Dave Asprey (00:01):

You are listening to the Human Upgrade with Dave Asprey.

Molly Maloof, MD (00:08):

It wasn't until I think the last maybe three or four years that even I really started truly tracking my period consistently and doing it in a way that was like, how do I build a lifestyle around my menstrual cycle? I didn't really fully accept that. I was not a man five years ago. I was like, do I literally dated a guy? I dated a guy that was like, he's like, you can do anything that I can do. And I was like, dude, I'm fasting just as much as you are and I, I'm starting to really notice that this is not working for me the way it was before and it was working for a few months and then I was doing it every other day fast. It

Aggie Lal (00:46):

Happens every time. Women over fast, they over keto guys do too. It just takes us twice as long as you to hit the wall.

Molly Maloof, MD (00:52):

Right, exactly. Yeah. I mean, I've met bodybuilders that are men that have definitely messed up their hormones by doing too much cutting. And obviously it can happen to guys, but I think women's bodies because of our biological imperatives are a little bit different. Women are oxytocin dominant. We're designed to help create life and to nurture life. Men are really oppress dominant, designed to protect life and to protect against aggressors, to actually defend the tribe.

Aggie Lal (01:18):

Yeah, there is such a thing as masculine, such a thing as feminine. The energies are different and yes, women can exhibit masculine like you just talked about. A lot of women entrepreneurs are exhausted from putting out too much masculine energy and especially if you watch any modern movie, it's like the way women display power is by martial arts. That's not feminine power. The way I know feminine power and guys, same thing. We can express femininity as well, and so there's a whole conversation there that may go down to mitochondria, but before that, your book is called The Spark Factor and I was really honored that you asked me to write the forward for it. So thank you and first guide. Well,

Molly Maloof, MD (01:55):

Thank you so

Aggie Lal (01:55):

Much. You're welcome. First guide for Biohacking for Women. And I declined your invitation to read the intro because I couldn't do it in the time.

Molly Maloof, MD (02:03):

Really? It was a really busy time in the year. The end of the year was crazy for me. I mean it's funny, this is one of those years that I finally reached. I realized I finally hit the wall of performance and stress where I was like, okay, I finally hit the amount of stress that I can handle before my performance really declines. The great thing about this book is even just rereading it myself, I realized I'm going to even be returning to this book regularly because our bodies are constantly changing. Our demands are constantly changing and our stress levels are constantly changing. And last year was a really stressful year for a lot of people. It was a year of a tremendous change. And what I really want to teach people is that biohacking is about consistently checking in, getting your measurements taken, actually taking a scientific approach to your

body, not just flying blind and just doing things and taking supplements because you think that they're good for you, but because you have data to drive those decisions. It's funny, I'm going to be on Jillian Michael's podcast soon. I'm a little nervous because she's very much about calories and calories out.

Aggie Lal (03:03):

Why are you nervous? You have science.

Molly Maloof, MD (03:05):

What do I say? I mean, I've always been calories and calories out. Actually, the rules don't apply to, we're not a closed system. It doesn't work that way. I think people need new options for health because things that aren't working just aren't. And Christopher Palmer, this new doctor just from Harvard, he just started putting up social media. He just published a book called Brain Energy and I'm like,

Aggie Lal (03:27):

I just interviewed him a couple weeks ago. Oh my gosh. Introduced him to Dr. Guy. He's

Molly Maloof, MD (03:30):

Great. The reason why I love his stuff is because I think we're starting to realize there's a common theory of health and it's all about metabolism. So if your energy flow, if your body is not functioning normally, your brain isn't going to function normally because your brain is very energy, it demands a lot of energy and so does your heart. And this is why I wrote about Covid in the book, and Covid is a very controversial topic to write about.

Aggie Lal (03:51):

So how much of the spark factor is about covid? It's

Molly Maloof, MD (03:55):

Really a small portion, but what it's really about is trying to teach people that if you understand mitochondrial health, you'll understand a lot of different conditions. You'll understand mental illness, you'll understand all the major chronic diseases, heart disease, cancer, diabetes, and dementia. These are what kills us. And you'll actually understand immune system dysregulation, immune system dysfunction, which sets you up for infection. So it's like I wanted to create a book that was a common theory of health. What is this sort of common thread? Because I feel like the medical system has created this ontology of disease that is based on pathophysiology. We're taught about all these different ways that people get sick. But I was in the hospital watching over and over and over again that all these people that I was treating had the same risk factors. They weren't eating properly, they weren't exercising properly, they were stressed out beyond comprehension. They had a lot of trauma and they lived in environments that were poisoning them. And it's like why do those things lead to all these different manifestations of disease? And it's through the mitochondrial dysfunction. And this is what the book tries to teach people is like, okay, if you want to biohack your body, you got to understand how the body works. And it's not simple, but it's certainly not nearly as complicated as what I was taught in medical school.

Aggie Lal (05:08):

You know what? I love getting to just sit down and chat with you whether we're on camera or not, because you get it. And there are some doctors who really see this, but most of the time in medicine you fall into this, if I have a hammer, everything's a nail. And so as someone, it's okay. It's all about even it's

all about mold. Well, no mold's a common trigger of the actual problem, but it's not the only one. And so the person thinks it's all about mold. Didn't see EVV

Molly Maloof, MD (05:35):

Obesity. Obesity is a great example. One of my friends was saying yesterday, she's like, well, didn't you say that obesity is a disease? And I was like, A disease is literally a term for a condition that we have now labeled as something we can treat medically

Aggie Lal (05:50):

Semaglutide anyone.

Molly Maloof, MD (05:50):

Exactly right. Which by the way is a really cool drug. And I'm pretty sure that Elon and the have all gotten super lean on it, which is pretty interesting. And then I just found out yesterday, I was reading on Instagram that k Chloe Kardashian is like, I have not lost weight on ozempic. And it's like, lady, you're tiny. Clearly you're doing something. And it's not just lifting weights. And also

Aggie Lal (06:12):

It probably wasn't ozempic, it was probably the new one that or

Molly Maloof, MD (06:15):

Whatever. Oxid. I'm grateful that we have these tools and how does this thing work? This thing improves insulin sensitivity and glucagon balance

Aggie Lal (06:23):

Makes mitochondria work better, you mean? Oh no, maybe. Oh, it is. I

Molly Maloof, MD (06:27):

Mean, this is the cool thing though. Peptides, the cool thing that I'm seeing in the world is that peptides are becoming medicine. This is a big deal. It's terrible peptides were they're

Aggie Lal (06:34):

Just going to get 10 times more expensive and be illegal in the US or have to go to Thailand to buy it.

Molly Maloof, MD (06:38):

Here's an interesting peptide. I can't pronounce it. PT 1 41. Yeah,

Aggie Lal (06:43):

I love that stuff. I inject

Molly Maloof, MD (06:44):

It a lot. If you get this from a doctor that's a prescription version, it's like thousands of dollars and it's an injection, but you can get it from a compounding pharmacy for a fraction of the cost, like 200 bucks, 150 bucks. Ideally, we want to get medicines that are properly dosed, properly produced, properly regulated in a way that we know are safe. What a lot of people don't realize is that most doctors that are working within the insurance system are basically given a formulary and that formulary says what they can and

cannot prescribe. And that is actually designed by the insurance company. So doctors are subcontractors of insurance companies now. And I get messages from doctors all over the country regularly who say, Molly, things are falling apart and I hate hate. They hate their life. And it's not just that the actual system is breaking down.

(07:32):

And I knew this was going to happen when I was in medical school because I was lobbying for healthcare reform and I was like, uhoh, this whole Medicare reimbursement rate situation is not changing any year I come back every year and they're not doing anything about this situation. And then I was like, well, we're going to just end up seeing a dual system emerge. We're going to have a public option. It's going to look like Medicare and the va, and then we're going to have a private option. And that's essentially what's emerged. But what I didn't anticipate happening was the digital option. Right? About 10 years ago when I started working in tech and we were both in the Bay Area, I was starting to work with startups and I've worked with over 50 companies in 10 years. And that's part of the reason why I kind of got a reputation as an innovator.

(08:14):

But I did it because I needed to fund building a practice from scratch. And I didn't know how. So I was like, maybe I'll go talk to startups and teach them about how healthcare system works. I've been working in healthcare since I was in ninth grade. And so I started working with all these companies and I was like, oh my God, there's going to be a tsunami of innovation happening from technology companies that's going to just engulf medicine. And it's basically we're seeing all these companies basically go to direct to consumer. They're building these physician networks, they, they're doing all these online prescription products and experiences. It's not always good. I mean, obviously that one company that did Adderall prescriptions is kind of in trouble with the government who knew that selling. I actually talked to one of these investors who is investing in the company. I'm like, you do realize that this is just a drug deal?

Aggie Lal (09:01):

You could just invest in the pirate ENT anyway. Yeah.

Molly Maloof, MD (09:05):

But it's funny because I think we're entering a phase of really people are looking for truth and the truth is coming out. I mean the Twitter files, I mean all of this stuff is coming out.

Aggie Lal (09:15):

Can I say something really bad? Sure. Adderall actually works.

Molly Maloof, MD (09:19):

It's an amphetamine.

Aggie Lal (09:20):

It's a horrible drug, but it works. It totally

Molly Maloof, MD (09:23):

Works to increase stress hormones mean if

Aggie Lal (09:24):

You're going to crash the helicopter, you're flying, you should take some Adderall because then you'll stay awake and no one will die. Except you'll want to kill people more, so you might shoot them, which is why they switched to Modafinil for the government, which works better than Adderall. And I took it every day for eight years, but I'm on it today right now. Interesting. So it's okay to use pharmaceutical enhancement as long as the benefits greater than the cost.

Molly Maloof, MD (09:45):

Totally. And you really were one of the first people to start talking about nootropics openly. Oh yeah. You were the first. Everybody was like, what is, I

Aggie Lal (09:52):

Took a lot of hits for that. That's unethical. I'm like, yeah. What do they call the guy at the bottom of the class at Warden who gets his MBA? I don't know. MBA he smart jokes to get to the bottom of my class, I win. Yeah.

Molly Maloof, MD (10:06):

Well, it's funny, when I was in medical school, I was basically somewhere in the middle of my class and I had really bad test anxiety and I went to a psychologist and I was like, alright, I'm miserable. I don't know if I can do this. And he's like, look, you're not depressed, you're not anxious. You don't have any diseases. You're just a stressed out medical student who's not taking care of herself. So I was like, oh wait, so this is my responsibility. And he gave me the biggest favor he could have ever given me. Instead of giving me antidepressants, he was like, Hey, you need to take care of your body. And I wasn't wow long. I wasn't doing that long was, I mean, this was medical school, right? 10 years ago or something. This was probably, I don't know. I graduated in 2011, I think. Okay.

Aggie Lal (10:44):

So yeah, 10, 12 years ago. That's really progressive. That's so impressive.

Molly Maloof, MD (10:49):

But what I did from there was I said, okay, I'm a scientist. I'm going to go into the science. What do I need to do to change my health? So I started doing yoga. I stopped. I was coming drinking mugs of espresso. It was not normal.

Aggie Lal (10:59):

You're supposed to do bunch of America,

Molly Maloof, MD (10:59):

Maybe just a little espresso. It wasn't like a mug. And I was doing allnighters. I wasn't exercising. I was super sedentary. I was super isolated. I was doing everything wrong with my health because I was trying to study and get the grade and I was not performing. I was not performing at my best. So I changed my lifestyle. I started doing yoga. I stopped doing all-nighters. I've stopped drinking so much coffee. I stopped eating raisin brand for fruit for meals, which is I started eating real food. I started spending more time with my family, my friends, and my grades started to go up. My performance started to improve, my mood started to improve. I had more capacity, I had better performance, I had more productivity. And I went from average on my first board exam to 99th percentile, all my second. And nobody does that in medical school.

(11:44):

And all my peers were like, did you cheat? And I was like, no, I didn't cheat. I just changed my lifestyle. That's cheating. And they were like, well, what did you do? And I was like, look, I'm not just going to tell you what I did. I'm going to teach you. And so I recruited 10 doctors and I was like, Hey, will you help me teach health to my peers? This is not part of the curriculum. And in medical school, I was at the largest medical school in the country and there was not wellness in the curriculum. They weren't teaching sleep, they weren't teaching fitness, they weren't teaching nutrition, they weren't teaching integrative medicine, they weren't teaching mind body health. They weren't teaching relationships. And all this stuff was fundamental to health. And I was like, I'm going to create a course. And so I got it added to the curriculum and I ended up winning a bunch of awards for this. That's so cool.

(12:25):

I was like, how is this not part of our education? A medical student shouldn't be the one bringing this to the curriculum. This should just be baked in. But our curriculums are largely designed by pharmaceutical incentives. So almost everything we were taught is how to diagnose disease and what to treat it with and what do you treat it with? You treat it with drugs and surgery. And don't get me wrong, I've had surgery and I've taken drugs and they've certainly helped in certain cases. They're awesome. I take a little bit of thyroid medicine, a very small amount, and it's great.

Aggie Lal (12:52):

I take a relatively large amount. It's even better go. It's awesome. There's nothing wrong with using medical technology for biohacking, and I'm so glad you said that. Yeah, because a lot of people, and I feel like more women than men, they're purists. I would never use a drug. I'm like, that's ridiculous. You should use a drug.

Molly Maloof, MD (13:07):

Well, lucky do have drugs. Some of these drugs are life changing, but we shouldn't depend on them completely and we shouldn't be replacing using them instead of lifestyle changes. That's one of the things I've been trying to hammer into my family members. I'm like, yes, you can take these medicines, but we really got to do all these other things too. Have you seen this woman train with Joan on Instagram? I haven't. She's like got to be in her seventies and she went from typical overweight, middle-aged woman to being fit as fuck. She is strong, she's a bodybuilder and her body's incredible. And I'm like, I think now people are realizing we don't need to age the way our parents did and our grandparents did. We can get stronger as we get older. Well, there is this argument about, I'm really kind of blown away by just how much of a controversy fasting is.

(13:54):

I took out about four different sections of when it comes to fasting, I have a whole program of how you start with ketosis, whole foods ketosis, cutting back on snacking, intermittent fasting, and then going into longer fast. And I cut out all the prolonged fasting stuff because I was getting shamed by people who were like, you are going to be ripped to shreds for recommending this to women. And it was really just this realization that there's this, even Walter Longo who is supposed to be the father of fasting, is now cutting back on his statements on

Aggie Lal (14:26):

Fasting. He's funny because I asked him about that. Have you had him on your show? So I asked him about that a while ago and he's like, well, that's what the mice did. So that's what I'm going to do. And the bottom line is fasting for a long period of time every day. It doesn't make a lot of sense, but you can look at people like Mindy Pells fast like a girl, and there's room for looking at fasting as a tool, but just doing Adderall every single day is probably really bad for you. So is fasting every single day. We

Molly Maloof, MD (14:52):

Also need to think about are you insulin sensitive or not sensitive or not? Do you have insulin resistance? Do you have metabolic dysfunction? Do you have prediabetes or diabetes? Do you have polycystic ovarian disorder or are you underweight undernourished? Did your period stop because you have red S like relative energy deficiency of sport. Fasting is like a tool in the toolbox that you need to use for your life and you may not need it if you're young, fit, healthy, fertile, you may not need to do a lot of fasting, but as you're hitting menopause and you're noticing your metabolism is shifting, I find women that are going through perimenopause doing some of these short-term fasts are really helpful for maintaining their weight.

Aggie Lal (15:31):

It changes their whole life and their energy comes back and it's magic. And if those women went vegan, they'd feel great for a month and then hit the wall. Oh,

Molly Maloof, MD (15:39):

I did veganism for a month and it definitely hit the wall and it was like did not work for me. But I do think that there is something to be said about different body types and I think I'm a more of a mesomorph, and I definitely lean a little bit more paleo primal than anything. I'm not really into grains. I do some beans occasionally, but not a lot. But I think we're entering a phase of deep personalization of nutrition. We have more tools than we've ever had before. And this sort of dietary dogma stuff to me, I'm just like, I'm kind of sick of hearing about carnivores. I'm sorry. I love meat. I eat it, but I love vegetables.

Aggie Lal (16:13):

I actually think that the carnivore diet and the vegan diet do very similar things over time and they

Molly Maloof, MD (16:20):

Eliminate a lot of processed foods unless you're a vegan who eats processed foods.

Aggie Lal (16:24):

I did about three months of carnivore when I was testing the edges of the Bulletproof Diet back in 2012 or something, and I gave myself leaky gut and gave myself an egg allergy and I felt amazing. And I was doing 4,000 calories a day too, and not exercising. I was trying to gain weight and just to show this diet was

Molly Maloof, MD (16:42):

Superior, it's so thermogenic

Aggie Lal (16:43):

And I felt so good and I ended up doing it for that whole time. And at the end of it, I was waking up sometimes 40 times a night without knowing it on my sleep monitoring. I used a Z back then. Oh wow. And I'm like, oh, that's funny. It was great in the short term and it breaks you in the long term. And that's why I'm like, guys, you need to have some less inflammatory plants and have some carbs in cycle. And that's where carnivores like, oh, I do carnivore except I eat fruit and honey and dairy products. I'm like, that's

Molly Maloof, MD (17:12):

Not, I love non-starchy vegetables. I love making veggie purees and soups. Yeah,

Aggie Lal (17:16):

I do too. And that's not carnivore if you're eating fruit, I'm sorry. That's another thing. In fact, it looks a lot like the original recommendations I had, which was cycle You eat grassfed meat cycle, have some carbs, don't have some carbs, and so you don't have to have a name. And some people need more carbs than others. I think there is an argument that says if you eat grains and you eat legumes that you will be mineral deficient almost by definition because of phytic acid there. That's why Danger Coffee has all the minerals and all. Yeah, my

Molly Maloof, MD (17:45):

Coffee is great, by the

Aggie Lal (17:46):

Way. Oh, thank you.

Molly Maloof, MD (17:47):

I mean I go back and forth on and off of coffee, my cortisol levels, but when I'm on it, oh my God, it's just like jet fuel. It's free. We're on it right now. I know I'm loving this. I measure my cortisol in, I think it was after Burning Man, and I remember saying, oh shoot, my cortisol is way too high. So I had to cut back on the coffee. But I definitely go in and out of mud water versus coffee and in your coffee's. Awesome. Oh, thank you.

Aggie Lal (18:16):

There's a huge number of women, I'm going to call them with great respect. Our wise women. You might also call them elders, but literally we need our elders. I learned all of biohacking from people in their seventies when I was in my twenties. That's why I can do what I do. So women in menopause, how much of your book talks about them?

Justin Lehmiller, Ph.D (18:38):

I didn't actually focus much on menopause because when I originally wrote the book, it was 600 pages. I wanted to include everything. And then I got a little hint of this is not a textbook. And I think a big part of, we talked about in my podcast, and you made me cry when I said that because I'm not a doctor and I think this had this deep rooted belief that my sister was the smart one. I was trying so hard to make this book. I know my shit. So I wrote 600 pages of I Know Everything. And people are generally like, okay, ag, no one's actually going to read it. This is a textbook and if you want to write a book, it has to be more of a storytelling. So what's your goal? My goal was, which I shared with you earlier, to get biohacking into mainstream, it's like that's why this whole thing of why bestie? Because I was like, okay, people know the science and where to find it. You can Google it, you can come to your podcast, they can read your book, but

Aggie Lal (19:33):

Google successful of medical information at this point. You can't Google it, but you can use any other search engine.

Justin Lehmiller, Ph.D (19:40):

And so I realized that it's like, okay, how can I make it as simple as possible? And that was really hard. Even right now when I sit with it, I was like this deep fear. I was like, is this book, it's all covering everything I wanted just because it's already 300 pages. I wanted to keep it not overwhelming. And I say

that in the book, an overwhelmed woman doesn't buy a hack, A confused customer doesn't buy. And I think people want to stick too much information. They don't do anything. And so I think maybe the next book would be definitely would include those women. I started to buy a hack, my mom,

Aggie Lal (20:19):

Will you work on another book for women who are either in perimenopause or menopause?

Justin Lehmiller, Ph.D (20:26):

Actually. So it's funny that you say that, but I have an online course and we just extended to menopause because that has been the biggest feedback. Women are being told it comes from lack of fertility, then they're being told that they can't get pregnant. I send them to your book. And then a lot of them in their late thirties already have signs of perimenopause We're entering at Wener. Yeah, very, very common. And so I was like, oh, well it's kind of my age group already. And so the more we can delay it, the better. And so we started, I have a science team that's helping me research certain things and I was like, oh, there's actually so much you can do. But one thing at a time, I focus on how to live according to your cycle, then I'm going to have a baby and then I'm going to focus on

Aggie Lal (21:17):

Maybe the next one quality. And I've had several just top notch experts on women's hormones and perimenopause on the show. I'm thinking Sarah Godfried, Anna Quebeca come to mind.

Justin Lehmiller, Ph.D (21:31):

Oh, I love Anna

Aggie Lal (21:33):

And many others,

Justin Lehmiller, Ph.D (21:35):

But I don't know if you know. So those who don't know the story, me and Dave, I lived in Santa Monica for about five years. So I would walk to Bulletproof Cafe and upgrade labs cafe it's called now.

Aggie Lal (21:51):

That's the sign from the cafe behind me on the wall. We sit the cafe down and yeah, that's the sign. I'm

Justin Lehmiller, Ph.D (21:55):

Good. I moved out. I'm now in West Hollywood, so I don't care anymore. But it used to be my thing. And I even looked, I remember to that point, I was so obsessed with book, with coffee and the vibrating plate that I remember when I was sitting there and I was like, I need to find an apartment walking distance from where I am. And I did and we're like two minutes away. And so I would run into you and be super shy, but I was just like, hi Dave, I love all your books, dah. And then we ended up meeting at an event, and I don't dunno if you remember, but once I got ahold of you, I was like, Dave, I want to have babies later. How do I delay my perimenopause? I was the first question about it. I was like, now that I have access to you, that was the first question I asked. It was really, really interesting what you shared.

Aggie Lal (22:42):

It's kind of funny because I'm a fat computer hacker formerly, and people are like, well, what business do you have as a nonmedical professional, cis white male to talk to women about their health? And to that, I usually just say, how dare you label me without asking, which makes me laugh,

Justin Lehmiller, Ph.D (23:03):

Which triggers them even more. Of

Aggie Lal (23:04):

Course not people who are actually interested in the answer to the question. But the reality is that the mother of my children couldn't have children and I really wanted to take care of her to the best I could, which is something a lot of guys like to do to take care of the women in our lives. So I learned and I studied and we had kids as a result of all this biohacking and fertility and all that

Justin Lehmiller, Ph.D (23:25):

That are healthy and beautiful. So

Aggie Lal (23:30):

It's a thing, men and women do it together and we can support each other in biohacking. Now, here's a part of that. What can men do to support the women in their lives, in their biohacking better?

Justin Lehmiller, Ph.D (23:44):

First of all, understand what cycle is. So a lot of times a big part of what I do is teaching women about their cycle. And the number one feedback from men is like, but what about men? I'm like, why can't you learn about your woman's cycle? You're most likely going to be with a woman and the relationship wouldn't be your superpower to know what, there are only four phases, not that complicated. Nothing harder than a guy educating a woman about her cycle. I'm just like, Hey babe, is that day 21? Ooh, how about we just slow down today?

Aggie Lal (24:18):

I thought, how about I hide today? But okay,

Justin Lehmiller, Ph.D (24:21):

That's like day 26. But what we actually do is, my wildest dream is we were working on an app for men, which would link to female. So basically as a woman, we're going to have cycle busty, which is going to help you track your cycle. And then men will have a mirror app. So they will see the day that the woman is in and they will be able to see exactly what day she's in and how, what's the best way to support her.

Aggie Lal (24:49):

Have it send a text message to the guy every morning that's like, watch out today or do this today. Yeah,

Justin Lehmiller, Ph.D (24:54):

That's the plan.

Aggie Lal (24:55):

We would love to have that. And it's kind of funny

Justin Lehmiller, Ph.D (24:58):

Restriction manual for your girlfriend. Actually,

Aggie Lal (25:02):

My girlfriend was like, because kind of dating someone in case you didn't notice, but she actually was like, you're getting an app to track my cycle. And I'm like, this is such a cool thing. So, so I want to know because it totally directs how I communicate with her and what I plan. Right. So it's actually really cool. So that's one thing we can know your cycle. And by the way guys, if you don't want to have kids, knowing her cycle is pretty important because there's really about five days that women can get pregnant the rest of the time. No, and unfortunately, or fortunately, depending on whether your mother nature or not, during those five days, women are insanely attractive and insanely horny because when you're ovulating, you're like, I need it. And guys are like, why is she so attractive? And then that's why half of unplanned pregnancies happen. So if you know about that, if you want babies, that's the time. If you know about that and you don't want babies, you could practice extra care during that time.

Justin Lehmiller, Ph.D (25:58):

Yep. So that's basically the vision for bestie, which is helping getting men on board. It almost feels like for a woman, it's our job and we need to figure it out. And it's almost like in silence and almost in shame. When I ask a woman, I dunno, a single woman who ever walked through the restaurant holding her tampon without hiding it, we all need to change the tampon when we got for dinner. And it's always deepen the sleeve and we're always embarrassed. And I was like, why don't we just own it? But why is it just considered shameful or embarrassing to go change your tampon in a restaurant or in a public place? And so I think we're entering this new era where men are huge to celebrate women and want to know more.

Aggie Lal (26:48):

Couldn't women just take the birth control pill so much easier?

Justin Lehmiller, Ph.D (26:52):

Yeah, no, I think it's a great idea actually, now that you brought that up.

Aggie Lal (26:57):

Tell me, talk to me about biohacking for women and the birth control pill.

Justin Lehmiller, Ph.D (27:02):

So we're not here to judge people for their choices. I know that sometimes birth control can be the best thing that you can do all in situation ships or other things that are not serving us and the goddesses that we are. But in reality, I was never informed about the side effects of birth control. And that's the biggest thing. As long as it's an informed decision, you do you, it's your body. But my decision about taking birth control was not an informed one. It was just presented as a candy or kind of like, oh, you're not going to have a period. This is great. No one made me understand that ovulation, our A superpower, we actually get stronger, our bones get stronger.

(27:49):

It helps us with insulin resistance during ovulation. So also we're more attractive and we're more likely to get a raise at work. So you're losing on all of that. I mean, there are studies for that. So no one ever told me like, Hey, this is the birth control. You're not going to ovulate for years, which means that your body won't regenerate naturally every month. And so that's a big one apart from the fact that synthetic birth

control makes a lot of women depressed, suicidal. It did for me and Ricky who came on my podcast created such a beautiful documentary, the Business She

Aggie Lal (28:30):
Was, she's

Justin Lehmiller, Ph.D (28:31):
Coming on my book launch.

Aggie Lal (28:33):
I met her at Burning Man years ago, and that's how I got her on the podcast.

Justin Lehmiller, Ph.D (28:37):
Yeah, she's so good. She wrote a little endorsement for the book because she's like, yeah, let's just get the women off birth control. I'm like, yay. But also, I totally get it. It might not be the solution for every single woman out there.

Aggie Lal (28:50):
Maybe not every single one. I think it's one of the biggest crimes against women is hormonal birth control.

Justin Lehmiller, Ph.D (28:59):
100%.

Aggie Lal (29:00):
Having access to birth control is absolutely necessary, and I think it's a human right, but selling something that increases risks of all kinds permanently and changes your psychology and changes your mate selection without doubting you, that is unethical. And so throughout the course of my life, I've been familiar with this for a very long time because of my work in longevity, even in my early twenties. And so whenever I was dating someone, I like, you know what? I really care about you, even though we're not going to have any kids, I would really like for you to be as healthy and as powerful as possible. Let's look at the literature and see what happens. And they're like, I didn't know I was doing this to myself. And I'm like, that's great. It's your choice. And then if they go off birth control, then I smell different, then they break up with me. Oh wait,

Justin Lehmiller, Ph.D (29:47):
It is a thing. I don't know if it was true for you, but it is a thing. Even co-producer Abby Epstein's had that situation where the moment women get off birth control, the pheromones change, and they no longer attractive. One thing that, because my question was like, let's get women off birth control, but the question is

Aggie Lal (30:07):
Hormonal birth control. Birth control, hormonal birth control, not good. Yeah.

Justin Lehmiller, Ph.D (30:10):

Yes. Thank you for correcting me. That's right. And so we were thinking, what can I do? Because the reason why we're on birth control in the first place is not because we can get pregnant for only five days. Most women have very irregular periods, and so it's really hard for them to track those five days and that ovulation window changes. And so one of the big missions with the book is to help women support that cycle. Naturally. I'm working with Sean well on the supplement that will work on female mitochondria to actually help you get your period way more regular.

Aggie Lal (30:49):

All mitochondria female,

Justin Lehmiller, Ph.D (30:50):

Are they? No, no, as No, no, no. I just meant for women. I was like, wait,

Aggie Lal (30:57):

I'm teasing it. But mitochondria always passed down from the woman's line. There's like seven women who have all mitochondria on the planet. They're the great great or nine nine women.

Justin Lehmiller, Ph.D (31:07):

Oh, no way. I didn't know that.

Aggie Lal (31:08):

The nine Daughters of Eve, that tracks the source of mitochondria for all humans.

Justin Lehmiller, Ph.D (31:13):

Oh, I didn't know that. So we're all kind of related

Aggie Lal (31:16):

Or not, but it's only the women pass on mitochondria guys, we don't get to do that.

Justin Lehmiller, Ph.D (31:19):

Oh, interesting. Yeah. So that's basically what we have been working on. I realized for most women with the amount of toxins that we're consuming, they don't have regular periods. They will get pregnant if they just rely on tracking their cycle. And you have to really actively detoxify. And I got annoyed. I just posted, if you're using drugs or makeup and not detoxify actively, it's probably not a good idea for your hormones. And there's a skincare expert that said, no, no, no, all skincare is good for you. And I was just like, the mainstream is information is driving me crazy. It's just mad.

Aggie Lal (32:04):

It's so broken in the mainstream. And I still feel like we're encouraging women to cut calories, to lose weight. What happens in a woman's body when she under eats calories and exercises?

Justin Lehmiller, Ph.D (32:20):

I think even if you don't try to lose weight, the message is so strong for women that I shared with you on my podcast that we undereat just because we think it's more feminine, just smaller meals, smaller bites, avoiding steaks or meat. I think we not only don't eat enough calories, we don't eat enough fat and enough protein. If I look at, I worked with so many women right now and it's incredible. It feels like, can you

write down everything that you ate today? And it's usually just processed carbs or carbs and sugar, very little healthy fats, very little protein. And so we scared to eat normal meals because of societal standards and just like, I'll just have a smoothie or I'll just have a latte and I'll be fine. So I think it's just like there's a lot healing that needs to happen because the moment we don't have enough calories, we not only have massive hormone disruptions, there is a big psychological refeeding syndrome that happens as well when we just basically start to eat the yo-yo diet.

(33:37):

So you under eat and then you have a very unhealthy relationship with food where you will get hungry after a while and let them GH grow and gets all confused. And all of a sudden I had that. I could never feel full on a vegan diet. I was just like, I had to tell myself, okay, time to leave the kitchen, but I could never feel full. And I always felt hungry. It's like it was so hard. And there's this moment in the book where I mentioned that I was listening to your interview with Dr. Mike Hyman and you said, if you can't fast for 12 hours, you don't have metabolic flexibility. And I'm like, what? What's that? I remember thinking, I try fasting for till 12, and I was just like, oh my God, I feel like I'm dying. How can people do it every day? And so that was a big turning point actually, that interview of yours and you saying that, I was like, oh shit, maybe my diet isn't that good because genuinely I had stomach pains I couldn't go without.

Aggie Lal (34:46):

Oh yeah. When I was a vegan too, I bought bowls as big as my upper body to try and get enough salad in there and I would just chop up all these vegetables. It was ridiculous. These giant red salad bowls from one of those, I forget the name of that fancy kitchen place like Williams Sonoma, and I'm like, it takes so long to chew that much food. I'll put it all into a blender and I'm doing a gallon of blended veggies with coconut oil and all that other crap in there. And I was never full. Just constant aching hunger. I think that women, that creates more stress in women's bodies than it does in men's because you're more sensitive to a lack of calories. Lack of nutrients because it affects your monthly cycle. And for guys, it affects longer cycles. Does that real?

Justin Lehmiller, Ph.D (35:38):

100%. And I think even up until this point, we still get shamed for eating full meals in a restaurant when sometimes my fiance loves, prefers sometimes a sweeter breakfast. So he would order waffles and I would order a steak and the waiter comes, it's like, oh, steak for me. He's like, oh, wow, such a small girl, and you eat so much. I don't give an F. But most women, men get a little intimidated by it because it's so common. You waiters

Aggie Lal (36:06):

Actually say that. Really?

Justin Lehmiller, Ph.D (36:07):

Yeah, yeah, yeah, yeah.

Aggie Lal (36:09):

Women just be such an ugly waiter and there's nothing you can do about it or anything like that. It just feels like there should be a smarmy response to that.

Justin Lehmiller, Ph.D (36:16):

No, but if you're a woman in your twenties and thirties, I'd say you probably have to eat a little bit more than your boyfriend. You have so much more at stake. Your fertility is at stake. You need that fat. I was like, I just don't understand. If anything, we should normalize women eating more, not less.

Aggie Lal (36:34):

I have never been attracted to women who only eat two bites of salad. You know what they do? They eat half my steak. Oh, I'll just have a bite. And I'm like, well, I actually needed two steaks and I only ordered one. I was being polite. And now I just ordered. I'm like, Hey, can I have the steak? And then another side of steak on the same plate, and they're like, what? I don't want all the other crap beans or whatever. Just put two steaks on a plate and whatever veggies I actually want to eat that you serve, which isn't probably that many. And I've done that on dates too, and I'm like, sorry, I'm going to eat the big steak because I don't have the brain and body that I want if I don't eat enough steak. And if that's an issue, it's probably not a good match. Fortunately, I find

Justin Lehmiller, Ph.D (37:18):

That eliminates 80% of women in the US for you. But it sounds like you're happily in a relationship. I

Aggie Lal (37:24):

Don't think it does. I've been on a good number of dates. Maybe it's because a function of who I am in the world, but I can't imagine a guy being bothered by a woman nourishing herself. And if you're a guy and a woman you're seeing actually wants to eat and it turns you off, dude, get a therapist. Seriously, you have seated psychological issues and you need to deal with those right now.

Justin Lehmiller, Ph.D (37:54):

I mean, because I think it comes the hunger for life and that I think a lot of boys or men, children are intimidated by strong women. And there's something powerful about eating a good meal. It's claiming your power back and just saying, Hey, I'm hungry. I'm going to eat. And I think a lot of men can be intimidated by it.

Aggie Lal (38:16):

I guess we'd have to bring on men of different ages and perspectives to know if that's real. It's funny, there's this balance.

Justin Lehmiller, Ph.D (38:25):

Me in my twenties, riaa. I think it's very different now because it's like people are waking up. But 10 years ago it wasn't exactly the case.

Aggie Lal (38:34):

I think 10 years ago we had more of that. And there's a difference between a healthy woman and then an angry woman.

Justin Lehmiller, Ph.D (38:43):

Yes. Oh, let's talk about that because that's actually,

Aggie Lal (38:47):

I spend a lot of time, I hang out with people of all different ages. I have a bunch of friends in their thirties, mostly because they have much better parties than my friends in their sixties and seventies. No offense. Some of my 60-year-old friends are really good partiers, but I'm somewhere in the middle of that range. So when I'm talking with them, women are clear. And we have been for whatever, hundreds of thousands of years, men are generally a physical threat. We're bigger. And most women I know have had at least one really negative experience with a man who was stronger. And so totally acknowledge that. And many, many men have had an experience of having their character assassinated. Basically an angry person who had a vendetta who was willing to lie. So guys are afraid, can't ask her out because she might've been educated that if she felt uncomfortable and asked her out that it was harassment, I know a place they were teaching this in a school.

(39:44):

So guys were like, if I say the wrong thing, I can have my, I could lose my job and my reputation. So they're walked in and women are like, I could have my physical safety and they're locked in. So then it comes down to learning how to feel safe in your body if you're a man and if you're a woman. So then you're like, oh, I can feel someone who feels safe and I can feel that I feel safe. And then you can have a conversation and like, Hey, would you be interested in talking about going out sometime? And if they're like, no, then they didn't feel threatened and you didn't feel threatened and we're all good. But I think that takes growing up. What

Justin Lehmiller, Ph.D (40:18):

Do you think? No, and I actually mentioned that big part of why we store fat. It's not feeling safe in our bodies. It's really, it's a big safety suit that we put on. And so when we don't feel safe, we project that sense of unsafety onto everyone around us. And everyone is a potential threat. And a lot of women live in that state. I have been harassed multiple times. Once with a knife in Brazil recently in Bali, walking late at night. Yeah,

Aggie Lal (40:49):

You're not a big person. What do you like four feet tall?

Justin Lehmiller, Ph.D (40:52):

Pretty much. It's so interesting was actually, it was a missing part of the chapter in the book. And I was recording a voice note because sometimes I go for walks and just voicemail what I want to say because I have such good ideas. And then when you said about laptop, it's not exactly doesn't flow every time. And I was recording your voice about all women and the feeling of safety and how so much more important for us to nurture that, not rely on our partner. I think then we're just in a very codependent relationship. You need to find that safety within you. And then this guy comes up and he starts harassing me on a bike, which was super intimidating, but it's all on the voice notes. Oh, wow. Yeah. And so I actually sent it to my fiance after. I was like, you won't believe it. As literally as I'm leaving this voice, not it's there. But that made me realize how. And then doing AYA and just kind of having this realization that we live in this feeling, we feel like pray a lot of times. And that makes us feel like we're constantly running from, instead of kind of just stopping and just like, okay, cool, I need to own that feeling.

Aggie Lal (42:04):

If you over fast or if you just are going through aging in women, low libido, talk to me about why that happens.

Mary Claire Haver, MD (42:15):

So many reasons. So low libido is multifactorial. I tell people, imagine walking into a cockpit of a plane and looking at all those buttons and dials. So it can be relationship. If you don't like your partner or you're not attracted to your partner, that has a lot to do with it. Neurochemistry, if we have too many inhibitory signals in our brain and not enough excitatory signals, hormones as we age are ovaries produce less and less testosterone. There was a consensus statement two years ago that testosterone is key and vital for women and all the domains of sexuality, our lifestyle, you're working third shift, he's working second shift. You have young babies in the bed, medications, illness, stressed. You're stressed about money, you're stressed about the pandemic. There are so many things that can interfere with sexuality. And the truth is that one out of every 10 women struggle with something called HSDD, right?

(43:17):

We changed impotence to erectile dysfunction we call low libido, which I feel like blames women hypoactive sexual desire disorder. And one out of every 10 women suffer from it at some point in their lifetime. And we have to decide when they need treatment. And as of 2015, there were zero treatments on the market, none for women. And now we have two that are F FDA approved. And then we have a few that are off-label treatments, meaning they're indicated for something else. But there's FSFI data, female sexual function index data proving that libido does increase if you prescribe these medications.

Aggie Lal (43:59):

And these are, they've stopped naming medications that you can pronounce adi, A-D-D-Y-I and vii who names these things. So I can say vii, adi, what is that

Mary Claire Haver, MD (44:13):

Addie?

Aggie Lal (44:14):

Addie? Is that how you say it? All right, Addie. So I have never experienced the effects of these drugs because Lana doesn't use 'em. What are they? How do they work?

Mary Claire Haver, MD (44:25):

So they work on different neurotransmitters in the brain and basically they increase signals and decrease inhibitory signals. And they did a fascinating study where they took women who were struggling with HSDD women who weren't showed them erotica IE porn and then put them in MRI machines and watched the neurochemistry. And what they saw with women who were struggling with HSDD is the parts of their brain that say, yes, I want to have sex, or Yes, I'm going to eat that cake. Were very quiet. And the parts of their brain that told them no, were very active. And the opposite pattern, women who weren't struggling with their lido and both. So these medications work under our chemistry and which is really nice for patients who can't have hormones. ADDIE is every night regardless of whether or not you want to have sex. So it's not the female Viagra, it's not on demand. VII is an injection given at least 45 minutes before you want to want to have sex. And it is on demand. So they both work differently.

Aggie Lal (45:33):

Can you take 'em together?

Mary Claire Haver, MD (45:34):

No, that's okay.

Aggie Lal (45:36):

It's one or the other.

Mary Claire Haver, MD (45:38):

Yeah, it's one or the other. And then I oftentimes will add testosterone depending, but the side effects are both different. Some are contraindicated for certain patients, but basically adding met clinical guidelines or endpoints as far as increased number of sexually satisfying events. So no more checking a box sex or keeping the peace sex in the marriage, decreased distress about your sexuality and increased desire. So that's really, really nice. And some of my patients who are like, Dr. Jabba, you have to fix this now. Abby can take six to eight weeks to work. No, I'm serious. They'll come in and be like, listen, I'm having a save the marriage weekend. And we're like, okay, well then I can't give you this medication because it'll take too long. And so I'll prescribe by LEI because that works immediately. Both drugs have side effects. Both drugs have non-responders. So face setting expectations for patients. But it's a travesty because ADDIE took six years to get FDA approved. Viagra took six months, men have 26 options. Women have too. And so it's been an interesting journey with the FDA and to even get solutions out there that you can prescribe for patients.

Aggie Lal (46:54):

Let's talk about something that's going to be more likely to help listeners right now. And that's hormone replacement therapy. What's your take on it? Should women, I'm a fan. Be replacing it. You're a fan. Alright. I'm

Mary Claire Haver, MD (47:07):

A fan. Yeah.

Aggie Lal (47:08):

What about all the risks? I mean, people talk about cardiovascular, breast cancer, dementia, stroke, all these bad things that might happen if you have a young person's health.

Mary Claire Haver, MD (47:17):

So if you, here's what the latest data has shown. The American Heart Association just came out with a review. They looked at the WHI, the women's health study, the nurses study Framingham and follow those patients out for 20 years. And they took two cohorts of people and they said, all right, starting young, starting healthy. There's something magical about estrogen being protective. If you start later, like late fifties, sixties, then it may exacerbate preexisting health conditions like Alzheimer's dementia or cardiovascular disease. But if you start young at the very, if you don't have an estrogen free interval or very small one, the women who were on hormone therapy in the form of estrogen plus or minus progesterone versus those who weren't, and we follow them, have less cardiovascular disease, less death from cardiovascular disease, less all cause mortality and less mortality from cancer. So that's what the, it's an issue of timing seems to be it. So as far as what kind of put in your body, I don't recommend Premarin, which is from pregnant Mary urine. I don't do synthetics. They still make that. They do. It's heavily prescribed. Those are

Aggie Lal (48:31):

People you don't need to do that to pregnant.

Mary Claire Haver, MD (48:32):

Mary. I say, look, I have an ethical issue with this. I have great options for you that are completely, I go with what your always used to make, which is estradiol, that that's my drug of choice. And so I have lots of options. I usually stick to a transdermal option because oral will bump up the clotting factors. So about seven out of a thousand women will have a blood clot on oral versus transdermal. So I usually go with a transdermal option, a patch, a cream, whatever her insurance will cover. Or if she's out of pocket, we get out the apps and we start looking for the best affordable option for her. And then if she needs progesterone, again, I'm trying to get as close to what the S used to make, and that's going to be a micronized progesterone.

Aggie Lal (49:14):

Do you find it offensive that insurance companies have anything to do with this?

Mary Claire Haver, MD (49:19):

Absolutely. Every day I fight this battle and it makes me insane. The same with testing, the same with blood work. It's like I decide a patient needs X, Y, Z tests based on my clinical experience and my level of expertise. And it is a battle. So in the clinic that I built for menopause, I don't take insurance. I try to keep the cost reasonable. I cover the labs with their visit costs and then I have the freedom to order what I want to order. I also contract with a lab to get better pricing. So I try to keep the costs down, but my patients are so happy because they're getting individualized care this way.

Aggie Lal (49:59):

And there's so many connections between the insurance companies and big pharma where that's why Premarin, which is horse ma urine, that provably causes problems when women use it, that that's still on the list because it's covered by some insurance companies somewhere. I'm getting a lot of questions from our live audience. And by the way guys, if you're listening, you can go to dave aspr.com and you can sign up for the upgrade collective. You can be in the live audience and ask questions and all. And it's really fun because we have this whole community of people who are part of the collective and a lot of them are asking, alright, Dave, me, Claire just kind of dropped a bombshell there saying that if you've been off of hormones after menopause, that maybe starting isn't a good idea. How long of a gap is too long?

Mary Claire Haver, MD (50:48):

So that's a great question. We just don't. So when they looked at the WHI, which was the original study that kind of left a generation of women bereft because of flawed science, the average age in that study was, I believe 62 or 63. So they were starting women on hormone therapy. So the average age of menopause is 51. So more than half of these women had been menopausal for over 10 years. And so that's when I start counseling patients. Look, they come in in their sixties, never been on, never offered hormone therapy. They come in, they're interested in the discussion. I'm like, okay, well let's look at your risk factors. Let's get a calcium score. Let's talk about Alzheimer's and dementia. And this is run in your family because these were the diseases that seemed to get worse if there was a preexisting condition when they started the hormone therapy.

(51:40):

It's not for everyone. It's absolutely not for everyone. But every woman deserves a conversation about her individual risks, benefits, potential health goals. What does she want out of this? Today, this morning was at my exercise class. I do this workout with a bunch of ladies and one of 'em is my patient. She said, Hey, can I ask you something on the side? I said, yes. We went in another room. So she's a breast cancer survivor and she is in my menopause clinic. And she said, I just saw the oncologist and I had stage one cancer lumpectomy chemo, and they want to put me on whatever. It's not tamoxifen, it's something new. And she said, I'm reading everything and the risks and benefits. And I said, well, what percentage chance

is this going to decrease your risk of getting recurrence? And she said, I don't know. And I said, well, that's probably what you want to ask. And she said, I'm worried that my quality of life's going to be so poor from the side effects of this medication. I said, look, the oncologist only concern usually is that don't get cancer again. That's their job.

Aggie Lal (52:41):

Even if you're locked in a prison, as long as you're in cancer, they win.

Mary Claire Haver, MD (52:44):

Right. And so your quality of life matters. Your ability to sleep at night worried about getting recurrent cancer matters. So it's all a balance. So I gave her a list of questions to ask, what is a percent? What am I gaining by this? What percentage? And I said, for you, the risks of poor quality of life might outweigh any potential. 1% chance decrease of recurrence. Think about it that way. And I don't think we're having those conversations with patients. We're all so worried about getting sued or the 1% that we're just missing the boat, that this is someone's life. She's got to sleep at night. She's the one to enjoy sexual intercourse. I mean, it's going to take everything out of her vagina and just leave nothing left. So I think it's really important that the patient goes in armed with questions, armed with information, asking the right questions to make sure she's getting, making the right decision for her and her quality of life. It's not cookie cutter for everyone.

Aggie Lal (53:46):

It's not. So it sounds like the answer is that if someone's been menopausal for 10 years, the study showed a slight increase in potential risk, which by the way, you could offset with some basic supplements. Like, oh, if your clotting factors go up, take some ceap peptides, and there you go. Now your clotting factors go down. You have less fibrinogen because you took a cheap enzyme on an empty stomach that breaks up thrombin and fibrinogen, stuff like that. So then it comes down to is quality of life higher when you're on hormonal replacement, when you're in menopause, is it usually

Mary Claire Haver, MD (54:24):

Yes, the quality of life is higher. Anytime you sleep better, especially if your sleep's disrupted, everything gets better. First thing I ask my patients is, how are you sleeping? Tell me about your sleep patterns. What's going on there? Because it's tied to so many things that when I talk about the menopausal toolkit, HRT is just one small part of what I counsel patients about. Now, again, I went back to school. I have a nutrition background now. We talk about nutrition, we talk about exercise, we talk about stress reduction, we talk about sleep. We talk about possible other pharmaceuticals, and of course we talk about supplementation. So it's all part, it's like a tackle box and everything is important.

Aggie Lal (55:04):

Many people out there are saying, oh, fasting doesn't work for perimenopause or for menopause. And I think it's because they're over fasting. Right? Talk to me about fasting for perimenopause. Yeah.

Mary Claire Haver, MD (55:18):

When I first got into the studies and when the nutritionists were throwing things at me, I was really looking at lowering inflammation levels because perimenopause and menopause become a pro-inflammatory state. And I'm like, what can we do with our world outside of medication to lower that naturally? And so many studies, mark Matson's work from the NIH on neuroinflammation. I mean, he's this wonderful PhD. He doesn't make any money work for the NIH. And this was just his passion, and I was so intrigued by it. So when I started looking at the very few studies that were done for women in

menopause, it looks like a 16 eight seemed to be pretty much the magic window where you weren't starting to chew up protein, chew up your muscle to get amino acids going. It seemed to be enough to get the anti-inflammatory benefits without moving into starvation. And so, of course, do I work 24 hour shifts at the hospital? Did I do a perfect 16 eight every day? No. Do I do one now? No. So it's like most of the time I hit a 16 eight roughly if I'm traveling or ill or whatever. I eat when I'm hungry, but my body's just used to it now, and I'm enjoying all of the anti-inflammatory benefits and hopefully some longevity as well.

Dave Asprey (56:36):

Jorn listening to the Human Upgrade with Dave Asprey.