Introduction and Guest Background

Hi, and welcome to another episode of the Healing Lyme Summit. I'm your host, Dr. Myriah Hinchey. And today we're going to talk about tick bite prevention, ID'ing ticks and direct tick testing.

Here to discuss all of this with us is a naturopathy physician, Dr. Alexis Chesney. Welcome, Dr. Chesney. Tell our listeners a little bit about yourself and your practice and how you came to specialize in treating complex chronic illness.

Hi, Dr. Hinchey. Thank you so much for having me. It's great to be here. I came to become a naturopathic physician over 15 years ago, and now I am specializing in tick-borne disease I moved up to Vermont to do a residency, and I had no idea that I was on the frontlines of Lyme and tick-borne disease there.

Unfortunately, many people were being told there weren't even ticks in Vermont, let alone Lyme disease. So I had no idea that I would just see many, many people and thank goodness, witness their healing journeys along the way.

So, yes, I specialize in lyme and tick-borne disease, and I'm really passionate about prevention because then after seeing some people heal, I would see them come back with tick bites again and really want to help them prevent getting the tick bites in the first place.

Or again and helping them and their families, of course, enjoy the beautiful outdoors that we have in Vermont without worrying about tick bites. So I also wrote a book called Preventing Lyme and Other Tick-Borne Diseases through story publishing.

And that's another way to be able to inform yourself about this important topic. Yes, it's a wonderful book. I have it. And, you know, when it comes to all of these Vector-borne illnesses, prevention is definitely key.

So why don't you start off by telling us why is tick identification important? Yeah, I think tick identification is so important because then if you know what type of tick did you, you know, which pathogens to look for.

So, of course, this is not usually what's coming to mind when someone has a tick bite. It's usually not a very pleasant experience and you want to remove that tick as soon as possible, of course.

And people don't often think about saving it, but please do, because then you can identify it and you can get it tested to find out what it is carrying.

If we know the type of tick there are ticks all over the world and they carry different pathogens. And of course we talk a lot about Lyme disease or in the Northeast.

So that is certainly the number one tick-borne disease from the black legged tick or the deer tick. But there are other pathogens that that too carries and other ticks can carry.

Why Tick Identification Matters

And if you're traveling or if you live in a different area of the country or the world, you need to know what these ticks are carrying. So you know what symptoms to look out for after a tick bite.

Yeah. And it's even it's difficult because even with the black legged tick, like if you're looking at a nymph versus an adult male versus an adult female, they look so differently.

So I can't tell you how many patients have come in. They're like, oh, you know, it's fine. It was a dog tick. And I'm like, okay, did you have a picture?

Did you save the tick? And it's actually the female deer tech because they're so used to seeing either that nymph or they have that image of like, you know, the male tick in their head.

So, yeah, it's so important to know what you're actually dealing with. Can you tell us a little bit like what? So what pathogens are in the black legged tick?

Yeah. So the Ixodes scapularis or black legged tick on the East Coast and North central states of the United States and then to Canada. So that tick carries, of course, Borrelia burgdorferi and Borrelia mayonii I, which both cause Lyme disease, but they also can carry Borrelia miyamotoi which causes tick-borne relapsing fever in the north central states.

We also see or Ehrlichia muris eauclairensis, which actually for now apparently tick report which we'll get to is seeing them in some ticks in New England.

Also we see Babesia microti porcine virus and and a plasma tango site of phylum. Okay. And then I'm going to have you kind of go over just, you know, the texts that are well, actually, we're not going to stay on the East Coast because this is all over the country.

So you know, go through in whichever order you would like. And don't forget about that Lone Star Tick. I want to talk about that one, too. Yeah. Yeah.

Let's talk a little bit about tick identification and and comparing these ticks. Absolutely. It's so important. So so just to take that black legged tick and think about identification, we have that sputum or the dorsal shield.

So please look it up. You can go online and find it. Familiarize yourself with where that is on the tick. Of course, these ticks a very small. You may need to get out a magnifying glass fast.

It's going to be close to the mouthparts. So for black legged ticks that black legs of course. And they also have a very flat, solid black dorsal shield.

So with female ticks, which we see a lot of in the spring and in the fall, we tend to notice those a little bit more because they have that reddish tan abdomen.

But the best way to identify tick because maybe there's a male, maybe there is a nymph, of course, or larvae. The best way to identify these black legged ticks is looking for the dorsal shields, and that is going to be solid black.

Why I also bring this up is because it might be engorged and I have patients like that, too, who say, Oh, it's a lot. It's a big tick. You know, it must be an American dog tick.

And so they just, you know, throw it out or whatever. And I say, No, please bring it in. Please take a picture or send it out and get it tested. And sometimes we find out and it's actually engorged.

You know, it changes size When the tick attaches and starts its blood meal, it's going to change the size of the tick and distort that abdomen so that female abdomen that looks like that nice reddish tan color that can really get our attention or will change into what looks like a little little seed or grape or something.

And it was grayish, Right. So it's not going to have that color. But what will stay the same is the dorsal shield.

Black-Legged, Lone Star, and Dog Tick Differences

So we really want to see that dorsal shield is going to stay the same size, the same color and shape, and that's that solid black or the the black legged tick.

And since we're talking about black legged ticks, there's also the western black legged tick, Ixodes Pacifica's. And so they carry similar pathogens and it's the same.

They look pretty much the same as the eastern as we can call them, black legged ticks. And you're going to be seeing Borrelia burgdorferi Borrelia mayonii, Borrelia miyamotoi, I'm sorry, not Borrelia mayonii.

So Borrelia burgdorferi which causes lyme Borrelia miyamotoi, which can create tick-borne relapsing fever and a plasma and babesia duncani. Can I as more what we see in the West.

But of course we're seeing that not every tick is staying in its state that we think it's supposed to be in or its little geographical area. And not every pathogen is dying and only those ticks that we think should be having them. So.

So yeah, we'll talk more, I'm sure, about tick report and testing and data that we have on this sort of thing. But maybe to move on to the Lone Star tick, I think that one is a very important one to think about and recognize.

So these as we might sound, you know, we're identified first in Texas, but have moved up there definitely in the Northeast. I don't see as many in northern New England, but they are there and they're becoming more of an a problem, more of a problem maybe in the southern New England or Atlantic states.

We definitely have those Lone Star ticks. So this is amblyomma americanum and the pathogens that this tick can carry are Ehrlichia STARI is the disease that it can cause.

Actually, the pathogen has not been identified. And there's a lot of discussion in the literature, but no one has agreed upon what is the pathogen that causes STARI? and STARI actually causes Lyme like illness.

So it's thought maybe it's Borrelia that can cause an erythema migrans like rash. But what I really am concerned about is there is probably an epidemic of STARI, especially in southern states.

But even even up north. And it's going unrecognized because we don't have a test for it for humans anyway. So. So yeah, so that's the Lone Star tick. And, and when you look at the dorsal shields, you're going to find a dot on that dorsal shield, which is really nice.

So a yellowish dot, and that can kind of alert you to, hey, this is the Lone Star Trek. Yeah. And then also, so no, go ahead. Go for it. Go. Well, I was just going to say, too, and then with that tech, not that we're getting into, you know, all of like the symptoms and whatnot with this discussion, but that's linked to the alpha gal issue as well, correct?

Yes, exactly. So that's a non pathogenic disease. So in the tick saliva of the Lone Star tick, you can have a protein that is transmitted and that can create in some people an allergic reaction.

So they can create immunoglobulin E and exhibit an immediate hypersensitivity reaction and allergic reaction. This can look like hives, rash, itchiness, anaphylaxis can be scary.

And this is after somebody eats mammalian meat so you can develop. Not everybody's going to develop this, but if you have this reaction in the immune system to this protein that's being transmitted, you can then become allergic to mammalian meat because it's also in those products.

Yeah. And I guess it's a whole topic unto itself. And we're starting to see that. I'm seeing a couple of cases now, you know, in my practice up up in New England.

So, yeah, it's scary. Yeah. Okay. So do you want to wrap up tick identification or do you want to talk about the dog ticks a little bit. Yes. Yes. So we have the American dog tick so that's derma center Barry Ambulance and that tick can carry Frances Sela Tularensis which causes tularemia and rickettsia Rickettsia, which causes Rocky Mountain spotted fever.

So I think this is among clinicians a discussion, you know, personally and my practice, I haven't come across

anyone in Vermont, New Hampshire, coming in with a dog tick that they've tested that's been positive for any pathogens.

But I've heard, you know, other people in the Northeast are feeling like these American dog ticks are are transmitting diseases. And certainly throughout the country in other geographical areas that we find American dog ticks, they they do have a higher chance of carrying these pathogens.

So it was interesting actually thinking about tick report dot com. This is my favorite tick testing facility. You can send your tick there and get it tested.

They also have a database which is so helpful because they've been collecting thousands of ticks from customers and our patients over 20 years plus. So, you know, I go on every once in a while and look through that database and what I did recently, because this question comes up a lot about, well, do you tested an American dog, tick or not?

And I think, of course, you know, it's going to be most important to do as much as you can. Right. So let's test every tick and be extra safe. But what are the chances of this American dog tick carrying pathogens in the Northeast?

So it was about a dozen ticks out of 7000 in northeastern states. I just, you know, scribble down some numbers. And so that was about what I saw, carried pathogens.

So it's very, very uncommon just to say it can happen for sure based on this 1.1. So it was like 12 or 13. Yeah. Around that number there. Yeah. And so that was something like.13 percent or something like that.

And so so yeah. And the thing was though when I was doing that I was taking down which pathogens, right. Because we're only supposed to see Rickettsia and for instance Ella and Borrelia came up a couple of times and Anaplasmosis came up a few times.

And so I inquired about this with Paul Killinger at Tick Report was amazing, and he was actually thinking that some of it might be from contamination.

So maybe these ticks are of course, we don't know. Maybe some of these ticks are carrying these other pathogens unexpectedly. Or also he was telling me about this procedure that a lot of vet offices have.

So if you bring your dog in with an American dog tech, they might just pop it into this alcohol solution. And this is the same alcohol solution. And after they remove the tick, they throw it in this container of rubbing alcohol and then the dog leaves, they'll take it out and send it out to be tested or give it back to the owner to get tested.

I meanwhile, you know, how often do they change out the rubbing alcohol so there might be DNA from a blacklegged tick that does carry Borrelia and and a plasma that was in there.

And so it may have been contaminated this American dog tick. So that was really interesting because that was boggling. My mind. You know, why are we seeing that?

And and there is not research showing that there's Borrelia or plasma in these American dog ticks. So so yeah, I'll just say we know a lot, which is great.

We're learning more. It's great to be able to test this ticks and actually plot out, you know, in the US and hopefully more across the world. Where are these ticks are and what pathogens they're carrying.

But we have more to learn, of course. Yeah, definitely. Thank you for that. Yeah. Can you talk just a little bit about transmission times? Would the different pathogens. Sure.

So so with Borrelia Burgdorferi, there was a study showing there's sort of a bell curve for 40 to 72 hours. And yes, the longer this tick is on, the more likely that it might be transmitting passive surveillance and Borrelia burgdorferi in

particular.

But, you know, people probably notice that, you know, if you go to urgent care or talk to your primary care, you know, I'm always hearing different numbers quoted, like somebody will say 48, it must be on 48 hours before the tick transmits Lyme disease or no, it's 24 hours.

Like there's always a different number out there just so far. And we know that it can happen in as little as 4 hours, right? Not all the time, but it's possible.

And so, you know, why are we claiming these other numbers? You know, I mean, I think it's much more important to err on the side of caution than say, no, you can't possibly have Lyme unless it's been attached at a certain amount of time.

So the other thing that's really interesting, a more recent study had shown that 10% of the ticks out there actually have attached to a host and were interrupted.

So they were already primed. They're already further along. Maybe they didn't start transmitting pathogens to that host, or maybe they did. We don't know. They were interrupted.

So a process is a really happened within the tick to make it faster to transmit pathogens when they attach to a second host, which could be you. Right.

Transmission Timing and Prevention Strategies

So if there are 10% of the ticks out there in this condition and then like 83 to 100% of those ticks transmit within 24 hours and then 100% of those ticks that are already primed to transmit within 48 hours.

So now we're saying, you know, it's definitely happened, you know, within 48 hours. Anyway, that's just to say, you know, there are people that have certainly had acquired a pathogen from a tick before 24 hours or whatever it is that we typically hear out there.

So so I think definitely, you know, taking action and knowing that and taking care of yourself after any tick bite for any length of time. So focusing on that on that note, you know, we think a lot about Lyme disease, but what about these other pathogens, right?

Powassan happens within 15 minutes. That transmits from a tick within 15 minutes. Thank goodness it's a rare disease, but it can be fatal and it happens that quickly.

So all the more reason for prevention and not even getting these ticks on you in the beginning. Yeah, absolutely. Well. Okay, so what speaking of prevention, what are the most effective treatment or excuse me, prevention strategies that you like to use with your patients and with yourself?

Yeah. Yeah. So one of my favorites is treating just socks and shoes with Permethrin. So Permethrin is a chemical. It is from its source from chrysanthemum, but it is very potent.

So it is toxic to our skin. So that is important to note. When it is wet, when it's dried, it is no longer toxic to our skin. But there's this great study showing just treating socks and shoes with permethrin, which repels ticks, will be active for six weeks and it will decrease the chances of getting a tick by by 73 times.

So that's pretty incredible. So like for me, what we do is we get out all the shoes and boots, sneakers, put them outside, put on some gloves, get permethrin.

There are a lot of companies and sex shield makes it Sawyer's You know, there are a lot of easy ways to find that at a hardware store track tractor supply store online so you bring that outside point 5% of permethrin and you spray down these shoes and socks if you want to do those or other things, too, and let it dry probably an hour or two,

depending on how humid it is.

And then once it's dry and it's safe to wet animals by kids yourself, bring them back inside. And then it last six weeks, which is great, but I put it on the calendar so when it loses that potency, bring them outside again and keep up with that.

And when we think about maybe more so for adults, you know, when we were just walking through the woods or were walking across our lawn, walking in some leaf litter, it's really going to protect us in that way.

If you're rolling around on the ground, if you're having fun with your kids, if you are a kid, we like to be, you know, adventurous and getting out in the brush.

Then you might want to think about actually treating some clothing so you can do it yourself, really soaking it and then hanging out to dry. Or you could also send some items out to a place called Insect Shield.

They're amazing. So when it's commercially treated, your clothes will hold that treatment much longer. 70 washes in the washing machine. So I like to use a combination of these things.

So maybe do the socks and shoes yourself or you can buy a pair of socks. I actually bought a bunch of socks from an SEC show because then I know they're my insect shields forever in socks.

You know, and then put them up over the pants. But, you know, that's one thing that people bring up a lot to me, actually, is what I you know, I tuck in my pants and I tuck in my shirt and I'm like, well, what about your neck?

What about your head? And you tuck in and is there so with permethrin? This is fantastic. Tuck it in, use permethrin. It's going to be very effective.

But if you're not using any repellents at all and you're just tucking in your clothes, I feel like it gives people a false sense of security because those ticks will just keep crawling up upward.

And so maybe they'll get here. And then I see a lot of those people. Oh yeah, it was in my scalp behind my ear. I really didn't even find it because it's in your hair and it's hard to find once it gets up there.

But yeah, those are some favorites. Also thinking about, you know, a natural option. A lot of my patients like to use nontoxic substances. So Cedar Side ticks Shield is Cedar essential oil, and that is recently studied against DEET, actually, and shown to be just as effective at repelling ticks.

So I'll do a combination, you know, do the math, turn on your shoes and socks, maybe some clothing if you're out there, if you're a farmer or logger or you're just outside so much or, you know, when you gardened, when you hike or whatever, making these decisions according to your lifestyle and then on your skin, or if you're in shorts or something, then using that cedar side, you do have to apply it more often than we think, though.

So Cedar Side or any repellent for that matter, I would say every 1 to 2 hours. So that's what they they noticed in the study was actually you need to apply DEET more often than we thought as well.

So those are some good. Yeah, that's like help helping up on the person, thinking about your person to prevent tick bites. One of my favorite things for the landscape is tick tubes.

So using that permethrin, we can apply that to thinking about your yard, you know, your property and trying to cut down on the number of ticks that you get when you just go outside, you know, or you have your dogs out and come in or cats or kids or whoever it is bringing in ticks indoors.

So if you if you want to look it up, you can actually buy tick tubes, but you can also DIY, it. And I talk about that in my book, how to do that. And basically we can talk Shall I talk about that a little bit?

How to, how to do that? Yeah, absolutely. Okay. It's one of my favorites. So using tick tubes decreases the chances of getting a tick bite by 93%. A huge, huge impact.

And I hear about this all the time when I recommend it to a patient every year. Try and slip in a little more about some tick bite prevention and then people come back say, Hey, you know, this tick tick really made a big difference.

So it's fantastic. So what we're doing here is we're trying to really look at the mouse population. So that's actually where a tick will first get its blood mail and actually acquire Borrelia Lyme disease from that tick because ticks are actually born.

The black legged ticks are not born with Borrelia burgdorferi and the Borrelia that causes Lyme, so around a plasma, etc.. So they need that blood meal and usually they're doing that when they're super small.

They're larvae, they're the size of a period at the end of the sentence. Those ticks often do not get on to humans, and so they're just they don't have much energy.

They're in the leaf litter somewhere low to the ground or it's humid, and they're going to attach to somebody like a white footed mouse. Then they acquire Lyme and then they can become nymphs, the larger size of a poppy seed.

These are often ones that we see in the middle of the summer and often where people don't see them, but they they get a tick bite that they don't see and it transmits Lyme because it probably acquired it from a white footed mouse.

So let's really target that mouse population so that we kind of interrupt this cycle that's happening, right? And we prevent us getting on those tick bites.

So it kills. So so looking at tick terms, we are saving our paper towel or toilet tissue tubes or something like that. And then we're saving lint from the dryer or getting some kind of material like that, like cotton balls, something like that, to stuff into these tubes.

And then we go outside, put on your gloves, get your permethrin again. After you spray down your shoes, you can do this and you can get the cotton and went out there, spray that down, let that dry, and then once it's dry, stuff it into the middle of those tubes and then we're going to put those tubes into mouse habitats, which guess what is the same as tick habitat and let those mice find that wonderful nesting material, bring it back to their nests.

And then the permethrin on that material will kill the ticks on the mice. It doesn't kill the mice for better or worse, but it kills the ticks. And so it can really make an impact of killing ticks in your your yard, your vicinity.

And that can decrease, as we said, tick bites. So that's another favorite of mine. I can go on. I can. Move. I know you can. So how like how much an area would one tick to cover?

Like if you have an acre of land? I mean, how many tick tubes roughly would you need to put out. There Guidelines now it's escaping, man. And something like six six tubes per acre.

I'm going to have to say, look it up. Yeah, yeah. If you have a small like if you're in a suburban landscape, it's so doable. And then when we get into, you know, ten acres of land, it's going to be a little more challenging.

Yeah, but some, some people do that or you can, you can still choose to do it just in a123 acre area that's closer to you now or even people have done this at their workplaces.

They've done it at schools, you know, just at least the vicinity where the kids are most of the time. You know, and it makes sense. I think it's it's got to be more effective than spraying, especially, you know, when it rains and washes that all away.

I know we try to spray we try to spray our school regularly, too. And it's just it always seems to rain the next day, you know, when it's an issue. But now the tubes are great.

All right. So let's transition a little bit into talking about direct tick testing. So just it might sound like an obvious answer, but what would the benefit of direct tick testing be?

Right. So like we're saying, if you test the tick, then you can find out which pathogens it's carrying. Now, if it's found that it's carrying pathogens, let's just remind ourselves, it doesn't mean that it was transmitted to.

Right. So this test is not proving that. But it gives you a sense actually know the nicest news is that it's not carrying any pathogens. And then we can look at that.

We can feel the sense of relief that we're on with our lives.

Direct Tick Testing and Pathogen Panels

But if it's carrying one pathogen to three, I mean, we know ticks can carry more than one pathogen, then you know which symptoms to look out for. And then you can, of course, search some prophylaxis.

And that's a whole another path of decision making. But, you know, those those symptoms and make sure to report those symptoms to your medical provider if they happen.

And unless it's one of those, you know, 10% of texts that were partially engorged because they got interrupted. I know. Tick report dot com is is also my go to place for tick testing and where you know we tell all of our patients to go but they'll actually tell you if the tech was partially engorged or engorged.

And so you know in the decision making process, if you see that the tickets engorged, you know, then I think you would probably lean a lot more more towards treatment prophylactically if there are pathogens and the tech versus if it's partially engorged or not engorged at all.

Absolutely. Yeah. And I think it's a really personal decision for the patient. And I just love, as you do, giving them all the options that they can choose from, you know, and knowing, of course, no matter what, let me know if you develop symptoms, obviously. Right.

Of course. Or during the actual symptoms. Yeah. Yeah. I've had a couple of patients who have sent the tech out. It was not to take report dot com on and we're told that their tech was not infected with anything and they both went on to develop rashes and symptoms.

So you just, you know, you need to be careful and you know, I think it's a good point that there's really no test that exists really for anything that is 100%.

So we need to be vigilant and look out for symptoms, you know, to come on. Do you know the validity of and I know it's different, obviously, with with every company, but do you have an idea of the validity of these tech tests?

Yeah, well, knowing about the process, to some degree, it's whole tech testing, right? And it's PCR testing. So polymerase chain reaction testing, which is looking at DNA.

Right. So if we have the whole tech, like we can't do this with ourselves, right? We can put ourselves in a blender and find out, you know, we are blown up to like get more creative about this test.

And they do DNA tests for humans. But I think it's totally different because the DNA PCR testing for humans is very, you know, pretty low regarding sensitivity.

The specificity is high. Like we know if you find Borrelia, it's Burrell, which is great, but the sensitivity is low for the tick. We test the whole tick.

So it's there, it's not there. So, you know, companies use numbers like 99% or, you know, must be higher than 99 or 95%. 95% is a gold standard. So regarding sensitivity and specificity, yeah.

So well, in DNA, I should say RNA is what they use for viruses and DNA is what they used for testing for the bacteria and our site. Right. So in your opinion, what should a comprehensive tick test include?

Because most companies have several different levels, right? Like there's a $50 task like with tick report dot com, you can get, you know, kind of like a bare bones task for 50 bucks.

You can have an evaluation for pretty much everything they can test for for I believe it's $200 still. You know what what do you recommend. Yeah. Yeah. So I also yeah, lay out those options.

So the least expensive test being the $50 test is going to test everything that is carried by a black legged tick except possum virus. So sometimes we, you know, we talk about it in that way, depending on the patient's financial capability.

Right. So percent is rare, but you may not want to miss that. Right. So I think that's one of the decision points of the $100 coverage of everything a black legged two carries that we know of.

Right. But yes. So if you want to be completely thorough, I definitely am patients that do $200 test and then you're rest assured that we're testing everything we have the ability to test.

And they also make the differentiation on tick report, of course, black legged tick versus American dog tick versus a different tick. So if it was an American dog tick sent to them, they would test for those pathogens relevant to it or Lonestar tick, etc..

So yeah, I wish they'd just scoot that along. Awesome virus $50 test and then we'd be all set. But that would be nice anyhow. Yeah. Yeah. So can you give us a complete list of pathogens that you think should be tested for, you know, in case someone's listening that that is using a company you know, that we're not familiar with yet.

For the black lung optic so we were just talking about or. Yeah, I guess I was going to say just in general like what would. Yeah. Yeah. Well, there I mean, there are also some rare viruses that like the monster tick, although I didn't mention it yet, but the Lone Star Tick also carries Heartland Virus.

Rocky Mountain Tick can carry Colorado tick virus. So, you know, these are newer, newly discovered or somewhat newly discovered, and we're always discovering more pathogens.

It seems like every few several years. But if we want to focus on like so for the black legged tick, we'd want to do an a plasma Borrelia or lithium or s possum babesia.

And then the same for the western black legged check the Lone Star tick We would want to look for, or Liquisa, France or sell a Heartland virus. And then sorry we don't the this company anyway tick report because I agree it doesn't look like there's a literature showing what's causing that.

Some companies are testing really a long story which you know sounds appropriate and it's just a discussion. So I'm not sure what to say about that. I mean, maybe that would be certainly important to look at if it's available.

The dog tick would be France's Cella and Rickettsia If you had a Gulf Coast tick or Libya and cats here would be the right pathogens to test for that.

And the Rocky Mountains would tick would be Colorado virus, Francisville, LA and Rickettsia. And what about the. Yeah, right. So actually I was talking because they don't do that test up tick report and some other companies do and Paul was discussing how in the literature there was Bartonella found in some ticks, but then there was a discussion about how it was soil contamination and it's not actually a bartonella that's transmitted to humans.

So I mean we all that we both see lots of bartonella in our patients. Of course it would make sense that it was a or acquiring this through tick bites.

But at this point, maybe if you know of other literature, please let me know because I feel like it come out any day, right? We don't keep up. But at this point, it doesn't seem it's not proven that a tick transmits Bartonella.

And so I think I mean, a lot of times when I ask there's some kind of flea involvement at some point in their lives when Bartonella is in play, either, you know, a camping trip with fleas or dogs or cats with fleas or, oh, yeah, they visited their aunt who had this flea infestation ten years ago.

And my you know, they had all these itchy bites. But that's enough. You know, one, an experience like that is enough to transmit. BARTONELLA So so yeah, that's my understanding of where we're at at this point with Bartonella and ticks.

Okay, So I have, I have one question and it's kind of off of our topic, but I want to know your opinion. So we're talking about story earlier. Do you so do you have patients that you either know or suspect have story and if you do, are you treating them the way that you would treat like Morelia or what?

What are you doing? How are you handling that if you're seeing it? Yeah, yeah. I mean, we don't know, but I think these might be the patients, right? Who we're looking at a clinical diagnosis, which we should be doing anyway, or was making a clinical diagnosis anyhow of Lyme disease.

But I think these might be the folks who maybe the check was negative and but, you know, they've been sick for several years and they don't remember other tick bites.

And the Lyme test is negative. Even if we do a really great accurate updated Lyme test. But they have these symptoms that are very Lyme like and they respond to treatment.

So we need to just follow that, of course. So so yeah, at this point, I mean, I just take an approach of how I would treat Borrelia because it's really Borrelia.

What whatever sort and follow that through now. Okay, great. So, Dr. Chesney, before we wrap up, let our patients that are listening or just our listeners in general know how they can reach you if they would like to.

And if you have any exciting events coming up or any news that you'd like to share. Great. Thank you. So you can find me at dralexischesney.com. And I see patients at a clinic in Vermont called Sojourns.

I also have a private practice and consulting business where I work with clients. Whether you're experiencing Lyme and tick-borne disease or complex chronic illness or if you're a practitioner who would like some mentorship.

And then I have a course actually called Preventing Lyme and Tick-Borne Diseases.

STARI, Bartonella, and Clinical Approach

So if you were on my website, you will find that link and you could decide to take a deeper dive into what we were just talking about with PowerPoint presentations, PDFs to download, some videos and some extra extra handouts, some extra goodies.

And this course would be appropriate both for laypeople. You know, if you're, you know, just a person who wants to prevent Lyme disease and you want to do the best you can for your children and your family in doing so, or if you're someone who has Lyme disease or tick-borne disease or if you're a clinician.

So, you know, I kind of bring you know, we cover the basics. We also do a little higher level. So you can bring this back to your practice and help educate your patients, because my you know, my goal is to end Lyme and tick-borne disease through prevention at this point.

Right? So I'm very passionate about that. And I also have the book that, Oh, here it is. So we talk. Shows that book. Let's see it. So Preventing Lyme & Other Tick-Borne Diseases through story publishing and it gives you a little card in the back that you can pop out with these lovely little ticks.

So you can identify your ticks as you're talking about at you find anywhere you find books, bookstores, Amazon, and you can buy in bulk from story publishing if you want to have a little study group or sell them in your office.

What else? I have tick preparedness kits, so we didn't go through all of those topics today. But basically, after you get a tick bite, this would be something to have at home, a great resource to use, to have on hand to take action after that.

And you can find that at lymecore.com. I also have a deer tick bite formula that I use after tick bite for 30 days and you can find that at lymecore.com Wonderful.

So Dr.

Resources, Courses, and Final Advice

Chesney tell everyone what do you think the top three pieces of advice are you have to boil it down to three that our listeners should hear about whether it's prevention, tick testing, identification, whatever like what are your top three pieces of advice?

All right. Learn how to identify a tick and keep it so you can test it right? So just educate yourself on that part. Do something extra every year, every year up here game against these ticks, take on a new prevention method.

So wherever you're at, if you're not doing tick checks, please do tick checks. If you're doing tick, let's do something different ones add on some permethrin treatment to clothing or shoes and socks, etc..

All right. It is up to us to. Sorry. Oh, I don't know. Why don't we say be kind to yourself? Because this can be really stressful. And I think it's really important to wherever you are in, you know, wherever you are, if you're undergoing treatment for Lyme and Tick-borne disease, the idea of tick bites can be extremely stressful, right?

So just know you're getting this knowledge, you're doing the best you can and keep it up and take good care of yourself through this process. Yeah, wonderful advice. Don't lose hope.

There are people out there that can help you for sure. Absolutely. All right. Well, thank you so much for joining us. Thank you, everyone, for listening.

And we'll see you next time for another episode of Healing Lyme. Thank you so much. Take care.