Red Light Therapy For Thyroid Healing - Does It Work? Transcript

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Introduction and Guest Background

Hello, everyone. Welcome back to Reversing Hashimoto's. I am your host, Dr. Anshul Gupta, world's Hashimoto's expert. And I'm really excited about our discussion today because the person I have has tons and tons of knowledge about integrative medicine, functional medicine, the new cutting edge technologies which can be used to help people.

and that's what we are discussing today specifically about red light therapy and how it can be so useful as a way or in a modality to improve your thyroid.

So yes we know we'll go into all the discussions but let me introduce my speakers and then we will go into the discussion. So Dr. Robert Silverman is an distinguished chiropractic physician, certified clinical nutritionist, and internationally recognized speaker with a reputation for being at the forefront of functional and integrative health care.

He's a founder and the CEO of the Westchester Integrative Health Center, where he blends evidence-based chiropractic care with advanced nutritional science to drive optimal patient outcomes.

A best-selling author, Dr. Silverman has penned two Amazon number one titles, Immune Rootboot and Inside Out Health. He was honored at the Sports Chiropractor of the Year by the American Chiropractic Association's Sports Council in 2015. Dr.

Silverman serves as the advisory board of the Functional Medicine University and holds key roles as a science officer at the Neutronyne and chief clinical consultant for KBMO Diagnostics.

He also hosts the Proven Health Alternative Podcast, a top ranked show where he explores cutting edge topics with leading experts in health and wellness.

Dr. Robert Silverman, welcome over here. Thanks Dr. Gupta. I'm excited to be here. Thanks for the chance. Absolutely, yes. With the kind of background and the bio that you have, I'm sure a lot of people are looking into learning new things from you.

But before we kind of go into all the nitty gritties about red light therapies and stuff, I think, you know, before we used to hit record, you know, like you were sharing something about your own health struggles that you are going through right now and how red light therapy has been useful for you.

So if you don't mind sharing your story, that will be really powerful for people. Absolutely. I was born with what they call congenital tardicollis. So my neck is lateral reflex to the right and contralateral rotated to the left.

And I grew up in New York City. I grew up in the borough of the Bronx, which is sort of a tough borough. So, you know, basically people who would see me would make fun of me and in the Bronx, you kind of settled it with your hands.

So it's a little tough upbringing because of it. That's what drove me into chiropractic. I wanted to be able to fix myself and I wanted to fix everybody like me that had a musculoskeletal injury.

It just turned out that within that musculoskeletal injury, I would branch out in a non-thermal low level laser. in functional medicine, and I meet wonderful people like you, you know, erudites.

And now I'm at 60, the torticollis has turned into a dystonia, which is an aberrant nerve firing, and I'm getting a grip on my left side. So if I look a little asymmetrical, I apologize.

But, you know, having an issue and getting treated kindly by other doctors really drove me in.

Dr. Silvermanu2019s Personal Health Journey

to the field because my goal is to be able to change people's health trajectory starting now. Absolutely, and you are also mentioning that this kind of issue that you're dealing with also propelled your interest into red light therapy.

So tell us more about how red light therapy was useful for you in this situation. Well, red light therapy is really a term used in a parlance. I like to switch it and let's start calling it non-thermal low-level laser, because that's what you want.

So the red light therapy is positive. It's great. It does have a photobiomodulation effect, but it's more of a heating device. Non-thermal low-level laser is interesting in that it allows for photonic donning and allows for electromagnetic transfer of energy.

So, wow, you know, we were talking before about mitochondria. If you want to stimulate mitochondria, one of the best ways to do it is non-thermal low-level laser.

Now, the reason I got involved in it was I needed something for my neck. Typical chiropractic just wasn't working anymore because of the fusion in the neck.

It was painful, soft tissue work. So I wanted something so I could practice and still help people. And about 18 years ago, I came across a company that had a non-thermal low-level laser.

It was in its infant stages. It was kind of big and heavy. It looked like a tricorn. Now they're really slick. I almost want to pick one up and show you.

And you know what, it really saved me. It saved my chiropractic practice. It saved me from possibly having some surgery. And I used it on myself, then on my wife, my friends and family.

And now I share it with all my patients and other doctors at a national and international level. And it's truly exciting. Absolutely. And again, you pointed out very correctly, even before like, you know, when you're having this discussion is that even a lot of, you know, like functional medicine providers, including me, you know, who have no clear understanding of the nitty gritties of like the red light therapies and what we should be looking into, like how you said it should be called, you know, like the, you know, the non thermal, the laser thing.

while we had no idea about what exactly it is doing. So why don't we clear the air for people to help them understand a little bit about basics of it.

So what is red light therapy? Let's start from the basic. What is red light therapy and why we are so excited about how it can be useful in people improving their condition, whether it is inflammation, whether it's mitochondria or thyroid health.

And then what is that component of red light therapy, which is the most useful one? without question. So instead of calling a red light, we're going to change the vernacular and we're going to call it wavelength.

So it's a red wavelength and the red wavelength is a wavelength of about 635. It comes from visible light. So coming from visible light, there's a health component.

But the wavelength is specific. The key component to the discussion will always be wavelengths. So there are three wavelengths that I use in my office and on myself.

A red wavelength, which people refer to as red light, but it's really a red wavelength of 635 nanometers. Then there's a green wavelength, which is a 520 nanometer wavelength.

And there's a violet wavelength, which is 405. Each one of them have distinct health promoting properties. For instance, the red wavelength of 635 is great for mitochondrial function and complex four in the mitochondria.

It's also shown to increase interleukin 10, which is an anti-inflammatory interleukin, conversely shutting down interleukin 1 beta.

How Non-Thermal Low-Level Laser Therapy Works

interleukin-6, interleukin-8, and TNF-alpha. So it kind of jacks up the anti-inflammatory interleukin and shuts down or decreases the pro-inflammatory interleukin.

Whereas the green light is exciting, Harvard did a study and it is the choice wavelength for headaches. In addition, it stimulates stem cells. It's also great for supporting the immune system.

It's shown to be very effective in something that's probably close to home for you in fibromyalgia. A lot of thyroid patients have fibromyalgia, both autoimmune conditions, which obviously speaks to the volumes of it having an autoimmune component.

The violet is really interesting because if you think about it back to your hospital days, they use it to clear surfaces with bacteria. So it's great for bacteria.

It's great to stimulate VEGF. It's also fabulous because it helps with specific viruses. It's also great to stimulate the parasympathetic nervous system.

Most people, we didn't get to discuss this last time, have suffered from dysautonomia. So it's able to stimulate or I use it to stimulate the vagus nerve, which is going to be a whole conversation piece all to its own.

What I found is the use of all three lasers, which we refer to in the field as stacking, stacking those three different laser wavelengths rays allows for a full stimulation of all four complexes of the mitochondria to allow for ATP production to be efficient.

and reactive oxygen species to be minimized. Absolutely. So a lot of people who are listening over here, you know, have been either dealing with a lot of inflammation in their system or obviously they have a thyroid dysfunction like Hashimoto's disease where they have autoimmune piece of it and they're feeling tired or fatigued and things.

So what's specifically improvement? So, you know, like with the support and mitochondria as well as regulating of immune system, what can they see an improvement in?

Well, there's a book out called Reversing Hashimoto's that talks about a mitothyroid connection. In that book, he also talks about a gut-thyroid connection.

So let's just talk about the ancillary axis. If you want to stimulate mitochondrial function, non-thermal low-level laser is a choice because of the photonic donning.

and laser at the right wavelengths, less than 660 nanometers, as I indicated before with what I use, allows for enough electron volts to tripwire those complexes.

So very simply, the violet wavelength stimulates complex one and two in the mitochondria. Complex three is stimulated by the green. And finally, complex four is stimulated by the red.

Complex five is ATP production. So with mitochondrial production and mitochondrial function, We have thyroid function, improved thyroid function. Now let's get to the gut.

There's been studies, it's called photobiomimics. Photons change your microbiome. They increase your good bacteria by 400 fold. So they're fabulous for people that have dysbiosis.

And you and I both know dysbiosis is the unleveling of good and bad bacteria. In addition, it's shown to help attenuate the amount of lipopolysaccharide, LPS, which is probably the most egregious thing in your gut if it's released.

It's called an endotoxin. I use a Spanish word to describe it. I call it El Diablo, the devil. So studies like that are shown to help the ecosystem in the gut.

And there are also studies that show by using these specific lights, you're able to heal the gut lining. So for me, I did some studies in my office, which are soon to be printed, and it really showed in a month's time with no supplements and no diets, which is something you and I would never do with somebody with leaky gut, 50% of the attendees actually had a change in their gut permeability and their gut ecosystem.

And the tests included candida, zonulin, and the zonulin antibody, of course, occluded in lipopolysaccharide. So I'm excited. So for me, as a chiropractor who does functional medicine, I laser all my patients' guts when they come in.

Now thyroid, there are some studies that have shown that lasering specifically the thyroid has changed the antibody production in the thyroid, which Nobody knows better than you is critical as a marker for thyroiditis.

In addition, by decreasing inflammation, you so properly mentioned a decrease in inflammation and overall systemic inflammation, you're decreasing the incidence of autoimmunity.

So I do use the laser in an immune light. Absolutely. So that's great. So kind of to summarize for people that they will definitely see an improvement in their inflammation levels.

They can also see an improvement in their thyroid antibody levels, plus their gut will get better. So if there is any kind of leaky gut issues or they have issues with like say, let's say bad bacteria or candida, this laser will also improve them.

Benefits for Hashimotou2019s, Gut Health, and Mitochondria

And as their mitochondria is getting better, they should expect more energy as well as, you know, improvement in their mental clarity and things. Yes, you know, the laser really is exemplar of the idea of the body's all interconnected because it allows the nervous system to communicate.

We talked about this, you know, the blood and the circulation and the mitochondria. One more thing about the mitochondria is really interesting. If you stimulate the mitochondria, this is a theory now, it releases something called a biofoton.

That biofoton is able to travel through the microtubules in a body and interlock and speak to the whole body. There's a receptor site in every part of your body, except for your bloodstream for mitochondria.

However, there's free-floating mitochondria in your bloodstream. So in essence, your mitochondria has different gateways to talk to your whole body. And when we were talking before about mitochondria and mitochondria dysfunction, one of the leading devices, or I would like to say the leading device for mitochondria dysfunction is non-thermal low-level laser, not necessarily red light therapy.

Absolutely. So now the next question obviously a lot of people have is that you know like when they are going out in the market right there are different devices which are available.

Some of them you know are claiming to have like you know this low level laser therapy for the whole body. Some of them are more specific you know like you know giving them to the thyroid gland or to specific part of the body.

So walk us through a little bit like you know about these different devices or different things and what people should be looking into if they are interested in getting one for themselves.

The first thing they should look for is what's something called an FDA clearance. You as a medical doctor, you use all things that are FDA cleared and FDA approved.

So you should have an FDA clearance. So the particular lasers that I keep in my office have 22 out of 25 FDA clearances. I've done a few as a lead clinical investigator.

So science and research, very, very important. That's number one. So somebody last night sent me a video, a device, and I'm like, look, is it FDA cleared?

I mean, I wouldn't really want to ask you the question, would you use a drug that's not FDA cleared? I mean, it's the furthest thing from my mind. So that's number one.

Number two, look at wavelength. These are wavelength driven. Again, the wavelengths that we talk about are 635 red. 520 green, 405 violet. That would be number two.

Number three, you know what? Yeah, price. I mean, it sounds sexy. It's 50 bucks and a hundred bucks. I just don't know how you could do all the things that are required and have a 50 or a hundred dollar price tag.

Usually they're going to be in the thousands. It's unfortunate. It could be in the 10 and 15 thousands to have an appropriate laser. They're now on the market.

where laypeople are allowed to get them. And I would have to say, so in this longevity mode, I proclaim the device for longevity at the top of my list is non-thermal low-level laser.

There's other things on the list, sauna, hyperbaric chambers. But for me, if I had to have one, my one, it's that laser, man. Absolutely. So a couple of other questions specifically about that.

Any particular kind of patients or people who should not be using red light or that's a low level laser? Well, the typical contraindications are pregnancy.

which is interesting because we don't study pregnant women with lasers. There is a contraindication on morphine, blood fitting. That would be number two.

And number three, the idea of pacemakers, although that's kind of probably not as in tow, but it makes sense. You're not allowed to use any kind of device on anybody as a pacemaker because the old pacemakers had a battery.

And it was concerning that we drained the battery. But 95% of the people walking in my office usually fit the criteria of no contraindications. of course.

Okay, makes sense. And the next question is that like, you know, how some people, you know, in my practice, when they are using a sauna for detoxification, we slowly build it up because people can have like detox reactions or like die off reactions with it.

Is it similar with these low level non-thermal laser that people have to slowly start them or they can just, you know, go at it with the full protocol of that way?

I love the question. So you're talking about the Hertz reaction where we attack the biofilm, open up the biofilm, but we forget to kill the bacteria and it lays there and it dies and the patient hates us because they're going through the worst symptomology ever.

So it's very interesting that the violet light has shown to kill the biofilm. I get around that because I use something called serum bovine immunoglobin.

I know, you know, well, it's the mop of the gut. So I mix a lot of nutrition with my laser. That is typically my protocol

in my functional medicine armamentarium.

You brought up sauna. I'm a big advocate of sauna and I'm sure we both talk about sauna all the time for longevity and overall health. I like an infrared sauna of a temperature between 146 to 174. Sauna can be deleterious.

If it's 200 degrees or more, your head's in it like a finished sauna. So you want to keep the temperature down. It's preferential to keep your head out because you don't want to stimulate any heat.

We call that a fever and it can damage your blood brain barrier. I'm a big proponent of sauna. Here's a little caveat. I think you'll enjoy this. You know what heats the sauna?

Red light therapy. That's amazing. And again, these are the small things that a lot of people might know. So again, as you're talking about, the saunas are infrared.

So people might have this question, what is the difference between infrared and these low-level laser therapies?

Choosing the Right Device and Safety Considerations

Are they similar or they're totally opposite or they're complementary to each other? It's a great question because that, you know, the red light, infrared LEDs, we get that all the time.

I'm sure you asked what's the difference between this supplement and this drug. So for me, the light emitting diode is that it's a light emitting diode, but it's not a laser.

So the laser is very different. The key is what we've mentioned in the red light therapy and LEDs are incoherent light. Non-thermal low-level laser is coherent light.

Let me give you a little example. If you and I go out and we're in a bar and there's a drug next to us and he's trying to talk to us, he's incoherent.

He's unable to communicate with us. Then return to the Harvard grad who's really happy and he's speaking to us in his perfect English and that's coherent.

So the idea incoherent is not communicate with the cells of the body. Coherent non-thermal low-level laser communicates with the cells of the body able to be absorbed.

Vast difference, incoherent versus coherent. Another way would be if you and I were playing a paint game and we were painting the wall and we just threw all the paint on a wall and it was all over the place and there was no direct line, whereas we took a gun with the paint and shot the wall and it would be picture perfect.

That picture perfect absorption or painting of the wall would be non-thermal low-level laser, coherent versus incoherent. Awesome. That was really good.

You know, like, you know, that will definitely help a lot of people to kind of, you know, get in their head in terms of what is what. So then when they're making a choice in terms of improving their health, they can pick the right thing over there.

So now actually I want to kind of switch gears, you know, because I also want to pick your head, you know, because you wrote this amazing book, you know, about this immune reboot, right?

And now we are kind of, you know, in this world, the post COVID world, Where a lot of people, you know, like immune systems are riled up with post COVID issues, a lot of people with high amount of inflammation, high amount of chances of Hashimoto's disease.

So what is your take, you know, on this post COVID, you know, like, you know, how is that affecting the immune

system specifically, you know, for Hashimoto's and inflammation and what things have worked, you know, in your clinic?

Well, you know, it's funny. COVID taught me a few things. Taught me one, half the world's crazy and the other half the world's crazier. Just not sure which one is the craziest world.

Number two, I thought that many of the pontificators on the television didn't do a really good explanation. It didn't share a good explanation of how the immune system should work.

And patients need to know the basic, well, first thing is there's three lines of defense. Our first line of defense is something very close to home to us, which is our digestive tract.

It has been reported that the first time the outside world meets the inside world is when something passes through the small intestine. So line of defense number one is respiratory and digestive tract.

Then we get to the innate immune system. and the adaptive immune system. So the innate is something obviously in its name is what we have when we're born.

It's a 365, 24, 7 sentinel type of immune functions, macrophages, and the like. Whereas our adaptive immune system is our antibodies, our B and T cells.

And those T cells are very unique to things that you talk about. So that's a basic overview of the immune system. Number two, post-COVID, As we talked about before, you and I, COVID seemed to wake up a lot of dormant viruses, especially Epstein-Barr virus.

So about the year 2021, 2022, I'm doing all these blood tests and I can't believe that pneumonia antibodies are elevated. Epstein-Barr viruses are elevated.

Lyme disease, something that we should talk about at some point, are elevated. I'm like, how is this possible? How does everybody have mononucleosis, the kissing thing with high elevation?

And then the term was put together, it was called poly reactivity. So the virus was so virulent and so new and our immune systems in America were so weak that everything else that was dormant got woken up and we had multiple infections.

And I think that problem with the long COVID was the poly reactivity leading to mitochondrial dysfunction, which is fatigue being the number one symptomology.

Absolutely and that is so crazy that you know people cannot put two and two together in terms of one virus kind of basically you know awoking you know like the whole viral cascade which lives in our system but we never know about it because they are so dormant.

So suddenly waking them up you know causes too much inflammation and obviously affects your immune system. So how do you approach those people? Like, you know, like, you know, suddenly, like, you know, each and every virus is awoken up, your immune system is crashing.

So how to build the immune system back? Well, you know, it's interesting. I think the immune system is the backbone to this concept that we talk a lot about in longevity.

So for me, having a robust, resilient immune system is critical.

Infrared Sauna vs Laser Therapy

So everybody attacks the immune system and they say, let's balance it, let's support it. But it may be that we need immune rejuvenation. We may need the breakdown of our immune cells through autophagy and possibly

mitophagy and the breakdown of these cells to allow the debris to be used for energy for new cells.

So we can get new immune cells. So we're not there with our old dormant crappy immune cells. So that's number one. So let's have immune rejuvenation. Then let's try and balance the immune system.

One of the biggest problems is the imbalance of the immune system between the innate and adaptive immunity. and therefore not having ability to produce antibodies, or having a weakness in the immune system and producing too many antibodies, which is very detrimental to one's overall health.

Everybody thinks that antibodies are a great thing, and you and I both know it's a sign of something happening, but if we have too many antibodies, we're having failing health.

So again, then we'll balance it, then we'll support it, and then we'll make it resilient. What I mean by resilient is Here's a virus. We'll use this as an example and it comes in and we have an antibody to it.

And then we remember it and we catalog it and we put it together in our file cabinet. Then what happens is we have a cousin, a variant, and we get sick again.

That's not supposed to happen. A resilient immune system is one that's supposed to be flexible, variable, kind of like in basketball, moving their feet in defense.

And people were getting COVID five, six times. That was a great example of a non-resilient immune system. People who got sick once, maybe twice, it's been out for about seven years, that's an understandable attack or an understandable number.

People were getting vaccines and still getting sick five or six times. So look at all that antibodies that they had built up. So I think number one, I think they have to take a look and understand the immune system.

Number two, want to balance the immune system, rejuvenate it, support it, to ultimately make an immune system that's resilient. I think I could make a case to you, somebody who is a leading thyroid expert, that thyroid issues may be the derivative of a failing immune system.

Post-COVID Immune Dysfunction and Rebuilding Immunity

Absolutely. No, I think you made a very excellent point that, you know, a thyroid and the immune system cross reacts, you know, at multiple levels and one is connected to each other, you know, in a very strong manner.

So let's say like a person who's listening over here and you want to give them some practical tips. Okay. Well, these are the few things that you can just do today.

to kind of, you know, rebalance or improve your immune system, you know, which they, everybody should be doing, whether they had long COVID or not, because a lot of people with thyroid disorders have a weakened immune system, whether it's because of inflammation or other reasons.

So what will those top things that people should be doing right now? Stop eating sugar. The new food pyramid has it right. It's an anti-sugar. Stop eating sugar.

Did you know that if you consume 300 calories of sugar, you will decrease your immune system 50% for a two-year period. So here we are wearing masks in an airport three, four years ago, and everybody is online to have a frappuccino.

Are you kidding me? So that would be number one. Number two, decrease ultra-processed foods because they're nutrient deprived and you're not gonna support your immune system.

57% of the calories that Americans consume are from ultra-processed food. Number three, try and get some sleep.

It is our rejuvenative time. It actually is great for getting rid of metabolic waste in the brain, because when we sleep about seven to seven and a half hours, our brain goes to about 40% of its size and it squeezes like a sponge our metabolic waste.

How about some good gut health? So what are things to support gut health? I'll make it easy. I'll make it foods. No gluten, no dairy, no added sugar. You do those things.

And by the way, nix those nicotine patches, everybody. It makes no sense. My favorite supplements for immune health. Some of them, you know, most people will be surprised in what I'll say.

I'll say my favorite supplements for immune health are specific vitamins like vitamin A, vitamin C, of course vitamin D. It provides a swath of health promoting properties.

How would we not? Omega-3 fatty acids without question two to four grams per day. Also something called pro resolving mediation. We don't talk about that enough in functional medicine.

They allow for the resolution of inflammation, PEA, turmeric, now saffron also as well. And I'm going to throw in my favorite peptide, especially for long-carbid, which would be BPC157, and my favorite amino acid, even more Higher on my list than leucine, taurine, because taurine's a great amino acid because it prevents against excitotoxicity.

It allows for bioflow, which decreases the incidence of small intestinal bacterial overgrowth and increased intestinal permeability, i.e. leaky gut. Wow, that was a great showdown of things that people can do today, starting from the basics, from the diet, and also these great list of supplements that you have shared with people.

So that was great. Again, we can keep going on this discussion for a very, very long time, but in context of time, what are the key things, like if you will save a person who has high amount of inflammation and Hashimoto's disease, what would you like to say to them?

The low level laser therapy fits into improving their health, whether they should try it or not, and whether they should start from there, or whether they should start from the basics of the diet and the supplements and then move on over there.

Well, I'll answer your question, but they should see you first, because you're the expert, without question. After that, I always believe everything is in fruit.

That's a great starting point. We talk supplements, drugs, exercise, but good food is a source of health information. Bad food is a source of inflammation.

Good food is our communication with the outside world. So I would start with food. I would then obviously do a comprehensive thyroid panel, which I'm sure you've gone through many times on your podcast.

Number two, I would check gut. I'm big on the gut barrier panel. I test for candida, zonulin, occluded, and lipopolysaccharide. In addition to that, I would definitely consider a exercise program.

I mean, we didn't really talk about that. Weight resistance works really well. There was a study that's been out about 10 years on weight resistance where it helps decrease osteoporosis and osteopenia in both men and women.

and increase spinal stiffness and bone trabecular density, both in men and women, spine and hip. So exercise is a great choice.

Practical Steps for Inflammation and Thyroid Health

And I think the idea of finding a doctor who really looks to the idea of root causes resolution and is willing to use multimodal approaches to help you individualize and personalize that treatment for an N equals one, that's your

home run.

Keep looking for that. Don't give up. Absolutely. Great. So in that context, where can people find more information about you or where can they can follow you?

Follow me on Instagram or check my website, drrobertsilverman.com. Absolutely. And obviously we'll have all that, you know, links in the description. So please check out those things because, you know, his podcast is great.

So if you are like looking for longevity things, you know, like the cutting edge technology stuff, you know, he has great speakers and great like, you know, line of things, which he always shares.

I kind of appreciate all the information you are putting out. And then, you know, obviously, like, you know, Instagram is great, you know, again, great information he shares.

So thank you so much again, Dr. Silverman coming over here. It was a great episode, a lot of great information, a lot of myths that you cleared up, you know, for a lot of people that are looking into these new cutting edge things.

So I really appreciate that. Thanks for having me. I appreciate your time. And everybody remember health is wealth because you got to take care of your body.

It's the only place you have to live. Absolutely. I think we will leave at those parting words. Thank you so much. All right, guys, this is it for me also today.

We will see you again next time. Take care. Bye bye.