

**SPEAKER:** Many patients ask me about prevention. I can tell you that there is no consensus between NTM experts in the world. There are probably two major groups. One-- that I belong to this group-- we believe that NTM is environmental. And after one infection, definitely I would recommend patient to prevent a more exposure to environment. Or, at least, decrease the risk for exposure. We recently did a pilot study. We check our patients house, and we collected air, and we check for NTM in that environment.

One thing very interesting, we found that there is significant diversity in the amount of MAC and other NTM in the house of patients. You can find a house with very high burden of MAC, and other house really a little, or very low number, or nothing. That can tell me that exposure to that bacteria, whenever exceeds of a specific number, increase the risk for infection. That is a reason I would recommend to every patient, if you have NTM, you need to decrease the exposure to NTM. How they're going to do?

One, gardening, working in backyard, exposure to soil, and exposure to any kind of environment that exceed for our routine ordinary life should be limited. I would suggest to my patient limit their exposure to the gardening to less than two hours per week. And what is this magic number from? There is one study done in Japan, and they find it out that people they had more exposure to environment-- more than two hours-- that going to increase the risk for NTM. And I believe that is very important message.

Another thing is head shower and cleaning tap water in the house. Remember some states in the United States, we have higher incidence and prevalence of disease. The state of Florida is one of those. Texas, California, New York, and some others, they have highest number of NTM in the United States. I would suggest for that those houses that they are old, and head shower never being replaced, or never being cleaned, all my patients should change them, buy a new one, and every month clean it with vinegar.

And there is a specific structure that all this I recommend to my patients to do it. Another thing that I would recommend is any hobby that related too much exposure

to any environment for those patients. Back to first thing here. We have this bacteria everywhere. But remember, very few people get infected. And, to me, that can tell me there is genetic and also immune susceptibility for some patients.

And whenever that you have one infection, means your immune system fails already to fight with this bacteria, you are high risk for another infection. And many study showed the same thing. And we find it out that the re-infection in MAC patient does have a 50% chance-- and that is very high risk-- for re-infection and another episode for infection. So, to me, prevention is most important part of discussion for every patient with MAC.