

# Dr Casey Kelley caseintegrativehealth

## AUDIO

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### SUMMARY KEYWORDS

cytokines, work, cytokine storm, system, many different kinds, reaction, lyme, quercetin, shutoff valves, epsom salt baths, tick borne diseases, chain reaction, wanted, infection, activated charcoal, inflammatory, integrative health, process, glutathione, hackathon

### SPEAKERS

Dr. Casey Kelley



Dr. Casey Kelley 00:00

Happy Lyme awareness month for those of you who I have not had the pleasure to meet yet, my name is Casey Kelly. I am the founder of Case Integrative Health in Chicago. I specialize in tick borne diseases and chronic illnesses. And I really wanted to thank Matt and Rich for inviting me to their Tick Hackathon. I wanted to take a little bit of time to talk about a cytokine storm because that term has been thrown around a lot lately in relation to a certain virus. A cytokine storm is a natural physiological process in response to something like an infection. And just like any kind of storm, there are varying degrees of intensity. It can be, you know, a gentle spring shower to a hurricane in force. If you've ever worked with a Lyme literate doctor, then you've probably heard this term before, but you may know it as a herxheimer reaction. There's many many different kinds of cytokines in your system. They are signaling mock molecules that help to bring awareness to the rest of the system when it needs help, when there's an infection or something is causing harm to the system. Cytokines can be inflammatory, or they can be anti inflammatory. There's many different kinds out there, capable of doing all kinds of different things in our system, but they are vital for our system to work properly. The problem can arise when these cytokines and their shutoff valves don't work. And then everything can just run around and run amok. And you can get a very sudden rapid increase of up to 1000 times increase in the cytokines. And that can really overwhelm the system and that's where you can

really, really run into some serious trouble. Because this whole process is a big chain reaction, we can affect different aspects of that reaction and affect change along the way. And unfortunately, there's not a medication that will stop this available to us right now. But there are a lot of different supplements and other things that you can use to help calm that cascade. And some of my go twos for herxheimer reactions include glutathione, turmeric, specialized pro resolving mediators, activated charcoal, Epsom salt baths, sulforaphane, and of quercetin. So those just, you know, those are a few of them, but you really have to kind of try which ones work for you, because you're not really, you don't really know which ones are going to help you the most necessarily until you can get in there and try it. I can kind of guess sometimes which ones I think are going to help certain patients better. But once you find out what works best for you, make sure you have them in your arsenal so that you're ready should you come across a herxheimer again in the future.