Thyroid Guidelines and Their Limits

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I mean, that's why Graves' disease people get skinny and are jittery and can't stop talking. It's because they're basically overdosed on thyroid medicine.

And so it's really, really important if you're going to take T3 that you watch the levels of T3. I can't give somebody a thyroid hormone and not check their levels.

This is Doctor Talks. Real talk from real doctors on the issues that matter to you most. Hi, welcome to Truly Healthy MD podcast. We have a part two today talking to Dr.

Dana Gibbs about the thyroid, a functional medicine approach about Hashimoto's hypothyroidism, We had such a great discussion in our first, the first conversation we were, we finished up talking about guidelines, how these are incomplete, how they don't help some people who turn out to have treatable thyroid issues.

So I really want to give a warm welcome to Dr. Dana Gibbs. So we can pick up where we left off and have another juicy conversation about the thyroid, the thyroid gland, the thyroid hormones, and the how we approach these in integrative and functional medicine.

Welcome back, Dr. Gibbs. Hey, thank you. It's good to see you. And I'm glad to be back. So yeah, we got a lot to talk about. Yeah, that last conversation was excellent.

And I'm so glad you can make it back for this second. This is part two, so back to those guidelines. Tell us again what the important message there is.

Sure, okay, so guidelines are basically treatment recommendations, so to speak, that are given by specialty societies to the wider world of medicine to say, okay, if you think somebody has a thyroid problem, here's what you do to test them and here's what you do to treat them.

And the guidelines for thyroid are you test them with TSH and you treat them with levothyroxine. And in my experience and in many studies that I have read and in my clinic, what I have found is that there is a very significant subset of people One who can have a TSH that's in the normal range or in the range that's considered to be quote unquote subclinical hypothyroidism, which is maybe just above the normal range, but not high enough to treat yet, who actually do need treatment and feel dramatically better with treatment.

And then the second issue is that when you do treat those folks that Using levothyroxine alone, there's a big, big subset of people who feel better with either a combination therapy or with a particular kind of thyroid hormone called T3 that makes them feel better and resolves their symptoms, where the levothoraxin might, one, not fix their symptoms, and two, might actually make them feel a bit worse.

And so we were talking about some of that and who that happens for, and we can go on from there if you want to. So that's where we left off. Absolutely.

So in your clinic, who are the patients that you find this is the most important for to consider how the guidelines doesn't really serve them. Yeah. So, well, the first set, the first set or subset of people is people who are under phenomenal amounts of stress.

And it could be any kind of stress. It can be physical stress. It could be an illness. It could be emotional stress. It

could be you lost your job. You are going through a divorce.

You've had childhood trauma. There's just lots and lots of stress that will change the way your thyroid signaling works to the point where your TSH may stay in its normal range.

but the hormone levels that you have available to do the functions of thyroid hormone in your body get lower and lower, and so you feel those symptoms.

The symptoms will start to come up. The second subset of folks that are like that are Hashimoto's disease, and they're probably the biggest subset by far.

because Hashimoto's is super, super common. I mean, the antibodies to Hashimoto's don't automatically mean you have Hashimoto's disease, but if you have those antibodies, the likelihood that you will eventually get Hashimoto's disease goes up every single year.

And because Hashimoto's disease causes your thyroid hormone levels to fluctuate in your blood, it can signal your body. it's more dangerous to have too high thyroid than it is to have too low.

Who Benefits from Deeper Thyroid Testing

And so your body's like, oh, we need to damp this down. And so it encourages, even if the free hormone levels are normal, it can encourage high levels of reverse T3, which will make you feel hypothyroid symptoms.

The third subset of people is very small and there's no test that will really tell you if you're in this group or not, but it's people who have a couple of specific genetic mutations in something called the D-iodinase enzyme, which is the type 2 D-iodinase enzyme is what makes T3 in your body.

T3 being the active version of the thyroid hormone. And if you don't make enough of that, then it's very likely that you make too much of that reverse T3 and that you're going to feel tired, exhausted, sick, your hair's thin, you know, all those symptoms, all those symptoms.

And so that does not, I mean, it doesn't encompass, the guidelines don't encompass how do you test those folks and how do you treat them? So that's where I thought we might go next with this as far as what folks ought to be considering.

Because this is something that's fairly unique to what I do. I think there are even a good number of functional medicine doctors who don't know this particular thing about how you can use the reverse T3 test to actually guide your treatment.

All the reading that I've done in functional medicine literature, it's like, okay, yes, high reverse T3 is a signal that things are not going well in your body, whether it's inflammation or some kind of illness or a viral illness or, you know, a toxicity or something like that.

But they don't talk about how to use that T3 number to guide your treatment. So I thought I would just tell you that because it's one of the things that I do that's just a little bit different than almost everybody else I've talked to.

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very useful because I know that sometimes people can have labs that all stay there with normal range, but you really have to plug that into a formula.

Is that correct? Yeah, it's not one formula. It's kind of like an overall gestalt. It's like every single lab that you get needs to be in its ideal slot.

And if it is, then you're doing the right thing. And if the patient is still having symptoms at that point, then it's time to dig deeper and look for other triggers.

It's very important since, like you said, the guidelines don't really cover that at all. Yeah, no, they just say, oh, well, sorry, your TSH is fine. You're all good.

Your TSH is normal. Your thyroid's normal. Go away. You know what happened to me? Here, take these antidepressants. You must be depressed. Yeah, very, very common that that's kind of the The next thing that's thought of when the TSH looks normal and people still have symptoms that thyroid's completely ruled out without a little bit more digging into the thyroid.

Yeah, without any deeper dive into it. So I'll just start with what labs I do. So I do do the TSH because I do want that to be in a certain range and I'd like it to be towards the lower end of the normal range.

And then I do the free hormones, the free T3 and the free T4. And I like the free T3 to be upper half of the normal range and I like free, did I say free T4?

Sorry, free T4 to be in the lower half of the normal range or lower quarter of the normal range even. The final two tests that I do is I use a total T3 and I use a reverse T3.

And the reason you have to do that is because reverse T3 is something that's present in your body in such small amounts that there is no free reverse T3.

And a lot of people don't realize that when they do a reverse T3 test that that's total reverse T3. more comparable to a total T3 than it is to a free T3.

As a matter of fact, it's like comparing apples to bowling balls. There's really not a direct comparison of free T3 to reverse T3 without a lot of complicated calculations.

And because you have a total T3 available, you don't need to do a calculation that's complex. So what I do is I take those two numbers and when I first look at them, when I get the labs back and I look at those numbers and I say, oh, wow, your reverse T3 is 25. Holy cow, that's really bad.

Oh, your total T3 is 67, yeah, that's really low, that's really bad. Even though those are not technically out of the normal range for those two labs, when you combine the two, if I say total T3 divided by reverse T3, and I get a number, and that number ought to be about 12. When your thyroid hormone comes out of the follicles and into your blood, the ratio of total T3 to reverse T3 is about 10 to one.

And so if your body is inactivating your T3 and creating more reverse T3, then your ratio will be lower than 10 to one. If your body is activating T3, then that ratio should be above 10 to one and you're probably fine.

People don't realize it. They say, oh, well, there's not enough T3 in your body or you don't need more T3 in your body as long as that ratio is 15. T3 to T4 ratio is what they're talking about.

Not above 15 to one. And it's like, wait a minute, wait a minute. This has been misconstrued, taken out of context. So T4. goes into the follicles of the thyroid gland.

So maybe we ought to step back, hang on. So thyroid hormone is made in your thyroid gland and then it's stored there in follicles. And when it goes from being made to being stored, some of the T4 gets broken down.

Some of the T4 gets made into T3. Some of it gets made into reverse T3 as it's packed into the follicles.

Reading T3, Reverse T3, and Ratios

And it comes into those follicles at this 10 to one to 0.1 ratio, you know, 90% of it's T4, 10% of it's T3, 1% or less of

it is reverse T3. And then when it comes out into your blood, it should maintain that ratio.

If it doesn't, then you can tell, okay, it's being inactivated or it's being activated. because 80% of the T3 that your body needs is made in the body tissues in the cells.

And so a lot of people don't realize that and they're like, oh, there's already too much T3 in your system. It's like, yeah, but you need five times more than what's already there inside your cells.

And so if you're not activating T3, you know, T4 to T3, then you probably don't have enough. Fatigue, brain fog, mood swings, weight gain. If you're a woman in your 40s to 70s, you've probably been told that it's just aging.

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Visit TrulyHealthyMD.com and book a consultation today. It's time to feel like your real self again. So it's one thing to measure what's in the blood, but it's another thing as far as what's actively in the tissue and is intracellular and exerting its action.

Yeah. And, you know, and unfortunately we can't measure the activity of those enzymes except indirectly. And we can't take a tissue sample of your liver, for example, to see how much T3 you're making once the T4 gets into your liver.

We can't really do that. That's something people do in research, but that is not something we can just do. So once I've got those numbers, What do I do?

Well, okay. So for example, I'll just give you an example. So I saw a lady last week and she's just very, very tired and she's been tired for about 15 years and she's had her TSH checked, you know, a dozen times probably.

and never never told anything's wrong with your thyroid but last year she found out she has thyroid nodules oh my gosh maybe it's a tumor maybe it's cancer blah blah so they did the whole workup they did the needle test they said okay this is this is lymphocytic thyroiditis which is another name for Hashimoto's disease and they did the the TSH test and it was still fine, but they did her antibody test and oh, it's positive.

It wasn't giant positive, but it was positive. You know, I pay less attention to, once I know that antibody test is positive, I pay a bit less attention to it if it's in the low, mid-ish kind of range because it's like, okay, this lady's probably had Hashimoto's disease for 17 years, you know?

Getting her antibodies down may be something that is important to her, but what's important to me is fixing her symptoms that she has right now. And so I get my labs, I get my total T3 and my reverse T3 and I get her free T3 and I get her free T4 and I look at them and I'm like, okay, her free T4 is 1.3, 1.2. That's a pretty good number.

That's not in that high range, but she's not on any medicine. When the free T4 being high, is important is when somebody's already on thyroid medicine.

And so that's something to keep in mind for later. Her free T3 was 2.7. That's pretty low for somebody who just woke up in the morning and has to get through their day.

and they're in the bottom half of the normal range. But the most telling thing for me was her total T3 divided by reverse T3 ratio is 6.1, half of what it ought to be, half of it.

So that means her body is inactivating her T4 to reverse T3 rather than activating it to T3. And so when she comes back for me to treat her, I will be offering her a dose of a T3 containing medication to try to get her energy level up.

So important to look at all those numbers. And I'm sure that patients are very grateful when you can give them those answers, especially sounds like people who have been very symptomatic for a long time.

before they get these answers in some situations. It's, it's really true. And I, you know, having been there myself, and we talked about this last time, having been there myself and had the thoughts, you know, when you're told over and over again, Oh, nothing's wrong.

Everything's good. You get this idea. Oh, I'm just lazy. I'm just defective. And that. Negative self image just, I don't know, it poisons everything you try to do in your life.

It really, really does. When you're just too tired to do everything, you're too tired to keep up with your kids. You're too tired to go on and do that high power job that you were inspired to do when you were 17 years old.

Or you didn't even go there because you knew at 17, you were already too tired to do it. And so it can be. devastating for people to think that they are defective in some way and that there's no treatment for it.

It's really horrible. And also very enlightening when they do find a physician that can explain this to them. Yeah, well, you know, and it's really interesting because my first, my initial, when I started on a medicine that had T3 in it, and I always had the normal TSH.

So, you know, I went to that lecture and I heard that list of symptoms. And I went, holy crap, that's me. I want to try this. And I found a doctor who was willing to help me, which was great.

The, the revelation was, holy cow, is this what normal people feel like? I didn't even know. I mean, I had accepted, I'd been that way for 20 years. I had accepted that this was going to be my life.

And then all of a sudden, boom, it's like, Oh, I can get up in the morning. I don't have to hit the snooze 14 times. I can get through the day without feeling like I got to have a nap after lunch.

And you know, I was already in attending when that happened to me. It was. It was really a big thing in my life. So yeah, it makes you really motivated to help other people.

Yeah, for sure. And something we like to work a lot in functional and integrated medicine is it's not just diagnosing these people, but also trying to help in the side of prevention.

When a lot of people get to see us, they already have significant disease. But if somebody were to ask me, What can I do so that my child, let's say, doesn't develop Hashimoto's?

Prevention: Nutrition, Vitamin D, and Iodine

Are there any steps that we can give them? Oh yes, absolutely. You know, and the number one and the most simple one and the cheapest one, and you're going to laugh, it's vitamin D.

It's, you know, send your kids outside to get some sunshine. If it's winter, hand them a capsule of vitamin D and make them take it. Really, because, and people don't realize this and they don't understand this.

Vitamin D3 does something with immune function that we don't really fully understand yet. And the rheumatologists have come out and said, yes, vitamin D is important in preventing lupus.

And they mentioned a couple of other important rheumatologic diseases that are very, very debilitating and sometimes deadly. And since Hashimoto's disease is an autoimmune disease, It's like, yeah, we want to keep people from getting this.

And if you look at the studies, the farther away from the equator, your place of residence is your city. The higher the level of the higher the incidence of different autoimmune diseases, like there is no type one diabetes.

In cities near the equator, there is none, but in Stockholm, it's rampant and it's just like, okay, what's the difference? Well, a lot of it is the latitude.

A lot of it is the amount of sunshine people get and. If you don't naturally get your sunshine, where are you going to get your vitamin D? Well, you got to eat it.

And most people do not like liver anymore. They don't eat fish liver, especially. And so it's like, well, okay, what are we going to do? I guess we're going to take a supplement.

And I see that over and over again, that the onset comes when people are really stressed out. and when their immune function is suppressed in some way.

And I think vitamin D is a big important part of that. I mean, the other things are to do other things that lower inflammation in your body. It has a lot to do with what you eat.

It has a lot to do with basically rainbow diet, lots of fresh vegetables of all different colors. It has to do with eating healthy, lean protein and fish and staying away from the pro-inflammatory sugar, carbs, refined foods that so many of us eat these days and that kids just love, you know, that kids just love.

And it's just like, you know, teach your kids to eat right from the beginning. Don't give into the, oh, I'm going to make them mac and cheese while the rest of us Eat salmon and green vegetables, you know, that's it's just a big pain in the ass.

But yeah, it's, it's hard. It's hard to teach them, but definitely, definitely worthwhile and not just Hashimoto's, but so many other things that are just rampant at this day and age.

So many kids with anxiety, depression, attention deficit. So many things that we know will get better if they are able to have healthier eating habits.

If they eat well. Another thing that seems to be more of an issue in women is that if once you start your period, if you have very heavy periods, if you're getting anemic or even if you're not anemic yet but your iron levels are low and your ferritin levels are low, those can be a trigger for Hashimoto's.

Low iodine is another thing that's pretty rampant in the United States and insufficient iodine is it's not a trigger for Hashimoto's. As a matter of fact, too much iodine can actually trigger Hashimoto's.

And so you have to be really careful with iodine. But there are lots of other thyroid related issues that if you have insufficient iodine, you're not gonna do well and you may end up with a goiter or just hypothyroidism in general.

And so the best place to get iodine at this point for the foreseeable future seems to still be iodized salt. I mean, the reason the US government basically started having iodized salt in the beginning was just because of the rampant goiters back at the turn of the 20th century.

And it was amazing because when they started supplementing iodine in the states, which is particularly the Midwest area, in those states where iodine Was low in the soil.

I mean, they said that the average IQ of the people who live there went up some like 15 or 20 points. I mean, it was It was like, what? How can that be?

And it's just that that's just how critical iodine and thyroid hormone are for brain development. And people don't even think about that. But but yeah, there's there's a lot of a lot of prevention of Hashimoto's is just nutrition.

And I know that's weird, but it really is. No, it's not weird. It definitely goes in hand with a lot of the things that we see in integrative and functional medicine.

Really, the cornerstones of health just always go back to nutrition, exercise, stress management, sleep. Sleep. Oh, yeah, sleep. Yeah, absolutely. As you know, it might sound kind of simple, but really it's a complex problem to have those habits optimized and so that we can optimize people's health, hopefully prevent diseases and people that

develop diseases.

help them peel as easily as possible when we get back to these basics. Yeah. Yeah, absolutely. Yep. And so you mentioned earlier that when you prescribe thyroid medicine, you will sometimes prescribe T3, which can be called liothyronine, cytomel.

I've heard that some people are intolerant to this. Is that something that you come across in your practice? Yes, actually it is. And it's not. that they are intolerant to the thyroid medicine itself.

I mean, now, yes, some people are allergic to the binders and the fillers that are in. I have one patient, for example, that's very, very allergic to corn, and there's cornstarch in some of the cytomel and lieth ironine pills.

And so she has to have a specific manufacturer or makers because she can't take the cornstarch.

Why Some People Don't Tolerate T3

But for the most part, there are three things, excuse me, there are three things that can make you not tolerate T3. And the number one and the simplest one to understand is the fact that people who have unrecognized low thyroid for a long, long time are generally drinking a lot of caffeine, a lot of caffeine.

and not getting any side effects from that caffeine because they're so sorry about that. And because their metabolism is so slow, they just don't get the effect of that caffeine.

But once you give them T3 and it starts ramping their metabolism up, all of a sudden they are getting jittery, they are getting shaky, they can't sleep at night.

Why is that? Well, because they are now experiencing the side effects of the caffeine. And so I always have to have people titrate down their caffeine as they titrate up their t3 containing medicine and it's like okay go to half as much go to half as much go to half as much and by the time I've got them on the full dose of where I think they are going to need to be They have to temporarily go off all of caffeine.

Another thing is ADHD medicine kind of does the same thing. I think a lot of people who have hypothyroidism have gotten diagnosed with ADHD because their attention span is just short.

They're too busy surviving to pay attention. And, and, and, you know, ADHD medicine is a stimulant. And so same thing, you give somebody something that boosts their metabolism.

All of a sudden they are. really feeling the effects of that stimulant and they blame it on the T3. So that's one. That's the number one. The next one is insulin resistance.

And so an insulin resistance is kind of a double whammy because having low thyroid function, low thyroid signaling increases your chances of having insulin resistance in the beginning.

And then insulin resistance is so common anyway. And if you have it, And all of a sudden you're taking T3. Now your blood sugars really start to fluctuate.

If you eat something that's high in, you know, high glycemic index, if you eat something that's going to shoot your blood sugar up, all of a sudden your insulin response is going to be stronger than it was.

The next thing you know, you're hypoglycemic. And so then here you go again. What do you get when you get hypoglycemia? You get a burst of adrenaline, which makes you jittery, shaky, your heart beats fast.

You feel all, I don't know, it's horrible. And so people blame the T3 once again. It's like, okay, you've got to really be careful with what you eat when you start taking T3.

And you may have to go to a slow carb or a low carb, more low carb version of what you've been eating in order to tolerate the T3. So that's number two.

And then the number three is adrenal problems. And, you know, I'm not a proponent of the diagnosis, adrenal fatigue. I'm not really sure that's completely a thing.

And I know if you talk to endocrinologists, they're like, oh, that is absolutely not a thing. But I think, I think in general, that is a term that Even those that supported it 10, 15 years ago, those people are trying to find a different terminology.

I think now more like HPA axis dysfunction, things like that. Yeah, HPA axis dysfunction. So you can have two issues with HPA axis dysfunction. You can be making a lot of cortisol or you can have made a lot of cortisol for so long.

that your adrenal glands have basically run out of raw materials and run out of nutrients, and all of a sudden they are just not keeping up anymore. And I think that's probably where the term adrenal fatigue came from, is those folks who are just literally not keeping up anymore.

And if you boost the metabolism to somebody who cannot mount a cortisol response, they will feel awful. They will feel like they can't crawl out from under the table.

And so it's very, very important to boost the nutrition that is specifically needed by the adrenal gland, which is gonna be your B vitamins and your hormone precursors.

As a matter of fact, there's one particular supplement that I give people a lot that's actually the ground up adrenal cortex of an animal. And I know a lot of people don't like that idea, but it can be super helpful and it can make it to where then when I boost your metabolism, You're like, oh, okay, I can tell this is helping me.

I feel my energy coming up. And some people, the adrenal and the thyroid are so wrapped up in each other that They don't even need the thyroid medicine.

You fix their adrenal function and all of a sudden their TSH comes down and their thyroid hormone levels come up all by themselves. And you don't even need to supplement it.

So that's kind of a fancy, fantastic thing. But it's also important not to overdo T3. And I will say that one thing I read in a philosophy that I think I'm kind of leaning towards is that too much T3 is basically a stimulant.

It's like taking speed. And yes, it is going to raise your heart rate. It is going to raise your metabolic rate, your fat burn. I mean that's why Graves disease people get skinny and are jittery and can't stop talking because they're basically overdosed on thyroid medicine and so it's really really important if you're gonna take T3 that you watch the levels of T3.

I can't give somebody a thyroid hormone and not check their levels. And when I start, I'm checking them every six weeks. And I don't want to see a T3 level that's high out of the normal range.

I just don't want to go there. That brings up another thing. I have seen practitioners And most of them are not physicians who recommend that you take your T3 at 2 in the afternoon and you don't do the lab test until the next day.

And that's not physiologic because, and this is complicated, you know, for somebody who doesn't have a science background may not understand what we're talking about, but when you take T3, when you swallow a T3 pill.

Dosing, Lab Timing, and Avoiding Overmedication

It lasts in your body maybe 12 hours. I mean, by six hours after you take it, half of it is gone out of your blood. By

12 hours after you take it, another half of it is gone.

By 24 hours after you take it, you've maybe got 5% of it left. And so if you wait from two in the afternoon when you took your T3 to the next morning at nine or 10 to take your blood test, it's going to look low.

And you may be tempted to say, oh, well, I need to take more, take more, take more. Well, I mean, the best time to check to see how much T3 you're absorbing and is getting into your system is at about that halfway point, about six hours after you take the medicine.

And so if you see a provider or a practitioner or a thyroid nutritionist or somebody who's not even a physician recommending that you skip your thyroid dose the day before you go and get your labs because they're trying to make it look like your T3 is way lower than it really is.

Run away. Run away from that person because they are completely and utterly missing with your labs the majority of the time when your T3 level is actually quite a bit higher than what they're finding on the lab.

That scares me. It really scares me. That can be dangerous because overdosing T3 can be extremely dangerous. Overdosing any thyroid. Well, we just talked about Graves' disease.

What happens to them? They go into heart failure. It just overstresses their heart. It's toxic. So yeah, you can't spoof your body. You can't spoof your body.

So anybody that tells you to hold your thyroid medicine before you take your labs, Don't go to that person. Yeah, it's unfortunate that some people have had that experience.

Well, the sad part about it is that you may feel really good. If a woman takes a man's dose of testosterone, you feel really good for a while until your hair starts to fall out, until you get aggressive and start yelling at your kids.

I don't know. There's some, there's some funny, funny business going on in, in the health world these days. And some of it grates me the wrong way. Yeah.

Well, I'm glad that we have people like you coming on these podcasts to, to educate the public and to help people better understand these things. Cause yeah, I can see how as a consumer, it would be a little bit challenging.

Sometimes some of these people who are not physicians spend a lot of money on their marketing. And so it's hard. It's hard to distinguish sometimes. So educating is the best way of empowering people out there.

I agree. I agree. 100%. Absolutely. Well, I really love having this conversation. I think this is just very, very, very useful for people out there to understand their thyroid, understand their symptoms better, understand what type of provider they should be looking for to best support their health.

Do you have any key takeaways for our listeners today? Okay. So key takeaways is it's important how you get your labs drawn. It's important what labs you get drawn and it's important how you time your medicine.

So that's one other thing that we didn't quite talk about was when I give somebody medicine that contains T3, Because it doesn't last long in your body, it's very short acting.

You do have to take it at least two times a day, sometimes three days, three times a day in order to get the best symptom relief from it. And so if you're going to do that, then it's important to check your labs.

Like I said. at the same time every time after you take your thyroid medicine. And like I said, I send my patients six hours after they take their morning meds, I send them to the lab and they have to do that the same time every time.

That really helps cut down on a common thing that I see, which is one time I went to the lab and my labs were up here and the next time I went, they were down here.

And so you're chasing the dose with the thyroid medicine all the time up down up down and the patients like, why can't I ever get balanced? Well, the simplest reason is you're not taking your lab lab tests at the same time every day.

But anyway, it makes it makes a lot of sense. And These tips are great, great pearls for so many people, so many people that deal with this. So thank you so much for being back on the show.

Wonderful, wonderful information. Thanks, Dr. Gibbs. You're so welcome, and it was great to be here. Take care. Thanks, you too. Thank you for tuning into Doctor Talks.

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