

## The Penis and the Heart: Lessons from a Urologist

**Joel Kahn, MD, FACC**  
with **Judson Brandeis, MD**



### Joel Kahn, MD, FACC

Alright everybody welcome back to another amazing all star episode of Reverse Your Heart Disease Naturally Summit. Joel Kahn, your host along with Dr. Joel Fuhrman. But today just buckle your seatbelt, don't plan on moving for 35 minutes. We brought you really one of America's top all star urologist urologist of course are specialists in the bladder, in the sexual organs and kidney functions and all surgical and nonsurgical. But his particular interest is sexual health. Male and female sexual health and how that connects with the heart. So you may have some sexual difficulties, you may know somebody that does. You've read about it. Let's dig deep. This is the amazing Judson Brandeis, MD of huge academic polish. If I remember tell me, Judson, I get this wrong Brown University, U. C. L. A. Urology training, I think you threw in a little Harvard medical school immunology transplant work. And you're in San Ramon, California. I've been in San Ramon. It's a beautiful area where, how far north of San Francisco?

### Judson Brandeis, MD

Where about 40 miles east.

### Joel Kahn, MD, FACC

Very very good. Yeah, beautiful community. But you know your reaches all over the United States and maybe more the United States because you're not just a very well known urologist with a specialty in sexual health. But I think I see a book behind you that I contributed a couple chapters two. But by far the best book on male health from every perspective 21st century man and we'll talk a little bit about a little bottle you have sitting there on your lower show. But anything in the bio. I mean when did you transition? There's a lot of urologists out there and there's one Judson Brandeis, MD who's really, you know, teaching the world about male sexual health, female sexual health and the heart connection. When did you decide I'm just not another kidney stone guy or gail.

### Judson Brandeis, MD

Yeah. You know, I always like to be kind of on the bleeding edge of technology. So 2002, I started surgical robotics. We had the second Da Vinci surgical robot in the country. I used to go to UCSF

and Stanford and those kind of places and teach the universities actually how to do that kind of technology. And then I created a kidney stone center at our hospital. I pioneered M. R. I got a prostate biopsy and then about three or four years ago I heard about gains wave or low intensity shockwave therapy for erectile dysfunction. And I became really interested in regenerative neurology. So the ability to improve blood flow to the penis in a way that's natural. That goes way beyond just taking a PDE five inhibitor. And so that sort of began my journey of Men's health and research and writing books and meeting wonderful people like you Joel.

## **Joel Kahn, MD, FACC**

Well, thank you. We have had the pleasure to work together and let's just make it wide open right now. We're going to use the word penis, maybe we'll talk about female anatomy, everybody just get comfortable with this. These are medical terms and this is 2023. So it's okay to use them. But you know...

## **Judson Brandeis, MD**

What I, what I tell people sorry to cut you off is that the heart and the penis are basically the same. So you know, say you're at work and your cubicle and you gotta tell take your father to the cardiologist. So you tell everyone in the room, hey, listen guys, I gotta, can I leave early? I gotta take my dad to the cardiologist. And everyone's like, oh, that's so nice, you're such a good son. That's so great. Go ahead. The next day you come in, you're like, hey guys, my dad has erectile dysfunction and I have to take him to the urologist. Is that okay with everyone? And people will look at you like, uh, what's wrong with you? But they're the same disease process.

## **Joel Kahn, MD, FACC**

Well, let's talk about that as a very funny and very true perspective. Even though we think we're a bit enlightened and any topic is fair game lately, but This isn't always fair game. So there are men listening. There are women listening. There are people in relationships. There are people married 50 years. There are, you know, some young people that are single and let's just talk a little bit a erectile dysfunction and how. How that relates the heart. So throw us some statistics about men and erectile dysfunction and frequency and your practice frequency costs the literature and then we'll get to the heart connection.

## **Judson Brandeis, MD**

Well, you know, half of men over 50 have some degree of erectile dysfunction. Another way to think about it is there's something called the Massachusetts male aging study. It was the largest study of men over time. And 40% of men in their forties, 50% of men in their fifties, 60% of men in their sixties, 70% of men in their seventies have some degree of erectile dysfunction. But you know, the really interesting thing is it's such a sensitive indicator for heart disease. Right? So you're 20 you wake up every morning, you got morning glory. Everything is going great sometime in your thirties or forties. Or if you're lucky, maybe you're in your fifties.

You know, nighttime erections will start to diminish. Okay, that's the first sign that circulation is beginning to diminish. Okay. If you ignore that 10 years later, you know, you'll be with your partner and things won't be working as well as they should. Okay, You'll get erectile dysfunction if you don't listen to that 10 years later, you'll have your first heart attack or you go to your cardiologist and they'll say, you know, your stress tests are bad, you're kg is bad, right? So really the good Lord gives you a 20 year head start to figure this out. And if you don't, if you ignore the fact that your morning erections are going away, then at least you get a 10 year head start from the time you get a erectile dysfunction to the time you develop cardiovascular disease.

## **Joel Kahn, MD, FACC**

Wow. I mean that is a powerful minute or two that came out of your mouth. 50% of men at age 50 60% of men at age 60. And statistics may leave a little room there, but they're powerful numbers. I mean, so by over age 50 it's the minority of they can actually say I still have erectile function and morning glory as you called in morning erections like I did when I was younger. But the rest are aging. We talk a lot about women going through menopause and the dramatic changes men, everything is a little more subtle but they're aging in. And then this connection as a warning sign that you're bringing up and that I think is so important. I know there is scientific literature that goes back over two decades that describes this connection between a man with erectile dysfunction and a man who's at risk for showing up in an emergency room or having a full blown heart attack or having actually a sudden death, no reversal kind of situation more than 20 years ago. But

I mean, how many internal medicine doctors, primary care doctors, other specialists, you know, and even neurologists encounter a man who's describing erectile dysfunction and brings up the first priority is or at least an equal priority is evaluating your heart. I mean, what's your perception on that? Because mine is 20 years later and we haven't made a big dent on Yeah, erectile dysfunction. Here's your prescription. That's a pattern. Every doctor knows erectile dysfunction. Go see a preventive cardiologist or this is some of the things you need to do. So what's your perception on our promise?

## **Judson Brandeis, MD**

I think I'm so discouraged. I think as you are with the state of American medicine and the fact that when people present to the doctor it tends to be okay, let's fix the problem with a pill or a surgery or something because and you know, I don't really blame doctors. It's just it's the whole way that the system is built. It's not built to get to the root cause of the problem, which is people are fat, people don't exercise, people drink too much. People smoke too much. People eat really bad foods. And unless you really dig into that and and make a significant change for that, you're not gonna be able to change heart disease, you're not gonna be able to change erectile function. You know, I mean, you've been a big proponent of this for a lot longer than I have. And so, you know, that's really what the issue is, right?

## Joel Kahn, MD, FACC

And I know, again, going to the literature, I don't have it open. But there's been at least nationals, not international symposium called the Princeton symposium. You're probably aware of that where your Allah and cardiologists got together 15-18 years ago and then they got together 10, 12 years ago. Published in the medical literature. This dramatic and important message that erectile dysfunction equals the potential for heart disease and the ability to detect it early. But you know it just has not made a big dent in your clinic in San Ramon. Of course people can see you uh there are going to be people that live in northern California or other regions that can travel to you and we can talk at the end if you do any telemedicine. What do you do? Do you refer out the 48 year old man who's seeing you for E. D. Erectile dysfunction in terms of cardiovascular work up or do you play with that a little bit yourself?

## Judson Brandeis, MD

You know I had a 48 year old guy come in two months ago right with erectile dysfunction. He said oh erectile dysfunction started when my kid was born about 6,7,8 years ago. Right? And he's South Asian right. I have a big South Asian population because I'm near Silicon Valley. And you know they write most of the code for most of our Silicon Valley companies. And I told him I said listen you guys have a much higher incidence of cardiovascular disease because South Asian men have much smaller blood vessels and I said you need a hard calcium score. He's like oh you know I guess I do. I said no seriously you do because you're at much higher risk of cardiovascular disease.

And I you know I gave him a whole bunch of exercise to do and I do a body composition analysis. So we went over his fat and muscle and so on and so forth. And then we started him on nitric oxide booster and we started him on a PDE five inhibitor and gains wave and P shot, so on and so forth. So three weeks later we get a call saying he has to cancel his appointment because he had a heart attack right? So he was exercising riding a bike. He started to get heart disease or heart chest pain. He called his wife. His wife picked him up, took him straight to San Ramon Regional Medical Center. He got ended up getting three stents. And thank goodness he actually took seriously what I said, stopped called his wife got to the emergency room right away ended up with three stents. And no residual heart does you know damage myocardial.

## Joel Kahn, MD, FACC

That's dramatic. And you bring up what I would do too. I would get a coronary artery calcium CT scan. \$100.75 dollars. Go down. You know that scan was developed at University of California San Francisco in your backyard 33 years ago. So we've got more than enough time to get that into routine practice. I order them like hotcakes like anyone that I have or anyone that doesn't respond appropriately to my treatment. They got a hard calcium scan. It's the easiest two minute test, a couple 100 bucks. Um It's nothing and it gives so much really good diagnostic information.

## Judson Brandeis, MD

Yeah. But I don't know the answer to the question. If we surveyed urologists, how many have actually ever ordered one or actually had one themselves if they're male or even you know, I would say I would say one, you're the one. I'm the one neurologist across the country that heart calcium scans like they're going out of style.

## Joel Kahn, MD, FACC

Well I hope after so many people watch this. So I asked the urologist, why aren't you like Judson? Why aren't you Doctor Brandeis? Why aren't you a 21st century man cardio urologists. Maybe we should just merge our specialties. So you brought up a word that a lot of the people viewing this right now. I have heard in a couple other interviews, nitric oxide and let me throw out the word endothelial. And talk a little bit is a very experienced. I'm gonna call you a cardio urologist bringing up a new specialty? I mean what do you think? Why is erectile dysfunction giving that clue to future heart disease in the dramatic story you told a 48 year old.

## Judson Brandeis, MD

Yeah. Well the thing is the blood vessels to the penis. The inter internal prudential and deep cavern artery of one or two millimeters. The coronary arteries are 3 to 4 millimeters. Right. But it's high r squared. So the arteries to the penis are about a quarter the size of the arteries to the heart. So of course they're gonna get blocked first. And there's a molecule called nitric oxide. So when I was at U. C. L. A. My professor Louis Ignarro was a physiology professor at U. C. L. A. Won the Nobel Prize in 1998 for discovering nitric oxide as a second messenger. And I had a Professor Jake Rafer who was working on, you know, erectile dysfunction in the lab and was discovering a molecule called EDRF. Endothelial derived relaxation factor. And it just so happened that they both were in a freight elevator going up to the respective floors and they started talking.

And so it turns out they were talking and Jake Rafer was talking about E. D. R. F. And Luis was talking about nitric oxide. And they kind of looked at each other and said, wow, it sounds like they kind of do the same thing. You know, why don't we start talking and collaborating? And they actually wrote the New England Journal of Medicine paper that described the mechanism of action of PDE IV inhibitors. Right. And so what happens is as you get older, your nitric oxide levels decline and nerves release nitric oxide onto vascular smooth muscle and produce something called cyclic GMP. Right? So you don't need to be a biochemist; cyclic GMP is just the linchpin of the whole system. So the more cyclic GMP you have, the more your blood vessels open up and the less cyclic GMP. You have blood vessels closed. Right?

Because you don't want to keep blood vessels open forever. So if you don't have enough nitric oxide production, then you don't make cyclic GMP. And what um cyclic GMP is broken down by something called PDE five. Now PDE five is only found in the penis. So nitric oxide is everywhere. You know, men, women, cats, dogs, rhinoceroses, giraffes. But PDE five is only found in the penis. And that's why medications like Viagra and Cialis works so well is because they preferentially

shunt blood to the penis. So if you have a medication like Viagra or Cialis that blocks PDE five, what it does is it keeps that cyclic GMP from being broken down and so you have higher levels of cyclic GMP. So you keep blood vessels open.

## **Joel Kahn, MD, FACC**

So after listening to you, I would think that most everybody is writing a note by cyclic GMP at the grocery store. Sounds like something I want to get my hands on. And in reality the pharmaceutical industry in researching a drug like the NFL Viagra as a heart drug in an harbor Michigan close to me. Got reports from men right away. This may be a good heart drug. But there's a really great side effect going on called my erections have come back experimenting with your heart drug and that's how Viagra got started, you know that and Levitra and Cialis.

But there's others ways to boost nitric oxide besides a prescription from neurologist, a cardiologist, primary care. Tell us, I mean a little bit there is a bottle behind you called the firm. I believe you would classify that as a natural nitric oxide booster and erectile function supporter. I mean when you went into formulating most urologists don't have their own vitamin line and you have a very, very top quality interesting one. What went into your understanding, we're not going to use Viagra, but we're still gonna hack the system to create more nitric oxide.

## **Judson Brandeis, MD**

Yeah. So it was really interesting when I started doing shockwave therapy, I didn't quite believe that it worked. And so I wanted a hedge, I wanted something else that I could do. And so I thought, well maybe I should give everyone Viagra at the same time. But then I decided that wasn't the right thing to do. And so it, you know, a little bird in my ear said, well, what about that stuff that you were using in residency, the nitric oxide stuff. And so I mixed up a combination of sertraline and beats. Right? So there are two ways to get nitric oxide. One is Citra line, which is a non essential amino acid in which is converted in your kidney into arginine and arginine is actually the nitric oxide donor and then it gets recycled back to settle in.

So Citra line is much better to take than arginine. And then the other thing is nitrates. Nitrates are in foods like beet beets and green leafy vegetables and nitrates are converted into nitrites in the mouth, right? Which is why if you use mouthwash, your blood pressure goes up and um you don't get as good erections and then in the stomach it's converted into nitric oxide. So we have both pathways and in the body you get 50% of your nitric oxide from Citrus pathway and 50% from the nitrates. And so that's why in a firm, I used both pathways to boost nitric oxide.

## **Joel Kahn, MD, FACC**

Excellent. And I can tell you from having it in my clinic for the last three or four years. It's a wonderful, wonderful nutraceutical affirm and I will ask you to show everybody the beautiful bottle label when we get towards the end of this.

## Judson Brandeis, MD

But So Joel, you know the amazing thing. It also is a really, really good blood pressure medication.

## Joel Kahn, MD, FACC

That's in fact, I was just gonna, I don't want people to lose track of, you know what you said about 10 minutes ago, you know, a loss of morning erections than greater difficulty with erections overall and your risk of heart attack, emergency room stent bypass or dying start to really go up if you don't take the step like you said, get a calcium scoring CT scan, others might order a stress test, get the labs, pay attention to your lifestyle and correct them. So what is it about low nitric oxide production? Which is the basic cause of these lost Simoni erections that connects the penis and the heart? I mean the end of helium is everywhere, right?

## Judson Brandeis, MD

Oh yeah. The end of helium is uh, you know, lines the entire cardiovascular tract and it's really responsible for the production of local nitric oxide. So there's N nos which is nitrous oxide from nerves. But that's kind of like a little spark that lights the fire. Once the fire is lit, then most of the nitric oxide comes from enos. And a fee nitric oxide synthesis. Right? And so that bays the inside of blood vessels with nitric oxide, which opens them up. But nitric oxide doesn't stick around for a long time. So you need a lot of it and you need a continuous production of nitric oxide to keep those blood vessels open. And so this one patient I had his blood pressure was running in the one forties, he came in to see me with erectile dysfunction. He has a super high stress job. He's the CEO of some big company down in Silicon Valley. And his Stanford cardiologist wanted to put him on a blood pressure medication. And I I can't stand blood pressure medications unless you really really need to be on them. I said you know that's going to kill your erections even more. I said take a firm two tablets in the morning and two tablets in the evening. That will give you about 3 g of L. C. Trillion. Which is a lot of the data is based on three g of L. Central in his blood pressure went down to 118. You know he's got this, he's got this tracking app and he said his Stanford cardiologist could not believe that his blood pressure dropped like that just from taking nitric oxide boosters.

## Joel Kahn, MD, FACC

You keep teaching these guys at Stanford amazing stuff. It's fantastic maybe to summarize this and when everybody to write down there's three abbreviations in medicine that we were actually talking about but they all share the same letters. E. D. Equals E. D. Equals E. D. And I'll share that with the E. D. Is erectile dysfunction. And we often talk amongst colleagues. We just use the short firm E. D. Erectile dysfunction. E. D. Is endothelial dysfunction that the root cause is sick arteries which is why the heart attack may be brewing while the erections are failing and ophelia dysfunction and the third E. D. Abbreviation used all the times emergency room department emergency department and you know if you ignore the erections and ignore the endothelial dysfunction. You unfortunately maybe like your patient and many of mine.

So in summary to this really key thing, check your heart if you're having erectile dysfunction. If you're listening to this and it's your partner or your spouse significant other and they don't want to deal with it, cut them off. Don't let them get any activity until they get their heart check because they are really at risk. I know of one study out of the Mayo clinic county where the Mayo clinic is located, that men with erectile dysfunction were more than 40 times higher risk of having emergency room presentations for heart issues than men who said they had good sustained directions. That's the highest statistic I've seen. But even if it's double triple quadruple, that's like smoking, that's like diabetes risk, that's like high blood pressure risk. If it's 40 times, then we have really one of the most important clues that all men need to pay attention to with their lifestyle with great supplements like you talked about. But get this.

## **Judson Brandeis, MD**

I mean, you know, like, like, like you said, it's, it's not a disease, you know, it's a disease process, but it's an early warning system. So like if you're driving down the road, right and you got the warning sign that comes on that's like your engine is starting to get messed up. Like you don't drive another 10,000 miles, you drive to the service center and you and you get it figured out. So all these guys that can't get erections anymore. You know that it's these um, online pill popping services like get roman and, and blue chew and lemonade and all that hymns. I think they do a tremendous disservice to men because they make it easy for you to get Viagra and those other medications, but they're not educating their consumer that you really have to pay attention to what your body is telling you, what your body is telling you is your circulation is getting clogged. And I learned from your chapter in the 21st century man, of men, their first presentation with heart disease is sudden death. Right, right. Like you don't, it's not like a video game where you just put another quarter in or hit, you know, replay like that's it. My patient that was biking. You know, if he hadn't come in and seen me, he might be dead now.

## **Joel Kahn, MD, FACC**

That's the whole thing in a nutshell. So since this is reverse heart disease naturally summit, you know, people need clues. People need that brake light going on, that warning light going on and we've made the point, but I never find it tiring or overpowering to bring it up again and again again in, you know, lectures and publications and we've mentioned it here. So let's in the last few minutes, some of our listeners don't know what low intensity shockwave therapy or gains wave therapy something. You're really a big Kahuna expert on men that are having erectile dysfunction and maybe got some improvement with lifestyle and a firm, but they're looking for more. They want to protect their current ability. What is that technique called, gains wave?

## **Judson Brandeis, MD**

Right. So it's low intensity shock wave therapy. So this was actually discovered during World War Two when they were trying to blow up submarines. They were sending these depth charges and there was a blast effect that was hurting people that were inside the water. And what they

found is this energy or blast effect or shockwave has physical properties. And so then urologists 20 years later figured out how to harness this to break up kidney stones. But about 10, 11, 12 years ago a group in Israel decided to try to use it to improve erectile function. And what it does is the pressure waves or shock waves go into the vascular tissue. And they trick the body into thinking that there's an injury and in the body when there's an injury, you get an injury response.

And part of that injury response is a healing response. Part of that healing response is the growth of new blood vessels. And so what you're trying to do is to generate collateral circulation growth of tissue or blood tissue around blockage. And so what you do is this has been shown to improve stem cells or activate stem cells in the penis and also has been shown to release growth factors. So the combination of stem cells plus growth factors plus nitric oxide equals new blood vessels. And so depending on your state, anywhere from 6 to 12 treatments might be necessary. And it will turn the clock back maybe five or 10 years. It's not gonna, if you're 65 it's not gonna make you 20 years old, but it might make you 55 or 60 years old in terms of your erectile physio.

### **Joel Kahn, MD, FACC**

And you can combine it with a firm, you can combine it if needed with the prescription drugs like Viagra. Yeah. You know, and this is probably a unique conversation. A cardiologist who's performed gains wave on his patients in the office, any urologist who performed 100 times as many, but we both have the equipment, it's a simple, easy, quick out patient, extremely safe procedure with well more than 100 medical articles that support that. This is when I first heard about it. It was a bunch of 30 year old bloggers going down to Miami and it just seemed like more joke than science and silly me. I actually started to read the science and I said holy moly you know, there actually is a cardiac application for low intensity shockwave therapy used in Europe and Japan.

That's very promising but nobody's brought that over for the damaged heart because if you need stem cells anywhere you need them in a damaged heart for sure. So it's just a common on medicine. We go from, you know, World War Two, the blasting kidney stones and we end up with a therapy for male erectile dysfunction. And it's still and I know you would agree it's addressing the root cause of erectile dysfunction at the penile level. You still got to address the heart. You still gotta eat better, exercise, drop the weight, sleep better without sleep apnea and get the calcium scan because the gains wave may restore. I think you've used the term like penis rehab. You know, it may restore function in the penis, but you know, check that heart out so you get the whole body moving in the right direction.

### **Judson Brandeis, MD**

Check the hormones to make sure your testosterone is optimized. You know that that's why I stopped taking insurance of a private pay office because I found that I was voted the top urologist in the San Francisco Bay area for the past nine years. But uh I found that in my insurance based medical practice I couldn't spend the time that I needed with my patients

anymore because the throughput was just too much and it just wasn't the way that I wanted to practice medicine and so now I see a lot fewer patients. But I think I make a much greater impact on your life.

## **Joel Kahn, MD, FACC**

The old one starfish at a time. I mean really if you finish your day and one person got it, one person eats better. Read your book. Got their calcium score, took their firm. So here I'll just uh I'll do the shameless plug because it's such an excellent product and it is available online. Tell us where people can find you. I'm sure your website has a link to the five or six different versions of this product that you have. But where do they find you? Maybe they do want to come see you? Maybe they're struggling with all this.

## **Judson Brandeis, MD**

Sure. So they can go to BrandeisMD.com, B. R. A. N. D. E. I. S. M. D. dot com. That's my website. They can go to affirmscience.com A. F. F. I. R. M. Science dot com. So we have a nitric oxide booster called the firm. We have a testosterone supplement called support which has D. H. E. A. Which is a testosterone precursor. It's got damn which blocks the caramelization of testosterone to estrogen. It's got tank italy which binds to sex hormone binding globulin. So you have more free testosterone. It's got Uganda. We also have a supplement called prolonged for premature ejaculation which is an extract of ST John's wort that basically functions like a natural selective serotonin reuptake inhibitor. And then I also have a prostate supplement called Spunk.

## **Joel Kahn, MD, FACC**

Nice, you know, the opportunity to help man and help both below the waist and above the waist, since it's one giant vascular network and you know, you're not seeing just a urologist. I love the idea. You're a cardio urologist or a Euro cardiologist. But keep up the good work. You're a hero in my book every day. And how about the book? People can't quite get The justices is about a 700 page, extremely comprehensive book that you edited. Is that also via your website?

## **Judson Brandeis, MD**

And yeah, or you can, you can go to affirm science to get it. Or you can go to the21stCenturyMan.com all written out in letters, The 21st Century Man. And so we have an e book, we have an audiobook and then we have a 900 page hardcover book with 101 chapters. And Dr. Kahn's chapters are really outstanding. And one of these days I'm going to flip over to a purely vegetarian diet.

## **Joel Kahn, MD, FACC**

Well, Judson, Doctor Brandeis, thank you very much. This was fantastic. Honestly, I think we're gonna save some people heart attacks, stents, bypass. We may save a life by this conversation. You know, discuss your erectile dysfunction, get your heart checked. Look for natural therapies. And we certainly heard a lot about a great one called a firm and maybe consider these, uh, you

know, more, I think remote therapies gains wave, not everybody's heard of it, and just go to your website and read all about it. It's available around the United States by experienced practitioners,

**Judson Brandeis, MD**

Yep, we're gonna be saving one penis at a time.

**Joel Kahn, MD, FACC**

It's a job. Somebody has to do it. I thank you for teaching me how to do is wave. We'll catch up to you.

**Judson Brandeis, MD**

Got it. Thanks a lot, Joel.

