

Exploring Microdosing: Benefits, Research, and Personal Experiences

Speaker 2: [00:00:00] Welcome back to the Flex the Diet Podcast. I'm your host, Dr. Mike T. Nelson. On this podcast, we talk about all things to increase muscle, improve performance, improve body composition, do all of it without destroying your health. And today we've got a super cool topic that's more related to enhancing the performance.

This is on the topic of microdosing. Certain types of psychedelics and we've got on the program today, Dr. James Fatman and Jordan Gruber. Super stoked to talk to these guys. They have a new book out is entitled, microdosing for Health Healing and Enhanced Performance by Dr. James Fatman, Jordan Gruber.

It's really good. I actually picked it up myself and really been enjoying it. I was super stoked to have them on the podcast. You may recognize [00:01:00] Dr. James Fatman was one of the first people I ever saw talk about the concept of microdosing. And in the podcast today, we talk about a wide range of things, of how microdosing became a thing.

What are the differences between a macro, a very large dose of these compounds and a small microdose. He. It is radically different in terms of the just effects that you will feel which I think overall is a good thing. I think this allows the use of microdosing to be much more common. We talk about the research our experiences with it.

And how this may enhance your performance. And also how did they get into this? I was reading Dr. James Fadiman's research Oh man. Many years ago. Side note, this is for entertainment purpose only. [00:02:00] None of this is medical advice in any way, shape, or form. As of this recording in the us many of the compounds we talk about.

Our schedule one federally illegal substances. Hopefully that may change, but as of this recording, they are currently illegal. So there are legal ramifications that possibly can come with this. Some states have opted to decriminalize them in different areas. Obviously, if you are living outside the US legislation and laws are quite different in different countries.

So. Really enjoyed this conversation. Big thanks to them for coming on the podcast. And as I've talked about in the past, I have done higher doses of primarily ayahuasca. This was down in Costa Rica. I'll link to the podcast. I've

talked about that. And if you have any questions or any thoughts on [00:03:00] this, I would really love to hear from you.

And another good part is that they are doing their best to collect. As much data as they can on what are the experiences people have had with microdosing. So we give all the links to that. So I would encourage people if they have had experiences to please submit them there. They are collecting this data.

They're going through all of it. What's great about that is it gives us an idea of. One, what are people experiencing? What are they using it for? And this can then also be used to inform more formal research. So there is a ton more research now going on, the use of psychedelics both on a macro and a micro dosing schedule which is really great to see.

So enjoy this podcast with Dr. James Fatman and Jordan Gruber.

Dr Mike T Nelson: Thank you guys both for being here on the podcast. I really [00:04:00] appreciate it.

Jim Fadiman: Our pleasure.

We're glad to be here.

Dr Mike T Nelson: Yes, thank you. And I have your new book here microdosing for Health and Healing and Enhanced Performance which is great.

And I guess the first question for you, Dr. Fadiman, is for people, hopefully most people listening to this podcast have heard of you, but I. You've been looking at, we'll start with the macro doses of psychedelics for quite some time, measured in decades. How did you first end up being, interested in that?

'cause I always feel like there's a, usually a fascinating story.

Jim Fadiman: For high dose psychedelics, I was a year outta college. I was living in Paris and my favorite professor Richard Alpert, who became Blas, was passing through and said he wanted to hang out with me. And I was honored. He said, greatest thing in the world has happened to me.

And I was waiting for a great story. And instead he reaches in [00:05:00] his pocket and comes out with a little bottle and puts a pill on the table. And I am so straight in those days, I don't drink coffee.

And I look at the pill and I look at him and he's feeling and deeming to be healthier and better than I've ever seen him.

So I took the pill.

Speaker: Aha.

Speaker 3: My life unfolded in different ways after that. It was a, what would we now call a moderate dose of psilocybin? And it shifted my capacity to have unusual thoughts. And some weeks later I was a graduate student at Stanford and worked with another group outside of Stanford and took a very high dose of psychedelics, which totally rearranged my beliefs in things like birth, death time, space and a few other variables.

Flash forward 40, 50 years and I get interested in microdosing. How's that?

Speaker 6: Yeah, no, that, that's great. And any experiences you wanted to share, Jordan? Or how did you become interested in this field? I.

Jim Fadiman: Oh it started back in [00:06:00] college. I had an interest in human potential and I've been through everything from the neopagan movement to men's movement to new age seminars, to the occult.

And psychedelics was always part of the way. And I met a fellow in Pennsylvania who was not a guru, but a very advanced user. And it is just been part of my life ever since. And then I met Jim in 1990 at a conference and we became friends and that's how we get to be here today.

Speaker 6: Awesome. And how did you guys get interested in microdosing? The first time I ever heard of this was, I think it was probably an ebook or maybe it was even published originally as a pamphlet that Dr. Fadiman had put out years ago. And that was before I had any, even a macro dose experience.

And I was kinda like, eh, I don't know. It just seems like another interesting way to do psychedelics. I didn't really understand it. And then I talked about this in the podcast having done a high dose of ayahuasca, I then looked back at the [00:07:00] microdosing stuff and I was like, oh, maybe there's some benefits

here without having to go through the whole macro dose experience, which I think can be useful for people.

But again, it comes with a lot of, cautions of set and setting. And like you said, having a lot of your whole belief systems, like put in one of those little the snow globes and shaken up for a while. Yes.

Speaker 3: Oh, I was not interested in microdosing at all. I was only interested in very high doses, but I had a lunch with a friend in Santa Cruz and he talked about Albert Hoffman, who created LSD and in his nineties he was taking very low doses. And he said they were very good for walking in the woods and thinking, and my friends.

Was very excited by that and I thought I couldn't care less. That's nothing about transcendence, the magic of God speaking to you directly. But I got a little curious 'cause I am, and I asked some [00:08:00] friends in Santa Cruz if they would try this little super low dose and they came back and said, yeah, I feel really nice.

And I thought, that's nice. And then they came back the second day and said, I feel just as nice. And that was the first time that something went off in my mind because normally we talk about a substance that's in your body, it has a lot of effects, it leaves your body and it doesn't have any more effects.

And here was this super little nothing that seemed to have a two day positive, beneficial effect. And I started exploring from there. And as you pointed out, microdosing has none. You can define it really as saying everything you know about high doses. It's not that. It doesn't distort your visuals, it doesn't open your head to magical thinking.

You don't find yourself on another planet in another earlier life. All of the adventures and wonderful things that high doses have done [00:09:00] and what we're now seeing, and I'm thinking of Connor Murray, UCLA who said it very nicely. It looks like that the correct dose for psychedelic substances is the microdose 'cause it has beneficial effects and remarkably few other effects.

And that the higher doses which need set, setting situation, care and also make sure you don't do anything else for the day. Those are what we might call overdoses. And if you think that way, a lot of things come into play. Make sense? Including a lot of the indigenous work. So we're rediscovering the ordinary.

It's the same reason that you have one cup of coffee. Nobody says, I wonder what it's like if you have 15 cups of coffee. Someone would say that's too much. That's an overdose, that's a different realm. But what if we only knew 15 cups of coffee and there are these people walking around having [00:10:00] one cup and having better days.

So that's the model that we're seeing and we're seeing it in so many places in from by so many people.

Jim Fadiman: Yeah. A nice one word phrase to sum it up is less is enough. We are pretty well hooked into the idea that you have to have more and we're finding less is enough.

Speaker 6: Yeah, that's a good way of thinking about it. And I'm also just thinking. Mechanistically, you mentioned that they felt better after day two when there isn't really anything left of the substance in their body, which is fascinating.

Speaker 3: What it says is the body is making use of what it has just taken in.

It's not a symptom that's being suppressed. Most medications, let's face it, suppress a symptom, which is why as soon as it leaves the body, the symptom comes back and you need another [00:11:00] one. Things that improve your overall health, you don't need as much because your body takes over and makes, takes advantage of the improvement.

Jim Fadiman: You

Speaker 3: know,

Jim Fadiman: another way of thinking of it. Mike is that someone gave us the analogy of imagine taking a hundred micrograms of LSD once in a month or 10 micrograms. 10 times. You get the same amount of new information comes into your body. Either way, you learn the same amount, but which way are you likely to be able to remember more?

Which way are you gonna be able to use more? So as microdosing gets going, and remember, it's not just a microdose, it's on a pattern or a schedule or protocol. As it gets going, we know that the neuroplasticity is real and that it begins building. We know that the anti-inflammatory effect is real and it begins building.

We know that the general tendency to bring us back into a healthier state of self to equilibrium and homeostasis is real, and all of that keeps going, and you learn how to use it on the microdose. You have plenty of time [00:12:00] to take it in and integrate it and make use of it without having to go through the, the trauma or minor trauma of a big dose, which it can always be intense by definition.

Speaker 6: So it's much more of this may be an oversimplification, but like thinking of it from a health perspective, like people who take fish oil or creatine for sports performance and even cognitive function now, not the standard typical pharmaceutical model, which we tend to think about because like you said, you're not suppressing symptoms.

You're actually trying to get to more of the, my little air quotes root cause to adjust the health of the body, just like exercise or these other things we do that we know have an acute effect, but that acute effect can be drastically compounded over time by going to the gym, doing exercise lifting, things of that nature.

Speaker 3: Yeah. And nobody says gee, if going to the gym for an hour is good for you. I think I'll go for eight hours [00:13:00] tomorrow. Yeah. Because that'll

Speaker: be better.

Speaker 3: Okay. That's an overdose. So we know the body lets you know when you've done enough to improve it. And it also suggests that if you keep going, you then stop that level of improvement.

Speaker 6: And what do you have as a formal definition? 'cause I've heard you say that the definition of it being sub perceptual isn't a hundred percent accurate.

Speaker 3: I I admit it was a word I used and I'm, I will go down an infamy for it. Because people do notice, people notice that they feel better. People notice their symptoms are less, they notice they have less pain.

They notice their migraines are abating. It's very noticeable. What it isn't is anything classic, psychedelic. A definition of microdosing is everything you know about high doses. That's not it. And the literally, there's very limited physiologically [00:14:00] measurable change with a microdose except that the mood goes up.

Jim Fadiman: And there's some other external factors that you can check with. Do you have any qualms about having your regular day or anything that's gonna come up in it? If you do, it's too much, is anybody else gonna know that you're on something? If you do, it's too much. And of course, if you're feeling at all high or inebriated or you're having any visual distortions or major kinds of thinking you don't normally do, all that means it's not a microdose anymore.

So it's,

Speaker 3: it's self-limiting, which is if you feel a little bit what is called high, that's too much. And that kinda lets you know, just as if you drink. You usually know when it, when you've had enough and sometimes you know enough also to stop.

Speaker 6: If the refrigerator's talking to me, I did too much.

Exactly. Exactly. What are common doses and also I guess substances would overlap in that. I'm thinking of like commonly I've [00:15:00] heard psilocybin and LSD are common, but for frame of reference, like what is can you educate us on macro dose and then what is considered more of a micro dose?

Speaker 3: Let's talk about LSD and we're talking about micrograms, which are millions of a gram.

Speaker 6: Yep.

Speaker 3: Okay. A microdose is about seven, five to 12 micrograms.

Speaker 6: Tiny. Tiny.

Jim Fadiman: And another way of just the bigger frame is that we've said for a long time and everybody seems to agree that a microdose is generally one 10th.

To one 20th of what a full recreational dose of something would be. So if LSDA full recreational dose is a hundred micrograms, Dena micro dose is, as you said, five to 12 or somewhere around there, the psilocybin, if a full dose is about three grams and about 0.3 grams at the high end, and then going down below that is the micro dose.

But we keep finding that people are taking less or at the bottom end of the ranges and having very effective results. So again, less is enough.

Speaker 6: Would [00:16:00] the recommendation be to start very low and see what you feel and then only if necessary slightly go up from there?

Speaker 3: It's exactly, that's exactly right.

It was almost

Speaker 6: like the inverse. 'cause I know everyone in the US culture at least wants to be like I wanna start high. And then I'll just back off a little bit from that.

Speaker 3: What we know is if you wanna climb a high mountain, you start by climbing a low mountain. This is normal behavior is you don't start with excess.

And what we have found is if people say I think I'll start low. We say, start lower than that. Start low enough. So you think you'll have no effect. That will give you a base. And then if you, then you can rise, raise it slightly until you have the desired effect, which again, is not anything external.

It's a feeling of the symptoms you're interested in are less. The mood that you're looking for is more. A, as one young man said, I only take it when I have a coding problem. So some people just use [00:17:00] it for intellectual use. Again, starting low gives you maximum control and minimum possibility of any problem.

Therefore, it's a kind of common sense way of doing it.

Speaker 6: Nice. One of the big things I've noticed with it, primarily using a microdose of psilocybin probably off and on for going on maybe three years now, is initially I did it more often and then now I just do it on a as needed basis.

And the biggest difference I found was maybe a little bit of mood, but I found, especially for writing or creative stuff, it just felt like I could come up with better word selection that were more, not something I would pick, but yet felt like it was the right word. Especially when I was doing a rough draft, or especially when I was editing, like trying to find different ways of saying the same thing, I found that it was like super useful for that.

Speaker 3: Had we had this discussion before we finished the book, [00:18:00] you would've gotten a small little quote for that. 'cause

Speaker: it's

Speaker 3: really good way of seeing that your cognitive capacities were improved. Not off the charts, but improved. And I've helped a lot of journalists who've interviewed me and I've said, hint, it's really good for first drafts.

And I've gotten a lot of letters back that said, Hey man, that's true.

So that's one of the ways that we see it being used in aca. It's used by students. It's used by people trying to pass tests. It improves your normal capacity to do what you do. Just enough better that you notice it.

And your own description was really wonderful.

Jim Fadiman: I, I wanna take us back just a second. You were talking Yes, please. Going slow if you have enough time, start really slow and a few days later, see, and then, that's exactly the right way to start. But the other way of being conservative that makes sense is using a conservative protocol or schedule.

So there's different protocols. [00:19:00] One of them is named after Jim, that BAT protocol. And that's your, on day one, you're off day two, you're off day three, and then you're back on day four. So that's the most conservative protocol. And for many people, that works really well because it gives you plenty of time to experience that second day effect, including we have research that sleep on the second day is really much better.

An actual study was done on that, and then the third day you're just doing a full reset. So I like to recommend the conservative fat and protocol for people if they're to get going with it.

Speaker 6: Yeah, that, that's great because it, and I've looked at some of the research on the different protocols and I.

It's right now across the board. And I agree that with anything that has the potential for having big changes, like just being more conservative, starting low, seeing how it goes for you, I think is a much more sane approach, at least to me.

Speaker 3: And one of the things that we found is some people say I started at the lowest dose you recommend, and it was way too much.

What do [00:20:00] you recommend? And so what do you, we say, how about taking a 10th of that? And what we have is a lot of people, not a huge number of people, but enough people say, I actually function better at one 10th of the lowest dose you publish.

And they call themselves the micro people.

And that's just because human variation is very large.

There's another group that, that doesn't have much of an effect until it has a much larger dose than we recommend. And these are usually people with high functioning autism.

Speaker: They

Speaker 3: say, Hey man, I took what you recommended. Nothing. But then I took three times as much and I have the exact range of effects that you write about, so we're still learning.

Jim Fadiman: Interesting. One of the interesting things is when you think about if somebody just taking just one microgram or the peop and the answer is one microgram has 1.54 quadrillion molecules of LSD in it and you know the body has 30 or 40 trillion [00:21:00] cells. So even one microgram, there's plenty of substance to have an effect on people who are open to that.

Speaker 6: Yeah. Do we have any idea how much of that is more on the physiology side? Like we talked initially off air about, caffeine people have different, slow versus fast metabolizers of caffeine. Do we think it's more on the physiologic side or is it also some people are just maybe more. I don't know if perceptive is a word or maybe sensitive to notice

Speaker 3: change compared to others.

Perceptive, perceptive and sensitive are measures of physiological capacity.

Speaker 7: Yeah.

Speaker 3: One of my daughters is very sensitive to noise.

So when I'm, when things are at an average volume, they're very loud for her. There's nothing right or wrong about that. That's there's also people who run ultra marathons and then there's people like me that's a wide range.

Okay. And by the way ultra marathoners have all [00:22:00] discovered microdosing. Yeah, that was one of my questions.

Jim Fadiman: Lowers pain if Ben Greenfield told us that the word was out in that community. The other day I was in a podcast by a native shaman and she told me that among her people, little bits of peyote for a long running has been long known about.

Speaker 6: Yeah. Let's talk about that. Do you. Do you think that is some analgesic effect? Do you think it's just putting people in a different headspace combination of all the above?

Speaker 3: It's very hard to separate Headspace from body space. Oh, definitely. No, there is a, this thing isn't at separate, right? It's only separate in academic departments where they each have their own chair.

So what we see what we get from athletes and ultra marathoners just happens to be what we're most delighted. It's a, very interesting group. But what athletes point out is they have greater endurance. And in things [00:23:00] like martial arts, they say, I can see the other person's move a 10th of a second sooner.

And as one of our favorite guys said, I used to get. Silvers. Now I microdose, I get golds. And he says, isn't that I'm much better? I'm very much better in ways that count. And they're very small, so it, of course, it's the mind, if you think you're going to have a good time, the chances of having a good time just went up and you can say, at the end of the evening, I thought I'd have a good time.

And it was horrible. Because you were paying attention.

Not ma intention is important. It's not magic,

Jim Fadiman: We also have in different native traditions the notion of hunting, acuity and stamina. So

Speaker: Yeah.

Jim Fadiman: Have been used for who knows how long and for hunting as well.

Speaker 6: And I think there is some data on LSD in terms of visual acuity and some other [00:24:00] metrics.

Is that correct?

Speaker 3: Yeah. We know that, that LSD. Increases your, literally your visual acuity. And it also increases more importantly, your capacity to focus. So when you were using it for the writing, what was happening is that you were able to stay in what we call the zone longer and better, but it was still using only your capacity.

It's just using them better. It's, if you look at ads for running shoes, they all say it'll make you run better. They don't really say shoes.

Speaker: Make

Speaker 3: shoes run better.

Jim Fadiman: And so what's exciting about this is, we divvy up the benefits of microdosing between physical and mental benefits and for conditions and then for enhanced performance.

And then the enhanced performance is things like art, creativity, writing, music, but it's also, volleyball and wrestling and running. And I. It seems likely to me that [00:25:00] eventually there will be aficionados at the edge of performance in every physical endeavor who are going to check out and see whether microdosing helps whatever it is that they're into in particular.

I'm guessing it will,

Speaker 3: but also partly mental. Partly physical. Let's take one more sport that's even more popular. Think Jordan has mentioned years ago, I got a note that said, if people figure out what this is good for your libido, you got a real product, man. And so what we looked at, and people do report better sex,

Speaker: okay?

Speaker 3: But they report it in two different ways. One is, one possibility is simply more arousal, more energy, et cetera, more libido. The other is more awareness of the other.

Speaker: More

Speaker 3: sensitive to the other, more more wanting the other to have pleasure. And that those, either of those will improve people's sexual life.

Microdosing appears to do some of both.[00:26:00]

Speaker 6: No, that's fascinating. And I have used some microdosing before kite boarding sessions. So you've got like this big parachute thing, you're attached to some lines and if you can do it correctly, it'll lift you up in the air and you can kinda fly through the air and hopefully land nice and soft. Or if you screw it up, you get dropped outta the sky like a sack of potatoes and it doesn't really end so well.

But the thing I've noticed is that you've got a very short period of time sometimes to make a decision am I gonna really bring the kite down fast so I can land soft? Am I gonna bail out on this? Or, learning new things, like just being able to, as weird as it sounds, but see what's actually going on.

Yep. It just feels like to me, I have those couple more super brief, half a second of being able to see and feel where everything is more accurately. Again, it's not a. I'd say a massive difference, but it feels like it's, I'm able to make better decisions based off of better information [00:27:00] coming in at that time.

Speaker 3: That's a, we're supposed to be giving you answers, but you're doing better than we are. And, but what you're saying is it's the deci, you're better at what you're doing.

Speaker 6: Correct.

Speaker 3: Okay. And it isn't one of these things where, gee, I've never done that. I'll microdose and I'll really be good at it.

No, not at all. It's not magical. It simply says, your system is designed to work well. It's capable of working better. Microdosing apparently improves the system at the level that you're reporting, and it also improves the system, say, for people with migraines. What we find with people, with migraines, chronic migraines, is they still will get migraines.

Maybe one 20th as much.

And that's a magnificent difference. Yeah, that's a huge difference. The body somehow able to prevent the migraines and it wasn't able to do it before.
[00:28:00] And cluster headaches too.

Speaker 6: Yeah. There's been some interesting research on that too, related to psilocybin and cluster headaches for sure.

Jim Fadiman: So just going back to a second to the kiteboarding. It sounds to me like you're having minor experiences of flow and you're in a different part of who you are. So this is the previous book that Jim and I wrote together. Yeah. And another way of looking at microdosing is that it tones down the default mode network.

So you're not in the normal part of who you are. Another way of thinking about it, there's more entropy going on in the brain and you're able to just see and move into a different part of. Who you are, maybe one that is in more flow or maybe one that's gonna be nicer to your partner. And you can work with being in the right mind at the right time more directly and you're just more aware of yourselves and the selves or parts or sub personalities of the people you're with.

Speaker 6: And how much of this do you think has longer term benefits? So I'm thinking of the increase in [00:29:00] neuroplasticity. So one of my little theories, not just my theory, but that if you take substances that can increase neuroplasticity, that neuroplasticity isn't always a good or a bad thing. It depends on what do you directed to do.

It could be a negative if you're doing things that are negative, you could, learn bad habits. I equate it to, if I took up golf, which I've quit playing golf just because I was making myself worse at it. So I said, okay, if I ever decide to play golf, I'm gonna hire a coach. I'm gonna learn how to do it.

But if I took something to increase neuroplasticity. Didn't work with a coach, I would just be getting bad habits faster, better. But if I worked with a coach and I learned the right technique, in theory, I could be getting better faster. Do you think some of this is related to microdosing and neuroplasticity?

Speaker 3: That's a wonderful question and it's will this make me a more successful pickpocket?

Speaker 6: Yeah.

Speaker 3: Answer. The answer is probably yes.

Speaker 7: Yeah.

Speaker 3: Will it make you think that being a pickpocket is [00:30:00] not a good thing to do for your soul? Maybe?

Speaker: Yeah. High

Speaker 3: doses will probably suggest suggestion.

Yeah. You get an occupation because that isn't, that isn't using your higher self very well. But when we're talking about something that improves functioning, we're not making a moral judgment.

Jim Fadiman: But I think you are right. And we use an analogy from Andrew Hoberman and then expand the analogy.

Andrew said that when you take a large dose of a psychedelic, it's like you're using a big lever and you're prying open a boulder, and the boulder, which is rolling through the village of your mind is neuroplasticity. So you can direct that to plow a field or, to go over a tent where the children are in school.

So you have to be really careful where you put that with microdosing. It's much smaller levers and it's just a little rock of neuroplasticity rolling through the village of your mind every three days. So I think the answer is, you can see it and learn to work with it and learn to move into the part of you that is aware that you're in the state, on day one and you're still feeling it on day [00:31:00] two.

And, I think that it can be something that, that you can learn to direct and

Speaker 3: that you should. Now I'm gonna pull back a little from my no moral position because

Jordan Gruber: Most

Speaker 3: AMTs has a very simple sentence. People who use mushrooms are nicer. Now I've been in the psychedelic world for decades, and I've also been an industrial consultant and a management consultant.

A lot of other things I've dealt with a lot of other groups. People who have had psychedelic experience are likely to be easier and more flexible about things that need changing. They're less attached to their belief system because they've seen that their belief system is not made of iron. It's made of thoughts and thoughts can be changed and improved.

It, it has that kind of, if we believe that being kinder to people is beneficial for the species, let alone the planet microdosing is more in that direction. [00:32:00]

Speaker 6: Yeah. I find that interesting because I think exactly what you said, you have at least on a macro dose level, you have the. Awareness of what may actually be going on.

And you also have the increased flexibility, maybe cognitive flexibility to do something about it too. So maybe those people also have more awareness and they also have, from a neuroplasticity level, the ability to maybe go more in that direction of the awareness. So the end result is that they, their phenotype does become more cognitively flexible.

Speaker 3: Yeah, cognitively flexible is really a remarkable statement. Okay. We have an educational system that, that more and more kind of presses you into a little tight space and says, this is the way to truth called science. And there really isn't another way. And cognitive flexibility says my curiosity doesn't stop at the edge of the page.

And that [00:33:00] microdosing allows me greater. Greater use of my own cognitive flexibility.

Speaker 6: Awesome. And I liked your point, Jordan, about the difference between the kind of the high dose and the lower dose. So I think of the high dose, there's some data showing that may even open up, critical periods in the brain again, or we have these increased longer periods of neuroplasticity.

But I think you also have a much greater responsibility at that point too, of making sure you get most of the things correct. Or if you scale back to a microdose, you maybe would, have it before a training session or you're doing a skill session, okay, and now it's gonna work maybe through that.

Maybe you don't take it the next day and so on. So you've got these small changes over time. You don't have these huge levers that you're opening up and hoping that the other things I get during that increased time are more correct. It's more fine. Tuning over time than [00:34:00] these kind of more massive changes,

Speaker 3: yeah, the massive changes are fine for certain kinds of things. Oh sure.

Speaker 6: But,

Speaker 3: If someone is taking microdosing, which they do for chronic pain, the pain, even if you take a high dose, you will probably not have the feeling of

pain for the day, but you'll have it back the next day. What you're microdosing is you are reducing the parts of you that produce the pain and it's much more like how you get muscle strength.

And that the system, your body says, I don't really like pain, but it's really useful for emergencies.

Speaker: Yeah. It usually gets, you do something different. I have pain,

Speaker 3: there's no emergency and I don't, and my system isn't quite capable of handling it, but for some reason microdose ups the capacity of the whole system and we see pain literally diminishing over time.

And once it's diminished. Then one doesn't keep microdosing.

Jim Fadiman: So it's really important to keep in mind the [00:35:00] difference between pharmaceuticals and microdosing. Pharmaceuticals are designed to handle one specific symptom, and they'll do it however they have to do it, and whatever the quote unquote side effects are that happen.

That's how it goes down with microdosing. You're enhancing the whole system, the whole body. We've mentioned some of the ways we think that's happening, and maybe others like maybe mitochondrial function, but it's naturally working. So an example is. Serotonin micro doses bond with the serotonin receptors as an agonist and make them healthier.

With SSRIs, you're really putting like a wrench in the system that prevents the serotonin that's already been used from going up. And of course there's gonna be a lot of symptoms from, negative side effects from that. So it's a very different approach and this is why earlier we heard from a few people, including David Nutt and UTT was the drug czar of England, that he was suspicious when he saw that there were claims for microdosing helping 15 different things. Now we're up to 45 or 50 different things. But again, that's [00:36:00] because it's not being addressed at one specific symptom. It's a whole body enhancer and it seems to work in lots

Speaker 3: of different ways.

Yeah. Nobody accuses a vitamin of only curing one symptom.

Speaker 6: Yeah. Or exercise or sleep or,

Speaker 3: exactly. Yeah. So we're finding that microdosing is better described in that group. The pharmaceuticals, which are symptom specific or organ specific or diagnosis specific are different any more than no one says should I have this operation to take this tumor out of my elbow, or should I microdose?

Okay. That's a silly question because these are very different ways of approaching the problem. If I have this tumor taken out, how can I accelerate my healing? Microdosing seems to be a good addition to whatever else you're doing

Speaker 6: from a research standpoint. I know there's a lot more ongoing research now on microdosing.

There's a bunch more stuff coming out this year and next [00:37:00] year it's not published yet, but it also seems to me that it solves one of the bigger issues, at least in macro dose psychedelic research, is the argument about, blinding procedures and, what do you use as a, do you use a sham group?

Do you use a placebo group? What do you do? One researcher was quoted that even, psychedelic naive people are not gonna mistake a high dose psilocybin experience for niacin, for example. So there definitely is a blinding issue, but it seems like with microdosing you might be able to get around that a little bit more.

And then do they ever ask people at the end, did they think they were in the active versus placebo

Speaker 3: group? Yeah. They always ask.

Speaker 6: Yeah.

Speaker 3: Okay. And guess what

Speaker 6: They can tell?

Speaker 3: Mostly. Mostly,

Speaker 6: yeah. That's what I've seen too.

Speaker 3: Mostly because it's the wrong tool. There's nothing wrong with the Doubleblind study used for what it's used for.

Jordan Gruber: Yep.

Speaker 3: But imagine here's a Doubleblind study. Okay. I wanna check [00:38:00] if people will react negatively to being hit over the head with a two by four. Okay. We don't know. Could be but may they like it. We don't know. Okay. How am I gonna blind? How am I'm gonna do a doubleblind. Okay. I'm gonna take a foam bat.

I'll make it look like a two by four. I'll paint it correctly and I'm gonna hit people over the head with either the foam or the two by four. And I'm gonna be astounded that they broke the blind. Okay. Because it's obviously that's a stupid study because we all know in advance exactly that people can tell the difference.

Double blinds were designed to check if the substance was as good as the other substance.

Speaker 7: Right?

Speaker 3: And a lot of pharmaceutical companies figured that's a terrible test. 'cause our version of whatever it is very much like theirs. But if we make theirs we'll eliminate them. How about auto placebo?

How about nothing? [00:39:00] So all now we're checking. Is our substance better than nothing? It's an easier one. We found what we have a different notion, which is real life evidence is what you end up with. If you care about anything, you don't care about what the science says. You said what does it happen in the real life people?

So our book on is based on about 10,000 reports from real life people in real life situations. With a medication, you don't care what the company tells you. It only is true if your physician says, you know what? I think maybe one of these would help. It's new. Let me know how it feels. That's the science that most, that matters.

The fact that we all, the double blindness have a, are worshiped is a historical problem and not one that it's simply the wrong tool. There's nothing wrong with it. But as someone said, if the only tool you have is a hammer, every problem is a nail.[00:40:00]

We have other tools.

Speaker 6: Yeah, I think to me, I look at it as, I think a lot of times there's a rush in academia to study mechanisms and publish novel mechanisms because they're sexy and they can get published and 100% there's a time and in place we should understand how stuff works. However, I would argue what you guys are saying too, is the first question is, does the thing you're looking at work, does it move the needle regardless?

Placebo, not placebo, whatever. Did the thing that you're looking at, did it get a result that would be considered a positive result? And then once we agree that this substance or this thing is seeing the results we want, okay, now we can do, more of the smaller mechanistic work to see what's going on.

Speaker 3: Then it's worth it. There's some interest. Correct.

Speaker 6: Yeah. And also, yeah, because you know you're going in the right direction.

Jim Fadiman: When you read the stories of people [00:41:00] one section or book is about women's health issues and it's called the Mothers of the Mushroom survey. And generally speaking, you're not allowed to study anything having to do with pregnancy or breastfeeding.

But they did the survey and when you read these stories and get the depth of the profound changes that happen in these women and how grateful they were reading stories like that produces a knowledge of what happened that really transcends whatever type of study you're going to do.

Speaker 6: Yeah. And so tell us about the data capture.

You guys have been doing this for quite a while and you've got accumulated a lot of data.

Speaker 3: Yeah, if you read scientific studies, and I don't recommend anyone should have to do that. 10, 12, 20 people, that's quite ordinary. 50 people is considered a big study. 200 is considered largest study ever done.

And we're looking at thousands of reports from from about 80 countries. This is a worldwide interest. And we also now, and then say to, [00:42:00] so to people in indigenous cultures, how long do you feel, how much is this part of your culture? They say we, the first thousand years we can probably count.

So when someone says has this had a double blind yet? I said I said, how about a thousand years of use? Would that be maybe an equivalent? Then they usually don't like me and walk away.

Jim Fadiman: We do look at all of, most of the science that's been done on microdosing has been done since we started writing the book.

Speaker: But we do

Jim Fadiman: our best to incorporate all of the science we can. And when science comes out that is, that we know is incorrect we're willing to take a stand on that. And so we're very much aware, and Jim is very much in a web of everyone who's doing everything. And so the book does and we wait until the last second to keep putting new things in.

Speaker 7: Oh, sure.

Jim Fadiman: Murray, that's a very important study. And we just kept putting stuff in. So we're looking at everything and we start the science section with this quote from Jeff Bezos that says. If your anecdotes and your data disagree, your anecdotes, which we call real world evidence, [00:43:00] are usually correct.

And it's not so much that you mismeasured your data, it's that you're asking the wrong question. So we think that the science is really clear that it's a, not just the placebo, and b, it's really working in a wide variety of things for people. And that's also why it's spreading word of mouth. Now

Speaker 3: let me ask you who are listening to us microdosing book.com.

One word, microdosing book.com is our website where we take in stories and we take in stories of interest. We put the best ones on back out on the website. We correspond with people because this is this is live science. And since the book's been out, we've had a couple of just remarkable breakthrough cases in areas that we didn't cover in the book.

Because again, if you have something that improves the body's functioning there's a large number of things to look at. So we're still in [00:44:00] our science mode still working to make sure that when someone shares their story and we let them know the reason you are sharing this story is only so other people will benefit.

So that's a that's a scientific model, but it's based on a kind of communal caring, which is a much older model.

Jim Fadiman: And you'll notice how hard, Scott, Jim didn't start being interested in this until 2009 and 10. He told me about it right about the same time, and I started working with it.

He started asking these questions, talking at talks, reporters noticed. There was a positive feedback loop or virtuous cycle of more reports, more information, more new in different areas, and then all the way up to iLet Waldman writing her book and the Michael Pollen featuring Jim. And so we don't know if, if Microdosing has gone like this, we don't know if it's gonna go like this or we're at the top.

But I think we're still pretty much at the beginning of getting clear what the general boundaries are, what it, looks [00:45:00] like, why it's important to take time off between doses and time off after several weeks of microdosing in most cases. So it's still

Speaker 3: Coming together. We're learning also it's more popular than we thought was.

If you go to Google search and you say, how many times did people look, oh yeah. Dosing. The last year it whooped up to about 3 million. I thought, oh, that's a very big number. I'm gonna mention that on a podcast. But then I looked at a study from the Rand Corporation, like 90% of its studies are mainly government and defense.

They're not exactly a psychedelic site. And they estimate us only 8 million people took psilocybin last year.

Now here's the one that made us interested, which is they estimate four half of that 4 million were micro doses.

So we think it's really valuable for people with, for people like you to talk to people like us so that people can understand [00:46:00] that there are, there's a lot of information that may help them, both with their physical and mental conditions and just being more powerful and effective if they and it's useful to find out.

Jim Fadiman: And, you think of certain groups who could benefit. We've been talking to younger women, some of whom have hormonal issues that

microdosing seems to work with pretty well, some of whom have depression issues. And when you think of the high reward to risk ratio the great safety of microdosing, how inexpensive it is, in, in some pictures it could handle a lot of the depression and the ADHD and the other things that are out there in the world in a way that has very little risk and is much less expensive than how we go about it.

Now,

Speaker 3: Rule of thumb in medicine is supposed to be, do the least harm possible, which means if there's 10 medications for something, you don't start with the strongest one. Microdosing should, [00:47:00] it makes sense in many cases to start with that because it has less side effects, it's less cost, it's less dangerous, it leads less observational problems, et cetera.

And the book basically covers a wide enough range of results so that people are beginning to see that it's not about the symptom or the disease or the physical or mental condition. It's about it, it is, as you pointed out, it's more like sleep. It's more like exercise. And we all know you can mess up sleep, you can certainly mess up exercise.

Nothing is without possible negative effects, but the risk reward ratio is one worth looking at.

Speaker 6: Yeah. What are some of the potential risks in general? Most of the ones I've seen are. Associated with higher doses that can be, sometimes resolved with, people watching what you're doing, set and setting, et cetera.

I know there was some concerns about [00:48:00] psilocybin and some cardiac risks, but there's some debate about that paper, but any thoughts about what are some of the risks associated with it?

Speaker 3: There's a paper, recent research, I think, out of Poland, and they just did one of these computer generated, let's look at everything possible that could be looked at.

And they said, there are several symptoms, there's some headaches, there's some nausea. And I just there's we will talk about tinnitus, which is its own little world. But they said all of the ones that we can see from all the literature that's currently been published is they're transient and have no after effects.

Now there's very few substances you can say that about.

Speaker 7: Yeah, definitely.

Speaker 3: Okay. But again, we're talking about small amounts of a small substance. There is, the only thing that we've noticed is people who have tinnitus ringing in their ears. A number of them say, when I microdose, it's worse

Speaker: people.

Speaker 3: That's people who have tinnitus.

And some people who say, I've never [00:49:00] had tinnitus before, but I'm now microdosing. There is some tinnitus again, what we found in pretty much every case it goes away when the microdosing goes away. People with tinnitus on the whole say, I still have my tinnitus. Some people say, actually, it, it alleviated my tinnitus.

I've, never heard before. The world without my ringing. And other people basically say that. It, it didn't matter. They had it for a while and it went away. So there, there are a couple of things, but nothing nothing serious enough that you put it in bold on the side of the pill bottle.

Speaker: Another one

Jim Fadiman: is a red green colorblindness, and people sometimes have tracers and then there's a, this other thing about things that you're, if you already have them, maybe you shouldn't have microdose. One of them is anxiety. And that sort of depends on the kind of anxiety you have.

We can talk about bipolar, it seems to be fine if people take it in the low part of their cycle. And in terms [00:50:00] of people who have any history of schizophrenia or that sort of thing. We've never actually heard a case, somebody microdosing and all of a sudden they have a full blown schizophrenic fit or anything like that.

Speaker 3: And we have a few cases with schizophrenics that basically say, high doses are terrible.

Speaker: Yeah.

Speaker 3: Doses clear my head.

So that's a, that's just, again, all we have is real life evidence. Because again, when I was worrying and I said to my friends, I see an, in your research you say, but don't use, don't take people with who've had a psychotic episode.

Don't take people with schizophrenia. Don't take people with, keep them out of your study. I thought you must know something. So I wrote them, these are friends, and they said, I said, is there any evidence that these people would have a bad experience? And I got back, usually their papers sometimes underlined in yellow and it basically said, we don't have them in our study.

So I wrote a second round and says, does anyone have any [00:51:00] actual evidence that it hurts someone? No. Is there a good reason not to have them in your study? You bet. Imagine I have someone who's bipolar in my study. Oh yeah. And nine months later they have an episode. I'm blamed. Okay, so science is not quite as pristine and neutral as it likes to be.

Same

Jim Fadiman: thing with the heart valve issue. There's no evidence that it's never right. It's, they have a model that's based on rats and it's a different substance. And we were at a, we were a talk and a guy who's a pharmacologist got up and got really agitated that we weren't taking it seriously enough.

And we're like, if you find evidence, we'll be the first people who wanna know and we'll figure out who maybe should not micro dose based on that. But right now they're just making it up.

Speaker 6: Yeah. Awesome. So I assume the book is most places now or where's the best place that people can find The book

Speaker 3: stores and online are the two [00:52:00] places that we know of.

We're not in we're not in spas yet.

Speaker 6: Yeah. If you go to, it sounds like you're working on it.

Jim Fadiman: If you go to microdosing book.com and you click on the order, it will take you to a page that based on where you live, we'll list bookstores other than Amazon. Oh, nice. Which can find a local bookstore or that's how we recommend.

And also the audio version is narrated by a great narrator, Kaleo Griffith. And because we wrote the book in a question, the answer format audio was perfect for it because you get one chunk at a time and you know that's what you have listened to. And you listen to one question, each question stands on its own.

So people seem to really be enjoying the audio book.

Speaker 3: Yeah. People are actually buying the audio at a much higher level than we would've anticipated compared with most books. So it's really good.

Speaker 6: Very cool. And give us the web address again if people want to report their microdosing experience.

Jim Fadiman: Sure. It's microdosing book one word, [microdosing book.com](http://microdosingbook.com).

It's very easy to find [00:53:00] and it's easy to find word to and anything you anybody posts, it will always be anonymous coming back out from us. You can leave your name if you want, but we will never attach anybody's name to anything we put out there. 'cause that protects everybody.

Speaker 6: Great. And do you guys have any social media or anything else people can find more about all the great stuff you guys are doing?

Jim Fadiman: We're just building a YouTube channel that's in process. It's gonna be fatman and Groover followed by a colon and probably microdosing many cells and more.

Speaker 3: But if you look up, if you YouTube either microdosing or either of our names there's more information than you want. Yeah.

Speaker: And

Speaker 3: if you go

Jim Fadiman: to the webpage where it says events, we have a list of all of the podcasts and talks we've been in, which is now about 20 and links to most of them.

So you'd say, why would somebody listen twice to, the same thing? But, each host is different and has a different focus. And some of them are interesting and some of them have famous public celebrities interviewing us. So it's a lot of fun actually. Yeah.

Speaker 3: We [00:54:00] also have a couple of bookstore videos up there.

If you're curious, what happens when you go and listen to an author because we're very strong on the people in the audience. Their questions matter rather than we pontificate for 45 minutes and then sign books, which is a lot. That's,

Speaker 6: yeah. Awesome. Thank you guys so much for all your time.

And thank you both for all your great work over the past several many decades, and the research and all the stuff you're doing, it's. Awesome to see and it's nice to see that there's actual some data behind this and collection of more data, which will hopefully spur on more people to then justify the research they're doing and everything will just kinda keep doing more and better, which is great to see.

Speaker 3: It's also nice to talk to someone who's knowledgeable and comfortable and a nice role model of you've used these substances in both ways. Totally different [00:55:00] ways. High doses and low doses, and here you are functional.

Speaker 6: Yeah, I'm still functional so far.

Speaker 3: Still boarding.

Speaker 6: Yeah.

Okay. Awesome.

Speaker 3: Thank you so

Jim Fadiman: much. Thank you so much. Appreciate it. Pleasure. Alright, bye bye.

Jordan Gruber: Bye.

A great little actress. Yep. And getting smaller all the time.

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