

Jaclyn (00:01.329)

So today's guest is Dr. Tracy Gapin. He's a board-certified urologist, a renowned men's health optimization expert, and founder of the Gapin Institute. After 25 years of practicing traditional urology, he now focuses on practicing data-driven holistic men's health and providing programs that help men optimize their health, performance, and longevity. We're really excited to have you here, Dr. Gapin. Thanks so much for joining me.

Tracy Gapin, MD (00:26.378)

Thanks so much. I'm excited to be here with you today.

Jaclyn (00:28.485)

So we have such an interesting topic to cover today, which is that a lot of men are so high performing in so many areas of their life. And yet when they come in for an evaluation, they realize that they've really missed some kind of critical components for their health and longevity. know, many can be elite athletes, C-suite executives, fitness enthusiasts. So they assume that they're in great shape with things like cardiovascular disease, given how much heart disease they, I mean, how much physical activity they have going on. But tell me a little bit about you know, why do these men think that they're in optimal health, especially in terms of cardiovascular health, but still have undiagnosed risk factors?

Tracy Gapin, MD (01:06.59)

It's so common and you know, I want to be really clear first off that cardiovascular disease is the number one cause of death in men and women by far by long shot the number one cause of mortality without questions cardiovascular disease and a lot of guys think that that's a problem for when I'm in my 60s 70s 80s But to be clear, it's a problem that develops when you're very young In fact, it's a decades long process starting even in your teens and 20s. We know that atherosclerosis, vascular disease, which is really the foundation or hallmark of cardiovascular disease. And we're talking about heart attack, stroke, blood clot, and sudden death, starts at a very young age. And guys don't really realize how important it is to pay attention to that at early, very early age. And let me give you an example of what I mean by this. Most doctors, when you go in for a typical physical exam for your annual,

They're going to do your total cholesterol, LDL, HDL, triglycerides maybe, and they're going to tell you based on that you're normal, you're fine, don't worry about it, or, oh my God, your LDL, the bad cholesterol is a little high, you need to be on a statin. BS, nonsense, those are barely scratching the surface. And what's much more important are some other markers that every guy should be checking. So I'll give you a few of those that drive home this point. Apolipoprotein B or APO-B for short is the single most important predictor of cardiovascular risk. APOB is a marker that's on every single atherogenic or bad particle, if you will, that's carrying cholesterol in our body, has one APOB attached to it. And so APOB is a magnificent, perfect way to measure the number of particles that are carrying cholesterol in our body. Now,

Jaclyn (02:34.202)
Hmm.

Tracy Gapin, MD (02:55.618)

I want to be clear when you have LDL-C on your lab report, that's LDL cholesterol. That is the concentration of cholesterol within your LDL particles. And the analogy I make here is you have these submarines in your bloodstream. These submarines are carrying cholesterol around your body. LDL happens to be the most common type of submarine, but we have other ones, VLDL, IDL, for example. And APO-B measures all of those bad submarines, if you will, that's carrying cholesterol to your body and ultimately depositing that cholesterol into your blood vessels where it matters. so APOB is a great marker that everybody should be doing getting checked. LDL particle number, particle count, LDL dash P not LDL dash C, which is the concentration of cholesterol. LDL dash P is the particle number, the number of LDL submarines or particles you have in your bloodstream. So important to get that checked. So many guys I see they think they're doing great and their markers are through the roof and their LDL cholesterol or total cholesterol doesn't tell you that picture at all. Another. Yeah, I'll.

Jaclyn (04:00.899)

So I have so many questions already. Now, let's start with the fact that a lot of this cardiovascular disease happens younger in years. So what are we seeing in men when they come into your clinic? Are you seeing kind of decades of, I'll just say abuse of our bodies, right? And then you have this recovery period where you start to pay attention to performance later in life, but you're trying to kind of undo damage. Is that what you're kind of what you're seeing mostly?

Tracy Gapin, MD (04:26.926)

Yeah. Yeah. You know, so many, so many guys are doing great. They're doing fine. And I'll give you a preferred example. And I love to tell the story because it really drives this point home. Bob Harper. Bob Harper is the lead fitness trainer on the TV show, The Biggest Loser. Now he looks amazing. He's in great shape. He's people teaching people how to lose weight and get in shape as well. He's the epitome of good health. We all aspire to look like Bob Harper. Then how is it that at age 51, Bob Harper had a massive heart attack.

That almost killed him. Well, the answer is he had a massively elevated LP little a, and that looks like capital L little P and then little a in parentheses. LP little a is a subtype of LDL that most doctors don't know about, don't ever check. It's a hidden risk factor for cardiovascular disease and you inherited it. It's one that's genetically inherited from your parents and it's not lowered by a statin is not lowered by exercise, not lowered by eating a clean diet. What, you know, we could talk a lot about what that even means. This is a great example of how it's a, I talk about blind spots, blind spots in our health. And these are great examples, whether it's APOB LDL particle counts or LP little a, these are blind spots that men need to know about at a very young, early age, because it changes what you need to be doing. Bob Harper was the epitome of good health yet he almost died.

Jaclyn (05:34.085)

Hmm.

Tracy Gapin, MD (05:50.402)

because he didn't realize his blind spot was right there in front of him and his traditional doctors had no idea either.

Jaclyn (05:56.537)

Yeah, that's so scary because you think about someone who probably had access to great medical care and did all the things that your healthcare provider, whether it's a PCP or cardiologist, would have recommended. Eat well, exercise, stay fit. Maybe stress was his culprit because it can't be an easy thing to be the lead trainer on *The Biggest Loser*. But clearly, there are some diagnostic tests that we're missing in our routine eval, and that's one thing that you really specialize.

Tracy Gapin, MD (06:05.591)

Right. Right.

Tracy Gapin, MD (06:12.236)

Yeah.

Jaclyn (06:21.635)

At the Gapin Clinic is focusing on a more functional panel of cardiovascular tests. So I'd love for you to share a little bit about what blood panels, genetic markers, diagnostic tools you're using that really differentiate the care that you're providing.

Tracy Gapin, MD (06:36.238)

Sure. Sure. So I have a four step process versus diagnostics, which is really looking at the comprehensive blood testing. Cause I believe that's where everyone should start to find those blind spots that need to be addressed further. So from a cardiovascular standpoint, you know, I want to be really clear here that we, we focused on lipids, but cardiovascular disease is not caused by just lipids. In fact, a lot of people have significant cardiovascular disease, but yet their lipids are normal. How is that possible? Well, the answer is that

Jaclyn (07:01.199)

Hmm.

Tracy Gapin, MD (07:02.222)

Cardiovascular disease is not just all about lipids. It's about inflammation, systemic inflammation, as well as metabolic health, which is a fancy term for blood sugar regulation, insulin sensitivity. We're not just talking about being diabetic. We're talking about how well are you regulating your blood sugar? All of those come into play when we look at how does cardiovascular disease develop. And so I gave you some examples of lipid numbers. We

look at for inflammation, things like CRP, which is C-reactive protein or myeloperoxidase or LPPLA2. These are three markers that your traditional doctor doesn't even know about, doesn't know what they mean, doesn't ever check them. And these are great markers to look for signs of inflammation. Ferritin is a great marker that most doctors think of, that's a measure of iron. Well, it is, yes. It's also a measure of inflammation.

Jaclyn (07:53.285)

Yeah, we see that a lot. It's crazy that you you see that elevated iron and they think it's either hemochromatosis or it's just your normal It's like no there's this massive in between

Tracy Gapin, MD (07:59.884)

Yeah, right. But it's a big deal and it gets overlooked and traditional healthcare, know, disease model medicine, I'm embarrassed that I spent 25 years as a urologist stuck in that matrix of disease focused care. I realized that they're missing the boat on this. So they're not looking at the right lipid markers. They're not looking at the right inflammation markers. And then when it comes to metabolic health, you know, there are some short-term markers of metabolic health, such as fasting insulin level, which again, most doctors don't ever look at.

Insulin is the best way to understand how well is your body reacting to and regulating fluctuations in blood sugar So fasting insulin should be low should be preferably under five definitely under eight I see a lot of guys with fasting insulin of 15 18 20. It's way too high. That means your body is Struggling to regulate blood sugar. And again, that's one of the hallmarks of aging. It's the hallmark of cardiovascular disease hemoglobin a1. go ahead

Jaclyn (08:55.867)

So, no, please go ahead, keep going.

Tracy Gapin, MD (08:58.402)

Yeah. Hemoglobin A1C now is more of a long-term marker. And what I mean by that is our red blood cells regenerate, replenish every 90 days or so. You make new red blood cells, old blood cells go away. And so I like to describe them as corn flakes. Your red blood cells are like corn flakes. And when they become coated with sugar, like frosted flakes, they're glycosylated, it's called, they're covered in sugar and we can measure that. so hemoglobin A1C is literally measuring your frosted flakes. When they should be corn flakes and we don't want to see a lot of sugar coated red blood cells. so great way to measure at a long-term level how well we're doing with regulating blood sugar.

Jaclyn (09:37.871)

Now, I've never heard that analogy, but I promise I will never forget it. I will never forget it. It's a perfect analogy. I love it. So I want to spend time talking about the science, but you did mention something about kind of this transition from conventional urology care into this more holistic functional practice. And, our audience is providers. And I think we always are, I think, reassured by physicians like you who come to the light, right, to kind of see this

broader picture. And of course, I say that because conventional medicine has really important.

Tracy Gapin, MD (09:39.564)

I made it up. I should patent that. Thanks. Thanks.

Tracy Gapin, MD (10:02.318)

Yeah.

Jaclyn (10:07.085)

Aspects that it offers with lifesaving disease management types of care. But I would love it if you could share a little bit about what led you to take more of a functional perspective and also, you know, to transition out of a urology specialty into a more generalized picture. I imagine it's because a lot of urology problems stem from cardiovascular disease. It's one of the first signs that we see.

Tracy Gapin, MD (10:10.914)

Yeah, yeah.

Tracy Gapin, MD (10:16.354)

Yeah, sure.

Tracy Gapin, MD (10:20.706)

Mm-hmm.

Tracy Gapin, MD (10:27.542)

Yeah, you bring up a great point. And I was a very busy urologist, private practice, five man group. I was doing robotic surgery, treating prostate cancer in the hospital at night, doing kidney stones, treating kidney stones, and doing vasectomies, bread and butter stuff. About halfway through my career, I had this really sudden wake up call when I was 40 years old. So I'm 52 now. So 12 years ago, I went to a local concierge doc. never had a doctor before, but now I'm 40. I should get a physical exam, whatever that means, know, an annual exam. Like, yeah, yeah, I'm Get me out of here. And I had some blood work done and holy cow, eye-opening moment when my creatinine was high. It was 1.4. My liver enzymes were a little off, but the biggest problem was my cholesterol. LDL cholesterol was 140. My total was 225, I think.

I was about 30 pounds overweight suddenly. like, don't know how I got to be this fat. I was stressed out. I wasn't sleeping well. I was so focused on my career that I had neglected myself. And we had a new child, our first boy. And I suddenly came face to face with my own mortality when this concierge doctor friend of mine is telling me I need to be on a statin and mortality numbers. And I'm suddenly like, holy crap, like I need to pay attention to this.

At the same time, I was very humbly embarrassed that here I am as this, you know, men's health expert. I am the urologist. doing, I'm like a pioneer in robotic surgery and minimally invasive prostate cancer detection with MRI guided biopsy and, minimally invasive treatment with HIFU. And I'm on this amazing surgeon and here I am. I'm a mess. And that got me to start going down rabbit holes.

I started going to, uh, it started with a certification in epigenetics, which is, the science of how our lifestyle and environment affect our genes and how our body works. And I got, uh, uh, certified in epigenetics, reading genetics to understand how to, you know, influence lifestyle factors that got me into functional medicine. went through some IFM, I went through Kalish Institute that got me to WorldLink medical where I went through hormone training and realized, holy cow, I had no idea how to treat.

Tracy Gapin, MD (12:45.134)

hormone issues and in urology, they don't teach you that at all. Not one day in urology training that I ever learned about hormones. kind of just picked up on the fly. So I realized I was doing everything wrong when it came to hormones. I wasn't looking at the hormones that need to be addressed. That got me into this space of longevity medicine that got me into A4M American Academy of Anti-Aging, got me to age management medical group, and I'm doing all the certifications. And I'll swear I suddenly fell in love with medicine again.

Jaclyn (12:48.529)

Hmm.

Tracy Gapin, MD (13:15.744)

And I realized how freaking miserable, how unhappy I was in my, in my career. I was at, at this point where I'm making seven figures. I'm doing great financially. It's lucrative and, and, and, you know, what more could you ask for? But I was miserable and I was dying inside and I wasn't fulfilled. didn't feel like I was, even though I'm treating prostate cancer, I didn't feel like I was having an impact. And so I started putting all these pieces together that I was learning selfishly for myself to get in, get healthy, get in shape and really, you know, fix my own health.

Jaclyn (13:34.937)

Hmm.

Tracy Gapin, MD (13:44.788)

And that got me to realize that for me.

And I'm gonna try not to get emotional here, having my boy, having my son, it, changed everything for me. And it got me to really focus and pay attention to what matters and what's important. And I was like, I am, I'm missing out because I'm in the hospital every day and every night. And it made me really shift my priorities and realize that I don't want to do what I'm doing anymore. And I'd rather, I'd rather walk away from this career.

Then miss what's ultimately most important to me. And so I did what any crazy person does. I walked away from a lucrative practice and started from ground zero. And I launched Gapin Institute and that was a, want to be clear. That was not an overnight process. That was a many years in the making. And I formally opened it four years ago now, but it was eight years building to that point where I can formally step away from urology. so.

Jaclyn (14:28.773)
Hmm.

Tracy Gapin, MD (14:47.274)
Any of those medical doctors listening to me out there, I'm happy to talk to you about what that process looks like, but you don't want to jump off that cliff until you're ready. And I spoke, I was at a four in December and spoke to this urologist from the panhandle Florida who had already left his urology practice, trying to do what I'm doing. And, and there needs to be a process to do it the right way. It's not an overnight success. It's a 12 year overnight success basically to get through where are, know? And so.

Jaclyn (15:04.261)
Hmm.

Jaclyn (15:13.083)
There you go. Yeah, it looks like an overnight success, but no one can see the preparation that goes into it behind the scenes.

Tracy Gapin, MD (15:18.06)
Yeah, yeah, yeah. And the real difference is I'll honestly say I freaking love what I do every day now. And I couldn't say that before, but I love what I'm doing. It's cutting edge. It's awesome. We're saving lives. We're having a much bigger impact in a very different way. It's a very different type of business model, obviously, but the passion and love that I bring to it now shines through in everything I do.

Jaclyn (15:40.817)
I'm really grateful for you taking the time to share your story. And I got chills when you said I fell in love with medicine again, because it's really a common experience and thread. And I pursued naturopathic medical school, but looked at conventional, but found myself on fire with the things I was talking about, even in my application for naturopathic school, the nutrition and lifestyle medicine. And I felt grateful that I took that path, because I hear from physicians like you who are doing amazing

Tracy Gapin, MD (15:58.594)
Yeah.

Tracy Gapin, MD (16:05.688)

Yeah.

Jaclyn (16:10.641)

work in science and medicine. I mean, you were saving lives. You were doing so much there to really help people, yet it wasn't feeling fulfilling to you. And I think the ability to interact with people now, with patients now the way that you do, it's such a different experience, right? Because you're almost, you are igniting, you're like just a candle who like passes the flame on and you see that light up inside someone else. And that's that part for me, at least that's so rewarding is like,

Tracy Gapin, MD (16:19.299)

Right.

Jaclyn (16:40.303)

you give someone a kernel or a crumb and then they run with it because they're so thrilled to learn more about nutrition, learn more about fitness, whatever it is.

Tracy Gapin, MD (16:48.462)

Yeah. Right. And to take it a step further, and I'm going to make some of the docs out there jealous with this, I can count on one hand how many patients I personally see. So I built a team around me. I built a medical team. I built a functional coaching team. I built a team of genetics experts and technology experts and concierge team around me so that I can have that bigger impact.

And it, takes more time and training and building, you know, the, whole, you know, training module around how do I build a team? But that allows me to have a much bigger impact. And instead of being in an exam room with one person right now, I can reach millions here with you today. And I couldn't do that if I, if I was still the condition and they talk about working in your business that on your business will as a doctor is very tough to work on your business. If you're the primary person seeing patients. So to any doctor out there who's listening to this,

Open your mind to the idea that it doesn't need to be you in that exam room seeing every single patient. You can build a protocol. You can build an approach that is your expertise that is spread through many and through your disciples, if you will. And that's how we're going to have a much bigger impact. We can't reach every person out there if we do it one-on-one. We have to build a team around us. And that's what it's really going to have the biggest impact.

Jaclyn (18:10.053)

Yeah, and surely I think some people feel nervous about that because they want to be held as the expert, right? But there's so many people who need our help that I absolutely think you're right. The more people you can train to work with you, work with your patients, you get that ripple effect. You can only touch so many people in, you know, your work day.

Tracy Gapin, MD (18:15.502)
Right. Yeah.

Tracy Gapin, MD (18:25.442)
That's right. That's right. Yeah. And I built a very clear like a system and approach, a method to my madness from my years of training that I have built into a model for my medical team and my coaching team that they follow. And it continues to evolve because science changes every day, right? We're learning new stuff. And so we continually add upon that, but there's still that foundational element to it that my team adheres to and adopts. And when clients come to Gabbin Institute, they know that they're not getting me personally, they're not gonna see me in that exam room, but they're getting that approach and that method and that's what they ultimately trust. Yeah.

Jaclyn (19:02.287)
Yeah, that's fabulous. Great. So I know we had, kind of took you on this massive diversion, but thanks for coming with me on that trip. And I think, you know, your son is lucky to have a dad who's so committed to like the massive change of life that you must have made and how much courage it takes to leave a growing career when you're really in your prime to like support a child is pretty amazing. So kudos to you as a dad. Let's pull it back to the work that you're doing with patients as well. So you said you were starting with

Tracy Gapin, MD (19:09.198)
for sure.

Tracy Gapin, MD (19:13.038)
Thank you.

Tracy Gapin, MD (19:24.76)
Thank you. Thank you.

Jaclyn (19:32.123)
the serum testing, we talked about A1C, fasting insulin, a lot of the kind cardiovascular markers and expansion on the traditional total cholesterol, HDL, LDL.

Tracy Gapin, MD (19:33.954)
Yep. Yep.

Tracy Gapin, MD (19:38.082)
Yeah.

Tracy Gapin, MD (19:41.55)
Yeah, so on that first of the four steps is diagnostics. We've talked about some of the blood tests and we do some other ones that are really important to emphasize would be

hormones. And when it comes to men's health, which has always been my focus, my passion, testosterone gets all the attention, of course. But I want to emphasize free testosterone is what you want to be checking. So total testosterone doesn't really matter because 98, 99 % of our testosterone is bound to proteins in the blood, such as sex hormone binding globulin or SHBG which renders it completely useless. So for testosterone to have any biologic effect, has to penetrate through a cell membrane. It binds to an androgen receptor, which then takes that testosterone into the nucleus of the cell. And that's where DNA transcription occurs and obviously RNA and then proteins get produced as a result of that testosterone. know, walking people, reminding people of the biology of how physiology, how everything works. If testosterone can't get into the cell, it doesn't do any of that doesn't have any effect. so free testosterone is what we care about, not total. So often doctors are just looking at total. Free is what we care about. And a general ballpark number that I want people to focus on is 20. A free testosterone of 20 is our general broad strokes target. Now for some guys, for all ages, absolutely for all ages, and younger guys are already at 20. As we get older, we're seeing this more often, but I swear I've seen guys in their 20s and 30s that have free testosterone of six.

Jaclyn (20:55.569)

Is that for men of all ages?

Tracy Gapin, MD (21:08.544)

I have two NFL wide receiver actually one of them just got cut a few weeks ago, but I have two of NFL wide receivers who have been both recently playing in the NFL and they're free to social levels or six.

Jaclyn (21:21.941)

I'm seeing that more and more. do fertility work and also with Dutch, we see so many tests come through with androgens and androgen metabolites and we hear from providers all the time that they're seeing very young men with really low free testosterone.

Tracy Gapin, MD (21:24.525)

Yeah.

Tracy Gapin, MD (21:29.709)

Yeah.

Tracy Gapin, MD (21:33.76)

Mm-hmm. Yeah. And this is the testosterone epidemic I talked about in my TED talk. I'm talking about how endocrine disruptors are crushing our health. It's the microplastics, but it's also the BPAs, the phthalates. It's the synthetic soy. It's all of these chemicals in our drinking water. Synthetic birth control estrogen is in our drinking water. We have chemicals sprayed in our crops, herbicides, pesticides that we're eating, our animals, if they're not

Grass-fed organic you're eating the chemicals that they have eaten our personal care products our deodorant our sunscreen our cologne I'm not cologne or don't ever use cologne guys. All right, damn Yeah, anything with scent anything that has full of full of thalase our laundry detergent our soap our shampoo our sunscreen is loaded with these chemicals that is having a compounding effect on our hormones is causing endocrine disruption for men that shows up as low testosterone infertility

Jaclyn (22:12.911)

Yeah, all the cologne for sure.

Tracy Gapin, MD (22:32.49)

ADD, precocious puberty, hormone driven cancers. It's a big deal. I'm so glad that, know, RFK and others are finally bringing this to people's attention. Kayleigh Means pointing out how we need to start paying attention to how these chemicals are crushing our health. So that's a big driver, I believe, why we're seeing such low testosterone levels.

Jaclyn (22:51.953)

Yeah, my poor husband, I like think of him because he's like a conventional guy. know, we met in our, you he was in his 40s and, you know, all of the things that he had done in life. I'm like, no, you shouldn't use this. You shouldn't do this. You should get organic. And he's actually a convert now and, you know, is always sending me new research, but it makes such a big difference. And it really transformed his individual health, paying more attention to it. But as a global problem, it's huge. It's so huge. Absolutely.

Tracy Gapin, MD (22:56.269)

Yeah.

Tracy Gapin, MD (23:02.658)

Yep. Yeah. Yeah.

Yeah.

Tracy Gapin, MD (23:12.462)

That's awesome.

Yeah, yep. The little things are big things, yeah.

Jaclyn (23:19.761)

Well, because there's so many, right? It's like drops in a bucket, but you have thousands a day, so it absolutely can fill up.

Tracy Gapin, MD (23:24.721)

It's yeah, and it's little micro decisions every day. You look at how the little things you're doing every day, like, you know, I have right here my my stainless steel water bottle with

filtered water like like prepare for, know, instead of having plastic water bottles on the fly because you need water and like you prepare, you make little decisions so that you're set up for the day. So you're not using plastic cups for your coffee. You're not using K cups, you know, that have plastics as leaching into your coffee. If you're making it, you're using stainless steel, using glass. If you're storing your foods like these little decisions add up over time for sure.

Jaclyn (23:40.913)
Mm-hmm.

Jaclyn (23:53.933)
Mm-hmm. Yeah, absolutely the pans you buy and cook at a home. There's so many we could have a whole nother podcast on this Maybe we need to little panel

Tracy Gapin, MD (23:59.244)
Right? Yeah. So that's just Ostrone. You know, another hormone that guys don't pay much attention to is DHEA. So DHEA, specifically DHEA sulfate. I know on the Dutch panel, it's a big deal. look at DHEA. DHEA is important because it regulates mood, energy, metabolism. It's important for regulating cortisol. And it's a big deal for lot of the high performers I work with. know, cortisol, stress, and they'll always say, I'm not stressed. Well, nonsense. We can actually measure and prove you are stressed.

DHEA helps balance and regulate cortisol. so DHEA sulfate is a big deal. And especially when guys are supplementing or taking TRT, testosterone replacement therapy, know, DHEA is a precursor to testosterone. And so what a lot of times happens, especially in men, is we'll see very, very low DHEA levels because they're on testosterone replacement therapy. Another cause of that is gut issues.

Jaclyn (24:50.308)
Hmm.

Tracy Gapin, MD (24:53.676)
So malabsorption, so a of guys will be taking DHEA supplementation and their levels don't budge. That sulfation process, as you know, as any functional medicine practitioner knows, that sulfation process depends upon normal gut function. And so this is why it's so important that we look at everything, how it's all interconnected, how gut health can regulate this. But DHEA sulfate is an important lab for guys to be checking as well. You want your level, man, to be between 300 and 600.

I see a lot of guys, DHA is like 50, 60, 70, very, very low. So that's DHA. The other one I'll bring up here that's important is thyroid. Now, thyroid's important for men and women. A lot of people think it's just a woman's hormone, but men need it as well for metabolism, for energy. It's important for hair, skin, nails, important for hot, cold tolerance. It's important for

a lot of reasons in men. It mimics testosterone in many ways. So guys need to pay attention to thyroid. TSH, however, is...

Jaclyn (25:24.187)

Mm-hmm.

Tracy Gapin, MD (25:49.73)

What your doctor is probably checking and TSH is completely worthless. TSH is completely worthless. It's simply the signal from your brain that tells your thyroid to make thyroid hormone yet. Now, yes, there's this negative feedback that will turn it off when your thyroid levels go up. But TSH tells the thyroid to make T4 and then T4 has to get converted into the really active biologically, physiologically active form of it, which is T3.

And so the real thyroid hormone that every guy should be checking is free T3 and your target for that is somewhere around four, give or take 3.8 to 4.2 or so call it four is where you want to be. So free T3 is the key lab you want to be checking for thyroid. But the other one that most doctors don't know about, and I know you most functional practitioners know about this is reverse T3 and reverse T3. like to say is the evil twin brother. It's the anti-thyroid. It blocks your thyroid from doing its job because it will bind to that.

Jaclyn (26:37.061)

Mm-hmm.

Tracy Gapin, MD (26:45.878)

Same receptor and block thyroid from doing its job. And so you need to be measuring a reverse T three as well. You want that one to be very, very low. And if it's high, you need to ask the question why. And that's part of step two. When we do a deep dive of understanding why that marker might be off, but typically it's gut, it's toxins, it's nutrients, it's stress, something causing that conversion of T four into reverse T three, which you don't want. Again, you want high T three. So that's thyroid. We have 50 hormones to look at, those are some of the bigger ones that I would focus on.

Jaclyn (27:18.097)

Fabulous. So after diagnostic testing and serum workup, like what are next steps for a patient?

Tracy Gapin, MD (27:23.288)

Sure. Yeah, so the next step is I call it deep dive. Step two is deep dive. And I like to say test don't guess. And so when we see abnormalities on the blood testing, the next question is to ask why. And so this is where I love using the Dutch test. It's great for women. It's also great for men as well. I love looking at gut testing, microbiome testing. So GI map is the one that we use. GI effects is a great one as well. I love looking at food sensitivity testing. So.

A great story I love to tell is one of my clients, Marco, he's a race car driver and he came to me many years ago because his decision making was off. felt like when he was going around the track at 200 miles an hour, he felt like he wasn't able to take the turns like he used to, like something was just, just not right.

Jaclyn (28:07.045)

can see why he'd be in your door. That's a dangerous time to have not clear thinking.

Tracy Gapin, MD (28:08.706)

Big deal, right? Pretty, pretty important, right? Yeah. And so we found a lot of stuff to work on, of course, but one of the biggest things for him, the biggest drivers of change for him was when we did his food sensitivity testing, we found that he had sensitivity to bananas and coffee of all things, bananas and coffee. And guess what Marco was having for breakfast every day before we did that test? Bananas and coffee, among other things as well. when he

Jaclyn (28:26.149)

Wow, okay.

Jaclyn (28:31.407)

bananas and coffee.

Tracy Gapin, MD (28:35.914)

stop, we had to obviously do some gut work, clean up his gut and replenish his microbiome and fixes his gut integrity. So some other issues at play as well. But when he stopped and as a coffee overnight, he said a light switch went off. He was already on testosterone and thyroid. He was doing all these other things that were in play. But once we made that one change, he said a light switch went off and suddenly his mental acuity and his reaction time, everything changed and he was like, holy crap, this stuff works. And

Jaclyn (28:56.145)

Mm.

Tracy Gapin, MD (29:02.56)

He said everything changed and true story. No lie. He goes on and he sets a world record for endurance race car outcome. And I don't even know what the, what the event was, but he has a world Guinness world record now for endurance racing that he really attributes to the fact that he was able to find these little things that are big things that make all the difference in the world.

Jaclyn (29:09.713)

So cool.

Jaclyn (29:21.883)

Yeah, mean, think gut health is like such an important thing. When you talk about food reactions, mean, really, inflammation has its home in the gut. So anything that's triggering that, it's not surprising to me that he had such a huge impact from that reaction. I mean, we see that so much in patients and people don't really think to look there first, although they're starting to look there first.

Tracy Gapin, MD (29:30.584)
That's right.

Tracy Gapin, MD (29:36.27)
That's right. That's right. Yeah.

Tracy Gapin, MD (29:42.156)
Yep. You're exactly right. And it's amazing to me still how the gut is connected to everything. You know, it affects neurotransmitter production in the brain. So it affects mood and energy. It affects metabolism. It affects hormone production. It affects immune system. And I think it's ultimately tied to longevity for all those reasons. And so when we see signs of systemic inflammation or even blood sugar issues, weight gain, you know, it's in the gut. Great story here. So

People talk about semaglutide and there's amazing peptide, how incredible it is to lose weight. Well, we all have a natural semaglutide that we make in our own bodies. And it comes from the gut. So to be clear, the L cell is a type of cell in our gut that produces GLP one. So instead of injecting semaglutide, which is a great peptide, don't get me wrong, our bodies actually make that when our gut is intact and healthy and the L cells are working properly. Guess what the L cell needs to function properly?

Acrimonia, a key cornerstone bacteria. So this is why the microbiome is so important. It affects everything. And a of people can't lose weight because of the gut. And so you're exactly right that a lot of things trace back ultimately to gut health.

Jaclyn (30:42.097)
Mm-hmm.

Jaclyn (30:54.757)
Yeah, it's fabulous that we're starting to pay attention to it as its core foundational piece of health and longevity. And I'm actually seeing that trickle into conventional spaces too. Interestingly, my son was diagnosed with type 1 diabetes maybe 2019, so almost five years ago. And at Boston Children's, the first thing they told me as a parent was, we really think this comes from a microbiome imbalance in the gut that probably happened very early on. And I was actually shocked because

Tracy Gapin, MD (30:59.682)
Yeah, that's right.

Tracy Gapin, MD (31:20.91)

Yeah.

Jaclyn (31:22.181)

You you may know autoimmunity starts in the gut, but to have it from a conventional endocrinology hospital physician was a big surprise and a really nice surprise.

Tracy Gapin, MD (31:25.219)

Yep.

Tracy Gapin, MD (31:28.558)

Yeah. Yeah. Yeah. Great story around that. One of my clients, his son, his teenage son, he was 12 years old at the time. Now he's I think 16, 15, 16. At the time he was having recurring sinus infections to the point that he kept going to ENTs and he was on all different antibiotics that weren't working and he's developing resistance and this and that. And I casually just said, Ken, it's coming from the gut. And he's like, no, no, no, it's the sign, not the gut.

Doc is the, I'm like, it's the gut. And like, he wouldn't believe me. I'm like, okay, I'll prove it to you. I'll take care of your son. I'm not a pediatric ENT, but I know that, that recurring infections, know, sinus infections, UTIs, prostatitis, a lot of it comes from the gut. Sure enough, Noah had massive issues in his gut. And when we treated it, his sinus infections are gone. Literally gone. Haven't come back again. He was dealing with that since he was a child and they're now gone. And it all came from the gut. Fascinating. Yeah.

Jaclyn (32:15.077)

That's unbelievable.

Jaclyn (32:21.679)

That's awesome. So when we look at like high performing individuals and they come into you and they think everything's perfect and they have some underlying challenges, when you look at the lifestyle factors that have influenced those changes over time, like stress or maybe sleep disruption, overtraining, are there patterns that you've seen that we should be aware of ourselves as far as those underlying root causes?

Tracy Gapin, MD (32:47.372)

Yeah.

Tracy Gapin, MD (32:51.31)

And there's a lot wrapped around that we could spend hours talking about all the lifestyle stuff that but I'm gonna focus on one that I think is so common and that is sleep so one of the biggest triggers for stress in our body is poor sleep and When I I used to ask guys do you feel like stress is an issue? They all say I quit asking because they all say no But poor sleep

is one of the biggest triggers of stress and we can see that because when you have a fasting blood sugar

that's elevated. Think about this. You haven't eaten. And so how the hell is my blood sugar higher than 90? Why is it 112? Well, cortisol, our stress hormone has raised your blood sugar because that's what cortisol does. Well, why is my cortisol level high? Well, that stress. Why? And so poor sleep is one of the biggest triggers for that. And so and poor sleep begets stress, which begets poor sleep. So it becomes this vicious cycle as well. It does exactly. Yeah.

Jaclyn (33:47.129)

Yeah, it's cause and effect with sleep, I think.

Tracy Gapin, MD (33:50.03)

So a lot of it is intentional. know, a lot of it is guys will stay up late. They will either be working late or they'll be on Netflix until 1230. And then, you know, they're up at five or five thirty. And and some guys, I'll tell you, you know, they'll work till midnight and they're up at five to go to the gym. And great story with Sean. He's this beast. He looks amazing. He's eating chicken and rice every day. He's in the gym every day and he looks incredible. He's in great shape. And remarkably, his lipids are actually pretty darn good, his markers of inflammation aren't that bad. His calcium score, which is another one of the deep dive tests that we do to better understand cardiovascular health and risk, his calcium score, which is a simple CAT scan of the heart, looking at calcified heart plaque, it should be zero, especially for a 36 year old guy like Sean, it was 212. And so great example of how stress can trigger cardiovascular disease as well. And for him, that stress was

Jaclyn (34:39.035)

Wow.

Tracy Gapin, MD (34:47.124)

over training and sacrificing good quality sleep.

Jaclyn (34:51.513)

Yeah, it's interesting because I think that when you see on the Dutch test, when you look at the cortisol diurnal pattern, you really can get a lot of information from that. Like one of the things our team constantly says is when that morning cortisol is elevated, usually we're like, have you checked blood sugar? Because the most common pattern is elevated blood sugar through the night, which keeps cortisol elevated. You never actually get to that resting state. And I think you're right. When there's sleep disruption, cortisol disruption, it's really hard to heal.

Tracy Gapin, MD (35:11.832)

Right. That's right.

Tracy Gapin, MD (35:19.598)

Yeah. So I'll see that a lot of times where guys will stay up late, wake up early, intentionally sacrificing sleep because behavioral, you know, their nighttime routine is not where it needs to be. So some of that sleep hygiene kind of stuff. But a lot of times I'll hear a story of, you know, I went to bed at 11, 1130 and then I woke up at two 30 and then my mind is going and I can't turn it off and I'm done. Nights over took me an hour and a half to fall asleep again and the night's ruined. And that is what you said, which is stress affecting sleep. So it becomes this ugly, vicious cycle.

Jaclyn (35:47.121)

Hmm.

Tracy Gapin, MD (35:49.422)

to where it's now disrupting sleep, which further perpetuates the process. And so that happens a lot. And then what happens is the whole day you're tired, you're grumpy, you're not making smart decisions. So now you're not going to eat the right foods. You're not going to pay attention to the little decisions that really matter. You're not going to be drinking enough water because you're so stressed out. You're just drinking coffee instead, which I love my coffee as well, but you need to be sure you're getting hydrated. You're not making the good food choices. You're not working out like you should. Everything gets disrupted.

The other big part of that ties into what we talked about a few minutes ago is that cortisol elevation goes to the gut. And one of the worst downstream consequences of chronically elevated cortisol is it crushes our microbiome, crushes our gut wall, crushes integrity, crushes the secretory IgA, which protects our gut. Next thing you know, you end up like Marco with a banana and coffee story. And so that's how everything is all interconnected.

Jaclyn (36:45.169)

Yeah, we see that a ton. And even like SIBO, most of the time SIBO infection is directly following an acute life stressor in people. Almost always you can trace it back. I love that you brought that up because the connection between stress and gut health and then gut health and everything else is so huge.

Tracy Gapin, MD (36:58.924)

Yes, that's right.

Jaclyn (37:03.035)

Great, well really your research and your work in your clinic really connects the dots between lifestyle, longevity, heart health, personalized medicine, like really using science to tailor an approach to really helping people live maximum life expectancy, but life expectancy with capability and joy and being present in life and really being able to utilize it. Now, with your approach to longevity and anti-aging at the Gapman Institute,

How does it incorporate heart health? Is that the cornerstone piece of it or is it a piece of a whole systemic approach? Okay.

Tracy Gapin, MD (37:38.478)

That's one piece of a much bigger approach. And when it comes to the data we talked about or the diagnostics and the data comes to the deep dive, cardiovascular health is a big focus so that we can understand what do need to address? again, people talk about longevity. It's this hot phrase all of a sudden. And when I think of longevity, I don't have any false expectations that you or I are going to live to 150. I think it's BS, it's nonsense. think it's unfair. It's a little extreme.

Can we live to 100 and be healthy and have the best quality of life that we can and be the best version of yourself? And yes, I think that's possible. So to me, longevity is about, how can I achieve peak performance? And to me, peak performance, be very clear, peak performance is not competing in Ironman. Peak performance to me is to being the best dad I can be to my incredible 11-year-old boy now and nine-year-old daughter. That's what it's all about to me.

Jaclyn (38:15.473)

Hmm.

Tracy Gapin, MD (38:34.175)

How can I show up and be a present and engaged leader in my community, leader to my team at the Gap Institute, leader to my patients. And if I can do that to them a hundred, that's what longevity is really all about. And so I want to be clear, you know, when we use these phrases, that's what longevity is. And so peak performance means putting all these pieces together. It's optimizing cardiovascular health is optimizing metabolic health, blood sugar regulation, optimizing hormones, getting your gut fixed, taking care of all these pieces that ultimately affect your performance on a daily basis. And then I think the big part that's missing in traditional medicine is, we put all these pieces together and build this foundation. How do you know that what you're doing is actually working? And so what's the data? What's the metrics? What are the KPIs? You know, in business, they use a term KPI, Key Performance Indicator.

Jaclyn (39:17.585)

Mm-hmm.

Tracy Gapin, MD (39:26.836)

No one in health has metrics to track if what you're doing is actually working or not. They just look at, yeah, your labs are better. You're doing great. I'll see you in six months. And so I'm a big believer in data. So everything we do is data-driven. So whether it's using wearable technology to track sleep, to track blood sugar, blood sugar monitors, CGMs are not just for diabetics anymore. So we can understand if what you're doing is actually working. Are you eating the right foods?

We didn't talk about this much, but the genetics can help us understand, you eating the right foods? The macros ratios, are you taking the right supplements? But then everything you're taking, everything you're doing, you can measure to see if it's actually right for you. And that's where I believe everything needs to be data driven so that, you know, as they know your numbers to know what you're doing is actually working. And that's what I think is really missing when it comes to peak performance and longevity and, you know, this new cutting edge world of medicine.

Jaclyn (39:56.305)

Hmm.

Jaclyn (40:17.361)

Fabulous. So I think my last question is just like as we look to the future, there's so many developments happening in the field of health and longevity. What are the top things that are really getting you excited or research you've seen that you say, can't wait five years from now, we're going to know so much more about this and it's going to be a game changer. What are those things that have really lit you up?

Tracy Gapin, MD (40:24.77)

Yeah. Yeah.

Tracy Gapin, MD (40:33.902)

Sure. Yeah.

Yeah, I love peptides. I'm a massive believer in peptides. They're incredible molecules. However, I want to put a big asterisk on this because there are a lot of, I believe, I'll call them predators to be very direct here, who are out there selling you big stack of peptides as the magic cure for all.

I like to think of peptides as the icing on the cake. You bake your cake, gut health, hormones, nutrition, cardiovascular health, metabolic health, everything else. That's your cake you built. The icing on the cake are the peptides. You don't go to the grocery store and get a can of frosting and just eat the frosting out of the can. It doesn't make any sense, right? It's sweet and it's good, but it doesn't make sense unless it's on the cake. And so that's the analogy I like to use that I love peptides in the right context. And so I think peptides are part of really the future of medicine and longevity and the science around peptides is incredible. think some treatments like plasmapheresis is something that's not talked about very much. Plasmapheresis is incredible for clearing toxins. It done in the right way. Atheresis can clear microplastics. It's one of the only treatments for that. I mentioned earlier, LP little a it's one of the only treatments that has really been shown to be effective at clearing LP little a. So that might be a really cutting edge.

Jaclyn (41:33.925)

Yeah.

Tracy Gapin, MD (41:52.654)

indication for plasmapheresis. So I love that as well. The advanced diagnostic testing that's coming out is really on the forefront and new cutting edge functional tests are really amazing how they're helping us really innovate. there's cutting edge science every day that we're having to keep track of, right? I'll give you one more piece here. Everyone thinks NAD is the future. Actually, I'm going to be...going against the grain here and tell you that taking NAD or NAD precursors is actually not what you want to be doing. Now, most people are like, what the hell? I'm doing NAD drips. I'm taking NR and NMN and all this and Peter T and yeah, yeah. And Sinclair is out there selling, well, I'm going to go against all that and explain why. So as we age, we know that NAD levels are not declining for lack of production. It's not our body doesn't make NAD anymore. It's the breakdown process is happening at an exponentially higher rate.

Jaclyn (42:29.989)

Right. Yeah, the first I've heard say that I'd love to know more.

Jaclyn (42:49.765)

Hmm.

Tracy Gapin, MD (42:50.486)

And so there are molecules that help affect that, which is so much more impactful than just taking NAD precursors. And we know that NMR or excuse me, NMN or NR supplementation has been shown to be associated with people who have undiagnosed cancers of promoting cancer growth. And so in the right context, NMN, NR may be helpful, but it could actually be harmful for you as well. there are molecules.

Jaclyn (43:16.035)

It makes sense. They're so helpful for cellular health that it would be all cells, not only healthy cells. Yeah. And just so people are if you're new to it, NR is nicotinamide riboside and NMN is nicotinamide mononucleotide, which are kind dietary supplement ingredients. So you can look up and research yourself on that too.

Tracy Gapin, MD (43:21.314)

There you go. Exactly right.

Tracy Gapin, MD (43:29.26)

Thank you. Yeah. Thank you. Yeah. Yeah. So sorry. Yeah. These are precursors to NAD and a lot of people take these as the way to increase NAD levels in our body. But I'll caution people against that. That the cutting edge science is telling us that molecules like 1MNA, 1-MNA is a better approach with apigenin, for example. There's there's nuance and context around this, but that's a better way of

Jaclyn (43:55.119)
Mm-hmm.

Tracy Gapin, MD (43:56.864)
affecting that degradation breakdown pathway, which is a much better way to raise NAD levels than trying to flood yourself with more on the front end. And so that's the nuance around how there's these influencers and these, these predators out there trying to sell you stuff that may not be right for what you're trying to do. And so I think the future of health is really all about basing it on science and not letting the influencers and the salespeople out there trying to really control the narrative.

Jaclyn (44:05.594)
Mm-hmm.

Jaclyn (44:14.501)
Yep.

Jaclyn (44:26.105)
Yeah, definitely. Well, I've appreciated what you've shared with us, the science that you've leveraged in the clinic and your personal experience. I'm really grateful for you coming on today, Dr. Gappen, and look forward to hearing more from you in the future. Thank you.

Tracy Gapin, MD (44:38.966)
You got it, thanks so much.