

Caspar ([00:00](#)):

So in this podcast, I wanted to start off by going over something someone sent to me today from Dr. Mercola about antidepressants and the usage and how we're treating depression on a whole, because, and, and I'll just go over some of these points that he wrote in a glance that 21 million American adults experienced at least one major depressive episode in 2020, and the vast majority of those people were actually prescribed antidepressant drugs. And the crazy part was they found hundreds of thousands of toddlers, also being medicated with powerful psychiatric drugs, raising ethical questions. The article goes on to say, there's no scientific evidence to suggest depression is the result of chemical imbalance in your brain. And a lot of evidence suggests it's actually unhealthy living. But we still rely on antidepressants in the conventional medical fields. And it seems that that would be our only option, but is it, and that's the question I wanna pose today with our guest, Robert Weber coming all the way from Germany.

Caspar ([01:03](#)):

Thank you for joining us and Jennifer Miele, who is a second-time guest with us and was on last time to talk about IV laser therapy. And this time we're gonna talk about the Weber Infrared Helmet and how, how that can work to not just help with depression, but brain function in general mood and, and really anything related to the brain. So I wanna start with you, Robert, because you were involved in the Weber medical side of things and the creation of this, how did you even come up with the idea for utilizing photobiomodulation big word there in a helmet to help with brain function? Tell us the story behind that.

Robert ([01:47](#)):

Okay. So thank you for the invitation to be on this podcast today. Yeah, we are working in the field of laser therapy, light therapy, photobiomodulation for more than 20 years now, already started in the field of pain management, acupuncture, but also yeah, brain related issue related issues. So we developed specific laser machines which we use now since yeah, almost 20 years, which are approved in Europe and the US. And yeah, in general treatments of the brain or so-called transcranial light applications are probably one of the best researched areas in this field, because especially in the US, there are people like professor Hamblin, Margaret Naeser, Juanita Anders, professors from related to Harvard university who did a lot of yeah, breakthrough research in this field showing how light, especially infrared light can help to recover or regenerate brain cells. I did a lot of basic research, but also the first clinical studies.

Robert ([02:52](#)):

And yeah, then of course, we also did some investigations with our machines here in Germany. We have co good corporations also with very well-known universities, like in gutting where we did some basic research, but also we always treated a lot of people in our clinics. Of course, to check the clinical symptoms, how we can yeah, support people after stroke attacks, after, or with Parkinson's issues or with dementia, depression, what you already said. Those are the most important yeah, diseases we looked at during our clinical treatment. And we, yeah, what we could show is that the transcranial treatment with highly focused infrared light really helped a lot of patients with such diseases. But on the other hand especially when we talk about things like dementia or Parkinson or depression, it's something you really need to treat on a regular basis.

Robert ([03:48](#)):

And if you only have a doctor with a machine probably he's charging quite some money for the treatment and you have to go there basically every week, it's difficult for patients. So our idea came up to develop something for home use, which patients can basically use every day for yeah, on the one hand to treat all those diseases we already talked about, but also yeah, to bring, to really bring down the stress levels in your brain to really help regenerate the brain again. So that's something you can really use every day. It's a simple standalone device. As you said already, it looks like a helmet with more than 300 infrared diodes inside, and this is basically something patients can use every day to improve their cognitive function and to yeah. Regenerate that brain tissue.

Caspar ([04:39](#)):

I love that idea of taking something that is medically inclined, like a procedure and being able to position it for home use. I think it's wonderful because as we always say, you only have so much time in a medical office there only so much you could do so that ability to take something and apply it at home, you could get the laser therapy in a very procedural type atmosphere and clinical atmosphere, and then continue on with it. Jennifer, I'm gonna get to you in a second about your clinical experience with it, but just a follow up question for you Robert is, you know, a lot of people have a little bit of trouble saying how is light getting through the skull, right? We have this, you know, very thick skull as some people have for sure. And you would think light right now, isn't really penetrating into my brain. How is the Weber laser able to do or Weber IR helmet because it's not laser it's infrared LEDs. How is it able to do that and get in safely also because a lot of people are saying, wait, if you're shining something into that brain, I don't know if I like that so much, but tell us how it's able to do that and why it's safe.

Robert ([05:46](#)):

Yeah, you're absolutely right. First of all, our skin our whole body is made to protect us also from harmful things like for example, low low wavelengths, ultraviolet light, which know from the sun can damage DNA for example. But yeah, that's when you look at the aura, or at the different wavelengths or colors of light that's different, for example, blue or UV light was very low, that wavelengths is not able to penetrate the skin or through bones, for example. But the higher the wavelengths the better is the penetration through human tissue. So with red laser is all it's already better, but especially infrared it's known to yeah, achieve the best penetration through the skin, but also through the bone, for example, that's something we did also a lot of yeah, measurements, for example, on skull models and everything where you could measure exactly how much of the light is really penetrating through the skin, but also through the, through the bone in the end.

Robert ([06:48](#)):

So that's how we can determine how much power we use for the output of the device to, to have it as of course, as you said, it's also important that it is safe. So you don't want to overstimulate like put very high power, which would, maybe you could burn the skin or whatever. So you really have to put it to find out what is the optimum dosage for good penetration, but for no harmful effect. But again, for this, we also were lucky because we had all the basic research from the universities, from the US that did all the research, showing that the light is safe for a neuronal, for brain cells. And then of course we had some basic measurements about the penetration and then we did so many patients treatments now over the last 15 years. So I don't know how many thousand or even million treatments, so we had no side effects at all. So we can also yeah, assure that it's a pretty safe treatment for sure.

Caspar ([07:47](#)):

Jennifer, let's move on to you and talk about some of the patient experiences and clinical side of things. Who have you been using the helmet on and what have you been seeing?

Jennifer ([07:59](#)):

Well, and first of all, thank you for having us Caspar. So we started working with the Weber technology probably about seven, eight years ago in our own clinic and started working with them more professionally about maybe six, seven years ago, something like that time flies, in the clinical facility and also working with other physicians and colleagues myself. We see a lot of work in the use of Alzheimer's, Parkinson's post-stroke we also are doing quite a bit with neurological Lyme. Patients also, or people in general that are just looking for general improvements. We've had some very positive feedback also from clients that are utilizing the helmets in their homes for everywhere, from dizziness to difficulty with eyesight to vascularity issues, just because we know that light increases circulation as well, but also infrared, as Robert was saying penetrates much deeper, especially into the skull. Studies have shown that it can some somewhere go between four to five centimeters, past skull.

Jennifer ([09:05](#)):

So up to three centimeters into brain tissue. The other thing that we have been clinically treating in our own practice has been many patients with glioblastomas. So we designed a protocol utilizing some specific oral supports, and then having them do the helmet twice a day on different frequency settings as well with glioblastoma. Now, of course we can't say that it's a hundred percent that, but we will say that these patients that are doing this in combination with other immune therapies, they weren't getting the same results previously until adding in and adjusting with the use of the Weber helmet. And we've had probably about 10 to 15 patients in the past couple years with glioblastoma that have reported in MRIs and brain scans between a 50 to 80% reduction in tumoral size when about a month to two month period. So that was pretty impressive. Of course we can't say that in every case, but it's very impressive and very promising. It's so easy to use as well. It even comes with these little foam pads that you can stick on the inside of the helmet to adjust it to different head sizes. So we have a lot of families that will utilize it, especially families that are affected by chronic infections, Lyme disease, neurological disorders they'll even have the children utilize it.

Caspar ([10:30](#)):

Yeah. It, it is really easy to use. At the same time, I will say there are some settings that are available with it as well, including frequency and strength. Jennifer, can you go in a little bit on what those are and how you can make this a little bit more personalized? And if someone was going to take it home, is there a setting that they just set it and forget it and can use?

Jennifer ([10:56](#)):

So, yes, there's different settings. So one is you can just use the, the helmet on its consistent wave, which is great. That would be a setting, you know, a set it and forget it. What's great about this too, is you can actually set the time. So you can do anywhere from five minutes up to 30 to an hour at a time. So you can be sitting there reading a book or watching TV, or even taking a nap while you're using, utilizing the helmet. It does come with a frequency box and a frequency box is very helpful when we're dealing with quite a few neurological disorders, especially because you can pre-program into the helmet, a Hertz level. So a frequency which will change the brainwave pattern. So many have heard of delta, theta, alpha beta gamma, different, you know, brave wave patterns, brave. I can't talk today. Brainwave patterns.

Jennifer ([11:48](#)):

So we know for example, we will quite frequently use 10 Hertz in the stroke, depression, 40 Hertz we'll do for Alzheimer's and dementia. Just for general treatment, we'll do continuous. So that's zero and the most commonly used most frequently would be between 38 and 10. With the helmet there is a little page document that comes with the different Hertz levels and what each Hertz level will relate to what brain wave, whether it's alpha, beta, theta, Delta, et cetera. So that also helps people give a guideline for use at home. And I would say that especially with stroke, we've seen some impressive improvements in a short amount of time utilizing the 10 Hertz setting and continuous wave setting on a daily basis for about a week. There's already improvement in motor functions, speech pressure in the head, dizziness. It's, it's quite impressive.

Caspar ([12:44](#)):

Yeah. We've seen some great results already utilizing in the clinic. Now, Robert, you mentioned that you could use this every day and if you were to let's say, purchase this, use it for a home use. How, how frequently should use it, just because you can use it every day. Doesn't mean sometimes you should. So what, what are we looking at as far as the frequency of use at home and for how long would you say, is it different for every person or is it somewhat, you know, standardized?

Robert ([13:13](#)):

Yeah, of course it depends a little bit on what you are using it for. For example, I, as a mostly healthy person, I use it mostly in the evening sometimes for stress relief. So maybe every, every other day, maybe two or three times a week in total, but for something for someone who's maybe yeah. Yeah, has a danger to get dementia for example, or whether where already the cognitive function went down there it's of course beneficial to use it every day. Or also when we look at depressive people if, as long as the depression is in an acute stage, I would recommend using it every day for half an hour. But of course, as soon as you stabilize the situation, you can keep on going like maybe every other day or also two or three times a day, a week.

Caspar ([13:58](#)):

I'm glad you brought that out because you know, a lot of people listening may not be in a chronic disease state or may be out of it already, let's say. But still have, I think everyone today suffers from a little brain fog. I think everyone today, if you watch enough news is gonna suffer from a little depression and fear, correct? Yeah. I mean, it's, it's everywhere. What, what can, and I'll, I'll direct this at Robert and maybe Jennifer, you could go afterwards as well, but what can people expect when they use this? Because everyone can expect if they take an antidepressant and feels something, it does something it's a chem, it's a drug it's powerful at times. Doesn't mean it's good or bad. Sometimes you could expect suicidal thoughts off, you know, antidepressants, but what can they expect from using the Weber helmet?

Robert ([14:47](#)):

Yeah, you're right. Especially when we talk about this topic like brain fog, or you really feel stressed in the evening, that's usually something people feel right away when you really sit down, we usually recommend them doing it in the evening and not watching TV or put a look at your phone or whatever, more like go into a meditative state and really relax, use the helmet for 30 minutes. And then you really feel it, the stress relief you feel the brain is clearing up. That's usually the feedback we get from almost every patient. And that's just to get a great feeling, especially if, when you do it in the evening, all the

people are telling me they can sleep better. They just, they just feel better because yeah, it's also stimulating your serotonin, dopamine levels and everything. So there is a very strong general effect. Even if you, as you said, even if you're not in an acute stage of disease.

Caspar ([15:38](#)):

Jennifer, I'm, I'm gonna throw this question at you now as well in what will, what are patients experience? What are they telling you about symptom relief or improvement with their brain function?

Jennifer ([15:49](#)):

I would actually back up and follow what Robert said. We do the same thing. When people come to us with severe depression or are just unable to sleep, we ask them to utilize the helmet more of a meditative state, not to get too much distraction so that the body can actually absorb it. People who are very much on the go and just looking to, you know, get some extra energy, we'll do it while they're doing work or something, right. Which is not the best case. We want our bodies to have the chance to heal. One thing that we also integrate with the use of the helmet is a formula that actually Weber Medical put together, which is a bio availability form of green tea extract. So a lot of the depression cases that we have come in will have green tea extract about an hour before and usually in the evening and do about a 30 minute session at night.

Jennifer ([16:35](#)):

And as Robert said, it increases serotonin dopamine just from the light therapy, but it also improves oxygen availability and oxygen consumption. Light therapy in general does. So what we'll have people do is practice their breathing while they're doing this. As Robert said, a meditative state. And so far, the responses that have come back is a greater sense of rest or sleep when they do go to sleep. Many people wake up quite frequently through the night and some after the first time of using the helmet, depending on how depleted their energy sources are, because we are giving back an energy source to the body. But usually the first day, they will feel a great relief through the night. They'll sleep longer hours and they'll feel more refreshed the next day. Sometimes it takes them a couple days and other patients who are doing a lot of medications, we've had a few of use of the helmet.

Jennifer ([17:32](#)):

They have been able to actually start to reduce their antidepressant medications. Now they need to do this obviously with guidance and whatever physician they're doing it with. But many have been able with us to reduce those antidepressants by doing natural supplements and utilizing the helmet, which is for us a huge improvement, because we have dealt with people through the years, especially with chronic infection, Lyme disease that are on so many different anti-depressants, anti-anxiety medications, sleep medications, because they just can't rest. Their bodies are just on this over exertion all the time. And the utilization of the helmet in combination with the green tea extract is reducing that greatly. And the reports we're getting back are my son is sleeping better. The tremors have slowed down. He's not waking up through the night. I don't feel as anxious after I utilize the helmet, I feel calmer.

Jennifer ([18:26](#)):

My brain fog's lifted. Even my eyesight feels clear. I can think of words faster. So it's it's very positive feedback and it does depend on everyone. Not any one of us are the same, so some may need to utilize it a little bit more. Others may need to utilize it a little bit less, but as Robert and I have experienced,

even in many conferences, we've worked together with, we have people sit down and do a 10, 15 minute session and they'll come back to us about an hour later after listening to a, a lecture. And these are doctors going, what the heck did you do to me suddenly I can hear everything they're saying and I'm comprehending it. It's like, well, it was light, you know? So it it's it is quite fun and it's I don't wanna use the word magical, but it is because it's, it's nice to see that people are getting a physical, biological response, but a lot of them are coming back with eyes of not believing how, how well that they feel after utilizing something like this.

Caspar ([19:23](#)):

Well, it's utilizing advanced technology in such a simplistic fashion. And it really makes sense to me, right? This idea of using pH photo biomodulation, which has so much research behind it so much science and applying it to the one region where a lot of people are unfortunately, a little bit off there and, and have trouble with the brain fog with cognition, with sleep, which we sometimes forget to associate with the brain, even though it really is a neurological and chronobiological issue. Robert, are there any other positive, secondary impacts we might be able to see with the infrared helmet? Listen, I've heard people ask, will it stimulate my hair growth? Will it help with scar tissue or any wounds on the scalp? Will it do anything else positive or anything else we could throw out there for the positive side of things?

Robert ([20:15](#)):

Yeah, of course, exactly what you just said. As infrared light would also, will also stimulate of course, the skin area, so there would be a benefit. You know, there are many devices on the market, mainly with red light because you don't need to penetrate that deeply. But for hair growth, there are a lot of red light therapy devices, but of course, infrared from a cellular point of view works in the same way. So you would also stimulate hair growth by using the infrared helmet. And then of course it would also help to regenerate scar tissue wo wound healing would be accelerated. Yeah. That's exactly like secondary effect what you already said.

Caspar ([20:53](#)):

Now a lot of the hair regrowth regeneration devices out there for the scalp use, as you said, red laser lights, 650 or so, but they also use lasers. And I'm just curious, what was, what made you go with the infrared LEDs versus a laser light itself? Cause there's slight differences, of course, in the synchronicity of light and everything. Why'd you go with LED?

Robert ([21:18](#)):

Well, that's mainly because it's a home use device. Of course lasers, as you said, is current light. So the penetration is even a bit better with laser light, but when you want to use first of all, so many diodes in one device, basically to cover the whole brain it would be too expensive, like putting 300 laser diodes that's, and also from a power from the power source and you need a lot of power to, to run 300 laser diodes. So from a, from a technical point of view, it we have to use good focused LEDs, which are also able to have a good penetration in the end. Yeah. And then of course also heating effect. All those things are have to be considered. So it would be difficult to use lasers for this.

Caspar ([22:03](#)):

Yeah. You might start to impact the brain with that many diodes of laser, which need higher output. As we know, LEDs are incredibly efficient and this, I have to say, you know, the first time I held this helmet, it's incredibly light it's, it's like a bike helmet basically, but with all these diodes, so incredibly light on the

scalp, it's not like this heavy thing that your neck is supporting or anything very easy to wear. So I think that's part of it. Jennifer, you were gonna say something. Oh, I think, I think we may have lost Jennifer there for a second, but let me continue on.

Jennifer ([22:41](#)):

Jennifer. No I was just gonna say there's there's 320 diodes in that helmet and wavelength of eighth-ten nano. Right? So the power is 50 milliwatts per diode. So that's about 16 Watts of power. So it's, it's, it's, it's a good push. It really is. And something I just wanted to add in there, Caspar, if I may, before you continue and you asked about other benefits because of the shape of the helmet, even though it's utilized as a helmet, we've even had athletes utilize it over knees and around the hip joints because of the shape of it, it fits perfectly over the area. So I know that sounds a little funny, but because of the penetration depth and the amount of power behind those infrared lights, it reduces inflammation quite rapidly. So we've had people utilize it that way as well, not just on the head, they've called this and said, Hey, you know, I'm doing it on my knee this way because it's reducing the inflammation and I injured my knee. So there's definitely ways you can utilize it outside of the box thinking.

Caspar ([23:40](#)):

No, that's really good to know. The off-label usage as pharmaceuticals would say are, are always, a good thing to understand and use. And, and you start to see photobiomodulation this idea of specific light on the body is good for the body in general. And again, research backs, this, everything. Why would you not want to use it first rather than, you know, anti-pressants anti psychiatric, all these types of different medications that obviously have some sort of negative impact in multiple side effects and that people will need for the rest of their lives most likely and send them possibly into other types of conditions and other types of symptoms? So is there anyone Robert, is there anyone that shouldn't use the laser helmet? I keep saying laser the L E D helmet?

Robert ([24:31](#)):

Well, not really, but what we have to take into cons consideration is what Jennifer already said in the beginning. You can use it also in oncology for tumors, but then you should use it for a full dynamic approach, which means that you should use it in combination with a light sensitive supplement, which is basically yeah, interacting with the light to to attack the cancer cells. But you shouldn't use the helmet just alone without the supplement, if you are a cancer patient.

Caspar ([25:02](#)):

Yeah. As with most things, it's an integrative comprehensive approach, especially when you're dealing with complex chronic conditions or something like cancer. Now, you know, Jennifer, I want to ask you because everyone always wants to know, okay, what's it cost? What's the price here? What are we looking at? So how, how much is this helmet? What it'll cost somebody?

Jennifer ([25:23](#)):

The helmet's retail at 3,200 and they do have a warranty. And we have obviously always make sure that Weber team always sends out manuals and support materials to you or anyone else interested.

Caspar ([25:39](#)):

Yeah. And if you think about it, that's 3200 over the lifetime of usage, right. And it'll last you multiple years. You could look at a cup of coffee and break that down at over a year or two. You'll probably be

paying much more for that coffee and this won't give you the same effect. So although that exactly nice little kick of caffeine is nice for your brain, what it does afterwards, sometimes when you dip is, is not the good part, and this is absolutely beneficial for the brain. Robert, any, any final thoughts that you'd like to share? Anything else that you'd wanna connect to the, the Weber helmet or you think, you know, the audience could use?

Robert ([26:18](#)):

Well, I think we covered most areas by now what I just would like to add or share, because we also talked about depression, everything we can also share a very good testimonial with you shortly. We have a very good cooperation now with a veteran organization from Florida we just met them and they told me they see such incredible results with their veterans, with all those people coming back from the war with severe depression, suicidal tendencies, TBI, and all those issues. And, and they told me usually many of the veteran's center or in general, the military has huge issues with people coming back and with suicide and everything. And they have set up such a program with those, with our devices. And he said, that's really a game changer because they lost no veteran at all during the last few years. And they told me that for some, for some of their people, it was really life saving and the depression went away after a couple of weeks and yeah, they couldn't really, they couldn't really believe it. And they really want to send us a good testimony, you know, as well. This was yeah, really impressive to him.

Caspar ([27:25](#)):

That's incredible, incredible because yes, you know, people that come back and have post traumatic stress disorder have that anxiety have those traumas. Those are brain issues a lot of times that you need to address. And again, conventional medicine has very few options and you could go for those, but why not utilize something like this? That's as simple as putting on a helmet, sitting there meditating and, and actually getting therapeutic effect. Jennifer, any final words from you?

Jennifer ([27:53](#)):

I think that you we've kind of covered most of it. I think the biggest thing is that the utilization of this helmet, there's really nothing you can do that would hurt yourself. We have only seen benefits from it. It's easy to use yet, very scientifically advanced. And as most of us know, not all products are created equal. There is something very unique about the quality of the diodes utilized in the Weber product. And I will say that from personal experience, we've worked with more than one type and we've never seen anyone not respond to it, especially if they're using it properly and actually utilizing it like anything, you wanna get a response from something you need to utilize it or take the supplement, right? Same thing with the helmet. But it's an amazing product. We've used it for years and we're here to answer question support and we're constantly doing research and sharing testimonials. So we'll be happy to share those and passes on as it continues coming in.

Caspar ([28:48](#)):

Awesome. Yeah, it's that German engineering it's wonderful thing. It really is. Can't beat it. Can't

Jennifer ([28:53](#)):

It really is.

Caspar ([28:54](#)):



I mean, I, I could absolutely attest to that. We've been using it a lot at the clinic and we're super excited to continue using it, offering it to patients and other people to use at home as well and, and really helping protect you know, the most important object in, in the universe, our human brain. It's just so complex. And we're, we're still learning so much about it, but we also realize that things like light is, is incredibly useful for it. So thank you both for sharing that and then shining a light on this, this important therapy. So thank you.

Robert ([29:27](#)):

Thank you as well.