

Welcome to the Perfect Workout podcast where fitness meets simplicity. I'm Kyle Recchia, CEO of The Perfect Workout. I'm joined by Jim Keen, director of training. We hope you enjoyed today's episode.

Welcome back everybody. I don't know what episode this is, but I haven't really found another segue that feels more natural than saying, "Welcome back to episode one." Episode number? Yeah, I've lost count long, long ago. Yeah. So? So welcome back. Welcome back. Today we're going to talk about the sauna. Actually, I was kind of torn because we get a lot of questions from people on.

Obviously I'm coming here. I'm getting great results. It's only 20 minutes, twice a week. What are some other hacks, you know, I can do? Because they consider our workout, which I think this is a compliment. They consider our workout a hack. Sure. But sure, by definition it is. So one of the things are important etc. so there's a lot of stuff we could go into, but I feel like the sauna deserves its own dedicated episode.

Maybe I'm biased. Yeah. So, Jim, when it comes to the sauna, what can we talk about? So there's a couple things to talk about with sauna. There's two different kinds of sauna. So, when you say sauna, people think heat, but there's different types of heat. What about a Jacuzzi? Is that technically a sauna? Because it's water instead of air, but it's heating you up. That does have effects. The usual sauna. You imagine the guys on the, like the cedar, bench with the towels you put, the ladle, the water inserts, the steam sauna, and then there's the infrared sauna. And then there's the red light and so on. So these are all iterations, the same idea.

The basic idea is almost the same thing as our workout. The body encounters a stimulus, something that pokes it, provokes it in order to produce an adaptive response. When the body encounters red light and heat. Kind of the same thing, but visible red and then infrared the heat, in any form. There's a few things that happen. The first thing, that happens or you could talk about is the sweating. Everybody knows about the sweating when you get in sauna. And that's a heavy detoxification through the largest organ in your body, your epidermis, your skin. The next thing, a little bit less often talked about for blood pressure and hypertension, your blood vessels and your veins and arteries, they can dilate. Vasodilation is the widening of your, endothelium, all your veins and arteries. And then there's vasoconstriction. So, when you are in the heat of a sauna, nitric oxide, you might have heard that term, it's the active ingredient in Viagra, by the way. And so if you, for users of agar, they found that their blood pressure really does go down. It was originally developed as a blood pressure drug.

Yeah. And its active ingredient is the nitric oxide. Well, it turns out you don't need the pill. A sauna can do the same thing. So you induce the release of nitric oxide into the circulation of the

body. And this causes vaso dilation. And what happens to fluid dynamics when you increase the diameter of the tube through which the fluid flows? It's a reduction in pressure. So for reducing blood pressure and improving enhancing circulation it's fantastic. So a sauna is really excellent for that. Also to the degree that you have red lights, red lights have a unique property to them. Whereby, I'll put it this way. The way they were testing this, they would take red light at, some particular nanometer wavelength, like 660, let's say. And they have experiments where they take blood out of somebody and they expose in a little centrifuge, they expose the red light. They shine it, you know, at 660 nanometers on the blood. And then they put the blood back into the person, and then they measured all sorts of different things, and they found that it was a salutary, beneficial effect of the red light on the blood. And then some genius goes red light penetrates like 2 or 3in past the skin. Wait a minute. That's where the blood is. We don't need to take the blood out of someone to do this. We could just put them in a red light sauna and it has the same effect in there. Correct? You're put a flashlight up to your hand. You could see it shine through so the light penetrates, right? So when you shine at your torso, your face, the red light sinks deep in. And so that's a huge benefit because, you can have all those same effects without having to take the blood out of your body. Now this one gets a little bit woo! But, just come with me here.

The, there's a fourth phase of water that was made popular by Gerald Pollack, University of Washington, like 2012, 2013. And it's, in between ice and liquid and it's more like a crystalline structure. It has its a little more viscosity. And the idea is that H_2O and H_2O , two of those molecules, they come together and form a hexagon, and then these hexagons stack onto each other when this fourth phase is created. And it's called an exclusion zone. Because these hexagons stack so tightly, it excludes anything else that is not the hydrogen and the oxygen. So what does that mean and why is it important? Two ways that this helps one, imagine a tube through which blood is flowing and then, when they were studying this in the lab, the way it was discovered was that, they were studying a pump with water and that little silicone beads in the water to determine which way the water was flowing to the naked eye. And the pump was off. And one of Gerald Pollock's graduate students noticed that the beads were moving, and he realized it was the sun coming in from the window that seemed to be causing this. You turn the blinds and all of a sudden it stopped. And Mr. Pollock. Mr. Bug, professor, look what's happening. And they determined that, there's hydrophilic and hydrophobic water loving. And the reverse. And so it turns out that this easy, this exclusion zone, this fourth phase water, it collected it's, at these naphthalene tubes. So it's, hydrophobic. Okay. And so it pushes in from the outside. So it increased the flow of whatever was it. Now think about your endothelium, your, the way you transport blood all around your body. You can. And there's both water. And then this fourth phase water. And it turns out that red light, like coming in from the window, red light in particular, can build and enhance the amount and quality of this fourth phase water. And the first thing it does is what I just talked about. It builds up around the outside of all your veins and arteries, pushing the blood in so that your blood flows more smoothly and your red blood cells don't clump together. The other thing, it's even cooler. Gilbert Ling was a guy who, in the 70s, won a Nobel Prize, for talking about. Hey, guys, I did the math. ATP, adenosine triphosphate. We think it powers everything. I did the math, and there's no way that it could. The math doesn't check out how much energy is produced versus how much a person uses. Interesting. And it

was left like an open question, but he goes, I don't know what the answer is. It's just not that cool. Great. So we do use ATP. It's just not sufficient to explain the phenomenon of a human being being alive. And so it turns out this exclusion zone water exists next to cell walls, next to the walls of organelles like mitochondria and around endothelial walls, any of the surfaces of the body. It turns into this tightly stacked, water. And when you shine red light, it can increase. Right. So you could put a filament into it and you'll discover that it's negatively charged and the bulk water is positively charged. So what do you have when you have that. That's a battery. And so by getting into the red light and you can also get electrons from the ground with your bare feet. But the red light can cause the production of this exclusion zone water which itself is negatively charged. Contrast that to the positively charged the bulk water which makes up the majority of the blood. And you've increased the power of your internal battery that your body actually uses with ATP. But like ATP, is the mechanical like like an actual chemical and molecules doing it. But this is electrical. And so it's a little bit faster. It goes through the whole body, through the fashion thing. So anyway, the point is being in a sauna, like if you build, you come back, you zoom out and you go. Getting in the sauna can help you do all those things, but also just increases your cells ability to produce energy so that they can perform the tasks for which they are designed, whatever type of cell it is. So it's like a universal donor a little bit. So that's probably the biggest benefit of the sauna. And so two questions I don't know if these are true, but I've kind of heard them. One, it also seems that you you you are in this on a long enough that you sort of, stimulate an artificial fever, like get to 101, 1 or 2. And I don't know if this is theory or if it's scientific, but that is going to help. Like a normal fever does kill off some bacteria, kill off some viruses. So it sort of have this this sort of has the same effect you have when you're dealing with a virus or bacteria, but you're sort of forcing it to happen in this molecule. Is that an element in the infrared ones? Okay. I say that's right because you're heating from the inside. Whereas if it's ambient it's just hot against the skin. Your internal temperature is still affected, but not like the infrared and red light ones would sink a lot deep. Right. Okay. And that was my next question. I understand that infrared saunas heat you sort of from the inside, whereas other saunas, more traditional sources, are sort of heating you from the outside environment. This is why a typical sauna you go in, it's 200 degrees plus, which is not fun. And in an infrared sauna, a lot of the benefits are seeing it like 138 degrees or 158 degrees, whatever the case may be, I guess it's because of this effect. Yeah, and it's six and one half, doesn't the other? Probably. I would say in an ambient temperature sauna where you have to get really hot. There probably certain internal things that don't happen because it's not that hot. It doesn't penetrate like I suppose that's true, but it's so hot that you still get a lot of the the heat shock proteins and the detox from the person operation, in the sweat, the infrared ones. It's just for all the benefits we want to see. It just doesn't need to be all that hot. Yeah, so it doesn't get all that hot. Like I have a sauna space. I've had it since 2019. And I swear by it, there's three months in Austin. Where in the three months where I don't use it because I get nature's DIY sauna. But every morning I'm in that thing, outside of the summer, and it's 130, maybe 140. It it doesn't heat up a lot in there, but I sweat way more than I would at 170 or 180 with just an ambient temperature on if that makes sense. Yeah, I love it. So this is I mean, the reason I think that it was fun to do an episode just on the sauna. And in a future episode, we'll talk about a lot of these other questions people ask around, you know, other hacks, PMF mats and these sorts of things. We can address that stuff, is and I'll butcher this, but you guys can look it up. There is a study. It's like a 50 year study in the. What

I've been told is this is actually the best study we have on decreasing all cause mortality outside of research on strength training. Something like following this big cohort of men around for 50 years in Finland. And, the more they sauna and they were, adjusting for healthy habits. Right? So they were adjusting out smoking and alcohol, all this other stuff, the more they saw in it, it was sort of a linear effect on from one day a week to seven days a week, a decrease in all cause mortality up to something like 40 or 50% decrease in all cause mortality for those that's on it. And seven days a week. And mind you, in this study, because of the way that the culture is out there, these guys are like drinking vodka and and smoking cigarettes and which was fascinating. So, you know, it's I think it's cool. I think it matches a lot of like what we do 20 minutes twice a week. It's potent. And because of, the cool part about this is that these infrared saunas, they're getting more and more accessible and affordable, where you can get a cool red light infrared sauna blanket for a few hundred bucks. Yeah. And you can sweat it out. You can get that artificial fever. You can kill off the bacteria and viruses, you can detox, you can give your heart a good pump. You can get your cellular energy going. All of these things that you might not be able to do just because you're hot or in a traditional sauna. And so it's in my mind, it's like, if you're gonna spend some money on another hack, this is the way to go. Yeah, it's one of the small hinges. It swings big doors, and there's a lot of stuff you could spend a lot of money on. It's not really a needle mover. But out of everything. And we'll talk about some of those bio hacks in a future episode. But, the sauna just in general seems like it's an ancient thing. We now have new technology to be able to do it, just like strength training right now have, But seemingly longevity is tied to the avoidance of comfort. So in a safe, controlled environment, forcing your body to adapt to something to disturb its homeostasis just a little bit, like in the strength training or with a sauna or whatever. Seemingly, this keeps it limber and capable. Yeah, and the sauna is one of the best ways to to amplify your recovery in that way. So cool. There it is, everybody. You can go buy a sauna and we're not selling them. So yeah, we don't know where to buy them. Just tell them we sent you I guess. Yeah. Awesome. I'm in season. All right. Series.

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