood pressure, uh which everybody pretty much knows about and is getting cared for.

Um, some folks have an abnormal beating of the heart, a rhythm of the heart that doesn't belong there. And some may have heard about it. It's called atrial fibrillation.

And it's one in which the small chambers of the heart quiver instead of beating. And when they quiver, the body gets fooled into thinking that the blood is static.

It's just sitting there and whenever blood sits still, it clots and if it clots, it just sits there like a big bowl of grape jelly. Unfortunately, then when the heart does beat properly in that chamber, it spits it off. And the first place it generally goes is up the arteries in the neck to the brain. They're called the carotid arteries and it blocks off the blood flow to the brain causing generally a massive or fatal stroke.

And once a stroke occurs, the only thing you can do really is to rehabilitate patients. So the idea is to prevent them in the first place. And the third cause of stroke is what's called atherosclerosis.

Folks call it hardening of the arteries or plaque formation inside arteries. It's calcium and cholesterol builds up inside what are called the carotid arteries, one on each side of your neck that go up to the brain and this stuff, this plaque is kind of like crumbly plaster.

Like you would find if you took the wallpaper off your wall and you can see where it would just spit off, little pieces of it go up and block arteries in the brain.

And whenever it does that it causes a stroke and how bad it is is dependent on how much gets spit off. And the like it can actually close an artery down. And if there isn't flow from the other side, that's generally a fatal stroke. So those are the things that we screen for.

Uh, in that case, we, again, we look at the carotid arteries by ultrasound and we can see this plaque and if there's a little bit in there, well, folks can do simple things, they can change their diet, they can change their exercise regimen.

They can be on medications from their family. Doctors like aspirin, which is a mild blood thinner statins which lower cholesterol and so on and it can be followed along then because it becomes progressive.

In some cases, if we find cases where the blockage is severe, 80 90% those folks sometimes need to have either a surgery or stent placed to prevent the same thing to prevent that stroke.

And that has a very low risk. I've done thousands of those Andies and the risk is less than half of 1%. So, the idea is to find this because you may not have any symptoms, uh, if you have no symptoms but you have the disease and you do something about it.

Your life is so much better. So, the idea of, uh, screening is a very powerful concept. And before I get into that I should acknowledge uh Steve and I are both uh from U C L A as professors there. So we probably overlapped you walking around the halls over in Westwood at some point, you're younger than I.

So, uh you've been in, in the seventies. Yeah, I didn't start until 1980 there. So. Ok. Well, Jerry Buck was still there and uh he was my mentor in research in cardiovascular physiology there for a number of years since past game.

But he was a wonderful guy. Yeah, great. Uh Yeah, it was a great, great institution and all. But yeah, the, what you, what you mentioned, the power of screening is such an important concept that um, the idea that uh we, we look for the disease with a test before the symptoms occur and by detecting it earlier than we would normally normally, if we wait for the symptoms, we'll, we'll have a better chance of uh uh controlling the disease or preventing a catastrophic event. Like a, like you mentioned, you know, maybe the first symptom, unfortunately.

Right. And, and one of the things that I like to tell folks uh about atherosclerosis, which is the genesis of all this stuff. That's the hardening of the arteries with plaque.

Stroke and Atherosclerosis Risks

one of the things I like to tell folks is that it's a lot like rust, you know, if you get in your car one day, it's an older car and you look down and you see some rust in the floorboards, right?

You can be pretty damn sure that that's not the only place it is. It's gonna be everywhere in the car because what caused the rust in the first place doesn't just pick and choose, uh, it'll attack the fenders, it'll attack under the motor and the exhaust and so on. Well, aosis is the same way.

So if you find it in one place, for example, in the peripheral arteries of the legs, which we look at as well, then there's a very high likelihood that you may well have the same disease, atherosclerosis, narrowing of the arteries in the carotid arteries and even in the coronary arteries, which are the arteries that supply the blood to the heart muscle and which if they close cause what everybody knows as a heart attack.

So the incidence of get, for example, of folks having heart attacks, if they have peripheral artery disease, that is blockages in the arteries to the leg is eight fold higher than if they don't.

So that's why it's important to know about what's going on in your legs and in your carotid and your aorta. Yeah, this is such an important concept. The the athos corros the the disease of the blood vessels that is at the root cause of, of heart attacks and, and many many strokes and, and peripheral vascular disease as well.

Um is a systemic disease. So it, it, there's a, there's a misconception, I think among some patients when they, you know, they have a heart attack and they go in and they get, uh they get revascularization either through stents or through a bypass and they go, wow, I'm glad I took care of that. And what they don't realize is the stents and the re vascularization only only stops the immediate shortage of blood supply to the heart but does nothing for the overlying the underlying aros heart disease or arthroscopic vascular disease that's occurring throughout the body in their brain.

Uh maybe uh you know, stroke coming or their, their kidneys, their blood, their peripheral vessels and all and, and getting at the root cause I think is one of the things that we uh we're stressing here.

But, but your point is so good that you can do a screen of the carotid arteries. And if you have vascular disease there, you need to look at your heart.

And if you see it in your heart, you probably have it in your brain too, you know. Right. Everything you say is exactly true. Now, we don't, I want to be clear, we don't do screenings of the carotid arteries.

Um But what we do look for are the risk factors associated with that very disease. And we're able to tell people therefore what their risk is for having heart disease, whether it's low, whether it's medium, whether it's high based on these other screenings and also based on their history and based on laboratory tests such as cholesterol levels and so on.

Uh that we also offer them diabetics, for example, uh if your glucose levels are high and you're identified as a diabetic type two, um your incidence of all of these diseases, both heart disease and all acle diseases is significantly higher than that of the nondiabetic general population.

So everything kind of hooks together. And that's why it's so important to think of this, as you said, as a kind of an uh an underlying disease that's manifest in all these separate different ways. But uh if by the mercy of God, we could find a cure for atherosclerosis itself, then all these things would be obliterated. Yeah. And, and it, it, one of the themes of this conference is the idea that inflammation uh and inflammation is driven by the many factors including insulin resistance, which we all, we all gain insulin resistance as we age, we may not quite cross the threshold into type two diabetes, but we're, we're all creeping up there. So we're all at risk for, for these various diseases.

Um Maybe before we talk about um uh the specific screening, could you talk a little bit about uh maybe what the risk factors are for arosa heart disease and, and how that comes about? Sure. Sure, of course.

Well, as I said, uh for certain, one of them is diabetes and diabetes shares risk factors for its inception which are similar and the same as those sclerosis in general. So for example, one of the, one of the great problems in our society uh in the United States in particular, of course, is the the uh rampaging incidents of obesity.

Um There's no question but that obesity is associated with onset of diabetes. It's associated also with high blood pressure, hypertension and hypertension itself is associated with the development of atherosclerosis, heart disease, renal failure and so on.

So it's all hooked together. Um Of course, there were many other risk factors, for example, uh heredity. Uh if uh and uh the genotype that you are. So if your daddy uh died of a heart attack when he was 45 you can be pretty certain that you're at risk. Uh And you can do something about it and be aware of that. Uh And incidences in general of heart disease in your family should make you aware that you are potentially susceptible uh to that.

Um Of course, there are the, the factors that we all know about in our lifestyle such as smoking, smoking is a no, no, no, no, no, no. Cigarette smoking is associated with aosis across the board.

In, in the many thousands of coronary bypass surgeries. I did, I can count on one hand, maybe two uh of the patients that I did with vascularization on that did not have either diabetes or history of smoking or both.

Now, you can't, may not be able to, to avoid getting diabetes from a hereditary standpoint, but you can avoid it in terms of not, uh, not letting yourself become obese, remain active and so on.

Uh, and you can certainly not smoke. So, those are very, very important risk factors and associated with that, of course, is lifestyle lack of exercise which leads to obesity.

Um, those are the things, those are the principal things. Yeah, lousy diet, lousy diet doesn't help either. You know, if you're eating, if you're eating trans fats all the time, you know, you can be sure your cholesterol is gonna go through the roof.

So you want to keep an eye on that as well. Yeah, a cardiologist colleague of mine emphasizes the, the um the notion of smoking exposure to smoke, exposure to air pollution and one of the risk factors, he asks his patient, do you drive an internal combustion engine type car?

You know, which most people still do today? But that's pushing it a bit. Well, how about one of the, one of the themes of this course of this program is we've seen that um how stress can drive inflammation and can drive many of the longevity things.

Lifestyle, Stress, and Disease Prevention

How if, if, how is stress related to arthrosclerosis and, and blood vessel disease here in some way? Yeah, it is. So, excuse me, and it's in some ways understood how stress impacts atherosclerosis. So let me tell you that first in that, when one is under stress, then the body secretes what are called cata Cola means uh people know it as epinephrine or adrenaline and drugs like not drugs but uh substances like that in the body and it's normal for the body to do that.

So for example, if there's a bear running at you, right? You want a lot of adrenaline in your body, so you can run fast and get away and that's ok under that circumstance. And it's also just transitory.

On the other hand, if you live a life in which stress is there all the time, then those CTA Cola means adrenaline, epinephrine and so on. Are there all the time and they raise your blood pressure?

That's one thing we already talked about hypertension causing atherosclerosis and they also in a more direct way, have an effect on the kidneys uh on end organs and so on. So, stress is a very, very important risk factor for all of this stuff. Plus it's a terrible way to live.

Yeah, I I've heard you say that um in your, your writings that, that it, it's been noted that after nearly four decades of decline, that the um the the rate of strokes in the, in the brain due to due to aosis among other causes is now on the rise in the US. What's that about?

Well, you know, going back to what we've already spoken about the incidence of obesity is increasing. The incidence of hypertension is increasing. And as I told you in the beginning, one of the major causes of stroke is high blood pressure.

What happens in that case uh is not related to atherosclerosis. Instead, the blood pressure gets so high throughout the body that includes the arteries of the brain and the small arteries of the brain that they can't tolerate it.

And one of them ruptures. So the blood, the basically the artery bleeds into the brain and there isn't any place for it to go in the brain except to destroy brain tissue that's called a hemorrhagic or a lacunar stroke.

And uh it can be devastating. So, um that's one of the reasons why the incidence of stroke is increasing, but also the incidence of atherosclerosis is increasing for all the reasons we've already uh talked about.

Uh So it isn't surprising to me that strokes are increasing and we're trying our best at lifeline screening to interdict that by getting folks to come and get screened for those things, which can lead to stroke. You know, we've screened over 10 million people.

Uh since the inception of lifeline screening, we screen between six and 700,000 people a year and we find enough disease in that period of time to fill the uh the uh Super Bowl stadium.

Think about that. So, um so it's a, it's a problem that it, that stroke is increasing as there are so many other diseases that are, uh, related to lifestyle. Yeah. It, it, it, again, it's a theme of, of this program that, uh, we are now metabolically much less healthy than we were 20 years ago. And, and like, like you say, with obesity type two diabetes, insulin resistance, the, the junk food that has replaced the normal food that we used to eat in our supermarkets and, and other lifestyle factors that are, are just uh increasing incidence of, of all these diseases, but including cardiovascular disease and, and Aros Corros, as you mentioned.

Well, you know what's interesting is to me is that while, oh, in my grandfather's generation, so that's uh 60, 70 years ago, they didn't live as long as we do now, the lifespan was not as long, it's longer now because we have such better medicines and uh surgeries and things to fix things that are wrong. But I will tell you that despite that back, 60 and 70 years ago, people were healthier.

We just couldn't do as much to fix the things that became wrong, whether it was cancer, you know, heart disease, tuberculosis, uh polio. So all those things have been corrected, which have lengthened our lifespan.

But I can tell you that my grandfather was healthier than most of the folks running around today. Yeah. Some, someone I've heard this, that someone made the observation that um if we look at the, the foods that were available 100 and 50 years ago, um, most of the foods we eat today were, weren't even around 100 and 50 years ago.

And most of the diseases, the chronic diseases that people die of, they were around 100 and 50 years ago. But a

much lower, lower rate of, of heart attack and stroke and, you know, these chronic diseases. It's, well, you know, that's why the Mediterranean diet is healthier than most because in Italy and I'm Italian by, not by birth, but by a family history. Uh, in Italy, they only eat things that come freshly out of the ground.

You don't eat anything out of a can. And I think one of the problems we have here is that nearly everything we eat comes out of a can whether it's in season or not. But in Italy, if it's not in season and it hasn't come out of the ground that day, you don't get it.

That's, that sounds like a great health recommendation just like you say to eat real food instead of, uh, anything in a can or a box or anything that you have to see in advertisement to convince you to eat it. You probably shouldn't eat it.

Well, let, let's, uh, talk a little bit about the, the, the screenings that, that you offer and, and how those work. Maybe you could educate us, uh, what, what's available through your program and, uh, what do they look for? Sure.

Well, we've we've covered some of it already, but I'm gonna go through it again kind of briefly. Um So that it's kind of in order. Uh So again, we are interested in the prevention of stroke.

And to that end, uh we measure people's blood pressure when they see us. Remember I told you there were three causes of stroke. We screen it, we scan the carotid arteries by ultrasound to look for a plaque in the arteries.

And we do an electrocardiogram to look for that abnormal rhythm of atrial fibrillation, which is associated with stroke. So we do those tests. We also do an ultrasound of the abdomen to look at the abdominally order uh to see if there is an aneurysm present or not.

Um We do a screening of the peripheral arteries and measuring the ankle brachial index. That's a way of telling whether there are blockages in the arteries going down to the feet from the groin and so on.

Uh again, these are all related as I told you before, one to another. Um Then we have an entire panel of laboratory examinations that is to say blood tests and those include oh gosh uh tests for cholesterol, in particular for rao sclerosis, uh tests for prostate cancer, uh test for thyroid disease. And uh I don't have the list in front of me, but there are dozens and dozens and dozens of tests, of course glucose.

Um and uh hemoglobin A one C to check for diabetes and so on. And one of the interesting things about the program as I developed it as Chief medical Officer is that when we find something that falls into what we call a critical realm, then the patient gets notified immediately.

Uh, I've, uh, there are standards by which the folks at the screenings, uh, can tell a patient if they have, for example, oh, a six centimeter abdominal aneurysm.

They don't have to wait for the physician. And I'll talk to you about that in a minute to get the screening, read it and hit the alarm button right.

What Lifeline Screening Tests Include

Then based on that size alone, they can tell the patient you need to go either see your family doctor now or to the emergency room now because that patient is likely to go in the operating table a day later.

So similarly, for high grade carota stenosis, 90% stenosis in the carotid artery and so on. Now, once those screenings are done, and by the way, the same with some blood tests such as a very high glucose level that it might be critically dangerous.

Um Once those screenings are done, then they are sent electronically to our panel of reading physicians. And these are all board certified doctors. Uh The panel consists of radiologists, cardiologists, cardiovascular surgeons, and vascular surgeons who read this material and uh identify any of the abnormalities in the screenings.

And that is then used to send to the patient uh the results of all of the screenings that they've had done in a paper form or on the web, you know, whichever uh so that they can look at those. And in that what we call a results package, not only do we just send them the raw data, we send them a kind of format that's chose by color, what their risk factors are. In other words, are they in the green? Are they in the warning yellow or are they in the red? And we send them a copy to bring to their physician? Because what we encourage them to do uh is to take all of this to their family doctor because it's their family doctors.

Uh and any specialist they recommend who ultimately take care of the patients. We simply identify the abnormalities and screening so that they're aware of them and can then get treated appropriately.

So, um those are the things that we do. Uh if anyone's interested, of course, they can go to the site for Lifeline screening and, and there are many, many, many packages that you can look at and purchase.

And as I said, I'm the last one to ask about what things cost, but I can tell you this, that the cost of doing getting these done at lifeline compared to what it would cost you if you had to pay out of pocket for them on the outside in a hospital is tiny. Yeah. And, and a question, I guess as far as cost sort of jumping around here, are these covered by insurance?

In other words, can my, can my doctor, uh, uh, order this essentially and then my own insurance would cover it or is this, uh, a, a cash basis only? This is a cash basis? But that's a whole separate arm.

I see. And, um, it did, do people, I guess whether they get reimbursed or not depends on the insurance they have and it just, it just depends. Right. I, yeah, I don't, I'm not expert about that but I do know that the business itself is based on cash.

Um, and what the patient does beyond that is up to them. Yeah, absolutely. Yeah, one of our uh one of our other speakers, I think in one of the programs was talking about other, other tests for screening for cardiovascular disease, specifically a heart disease.

He was mentioning a uh C T uh computer tomography, calcium score of looking for calcium in the coronary arteries or C T A. What, what's the, what are the differences? What are they basically looking at the same thing or there advantages to one or the other uh for that?

Right. So now I'm speaking as a cardiovascular surgeon. Uh not so much as the CMO lifeline because we don't offer those uh at lifeline. But, um going back, historically, um way back, the first sign of coronary artery disease was either the chest pain with exercise or somebody having a, having a heart attack or falling over dead on the golf course.

That was a long time ago after that came the realization that if you mimicked those things in a safe environment, such as having somebody walk on a treadmill with strapped to an electrocardiogram, so that you can see changes. And that's called a stress test that somebody could be identified as having coronary heart disease, even if they didn't have symptoms.

So that was a step up. Then the next step after that, of course, is if you flunked that one, then you had what was called coronary angiography. And that's a die test in which the coronary arteries themselves are actually visualized cardiologists do that.

Uh And you get a picture of what's going on in the coronary arteries. Now, as a heart surgeon, that was the road map that I looked at on these patients prior to doing surgery. So for example, I knew that there was a 90% blockage in the artery to the front of the heart and an 80% blockage in the artery to the inferior, the lower part of the heart. So when I did the surgery, those are the arteries, I made bypass bypasses too.

So that was true up to, oh gosh, um probably 15 years ago. And of course, it's still the gold standard for finding out whether you have coronary art disease. If you have symptoms is to have a coronary calf, which is what I describe the angiogram, but take it closer to what you were discussing uh about uh some time ago, uh it was realized that

AC T scanner, which is a device which is very good at looking at all sorts of parts of the body uh either with dye or without die.

Um So for example, if you're uh you wanna look at somebody's lungs to see if they have a tumor in them, you can get AC T or a cat scan. It's called uh and that will show that.

Now, it was figured out that you could also look at the coronary arteries using C T, not to see the blockage so much, but to see whether there was calcium in the arteries because calcium is radio dense. In other words, it shows up on an x-ray and if there's a lot of calcium in the coronary artery, the likelihood is that some of it is blocking the arteries.

Now, you don't know that for sure, you only know that the risk is higher if you have calcium in your coronary arteries. But it's a very useful device uh for people to get who have risk factors. And we don't do that.

It requires ionizing radiation and none of our tests do that. None of our tests have radiation, they're all completely safe and do no harm. Uh So someone can get AAA calcium score in that way.

So I hope that answers your question. Yeah. Yeah. No, it's, it, it, it, it does. Um, and, um, do you think should everyone be screened for stroke and cardiovascular disease? Uh, what, who, who's a good candidate for the, for this type of testing?

Well, the, the first answer is no, of course not. Everyone should be screened, uh, because they, we only want to be screening for people who have some degree of risk of having the disease. So for example, a healthy 20 year old has essentially no risk.

So we certainly don't want to be screening those folks. So where do we decide to offer screening? Well, what has been determined, especially interestingly within the last 2 to 3 to five years is that the incidence of Aros Rois is going down in the age curve. So, whereas it used to be 50 and above that, we're at risk. Now we're finding that people 40 and above are at risk.

Who Should Get Screened and When

So we screen people who are uh are, are no younger than 40 and who have risk factors and the kinds of risk factors are the sorts of things that you and I have already described.

So, if someone is completely healthy, uh even at age 40 and they have no risk factors, well, they probably don't need to be screened and we don't want to be screening people and wasting their time and wasting their money.

So, um they can call in if they're concerned. And uh the folks that they're talking to will go down the list of risk factors with them and help them determine whether they have any or not.

Now, if somebody who's 50 years old wants to be screened, even if they don't have any risk factors or they're 60 years old and they just want to feel better about knowing that they're ok. That's all right.

We would do that. So, and that's, by the way, uh, that, that's a positive. So, if you get screened, um, and what we find is that there's no problems. Well, that's not a bad thing.

That's a good thing. Yeah. Yeah. No. Absolutely. Including in terms of decreasing your stress in life. Well, in, in your opinion, if you had to pick three things that people could do to, uh, prevent a stroke or a heart attack, um, what, what three things would you recommend?

Number one, don't smoke, number two, watch your diet. Don't become obese. Number three, exercise and eat properly and four, I'll throw on 1/4 1. Decreased stress in your life. Absolutely. Yeah, that applies here.

Well, what do you wish people could really learn and apply as it relates to cardiovascular disease and aging

altogether? Um, you're not sure. I, I understand the question.

I'm just, yeah. Um, as far as cardiovascular, I think we've already touched on it, I guess cardiovascular disease and the, and the lifestyle changes that we need to do. You've, you've already, uh, lucid on those. Uh, that'd be great.

Is there anything else you'd like to cover today that we haven't touched on yet? Well, we've touched on pretty much everything. Uh, I guess the other end, you know, we talked about the early end of the spectrum of folks, uh, getting screened in their forties and fifties.

We should probably talk a little bit about the other end of the spectrum and that it, when is it too late to get screened? I mean, or not to bother getting screened.

And that's an interesting question because, uh, if, if I had to answer that, oh, 50 years ago, uh, the answer would have been one thing because there wasn't much you could do for people who are very elderly safely.

But nowadays it's different. So, for example, folks, even in their 80s, uh, if they're found to have high grade blockages in the carotid arteries can be treated with very, very low risk, a success rate of better than 99% and prevent stroke because even in your nine, especially in your 90s, a stroke is a horrible, horrible thing to have happen to you.

And the same with an aneurysm if you find a AAA in somebody in their eighties, well, in the past, who might have said, well, you know, maybe they won't make it through the surgery. Not so anymore because the surgery is so much safer and we have also the ability to use endovascular stenting, which is much easier on the patient, uh, in those folks.

And in fact, what we found is the risk of repair for that in folks in their 80s is no higher than anybody else's. So, should you be screened if you're in your 70s and 80s and so on? Yeah, you should, if you have risk factors, if you're concerned and, uh, we'll, we'll tell you what you got.

Closing Thoughts and How to Learn More

Yeah, I think that's a very enlightened view and I wish more physicians had that, uh, really, um, I have a friend of mine who's, uh, 75 he had a coronary asymptomatic and he had ac t calcium score like we were talking about and he had a, a score, you know, significant heart disease over 100.

Uh, and his cardiologist said, well, you're 75. That's normal for your age, you know? Yeah, I'm 76. So I'm biased. Good for, good for you. I know. Yeah. Absolutely. So, yeah, I think, I think age should not, not be a contraindication for, uh, for these screening tests.

Uh, unless, unless the person makes, makes the choice that, you know, they, they don't want to follow medical care. But certainly, you know, people who are at their end of life metabolically with, you know, end stage cancer and so on.

Uh, those folks, you know, it's not for them, but we're talking about the general population which tends to be fairly healthy, you know, uh, at that age there are a large number of people in, in my age group and older. Um, one of my best friends is 10 years older than I, he's 86 he still flies aerobatic airplanes.

Yeah. Yeah. And, and, and like you say, these, these diseases, if they're caught early and the screening tests do catch them early, uh, can be, can be controlled and in many cases even reversed with, uh, you know, either lifestyle changes or surgery or, or other medications when necessary. So, absolutely.

I think, you know, that, that age itself shouldn't be the factor that to, to limit the application of these things. Yep. So, um, Andy, how can people, uh, reach you on social media and maybe you could tell our audience your website that they could go to if they want to find out more information on the work. So I think the best way to do it and again, this is outside my Bailey Wick in general, but I'm a terrible marketing guy.

Um, in general, if they go to lifeline screening, that's L I F E, uh, L I N E screening dot com that will lead you to wherever you need to go, it will give you the telephone numbers to call. Uh, it will go give you the website to go to, uh, it'll give you the names of contact folks and all that sort of stuff.

Um, we are on Facebook. I know that, uh, and on social media in general and I have no idea how to get to that because I am a Luddite and, and I need it. I need my 12 year old granddaughter to help me get, get on Facebook. So, uh, but it's there and anybody can figure it out and get on it very easily.

I'm sorry for my, uh, ineptitude. No problem. We appreciate it. We can, I'm sure we can find it from the web suit if uh website, if people are interested. And so thanks again Andy for taking uh taking your time today to talk to us about screening and uh and the work you're doing.

Thank you so much. You're quite welcome. I enjoyed talking with you very much and I invest to all the people that you communicate with and be healthy.