# Ep23

#### SUMMARY KEYWORDS

lyme, spirochete, part, antibiotics, lyme disease, bacteria, patients, medical intuitive, western blot test, virus, mitochondria, adapt, treat, symptoms, creates, controversy, carol, lab, rash, test

#### **SPEAKERS**

Carol Ritberger, Mary Louder



# Mary Louder 00:00

Hi, and welcome to the next episode of Since You Put It That Way. And we are now in the episode of another Cosmic Health and Wellness with our guest Dr. Carol Ritberger. We are a dynamic duo today on this topic, we're talking about Lyme disease. And we're talking about the historic aspects of it diagnostic aspects treatment--actually, treatment's going to be in part two, because this is a two-part series. But we're talking about all aspects of Lyme disease. Now, some of it's a little technical, most of it is straightforward and very easy for you to understand. But let me be very clear, Lyme is a concern. Lyme disease is real. And Lyme disease is really something that can be diagnosed accurately. So don't let anyone tell you anything other than that.

#### Mary Louder 00:53

And no matter where you're listening from, in America, I'm thinking of America, for sure, if you can't get access to Lyme testing, go to my website, drmarylouder.com. Because you can actually get a test right there, you can buy it right online from my website, and have yourself tested for Lyme. I offer online consultations and second opinions. And then we can get you set up locally with physicians who are in your area treating Lyme. And I can help you sort this out. So while I offer all those services, today is really, really a great discussion about what Lyme is and what it means and how to diagnose it and its implications in our chronic health and, really, our healing. So it's a great episode, part one of Lyme disease. And then after that, with Cosmic Health and Wellness with Dr. Carol Ritberger, stay tuned for part two.



#### Mary Louder 01:52

Well, welcome again to our episode, another episode of Since You Put It That Way and our special series within that with our ongoing guest host, I guess you're you're more like family now, so, you know, make sure you close the door, take out the trash and wipe the table right over.

Carol Ritberger 02:08 Exactly.

# Mary Louder 02:11

Dr. Carol Ritberger, who is my comrade in arms here, but today we're going to be comrades in Lyme's as we kind of go through how that affects patients and what that's all about. So welcome again, Carol. I hope you're doing well today.

# С

#### Carol Ritberger 02:27

Thank you. Thank you. I'm looking forward to this topic. It is one that can be very expensive and controversial.



# Mary Louder 02:34

Yes. So let's, let's just jump right in with both feet. So--

Carol Ritberger 02:38 Allrighty.



# Mary Louder 02:40

So, and I would say let the controversy begin. What we know for sure is that both Carol and I, I'll speak for both of us right now and Carol can correct me where I'm wrong, is our heart is just to get truth out there, our heart is not to have any type of agenda other than to help patients and be advocates for patients in quality health care and quality care and health and wellness overall. So you know, we have no other gains in this type of conversation that I'm aware of.

# Carol Ritberger 03:11

Exactly. Well, and I think it's a perfect time to build on that, Mary, from the standpoint of reiterating why we call it cosmic health and wellness is because that cosmic looks at it from that expansiveness, instead of the limitations that we know of science. And science is certainly learned a lot, answered a lot. But one of the things that you and I both try to bring to the table is a broader perspective of what's going on. So we can look at all the underlying things or contributors that could possibly be something that someone could so easily just look at and say, I can deal with that. I can do that, I can make that change. And so I think it's a perfect time to really go back and say this is what we do.

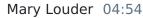


#### Mary Louder 03:55

Yeah. Great. Thank you. That's excellent. Okay, so Lyme disease, we got kind of an interesting approach to this today, we're going to take on some forms of things, and it's going to be quite, quite an excellent conversation. So, I'd like to share just a brief history of Lyme became from the town court, you know, kind of by Mystic Pizza, but the actually the city of Lyme in Connecticut and said, I would rather talk about pizza versus line. But anyway, we won't, we'll just move right through that instead of Mystic Pizza. We're really in Lyme, Connecticut, and it was really documented in the 1970s. But the history of Lyme is more ancient than that. And I have to look at notes to give you the exact dates, because I was actually quite surprised by this. And, a study done in 2017, in the Yale School of Public Health, they looked at the genome of Lyme.



Yes.



And they figured that its presence traces back at least 60,000 years.

C Carol Ritberger 05:01 Yep.



# Mary Louder 05:02

Yep. So that's 60,000, not just, that's 60,000. And that means that the Lyme bacterium has circulated North America since long before humans ever arrived on the continent.



# Carol Ritberger 05:19

So when we think of it, we don't--it's important to note that because of its adaptiveness.

# Mary Louder 05:26

Yes. Yeah. And I think, to me, that puts a spear, in a good way, in one of the controversies that I deal with is, when people say, where did it come from? A lot of people think it's biological warfare. I tend to think not. And I never felt that and it just never honestly, as a physician studying it, that--that step never resonated with me. But just somewhere off--they were bombing the east, the northeast coast of America, giving people Lyme and not owning up to it. And I just never bought that. But I have heard that time and time again. And I've been



questioned about that, as a physician. And so to go back and look at the genome of it being at least 60,000 years old. To me, that puts that controversy to rest. And I was thankful to find that.

# Mary Louder 06:19

And then your they had reports of the colonialists, the--in the colonies, of course, the 13 colonies. In North America in the 17th and 18th century, there was the prevalence of ticks in forested areas, and they had reports of Lyme-like syndromes or Lyme-like symptoms, achiness, fever, persistent fatigue, but obviously didn't know what it was. And that showing with some of the statistics from there, and the historical writings, that the ongoing Lyme disease epidemic was not sparked by a recent introduction, or even an evolutionary change. But that it has just been endemic to the northeast part of the country, and moved as the ecology has changed across the continent. Yeah.



Carol Ritberger 07:18 Exactly.



Mary Louder 07:19

Okay. Nothing to add to that, huh?

# Carol Ritberger 07:22

No, no. And I--no, I think, you know, that's a perfect. I think the the thing for me is when I was going with that, is that in the research and stuff that I've done as well, I think that it's important to take it away from just happening. And especially now we become so sensitive to things just happening, it's a--like as a medical intuitive, it's like people will say, Well, I just woke up and I have this thing, well, no, that thing has been around for a long time, takes a perfect environment. And again, when we look at the bacterium qualities of a spirochete, that basically is what goes into the body and everything is we have to realize it is ancient. It is something that adapts. And I think that's really important for us to recognize when we're either addressing it with a patient, or we're looking at treating at it is that it adapts. And the other part of it is, is that it's a living organism versus a virus, which is the nonliving organism.

# Carol Ritberger 08:25

So a nonliving organism of a virus has to have a host in a different way than a bacteria does. So when we start looking at it from this perspective, then it just shows kind of in the way with a spirochete is, that can cross that blood barrier from the body to the brain, we can look at it from that ancient part that it just keeps evolving. And it just keeps going through the barriers that basically cause it to evolve or to be able to form and it just continues on. And it you know, in many ways, if we look at it also as well, when we look at it is is that it's mammals, it's that warm bodies, it's the cellular structure of the mammal, it's the gut issues that an--but that we

have, and that, being part of the animal kingdom. So again, it's thank you for finding that because I think that's an important element in how we look at this overall, and how we treat it and how we've used antibiotics to treat it in this current time of using them and how wonderful they are. But realizing that they're always evolving, they're always adapting and I think that's what we need to address as well.



# Mary Louder 09:38

Yes. And now you're getting to part two, hang on there, you intuitive, you.



#### Carol Ritberger 09:45

Sneak preview, sneak preview.

#### Mary Louder 09:46

Hold your horses. Okay, back to the history lesson. All right. So we're going back to the early 1900s, and actually there was Lyme in Europe. And vision came up finding that between 1909 and 1912. And he speculated that the rash that was seen also was from ticks. And that led to research confirming the use of penicillin as a treatment, so then people thought, at that point, then Gosh, antibiotics play a role. Is this a bacteria? Well, then fast forward to 1976. And that's when we get into Lyme, Connecticut. And then there was a group or a cohort that--of people that were suddenly stricken a lots of people with a mysterious illness of arthritis and juvenile arthritis. So that would be arthritis with abnormal labs in kiddos, rheumatoid factors, antinuclear antibodies, sedimentation rates, highly sensitive C-reactive proteins all elevated in kids with joint pain.

#### Mary Louder 10:58

So that's going to get someone's attention if there's a group of that. And yet, they couldn't quite explain. But they also saw a characteristic rash, which we know now as the bullet or bullseye rash, erythema migrans. And they weren't quite able to make the diagnosis, but they saw the consistency. And it was that--at that time, they said, Gosh, that's when we really think the ticks might be a vector. But then it wasn't until 1980, which is, you know, just four years later. And they really confirm that the antibiotics suggested bacterial cause of Lyme because they used antibiotics, and therefore it was a treatment. So it was a reverse engineering. And then 1982 is when they discovered the bacteria, and that was by Dr. Burgdorfer. So that's how we got the borrelia burgdorferi it was named after him in 1982, when there was an outbreak of both Rocky Mountain spotted fever, and then also the cases of Lyme. And so that's how it's kind of evolved to really find the bacteria.

# Mary Louder 12:07

And now, hang on, at least 13 distinct genomic classifications of Lyme-causing borrelia have been discovered worldwide. And they're continent and/or country-specific. Now, interestingly, I discovered a contlement with Lymp a country and he had be had be a content of the second seco

anagnosed a gentieman with Lyme a couple years ago. And he had his symptoms for approximately nine years. And no one could find out what was going on with him. But I was able to use testing that was advanced testing, not just the western blot, and we'll get into that, again, previews. And then we, we found and isolated that his Lyme came from Europe. And he was backpacking in Europe. Now this guy was treating in, in West Michigan. But he was hiking in Europe, and the genomic classification of his Lyme came from Europe.

С

Carol Ritberger 13:07 Yep.

Mary Louder 13:08 Yeah.



М

# Mary Louder 13:10

So, very fascinating that we've got all these cases, all these classifications, and yet, it's still-let's step into the controversy of that. To me, in my mind, looking at historical and genomic information tends to take away controversy. So why--why do you think the controversy remains as to its presence, its reason for being, its identification, you know, just on the planet, and things like that. Where do you think that controversy comes from?

# C

# Carol Ritberger 13:47

Well, I think first of all, it comes from the fact that the way we look at the diagnosing process through the symptomology of things, that a lot of the symptoms that Lyme presents are very similar to lupus, they're very similar to a lot of various autoimmune disorders, gut disorders, SIBO. I mean, there's just a lot of dynamics that have to take place in order for to know which antibiotic to use or to know what they're actually dealing with. So I think that's the first controversy is that there's, you know, I think that it's, I'm beginning to see that we're finding kind of a standard, and that's a double edged sword in itself. But there isn't a standard that kind of like with fibromyalgia, there's 13 points, if you have 12 of the 13, then most likely, you're dealing with fibromyalgia. That's not the case with Lyme.

Mary Louder 14:39 Yeah.



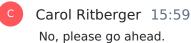
# Carol Ritberger 14:40

And so I think that's part of the controversy. I think the other part of the controversy is the fact that we don't recognize the long term effects of it. We can recognize it, we can test it, we can throw antibiotics at it when it's in that, in that first part of that infectious stage. Antibiotics work. They're very, very effective. But after a while, because the spirochete of that bacterium is so adaptive, then what it does is it actually changes and adapts to its internal environment. It adapts where it's going to infect and so forth.

# Carol Ritberger 15:18

So I think what we do is we look at like Kris Kristofferson. So for years, he thought that everybody thought that he had Alzheimer's disease. And finally, through just kind of a trial and error, they found out that he had Lyme disease. And this was like, I don't know, nine years, 10 years, 12 years afterwards. And I think that's part of the controversy is that people maybe don't know that they've got bit, they don't know that they're infected. A lot of times with the infection only lasts for a very, like a week, two weeks, maybe a month, and then goes away. And then all of a sudden, five years later, it pops up. Nine years later, it pops up. So I think that's probably the controversy.

Mary Louder 15:57 Yeah. I think--go ahead.





#### Mary Louder 16:00

I was saying, you know, in it's acute presentation, because we're gonna take you through to being a spirochete, I hear you get character references here.

С

Carol Ritberger 16:10 Sneak preview.

Mary Louder 16:12 Method acting, I'm sure is what it is.

Carol Ritberger 16:14

Absolutely.

# М

# Mary Louder 16:16

But in looking at that acute phase, when I've been like in the urgent care setting, or the primary care setting, folks come in, and they have--you know, there's a saying, you can only diagnose that what you entertain.



# Carol Ritberger 16:30

Right.



# Mary Louder 16:31

And, and I'm not talking entertainment, I'm talking that what you think about. I'm being, I'm being earnest in this. And I have to say, this is where my intuition has kicked in more than not, because I would take a history and ask questions. And people go, Oh, I feel this. I feel that.

# Mary Louder 16:51

And then one of the basic questions, you do a review of systems head to toe. Why. So you go head to toe, and you don't miss anything. And you ask the same questions in the same order all the time, so you don't forget something so you don't miss something. And you are trained that way so you do it the same way. So that you do the same thing over and over again. And within 100 normals, you hear one abnormal, you go, Aha. Wait a minute, say that again. That's exactly why we're trained the way we're trained. Exactly. And so in that process, and then going through a review systems ask those questions, rashes, Oh, do you know I have this rash, funny rash on my leg. Really? What did it look like? Oh, now they say I have a picture. Before they used to say, well, it was kinda like this and kind of like that. And I'm like, Oh, interesting. And so then whenever I saw a bite with a fever, or fatigue, or joint pain that came with it, and they were outdoors.

С

Carol Ritberger 17:53 Yep.



# Mary Louder 17:53

100% of the time. Yes, I'm using absolutes. I always treated them for Lyme's. I have done that for 25 years, if not 30 years. And then the majority of people never had problems after that. Now, I didn't test folks, mostly, because I didn't. And then as I got more into my career and seeing patients with chronic things, we'll talk about that later, the testing occurred. But in that acute phase, you're exactly right. Antibiotics, 10, 14 days, sometimes 21 days, kaboom, it was taken care of, and they were great. You know, and so.

# Carol Ritberger 18:31

Because it hasn't reached that adaptive stage yet. And the other thing is, is that the way that you approach it, by asking the questions and taking your intuition and your medical background, and looking at symptomology, and connecting those dots, then you can, you can actually come to a conclusion faster than testing does or doing, you know, let's throw this at it. And if we don't know that it's a Lyme disease, and we're going to throw maybe an antibiotic that is still an antibiotic, it still can be effective, but it's not going to fight it. And I think that's something that doctors are now realizing is is that, you know, if you're going to, from the medical perspective, you're going to err on the side of helping the patient, start treating it if they have like, like, with fibromyalgia, if they have a lot of the symptoms that go along with it, start there, because it's not gonna do any harm.



#### Mary Louder 19:26

No, it'll do--and then we'll do less harm if you treat than if you don't treat.



# Carol Ritberger 19:32

It's--oh, absolutely.



# Mary Louder 19:33

You know, and what--and I have heard patients, you know, go to physicians, and then you know, I've always been a second opinion person too, meaning people come to me for second opinions. And then they would go Yeah, well, no, I said all these things. And they say, No, well, you're not that bad. You don't need to be treated. And I'm like, I don't know what "that bad" means. Because it's there, it's present.

#### Μ

# Mary Louder 19:54

And so it's just one of those things that you would just move to emp--treat and I would even call empirically treat, based upon what's in front of you without, you know, a lab test that's confirming something, you empirically treat for Lyme, 100% of the time. And so if you're a patient and you have been hiking, you've been in the woods, or something's happened, you've had this rash, had this, you know, joint pain and stuff, and this is you feel this is still in the acute phase, go get treated, insist on getting an antibiotic, you know, until you can fully advocate for yourself. So, so we've got that acute phase that we can deal with. And that's really good. Now, Carol, you're going to morph into a spirochete here, wait for the special effects! On the edge of my seat.

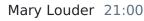


# Carol Ritberger 20:47

Well, you know, it's a medical intuitive, even in in the way that we work as medical intuitives,



we're always looking for an underlying contributor.



Yes.



# Carol Ritberger 21:00

And we're always, you know, whether it's emotional, or energetic, or psychological or stress, whatever it is, we're always looking for that. And one of the things that I found with Lyme disease is that Lyme disease happens to us, it doesn't happen because of us.

M

Mary Louder 21:17 Right.



# Carol Ritberger 21:17

And that's a big, that's a big, it's a much different approach in how we look at things. So as a medical intuitive, in order to understand and truly to be able to put yourself in that place of stress and frustration of the other person, I always go to the source. And when you do, and you look at the source, and you go in, and you look at a spirochete, and you look at the bacteria quality of it. And first of all, right off the bat, it's not a virus. So antiviral aren't--isn't going to work, which they used to do. But now.

# С

# Carol Ritberger 21:51

So you look at it, so I put myself into that place of a spirochete. And when you do, whether you do it on Google, or the way I do it, I look at the energetics. How does it move? What does it take to move? So the spirochete to itself is a spiral, literally. And what it does is it contracts and expands, it's like it propels itself, to be able to go to wherever it's going to create colony or create community. And what does that do? That requires, it has to have fluid, it has to have a blood, it has to have a lamp, it's got to have saliva, it's got to have some bodily fluid to be able to transport. Well, when it goes from the skin as that outer bite, and it gets into that lymph system and it gets into the bloodstream, then what it's going to do is it's going to start finding colony or community. And that's going to be in the cardiovascular system, it could be the cerebral spinal fluid, it also can be in the gastrointestinal tract.

# C

# Carol Ritberger 22:55

So when you start looking at it that way, and you look at the symptomology, that's the most--I'm gonna say it kind of in a dangerous way, the most common expressions of Lyme--those are the areas that are impacted. And then when you go in, and you look at the fact of the way that it does transport itself, and then the fact that it adapts. So like we've been talking about, when you're first infected with it, it's on the skin, it breaks into the barrier of the skin, it gets into the fluid part of the body, it hasn't created a biofilm yet. It hasn't created a protein yet, to be able to protect itself. So what does that mean? Our immune system doesn't recognize it. It doesn't have anything to be able to work with. So therefore, it just moves around freely until it gets to a place and then it starts adapting and creating. So when we look at Lyme and the spirochete, there's multiple phases. The infection, the part where it's just basically untethered, where it can be where antibiotics can work with it, and it's vulnerable, but then it moves into something called a persister. And a persister means that it's a spirochete that has adapted to the environment of where it has community and colony.

# Mary Louder 24:17

So that could be if--and that could be then based upon the hosts genomics, that could be on the host's microbiome.



Carol Ritberger 24:26 Absolutely.



# Mary Louder 24:27

That could be based between those two, because microbiome genome interface is going to determine biochemistry, what we call upstream.

Carol Ritberger 24:38 Yep.



#### Mary Louder 24:39

So essentially, these hierarchies are going to go upstream in the least resistive manner.

Carol Ritberger 24:47 Absolutely.

Mary Louder 24:49 For that individual.



#### Carol Ritberger 24:52

Absolutely. And that--and that least resistant place, strangely enough, can be part of the person's DNA. And it isn't like a virus, like the SARS virus with COVID. That was very opportunistic, very intuitive. Bacteria is well-defined. It's predictable. We know what it does. We--there's so many different kinds, but we know what to look for. So in this particular case, what we do is when the spirochete, is that we know, in order for a spirochete to continue to survive, it's going to do four things. What it's going to do is it's going to go in and the first thing is, it's going to create a defense mechanism. And that's that biofilm that it basically gets.

# Carol Ritberger 25:42

The second thing it's going to do is it colonizes. And it's not going to colonize, in a part of the body that is healthy or that doesn't have some propensity of some kind of dynamics of change, such as the gastrointestinal tract, is constantly changing. The other thing is it creates community. And then the final thing is, is growth. So when we look at that persister the antibiotics don't do anything to that. That's part of the thing when we go in and if somebody has a reoccurrence, and when I've worked with patients, they have the antibiotics, and they'll do it for a month or whatever it may be. And then everything goes away. That's true. But they're still spirochetes that are still existing, that are adapting, that basically becomes the persisters, and they grow and they multiply. And then they call it cause a reoccurrence.



#### Mary Louder 26:34

Yes. Now, in that phase, however, I will submit to you that I call that kind of the sub-acute, near-latent--I just make up my own terms.



Carol Ritberger 26:44

That's perfect. That's exactly what it is.

Mary Louder 26:47 Okay.



Carol Ritberger 26:47 Near-latent.



#### Mary Louder 26:48

All right, near-latent. It's kind of left of latent. In that situation, when I use antibiotics, I do use them because I get an initial relief for the patient.

Carol Ritberger 27:02 Absolutely.

# Mary Louder 27:03

Now, that helps them emotionally and mentally for the next stages. Yes. Because it's been such a long haul to get to that phase often. And they've been feeling so poorly that to get some relief--first they've had someone listen to them, then they've had some testing that's confirmative, then they have a treatment that works. Now, then, I say the real work begins. And so, and then, my goal then is to treat without having--with having the least amount of recurrences as possible.

# Carol Ritberger 27:39

Absolutely. And when we take--because when the spirochete is active, non-latent is active, then what it does is it creates an inflammatory reaction. And what antibiotics do is they support the immune system to be able to manage that inflammation quality of it, to be able to get the relief. And what does that do? You're right, psychologically when I said, Lyme happens to us and not because of us, the effects of Lyme disease happen after Lyme disease, the psychological part, that part of not knowing is your body going to turn on you? Is it going to be able to support you? Your world starts to shrink, when it starts to shrink, we don't move as much, there's, there's so many dynamics psychologically, that we when we're looking at, you know, the activity of a spirochete doesn't know what it's doing. It's just living, it's just doing its job. But those long-term psychological, emotional ramifications, create the inner stress that creates the inner environment that allows those non latent spirochetes to adapt yet to be able to--go ahead.



# Mary Louder 28:57

So say about--so go to the mitochondria, look at the mitochondria.



#### Carol Ritberger 29:01

This--So, so the mitochondria? Um, let me see.



## Mary Louder 29:06

Organelle. Outer lo--outer membrane, inner membrane called the cristae.

Carol Ritberger 29:14 Right.



# Mary Louder 29:15

Now, recent evidence shows that those mitochondria--all mitochondria are actually social.



Carol Ritberger 29:23 They are, yeah.

Mary Louder 29:25
And they have their own DNA.

Carol Ritberger 29:28 They do.



# Mary Louder 29:28

Different from our DNA. And they have less DNA than bacteria.

Carol Ritberger 29:34 Correct.



# Mary Louder 29:35

But they still have their own DNA, about 30 different genes, I think is about what it is in a mitochondria. But they communicate in a way that is in concert with the stress response, but that decreases energy per-per-energy production.



Carol Ritberger 29:54 Correct.



#### Mary Louder 29:54

Because we always know the mitochondria as the powerhouses of the cell making ATP which is the energy that makes cell go round. Dis--and then transcription and synthesis of proteins for both the DNA of the cell, and then all the cells proteins that are made and translated and transported and things like that. But the mitochondria within the adrenal glands also make cortisol.

Carol Ritberger 30:22 Yes, it does.

# Mary Louder 30:24

And those mitochondria work in concert one to the other. And so I would think. What are--I don't know. Okay, so I'm going to ask you, what do you think the spirochete in the bacteria does to the uniqueness of the mitochondria in an individual?



# Carol Ritberger 30:46

I think it, I think it creates community, I think it creates a way that the--that the mitochondria support its activities, it's part of the adaptation, quality about it, that it--it's almost like the spirochete. And I think we have to go and look at pH. And we have to look at a lot of different things, which we don't want to do right now. But I think what happens is that that's part of the things with the persisters is, is that they actually read the chemistry of the fluid, of the activity of the energy of the body, to be able to adapt, to be able to know, oh, well, this is this kind of stress. And that kind of stress is going to produce this kind of result in the, you know, fluid of the body. Oh, but this is a psychological or an emotional stress that has a lot of charge to it, that triggers maybe a lot of childhood things, a lot of different things. And it's reading. And what it does is it knows, I believe it's a spirochete, I know which stress is going to be my best friend. And I know which stress I need to just lay low.



# Mary Louder 31:55

Secause it would wipe out the spirochete.



#### Carol Ritberger 31:58

Because it will wipe out the spirochete.



# Mary Louder 32:00

Okay, so it's opportunistic in the way that's advantageous, in a latent, quiet, almost manipulative way,

Carol Ritberger 32:12 Absolutely. М

# Mary Louder 32:14

In not in your friend manipulating way.

# Carol Ritberger 32:17

I also am going to interject here, Mary, because I think it'll be also kind of the direction we're going. I think that the spirochete, the bacteria quality of the spirochete has also learned in its adaptation, how to be able to piggyback or to actually use viruses, to be able to create the environment for them to be able to do what they need to do. So for example, I think Epstein-Barr is a great example of a type of virus. And we know that if we, in the way that our gut works, and our immune system is connected to it, if we get too acidic, then it's an opportunity for a virus to become active. Well, that's an opportunity for a spirochete to become active. And when it does, then it wherever that colony is, or wherever it set up a community, I think, then it becomes active and it becomes--we have symptoms.



Carol Ritberger 33:19 Right,



Mary Louder 33:19 And by then we're well into the biofilm. Well--



Carol Ritberger 33:22 We are.

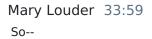


#### Mary Louder 33:23

--into the biofilm, which for folks what that means the biofilm is a mucal polysaccharide, covering, phlegm, mucus, whatever, that covers the cell, covers an area of the cell and underneath it, so it's like in a bubble. And bacteria live there, viruses live there. Obviously, the spirochete can live there. Other toxins are held there. And then what happens is it becomes its own little micro economy or micro community that grows to a size and then it breaks off, displaces, and goes somewhere else and repeats that again.



Carol Ritberger 33:58 Exactly.



Carol Ritberger 34:00

# And they know--yeah. And what we're learning also, as far as the gut itself, is that when we go in and we look at the microbiome of the gut itself, that's a protective barrier. And one of the things that the spirochete does is it literally takes when it becomes active--even though it's not really active the way when we're first infected--what it does is it literally nibbles away at that outer protective part of that biofilm, I mean, the sorry, the microbiome, to the point where there's even been some research under microscopic--microscopes, where you can actually see the spirochete eating away--it's almost as though that's just yummy to them, eating it away-that creates like tears creates like gaps within it. And then that leaves the cell it leaves the guy It leaves everything vulnerable. So again, when we look at the, you know, we look at--when we're looking at spiral key management, again, you and I are going to love this part of it. It's important especially for those persisters is, it's almost like angiogenesis--genesis, we need to starve them.



Mary Louder 35:17 Yeah. Okay.



# Carol Ritberger 35:20

wWe need, we need to eat things that are hostile to them, we need to create an environment that they can't adapt.

# Mary Louder 35:29

Okay, so here's a question. It's going to sound like it's coming out of left field. So it is. Mercury.



#### Carol Ritberger 35:39

Oh, my goodness gracious. Where do you, where do you want to go with that one, huh?



# Mary Louder 35:46

Well, it's, it's, I have a--and again, this is my intuitive. I'm going to use my intuition here. And that's from you know, how many hundreds of patients sitting in front of me. So I will say it's a combination of clinical observation and my intuition. I'm not hiding behind clinical observation. I'm saying that helps me think, right? And that's how I work. But what I've observed is folks who've had really heavy cases of Lyme, oh, nearly 100% of them have had burdens, toxic burdens of mercury within their system.



Carol Ritberger 36:19 Absolutely. Mary Louder 36:21 Yeah. Carol Ritberger 36:21 Absolutely. Even more so than lead. Mary Louder 36:24 Yes. Carol Ritberger 36:25 You know, it's just again, it's just Mercury is a very--Mary Louder 36:33 I almost wonder if it eats the mercury, you know, we need iron, right? We need iron--Carol Ritberger 36:37 We do. we do. Mary Louder 36:39 --to carry our in our red blood cells, to carry oxygen around. Carol Ritberger 36:42 Correct.

Co IIm wandaring if the entrachets if the hesteric requires Moreum, for its pressesses in same

Mary Louder 36:43

so i in wondering it the spirochete it the bacteria requires mercury for its processes, in some way that we really don't understand.

# Carol Ritberger 36:52

Yeah, well, again, remember, it's adaptive. Remember that it is, it's, it's the bacterias job, whether we're talking about the spirochete, or any bacteria, the bacteria has job is to survive. Based, that's the baseline of it, it's, it's going to do what it needs to in order to survive. That's why we're talking about it being so ancient, it's ancient, because it's learned how to adapt, it's learned how to survive. It's, you know, it could very well be that we have it on the East Coast, hypothetically, because where, you know, the settlers came, and they brought animals with them, or things with them then, that they could have been transported that way. Again, looking at it from that standpoint, the spirochete is a burrower. And it's going to find a place that it can burrow, whether that's bone, whether that's, you know, cells wherever it needs to be, but I think that you're right, you're right on as far as mercury, the way it was used, fillings, just so many of the different things, thermometers, so many different things we are constantly exposed to. I think that's one of the adaptations.



Mary Louder 38:02 Yeah.



Carol Ritberger 38:02 It just wanted to survive.

Mary Louder 38:03

Used Mercury, as you know, for cure. For treatment of disease.



# Carol Ritberger 38:09

Yep. Yep. So I do, I do believe that's the case. So when we look at the, you know, when I kind of get in and I look at the spirochete and I look at what it does, is that it changes the process of the gut, and how it functions and its relationship and dialogue with the immune system.



# Mary Louder 38:31

Yes. Yes. And that is when I see that clinically, it is layer--so, layer upon layer, and we can't, I cannot get ahead to, to treatment, because that's where I want to go right now. I'm gonna hold, hold, hold steady here.

Marv Louder 38:49

Hold steady, Louder. Let's just go step by step. So that that will be fine. Okay. And so then the other thing is if we go in into, okay, so is--does--I mean, can we say this has a purpose? Does Lyme have a purpose?



All right.



# Carol Ritberger 39:08

It--well, it does. I mean, it may not be the purpose we as humans want it to have. But in the evolutionary process, it has purpose, its job is to evolve.

Mary Louder 39:19 Okay.



# Carol Ritberger 39:21

And so from that particular standpoint, from that big evolutionary picture, yes. I think that it has purpose. As far as with us in the human part of us. You know, I've spent so much time trying as a medical intuitive to ask what the purpose is. And again, going back and becoming like a spirochete, it's like you sit down with it, I'd say to it, so now what is your purpose? Why are you in the human body? And I think its purpose as strange as it may sound, is that it's another form of bacteria that we already have so much, that maybe ultimately is part of what ultimately becomes the healing process. Maybe it's one more thing our immune system needs to become familiar with, to be able to work with. I know that's stretching it. But I think I think it may even--so I'm just going to say it. I think that the spirochete, ultimately, is going to be part of the evolution of our immune system's ability to be able to help us survive. Straightforward.

М

# Mary Louder 40:38

Okay. So a very interesting way for us to adapt.

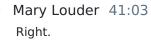


Carol Ritberger 40:43 Absolutely.

Mary Louder 40:44 Okay. Yeah.

# Carol Ritberger 40:46

Because it is, it is prevalent, it is predominant. It's something that we know from the cases, and now you say, with all these different areas in the research, which is certainly being supported is, is that anybody who goes outdoors runs a risk of this. Straightforward.





# Carol Ritberger 41:03

And what are we going to do? Implode and stay in, because we're afraid or whatever. It's kind of like COVID in many ways with the virus. I think that what it did strange to say, but I think that it is going to help us survive in the long run.



# Mary Louder 41:22

Okay. And you know, and maybe looking at that, from a humanitarian, self-compassion view, common humanity, we all have something. We all are a part of something. And we can have awareness, we can have compassion with ourself. It definitely knocks on the door of our mortality, and our morbidity. And our--a lot of people have a driven-ness that they adjust, you know, or their body helps them adjust to where they live more present life.



Carol Ritberger 42:10 Absolutely.



# Mary Louder 42:11

So this sometimes could be the gifts of some of the things we go through. Collateral upside, collateral leveling up, when you don't really--wouldn't be something you would choose, but something that, when occurs, could be something we could learn from.



# Carol Ritberger 42:29

Well, and exactly, and I think if we step in that cosmic perspective is is that, you know, we look at all the people who are dealing with this, who in the grander scheme of things, is a part of the change of medicine, is a part of the change that we heal, that's part of the change that needs to happen with the foods that we eat. That's part of the evolution of our species and everything. And, you know, as a medical intuitive and stepping back, again, this is what happens to us. But I think that there's a bigger picture, I think there's a greater good that comes from it. Now I know people who have it, they're going to sit there and go, right, Carol,



this is no good at all. I can't live my life. But I think in the bigger picture of everything, I think that it's part of the our being able, again, very simply to survive as a species. Yeah, it's homo sapiens.



#### Mary Louder 43:24

Yeah. Interesting. So when we look at the diagnostic dilemma, you know, the question is, is--is it Lyme? Is there more of it? Is it on the rise? Are we doing a better job diagnosing it? The answer to that is, yes.



## Carol Ritberger 43:44

Absolutely. All of the above. Check, check, check, check, check.Absolutely.



Mary Louder 43:50 Next question.



# Carol Ritberger 43:53

And you know what, and I'm gonna say this with great love. Thank you, all of you out there that have been the persistent ones that are basically the persisters, that are basically a part of this evolution that's taking place in how we look at illness and how we look at disease.

#### M

# Mary Louder 44:09

Yes, I--yes. And I think that's a really good point, because I would, I would concur with that. And I, you know, as a physician, as a healer, I would say to each one of those folks, I see you, I hear you, and I believe you. And I know what you're saying is true. And that that's your experience, and I get it. And now we got to figure out a way forward. So looking at diagnostic dilemmas, you know what the typical experience is, a patient goes in, they have this rash, they have this, they have that, you know, they get a complete blood count, a metabolic panel, they're told everything's fine, it's a virus, go away. They come back, they say, Hey, I maybe did a little reading. I'm wondering, I had this funny rash, it was round, I wonder if I can have a Lyme test. No, we don't test for that. Like, end of story, it's like, seriously, it's like hitting a brick wall.



Carol Ritberger 45:01 Right.



# Mary Louder 45:02

And then, or if you can convince someone to do pull, draw, western blot test--test came back

negative, you don't have Lyme.



# Mary Louder 45:11

Wrong. All of the above to that is wrong. And physicians are doing a horrible job with this. Providers are doing a horrible job, I can only pick on physicians because I'm one of them. And they're doing a horrible job on this. And why do I know that? Because patients come to me after being sick, after being not heard, after being not understood for a second opinion. And I'm finding Lyme. And I'm finding Lyme on folks who had been admitted to intensive care units for a week on end, and you know--so you know, so in my medical training to get into an intensive care was something right, you know, 20, 30, 35 years ago, right? Now, we send people home more ill than when we admitted people to intensive care that many years ago. So now to get into intensive care, you have to be really, really sick.



# Mary Louder 46:09

And folks go into intensive care. They come out and five days later, don't know what's going on. Right? They come to me, I take one look, and I go, you have Lyme. They go, whoof. Here's the test. We do the test, it comes back Lyme, with or without coinfections depend upon flavor of the week. And then we diagnose them, and we'll begin the treatment. But you know, so now, fair, I've looked where they haven't looked. Fair. That's why it looks simple. But I didn't get there overnight, either. But at the same time, if you listen to the patient, they will tell you what's wrong with them. Going back--

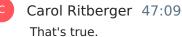


Carol Ritberger 46:50 Absolutely.



# Mary Louder 46:51

Going back, taking, you know, asking questions, going back, just same thing over and over again. So the western blot test has a, has a utility, but it's a small window, you have to be really good aim to get a positive western blot.



#### Mary Louder 4/:10

Because it's just a certain timeframe from when you get bit when the body evolves through that, as you say that, you know, where this spirochete's moving around before it really burrows in and does its thing and begins to have that reaction and response. And for every individual that varies. So you can't really say well, within 72 hours, we should have a positive test. No, it could be anywhere from 72 hours to four weeks, but the person has symptoms, can have a variety of symptoms all throughout that whole time, and the western blot test be completely normal.



Carol Ritberger 47:47

Yes.

# М

# Mary Louder 47:48

And so then there are other labs that are available to folks that look at the ELISA approach, which is a screening test. And then you can do a Western Blot. Or you can look at a combination of what's called IgM, IgG. Now, easily explained. IgM is an immune response. That's our first step. Then the body records it as an IgG. The IgG is forever, forever. I know you had this, IgM says now you have this, and it's acute. So you can then categorize something that's current, acute, something that you've had and the body has recognized and always will have record of, like an encyclopedia. And then there's a variety of tests beyond that, that look at bands, what that means is they literally take the antibiotic-antigen-antibody response, and they stretch it out under a microscope and see different areas of it. That's called a band. And then certain bands literally line up and are characteristic for Lyme diagnosis.

# Mary Louder 48:51

Now the CDC talks about that, Center for Disease Control. And then other labs talk about it, and they've cross-referenced their findings in terms of the lab being positive. CDC has more reductionistic positives, of course, and then this other lab, commercial lab has a wider view. And so what I do is I take the wider view based upon the symptoms of the patient. And if they--and then, but I watch what I say, you know, absolutely. Well, if you meet CDC criteria, I say you absolutely meet CDC criteria. If you meet this other lab's criteria, say Well, you're right on the edge of CDC criteria, but over here, you absolutely meet this criteria. Here's your symptoms, here's your history, most likely is, need to go move to treat. Right. And so, and then with that, these labs also have developed evaluation for coinfections.



# Carol Ritberger 49:59 Right.



# Mary Louder 49:59

And you mentioned the viruses and you mentioned things while there's like mycoplasma, there is Partonella. The lists of the things that some close with lying. So late touch have been been used.



Is Bartonena, Enrichia, other things that come along with Lyme. So let's touch base, because literally, there's hours, hours devoted to lecturing about the testing. So that's as deep as I'm going to go, because it is completely complex. But what I want to say is there's advanced testing available. I offer it. If you can't get it, look me up on my website, drmarylouder.com. We can get you tested no matter where you are in the country. Gotcha, gotcha covered. Okay?