



- Dr. Steve Sinatra: Every day there are huge innovations in the world of integrative medicine, and a lot of them are things that you really need to know about.
- Dr. Drew Sinatra: In today's episode of **Pulse Check**, we'll be covering a lot of ground on some of the newest advances. First off, we'll be talking about a new non-statin drug for treating high cholesterol. Is that good? Or is it completely off-base?
- Dr. Steve Sinatra: And what is red light therapy? And how can it help you?
- Dr. Drew Sinatra: And peptides have been in the news a lot lately. What are peptides, and how can they improve your health?
- Dr. Steve Sinatra: And finally, let's talk about the importance of a good night's sleep. There's even more evidence that there is a link between the lack of sleep for women and increased risk of heart disease. So let's talk about how you can get that good, quality sleep. I'm Dr. Steve Sinatra.
- Dr. Drew Sinatra: And I'm Dr. Drew Sinatra. And this is **Be HEALTHistic**.
- Narrator: Welcome to **Be HEALTHistic**, the podcast that is more than just health and wellness information — it's here to help you explore your options across traditional and natural medicine, so that you can make informed decisions for you and your family. This podcast illuminates the whole story about holistic health by providing access to the expertise of Drs. Steve and Drew Sinatra, who together have decades of integrative health experience. **Be HEALTHistic** is powered by our friends at Healthy Directions. Now, let's join our hosts.
- Dr. Drew Sinatra: Hi folks. If you like what you hear today and you want to listen to future conversations on all things integrative and holistic health, subscribe to our podcast on Apple Podcasts or wherever you download your favorite podcasts. Also, check out and subscribe to our YouTube channel, which will feature video versions of our episodes plus video extras you won't want to miss. And finally, we have more with me, Dr. Drew Sinatra, my Dad, Dr. Steve Sinatra, and other Healthy Directions experts over on the Healthy Directions site. So visit **HealthyDirections.com** to explore our database of well-researched content and information. And of course, you can always follow us on our social media channels.
- Dr. Drew Sinatra: Well, today is another episode in our **Pulse Check** series, which we discuss new and trending information. And our first topic is going to be discussing this new cholesterol-lowering medication. It's actually a non-statin cholesterol-lowering medication, and it's called Nexletol. And interestingly enough, this is the first FDA-approved drug in almost 20 years for lowering cholesterol, so that's huge in



and of itself right there. And really, the purpose of this Nexletol drug is going to be for people that may have a side effect from a statin medication, like muscle pain. And that's primarily why it's being put out there. So as an alternative to statin pills like Lipitor or Crestor, this Nexletol drug can be used if people are having side effects, like muscle pain.

Dr. Drew Sinatra: So, Dad, I'd love to hear your thoughts on this, because I know you talk about statins and some groups of people, some ages, they do benefit, of course. But what this new medication that's a non-statin medication, cholesterol-lowering medication, what are your thoughts on it?

Dr. Steve Sinatra: Well, Drew, I think for a few people, the drug could have benefit. Let's talk about the class of people that have the familial hypercholesterolemia syndrome. These are people that are born with a genetic, inborn error in metabolism where they're producing excess cholesterol. And when I was practicing cardiology on a day-to-day basis, I would see people with cholesterols of 400, 500, 600. And they had to this familial pattern, and it was really interesting. Some of these people lived into their 60's, 70's and 80's and they escaped heart disease. But then I saw younger people in their 30's and 40's with myocardial infarction, or heart attack, and it disturbed me.

Dr. Steve Sinatra: When I see a non-statin medication come out, I would say that in this sub-group of patients, it would be worthwhile. Because again, when you have these high cholesterol numbers some sort of intervention is required. And I'm basing this on my clinical experience of, again, four decades plus of cardiological medicine.

Dr. Steve Sinatra: In this small group of people...now look, this is not a large group of people. This is a small group of people with this familial, inborn error of metabolism, I would probably go for it. Now look, this drug is going to be released in March 2020, right? This is a new drug, and you got to realize I'm not a big fan of the cholesterol theory and heart disease. You know this. In fact, today, I was reading our new manuscript that's coming out, "The Great Cholesterol Myth," and I don't even think we're talking about this new drug, because we've just finished the finishing touches on the book. But I have to tell you that, again, I am not a big fan of the cholesterol theory. It's just, in my mind and in my clinical experience, other than Lp(a) — which is a very, very small cholesterol particle — the LDL hypothesis, to me, is just a hypothesis. And as a cardiologist, I am still not convinced that cholesterol, or LDL, or non-oxidized LDL, is the villain in heart disease.

Dr. Steve Sinatra: If you want to talk about sugar, I'll be there 100%. If you want to talk about diabetes and sugar and insulin resistance, that's the real villain in heart disease.



Dr. Drew Sinatra: Well, I've been wondering too, Dad, as you've been speaking. We both know that these statin medications that have been used for so long, they have the pleiotropic effects, where they have anti-inflammatory, or antioxidant, or maybe a mild blood-thinning effect. I wonder with this new class of drugs, that are essentially non-statin cholesterol-lowering drugs, are they going to have the same impact on people? Because we might not get those pleiotropic effects with this new medication.

Dr. Steve Sinatra: Yeah, I really don't know the answer to that. These drugs allegedly will reduce cholesterol synthesis. In other words, it'll reduce the amount of cholesterol produced by the body, because that's where cholesterol is produced, in the liver. A lot of people believe you eat cholesterol. Yes, that's true, but only about maybe 5%, some people believe a little bit more, comes from the diet. But remember, our body makes cholesterol. We need cholesterol. Without cholesterol, you and I couldn't even be talking right now. Cholesterol is involved in neural transmittal regulation of neurons in the brain, vitamin D synthesis from the sun, sex hormones. Cholesterol protects us from gastrointestinal disorders and even infections. MRSA Staph. In kids, the higher the cholesterol, the better they do.

Dr. Steve Sinatra: So cholesterol, in itself, is very important in one's health. Again, as a heart specialist, I get a little weary when I see these cholesterol medications coming on the market. And again, like I said before, could it help a small group of people? Probably. Probably it could help. But again, I'm talking about a small group of people. I just have seen so many people treated with cholesterol-lowering drugs who have had complications, that at first, I'm going to be leery of this one coming out, as well.

Dr. Drew Sinatra: Well, this drug seems to help people or perhaps will help people who have side effects of statin medications, where muscle pain is present. In your practice, Dad, when you were practicing — what percentage of people do you think actually had side effects from statins, like muscle pain?

Dr. Steve Sinatra: Well, I saw a lot more because I was asking them the right questions. In other words, if patients came into the office and I watched them sitting down in the chair — and if it took them a long time to get up, I would ask them, I said, "By the way, you are taking a statin medication, correct?" And they would say, "Yes." And immediately, I would get that they were having proximal muscle weakness. To them, it wasn't a complication. To me, it was, as an independent observer. A lot of people have slowing down, but people would tell me, "Geez, doctor, my memory is fading. I forgot where I put my keys. I think I'm getting older." No, Drew, they weren't getting older — they were taking statin medications.



Dr. Steve Sinatra: And I even had a federal judge that was sitting on the bench, and he was forgetting the courtroom drama in front of him as it was being played, right in front of him. He couldn't remember some of the comments made until I took him off a statin, and then his memory came roaring back. I have seen so many complications from statins, but again, they were under-reported in the literature because I don't think doctors were asking the right questions. And that's the problem with statins. They can do a lot of good things. And by the way, you mentioned it...I think the great indication of a statin is blood thinning.

Dr. Steve Sinatra: Let's face it, today, our blood's like red ketchup. We have electromagnetics in the environment. There's insecticides, there's pesticides, there's BPA in cans. There's so many things that are toxic to the bloodstream, and whenever you have these toxins, the blood can thicken. And we know that electromagnetics and the Wifi and the different electromagnetic therapies — we actually did the research on this with earthing and grounding. One thing you mentioned about statins which I really liked, they're blood thinners. And if you can make your blood a little bit more like red wine as opposed to red ketchup, now you're doing a good thing.

Dr. Steve Sinatra: You mentioned that statins not only thin the blood, but they also act like antioxidants — and you're correct. When it comes to a male with coronary artery disease, a male under the age of 75 — I still like a low-dose statin. Will I give CoQ10 at same time? Absolutely. Because we all know that statins deplete...they're great cholesterol-killers, but they also kill the endogenous production of CoQ10, because they share the same endogenous pathway. The cholesterol pathway is shared by CoQ10. So, I have no problem giving a male, a young male, and I think under 75 is still young — a young male a low-dose statin with CoQ10, I like that combination.

Dr. Drew Sinatra: And from what I'm hearing, that's when you'd give a statin medication. And for example, if someone did have a side effect — whether their brain wasn't working, their memory was off, they were having muscle pain — that's when you'd think about perhaps trying Nexletol, or one of these other different classes of medications that are non-statins?

Dr. Steve Sinatra: Sure, yeah. In other words, if you have a male at high risk — or even a female who's had intervention, she's had angioplasty or a stent or maybe even a bypass and she's not improving, sure. Listen, I have no problem with pharmaceutical drugs if patients are going in the wrong direction. No problem at all. In other words, the sine qua non of being a good doctor, is you got to do what's best for your patient. And every patient is an individual. In other words, you don't want to use a rubber stamp. And that's the problem that we doctors, we get into a habit and we think what will work for one patient will work for the other



patient. It's not true, every patient is different. So, I like your comment. If the patient is not doing well, sure we intervene. And again, many times I had to use drugs. Lots of times I had to take people off drugs because of side effects. And remember that — the good doctor will weigh the risk profile, the side effect profile versus the advantage of using the pharmaceutical agent in reducing the incidence of cardiovascular events.

Dr. Drew Sinatra: All right. That's really helpful, Dad. Thanks for that summary.

Dr. Steve Sinatra: So Drew, you're a naturopath, and you and I go to the same conferences. And I remember we've attended conferences together where they're showing red lights and infrared therapies — and some of these therapies, I believe, have merit. Let's face it, red light can do some wonders for the mitochondria — and myself, being a heart specialist, I'm really involved with mitochondria. But as a naturopath, you're probably seeing a lot more patients who could benefit from red light therapy. How does it work? And let's tee up some of the benefits. What do you think some of the benefits are?

Dr. Drew Sinatra: Yeah. That first comment you made about it's this emerging therapy — and yes, every single year that you and I go to the anti-aging medicine conference in Vegas, it seems like there's more red light beds and more red light and near-infrared apparatuses that we can purchase and such. And I think there's a good reason for that, because there's a lot of research out there showing potential benefits for this red light and near-infrared light therapies. And like you mentioned, they do support the mitochondria.

Dr. Drew Sinatra: What they are...if you think about red light within the spectrum of light, it kind of runs in around the 600 range, and a lot of these red light machines and these LEDs that you buy, the typical range is around 660. And for near-infrared light, we're talking around the 800 nanometer range, 800 to almost 900 or so. And a lot of these red light therapy LEDs, they come generally with an 850 or an 860 type of nanometer light.

Dr. Drew Sinatra: And there's two key mechanisms for how these red lights work. One is, all of our mitochondria — and this is the coolest thing that I think is going on here — all of our mitochondria have photoreceptors on them. It's this cytochrome C oxidase photoreceptor that when that gets stimulated by red light and near-infrared light, it allows more oxygen to come into the mitochondria, to be utilized more efficiently — so therefore, we can produce more ATP. And that, primarily, I think, how red light and near-infrared light are affecting so many things in the body with energy production, or collagen synthesis, or muscle repair, muscle recovery. All sorts of different changes in terms of decreasing inflammation.



- Dr. Drew Sinatra: And the second mechanism that I think is really important here, there's a concept of hormesis. You're familiar, Dad, with the hormetic effect, right?
- Dr. Steve Sinatra: Right.
- Dr. Drew Sinatra: It's like certain things in our environment can stress our body, which can actually be a good thing. So, a caloric restriction, or fasting, or cold emersion or red light therapy are all examples of hormesis or hormetic effect that you get on the body. And what this is, is really, when the body is stressed to some degree, reactive oxygen species or free radicals are generated. And when there's a certain amount that are generated, our body's own antioxidant systems get primed up, and so does our anti-inflammatory pathways. And so, a little stress can actually be a good thing — and that's partly how these red lights are actually working.
- Dr. Drew Sinatra: With those two mechanisms, that's how we get all these benefits. And I'm so excited about it, Dad, because we brought in a NovoTHOR into our clinic. It's N-O-V-O-T-H-O-R. You've seen these huge red light beds at these conferences.
- Dr. Steve Sinatra: Yeah, you can actually lie in them and some of them are like eight feet long or six feet long. I've seen...
- Dr. Drew Sinatra: Yeah.
- Dr. Steve Sinatra: ...beds at some of these conferences.
- Dr. Drew Sinatra: They're huge — and the amazing thing is, we have people come in, they strip down naked, they get in there for only 10 to 20 minutes. That's the only time that you really need in a red light therapy session. You don't want to have too little time and you don't want to have too much — because if you have too much, you can actually overdo it. Time speaking-wise, you want to do this out of maybe even five to 10 to 15-minute range.
- Dr. Drew Sinatra: Now, people don't have to use one of these very expensive machines, like a NovoTHOR. We have it, because we have lots of people coming in to use it. You can actually buy your own LED units at home, and an inexpensive one is around \$350 and they range all the way up to a couple thousand dollars. But, let's say if you buy one for \$350. You'll have that, probably, for a decade. You'll use it five, seven days out of the week for only five to 10 minutes. That will cost you pennies every single day or every other day to use that over a 10-year period.
- Dr. Drew Sinatra: So, the good news is, is that you can actually bring these red lights into your own home and use it on a daily basis — to help with inflammation, to help with



pain. A lot of people will report that their sleep improves with red lights. Their skin tone improves, because it's helping with collagen synthesis. Their mood improves, like depression or even anxiety. It has so many different possible changes in the body, because of the whole thing with ATP production. When we have more ATP and better mitochondrial support...

Dr. Steve Sinatra: Now you're in my territory, and I'm so glad you mentioned ATP production. Because let's face it, mitochondrial DNA, unlike nuclear DNA, they don't have the defensive mechanisms built in. As a heart specialist, I have to think that this red light therapy — maybe red light therapy will have some applications in many of these patients that cannot have defensive mechanisms in their mitochondrial DNA. If you have patients that you're treating with red light therapy, and their heart failure or cardiac decompensation gets better, I would want to be the first to know. So think about that — if you're treating somebody's arthritic situation, or if you're treating situations of musculoskeletal pain or muscle pain, and they have borderline heart failure or even overt heart failure, let me know if this red light therapy works. Because scientifically, I think it'll have merit. I think it could improve the DNA — or actually the ATP production, because red light does bring something to the table.

Dr. Steve Sinatra: And listen, I'm a metabolic guy. I like ribose, I like CoQ10, I like carnitine and magnesium. I call it the awesome foursome. But now with red light therapy, maybe it could be the awesome foursome plus, in generating ATP in a preferential direction. So, I got to rely on you since you're using this in your office, to let me know if your cardiac patients have any improvement.

Dr. Drew Sinatra: Well, Dad, check this out, this is going to blow your mind. I have been treating this patient and I'm going to call him Sam, for about three years now and he has EDS, Ehlers-Danlos syndrome, right? It's a connective tissue disorder.

Dr. Steve Sinatra: Right.

Dr. Drew Sinatra: I can tell you this. If you name a therapy, I've tried it on him over the last three years. Everything you can imagine. We've done every single possible treatment to help support his tissues. The reason why we brought in the NovoTHOR into CLEAR Center, is because this patient went and tried a NovoTHOR somewhere else — and he felt, for the first time in his life, that his muscles did not feel like beef jerky anymore, but they actually felt normal again. And soft. And so, for him, he's getting treatments probably around two to three, maybe even sometimes four times per week, and it has been the most effective treatment for him for supporting his connective tissue, his muscles, everything.



Dr. Drew Sinatra: Now, another piece with this, and I want to talk about and draw this back to the mitochondria. This patient suffered from fluoroquinolone toxicity, or Cipro toxicity, because he took Cipro on two occasions — which really messed up his mitochondria. And one of the reasons why we think red light therapy is supporting him so much, is because it's helping support his mitochondria that had been damaged by two rounds of Cipro in his life. That's another benefit there.

Dr. Steve Sinatra: Right. And you know Drew, I'm so glad you mentioned this because it's amazing how one patient can open up your field of knowledge. Where you get this “a-ha” where a patient responds to a therapy, and then all of a sudden, you think about it, and it opens it up for other patients.

Dr. Steve Sinatra: Drew, again, thanks for sharing that amazing story. What about the converse? Have you seen any downside to red light therapy, or have you seen any risk, or any patients complain of the treatment?

Dr. Drew Sinatra: Yes. And it really depends on how long they've used it for. For example, I talked about this hormetic effect or hormesis that occurs when you do red light therapy, and that's really due to this biphasic dose response curve. If you have too little of it, it's not really going to do anything. If you have too much, that can cause side effects — and what I have seen are, let's say if someone does it the first time for 15 minutes or 20 minutes. One patient reported back to me she felt like she'd been just run over by a train that night. She felt so tired. And what I gleaned from that was that she overdid it. She stayed in there a little bit too long, and that her body really wasn't ready yet for that intensity of red light therapy. You're not going to burn yourself in these machines if you stay in there too long, but what can happen is there can be, essentially, an over-oxidation that occurs, and people can feel fatigued afterward. But otherwise, they're very, very safe.

Dr. Steve Sinatra: Great, great. The risk profile, in your experience, is low. So, what are the takeaways for our listeners here? What are some of the pearls we can give them?

Dr. Drew Sinatra: In our center, we have this NovoTHOR, like I mentioned — and clinics are all over the country that are carrying these types of machines, and you can go there and have a treatment for \$50, and some clinics charge upwards of \$150 or \$200. I said previously, you can buy your own unit, at home. I like to recommend the Platinum LED, or there's one called Joovv. There's another company called Red Light Therapy Co. And these are all very affordable red lights that you can have in your home, so that you can use them in your own home and in your own time and all that, privacy of your home. And if people





want to learn more about red light therapy, there's an excellent book that was written by Ari Whitten called "The Ultimate Guide To Red Light Therapy." I read this book over a weekend and I was just blown away. I said to myself, "Oh my gosh, everyone needs to be doing red light therapy these days."

Dr. Drew Sinatra: And as a personal experience I want to share with everyone, I've been using it at our clinic now for about six weeks. And I got to tell you, Dad, my back pain is pretty much non-existent right now. And you know me, I've suffered with low back pain for almost 15, 20 years now from all the bump skiing I did growing up, and football, and all that sort of thing and...

Dr. Steve Sinatra: And soccer too.

Dr. Drew Sinatra: ...yeah, and soccer. Who knows, all these. And I jumped off roofs when I was...I did all this crazy stuff as a kid. Getting these treatments, I can't even tell you. I'm at maybe a 1/10 or even a 0/10 pain right now. And I know it's from that, because nothing else has changed in my life over the last six weeks, except I've been doing three days a week of red light therapy. I'm convinced. I've seen it with my other patient, I've seen it with probably about 12 patients that we have doing it, at least in my practice. I know the other docs have tons of other patients in there right now. And we're just hearing back all the benefits right now — whether it's improved sleep, or people feel like inflammation is reducing in their body, or they feel like they have more energy. I'm just at the beginning stages of learning about how this is really benefiting patients. But if you're going to read a book like Ari Whitten's book, "The Ultimate Guide To Red Light Therapy," you'll learn all sorts of information about how this light can benefit your body.

Dr. Steve Sinatra: Yeah, in the final analysis, I've been listening to what you're saying. Red light therapy may be one of the newer anti-aging therapies because of its effect of mitochondrial function. We should keep our listeners tuned in, for maybe a year from now or two years from now, because I like to hear about other anti-aging aspects of red light therapy. Because I have a feeling that it will delay the aging process because of mitochondrial support. That's great, Drew. That's great, great commentary and great medicine.

Dr. Drew Sinatra: All right.

Dr. Steve Sinatra: All right. So Drew, there's a lot happening in the news — even your brother Step, my son, dealing with peptides, and all his different illnesses. And the popularity of peptides, especially this BPC 157. If you go to the internet, you're going to find some pro on it, some people against it. It's like any new therapy or even pharmaceutical medication — you got people for them, you got people



against them. For this part of the podcast, let's just make people aware that there's a peptide therapy out there that may have benefits. So, speak about some of the cases you had, and what type of benefits people have experienced from them.

Dr. Drew Sinatra: Sure. Yeah, I first learned about peptides...I think it was at the anti-aging medicine conference around, at least maybe two, three years ago. And for our listeners, peptides actually have been around for a long time. The most classic one is insulin. Insulin is technically classified as a peptide. And of course, it acts like a hormone in the body. And really what peptides are, are they're specific amino acid sequences that are linked together to form proteins. And what these peptides do is they have specific functions in the body, they act like signaling molecules. And that can either be like a hormone, or a neurotransmitter, or they might affect an enzyme in the body. And there's many different FDA-approved peptide medications out there, at least according to 2015 statistics; there was around 60 FDA approved peptide medications. And there's over 140 in evaluation right now in clinical trials, so it's definitely a growing field.

Dr. Drew Sinatra: And I use them for many different purposes in my clinic, Dad. You nailed it talking about anti-aging for red light therapy. I definitely think of peptides as being another tool for people to use for anti-aging medicine. One of that, and one of which, is boosting growth hormone. And you know, you used to go to the...25 years ago where...

Dr. Steve Sinatra: I used to take growth hormone.

Dr. Drew Sinatra: ... right, take growth hormone. In...

Dr. Steve Sinatra: All the doctors were taking it 20 years ago, it was amazing.

Dr. Drew Sinatra: Absolutely, and we're learning more about growth hormone. And sure, growth hormone does benefit some people. However, it is very expensive. You're looking at close to \$900 a month — and growth hormone isn't without risk. There's a whole pituitary atrophy that could occur, it might affect your blood sugar in negative ways.

Dr. Drew Sinatra: A peptide can be introduced to the body, and what it can do...there's one called CJC 1295. And I also combine that with Ipamorelin. Those are two peptides that essentially are growth hormone releasing hormone analogs. And what they do is they cause the anterior pituitary to release more growth hormone. And what I like about that is you're not giving the body growth hormone, but you're giving the body a substrate, which is a peptide, to build endogenous levels of growth



hormone in the body. And I think of that as just being a much safer route to support growth hormone levels, than say, giving actually growth hormone.

Dr. Drew Sinatra: In terms of other uses, and these range all across the board from having anti-inflammatory effects, to improving libido, to improving cellular repair or tendon recovery — or let's say someone's damaged their ACL, there are certain peptides that can actually help accelerate healing from that. There's many different uses. They come in many different ways to use them. Typically they're a subQ injection, so you do a sub-dermal injection yourself, at home. There's also oral varieties. There's creams that you can use. There's even intranasal sprays that have peptides in them.

Dr. Drew Sinatra: Many different reasons why I'm using them. We talked about the growth hormone aspect, with CJC 1295 and Ipamorelin. For men, there's one called PT 141 that is amazing, Dad, at boosting libido. It's incredible. Let's say a guy comes in. He's in his 60's and he wants to be put on Viagra or Levitra. Typically, I'll try to steer them in the other direction with more of the natural stuff first, and if that isn't cutting it, then at least I've got this PT 141 to give them. And let me tell you something, I've given it to at least four or five men now, and they have all come back saying, "Thank you so much. This is, like, a miracle peptide." Because what you do is you take it around an hour and sometimes even four hours, it depends actually how your body responds to it, before you know you're going to engage in sexual activity. And for these men that reported back to me, they said it's just incredible.

Dr. Steve Sinatra: And this is all oral administration.

Dr. Drew Sinatra: Actually, this one's a sub-cutaneous injection.

Dr. Steve Sinatra: So they have to inject it themselves.

Dr. Drew Sinatra: They do have to inject it themselves. That's one of the drawbacks, because a lot of people don't like to inject medications into them. But for those that don't tolerate Levitra or Viagra, if they've got a cardiovascular disease or something going on with the vessels, the PT 141 isn't working on the blood vessels at all. It's working more on the nervous system. And from my understanding, it's very safe.

Dr. Steve Sinatra: Have you used this in diabetics?

Dr. Drew Sinatra: No. Not this particular one, but I do know that there are some peptides that can help with blood sugar control.



- Dr. Steve Sinatra: And the men that you used this in, were these older men, or...any younger men below 50?
- Dr. Drew Sinatra: No. No. I think I've used it primarily in men above 60.
- Dr. Steve Sinatra: Okay. All right.
- Dr. Drew Sinatra: Yeah. Yeah.
- Dr. Steve Sinatra: So basically, that's a benefit. Any risk that you've seen with any of these injections?
- Dr. Drew Sinatra: Yes...while we're on PT 141, you can also use it in women — but the three women that I put it on, they all developed pretty intense nausea. They did comment that their libido had gone through the roof, and it was well-functioning, however, they were nauseous. You put those two together, that's not a great combination.
- Dr. Steve Sinatra: Did they develop any hair growth?
- Dr. Drew Sinatra: Not that I'm aware of. Not that I'm aware of. In terms of other side effects, you can have redness at the site. There might be some itching. Other than that, I haven't seen that many side effects. And one of the reasons is, these peptides are generally naturally occurring in the body. And some are synthetic, of course, but these are all naturally recognized molecules within your body, so typically the side effect profile isn't that great.
- Dr. Drew Sinatra: I want to speak about a couple more peptides. One that I'm really interested in, Dad, is called BPC 157. You mentioned that from the beginning. And what this is, is a peptide that comes in two different forms. There's an oral version, which is used to help reduce inflammation along the gut. And there's a second version you can use which is a sub-cutaneous injection, and this one is really good for people that have tendon injuries or other, like an ACL tear or something like that, because it helps facilitate wound healing and also speeds up their recovery process. I've had people that have had tendonitis, or let's say, frozen shoulder, that would not go away with PT, acupuncture, all the different anti-inflammatory herbs and supplements that we threw at them. Nothing was really helping it. Then we added on this BPC 157 sub-cutaneous injection, and their tendonitis improved significantly.
- Dr. Steve Sinatra: And when you say sub-cutaneous, are you injecting into the shoulder, or just injecting near the shoulder — like in your biceps area, or is it into the joint?



- Dr. Drew Sinatra: No, it's just essentially in the fat layer there, you just grab a little layer of fat.
- Dr. Steve Sinatra: Oh, okay. It migrates to the area in need, then. Almost like an exosome type of therapy.
- Dr. Drew Sinatra: Correct. They say you can inject it anywhere along the body and it'll help that particular place that needs healing. I like to just say, "Inject it right over the spot that's hurting." More of a localized effect.
- Dr. Steve Sinatra: Sounds good. Because if I come to visit you in California, you can inject my shoulder. I'm all in.
- Dr. Drew Sinatra: We'll do it. We'll do it. I guess in summary, Dad, I like to use these peptides for specific purposes. I feel like they just add in more tools for our toolbox, right? We can just help patients in a greater way, whether it's anti-aging, or decreasing inflammation, or supporting the immune system, or speeding up wound healing, or tendonitis or something like that. For our listeners, you'll probably hear more about peptides in the next coming years. I like to recommend, and I send in my prescriptions to Tailor Made Pharmacy. They're one of the, probably the best pharmacies in the states right now that are producing these peptides. I would caution our listeners to buying these online from sources that may not be reputable. They can be found all over the internet. However, I prefer that people buy these from a pharmacy, because then you know you're getting a pure form and it's not going to be adulterated.
- Dr. Steve Sinatra: No, that sounds good and again, this is a new form of aging medicine or anti-aging medicine that people need to consider. Let's face it, if you have tendonitis, or arthritis, or injured ligaments or tendons, you can use pharmaceutical drugs or maybe...which will take away possibly the pain. But it looks like the peptides are going to get at the source of the pain, and correct the position in the first place — the injured tendon, or ligament, or connective tissue. This seems like a really good form of therapy that might have merit in the future.
- Dr. Drew Sinatra: And I'll add in one last thing, Dad. The one piece that I feel like might be prohibitive for people is the cost. Some of these peptides can range from \$50 a month upwards of even \$400 a month. So, they are pricey. I do think that they'll come down in price over time, as more pharmacies start to produce them. That is one significant limitation in my opinion, is the cost. And I'll say this, as well. I've been using these for around two years. They are, in my opinion, helpful for some people but not for others. Not everyone responds favorably to them.



Dr. Steve Sinatra: Good. Again, that's the essence of being a good doc. You find out which subset of patients will respond, and which won't respond — and that comes with clinical experience. So, that's really awesome.

Dr. Steve Sinatra: Drew, as a heart specialist, I've seen the correlation between a lack of sleep, or not getting a good night's sleep, and the incidence of heart disease. And this is especially problematic in women. For example, in the Journal of the American Heart Association, a study came out that said that women who sleep poorly tend to not only overeat, but they have a higher incidence of heart disease. Have you seen this, in California?

Dr. Drew Sinatra: Well, I'll tell you this. What I see a lot is that women who are in their 40's and 50's and 60's who cannot sleep, it's a very, very common problem these days. And it concerns me, because we know there's all sorts of conditions that are linked to poor sleep. From obesity, to diabetes, to cardiovascular disease, and even something like depression. So, with every patient that comes to the door, every single patient, I ask them about their sleep. Because if they're not sleeping well, that's something that we really need to work on. Because sleep can certainly affect the rest of your day, and can also lead to certain conditions.

Dr. Steve Sinatra: I agree. And I can remember when I was practicing cardiology on a day-to-day basis in the office, sleep is a problem. Not only for women, but also for men. With the advent of electromagnetics and Wifi and computers, the problem is these electromagnetic interactions have a deleterious effect on the body. And one of them is lowering of melatonin. And even at conferences I go to, melatonin is becoming more and more diminished in the body as a result of electromagnetics. Even going out in the sunlight, for example. The first two really valuable nutraceutical supports in the body that are vanished is coenzyme Q10 and melatonin, just on the exposure to sunlight.

Dr. Steve Sinatra: So you can imagine what powerful electromagnetic therapies can do, or interactions can do, and people don't even realize it. But if they're sleeping in a room with, let's say, a cordless phone in the room, or computers in the room. Or if they have, some of the kids, they'll sleep with a cellular phone underneath their pillow because they don't want to miss a call. These gadgets are emitting therapies that can lower melatonin.

Dr. Steve Sinatra: I think the sleep issue in the year 2020 is very, very valid and I think the environment is becoming more and more toxic. And the purpose of our little interaction here is to make people aware of it. That's why I want to put it out and again, when it comes to heart disease, better sleep is associated with a lower incidence of heart disease. You can take that one to the bank, because I've seen it clinically for years.



Dr. Drew Sinatra: Earlier we were talking about red light therapy, and think about what so many people do at night. They're on their computer screen. I'm guilty of it...and I bet you're guilty of it.

Dr. Steve Sinatra: Right.

Dr. Drew Sinatra: I bet most people listening to this are guilty of that. They watch TV, they look at their iPhone, which...sometimes I look over at Briana, my wife, and I'll look, she's just looking at her cell phone. It's like a full-on screen, where her face looks blue to me, and I'm like, "Oh my gosh. What is that having, the effect on the melatonin in her body?" Not only do we have the EMFs, like you were talking about, disturbing our electrical function in the body and having a negative impact on melatonin. We have these blue lights, in particular, at night that we're looking at that are affecting melatonin, as well. It's kind of like a double whammy, in that sense.

Dr. Steve Sinatra: Should we be wearing protective eyewear at night on our computers, with blue lenses, or...

Dr. Drew Sinatra: Yeah. I do believe — you need some blue light during the day, that's been proven. You don't want to be wearing these blue-blockers all day, of course. But at night, that's the right time to wear them. I agree with that.

Dr. Steve Sinatra: Maybe that's something we should strongly consider. Maybe both of us should start using lenses at night, and see if it has an effect. And maybe we give more information to our listeners six months down the road, and see if blue light... it's not really blue light therapy, it's really...

Dr. Drew Sinatra: Blockers.

Dr. Steve Sinatra: ...keeping a lens, a blocker in front of you.

Dr. Drew Sinatra: Right. And Dad, earlier you mentioned Step and his use of peptides. I don't know if you have seen him, whenever I call him — he's living in Greece right now, before he was living in Germany, it's a nine-hour time difference. Whenever I call him, he's got candlelights at night, he doesn't even have lights on. He's just...

Dr. Steve Sinatra: Oh, I know.

Dr. Drew Sinatra: ...he's, right before he goes to bed, he has candlelights. And actually, that's really good for people to do, is to tone down and turn down all those lights in their home and light a couple candles if they want, and read a book. I think



that's one of the best ways to get your body back into a normal circadian rhythm is by regulating the lights properly.

Dr. Steve Sinatra: That's a great closure, Drew. I'll tell you, I think there's canaries in the coalmine out there like your brother Step, where he's very sensitive to this type of stuff. And getting back to, let's say, the pioneer days, for some people, for some people is really the remedy. In other words, a lot of the technologies can have such a downside in a certain group of people. They say about five to 10% of the population is electro-sensitive. Toning down the electro-sensitivity can have a major impact on their health. So, going back to the pioneer days, or the days of Ben Franklin where you're using candlelight, might not be a bad idea.

Dr. Drew Sinatra: That's right and to close, I'll list off a couple things that I know work for people in terms of sleep hygiene. Choose an activity at night that is calming. I do not recommend people watch the news, watch horror movies, watch action movies before they go to bed. I remember one time, Dad, I watched a Jason Bourne movie, and my heart rate was just speeding until I could fall asleep at 2:00 in the morning. These high-adrenaline movies and TVs, they can really affect us by putting us more into a sympathetic state. And obviously at night, we want to be more in the parasympathetic rest and digest state.

Dr. Drew Sinatra: Another tip, too, is I always like people recommend that they have their room a little bit colder, because people generally sleep better in a colder environment. And that might be opening up your window in the summertime, or not turning up the heat in the wintertime in your room. And also, some people benefit from a light snack before bed. I know this sort of disrupts the whole thing with intermittent fasting, of course, but a lot of people have blood sugar dips in the middle of the night and sometimes having a little bit of a protein snack before bed, maybe like a piece of chicken or something. Or, some people even like to have a half a teaspoon of honey, which surprisingly can really actually stabilize your blood sugar throughout the night. That can be really beneficial, as well.

Dr. Steve Sinatra: The tryptophan effect with turkey...

Dr. Drew Sinatra: That's right.

Dr. Steve Sinatra: ...some people have done that, which has helped their sleep, as well.

Dr. Drew Sinatra: That's right. And then the last thing that I like to do, especially in the wintertime here is, you know this, Dad, I've got a fireplace here, right?

Dr. Steve Sinatra: Right.





- Dr. Drew Sinatra: A wood burning stove... not a wood burning stove, a cast iron, right?
- Dr. Steve Sinatra: Right.
- Dr. Drew Sinatra: I like to sit in front of that with a fire going with no lights in the room, and for me, that's like natural television. I'm getting that red light through the fire.
- Dr. Steve Sinatra: There it is. Pioneer medicine. Caveman medicine. You're getting that natural light and warmth, which is good. And then, the other thing I should mention where alcohol can be a very, very bad sleep deterrent. I've seen people who are drinking wine, for example, at dinner...they have horrible sleep. A lot could be coming from the sulfites in wine, or the alcohol in wine. But I just want to mention that for our listeners, where if you're not sleeping after you went out to a restaurant and had a few glasses of wine, think about the sulfites, or the alcohol, or the wine itself because that could be the problem.
- Dr. Drew Sinatra: And Dad, I learned from Jan that even milligram dose of caffeine can affect people's sleep that night. Even if she has decaf, sometimes, she can't even sleep that night. And a lot of people have a hard time processing caffeine and that small amount can keep them up.
- Dr. Steve Sinatra: You opened up a whole new area, as well. The amount of non-alcoholic fatty liver disease in this country is skyrocketing. And what's happening is that people are getting more and more sensitive to caffeine. In other words, their livers cannot metabolize it, so instead of the caffeine being metabolized in two, three or four hours, it takes 10, 12 to 15 hours to fully metabolize it. If people are having a cup of coffee and all of a sudden several hours — 10, 12, 13 hours later they can't sleep, they got to think about the possibility that their livers are not clearing caffeine. And again, non-alcoholic fatty liver disease is skyrocketing from all the toxins in the environment. That's another podcast, how to protect your liver, we should give people in the future.
- Dr. Drew Sinatra: We'll do that.
- Dr. Steve Sinatra: That's an important one.
- Dr. Drew Sinatra: We'll do that.
- Dr. Drew Sinatra: In keeping with the last topic we focused on during the discussion, today's **Wellness Wisdom** segment is all about sleep. Turns out that poor sleep doesn't just impact women, but it could be impacting our little ones too. As you know, I'm a doctor and a dad to two little boys, so I'm really conscious about their healthy routines. I read a recent article about how a late bedtime for kids under



six has been linked with obesity — which is really frightening given the obesity rate for adults in the U.S. already. I wanted to respond to this and share some good solutions, so that this doesn't impact your kids.

Dr. Drew Sinatra: First of all, I know there's a lot of mixed information out there about the safety and efficacy of melatonin in kids. My perspective is this — I find that in low dosages for short periods of time, melatonin is safe and effective. For example, I give my kids around three to five drops of a liposomal melatonin, which is roughly 0.15 to 0.25 mg, around, I'd say, five nights out of the month. And I do this when there's a couple days in a row of them going to bed very late, and I need to reset their circadian rhythm.

Dr. Drew Sinatra: Now, let's discuss a few other solutions that can ensure your child is getting a healthy amount of sleep each night. Good sleep hygiene habits and a bedtime routine for kids — for example, winding down before bed, brushing teeth, reading a book, keeping lights low, keeping screens off and going to bed at the same time every night — is really important. I recommend that kids get at least nine to 10 hours a night, and to ensure that they are getting all those hours in, do the math to calculate bedtimes based on your family's schedule and stick to it!

Dr. Drew Sinatra: As for your child's diet, you are controlling what your kids eat. Feed them real, whole food and not processed, packaged foods that may set them on a path to unnecessary weight gain and obesity. Eating a healthy, balanced diet and getting enough sleep will help ensure that your child is prepared for the day, every day.

Dr. Drew Sinatra: Remember, everyone. If you liked what you heard today and you want to be an active member of the **Be HEALTHistic** community, subscribe to our podcast on Apple Podcasts, or wherever you download your favorites. And subscribe to the Healthy Directions YouTube channel. You can also find more great content and information from us and the Healthy Directions team at **HealthyDirections.com**.

Dr. Steve Sinatra: I'm Dr. Steve Sinatra.

Dr. Drew Sinatra: And I'm Dr. Drew Sinatra, and this is **Be HEALTHistic**.

Narrator: Thanks for listening to **Be HEALTHistic**, powered by our friends at Healthy Directions, with Drs. Drew and Steve Sinatra. See you next time.