# DAY 1 MINI PRESENTATION – REVERSING MAST CELL ACTIVATION AND HISTAMINE INTOLERANCE SUMMIT

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Now. These are the topics that I'm gonna go over here in our many presentations. Wanna hit some highlights on mast cells, one on one mediators and receptors defining mast cell activation syndrome, signs and symptoms of mast cell activation syndrome. And I want to talk about what is the real problem? Is it really mast cell activation syndrome or not? And top triggers. So these are going to help you with understanding the talks for today and give you some really important background information so that you're right there and ready to go when you dive in with some of these talks. So let's go over first what our mast cells. So these are specialized immune cells that act as our frontline sensors and defenders are also major conductors of the immune system. They respond to toxins like mold toxins and chemicals as well as pathogens like viruses, bacteria, even parasites, Candida. They respond to every particle of air that you're breathing, everything you swallow, even every thought that you have, they're responding continually to your environment and also everything going on inside your body.

Quite amazing cells and they're responding to things like heat and cold, light and sound, touch and smell, vibration and injury. So where do we find mast cells? Well, every tissue in our body except the retina have been found to have mast cells. This includes what are called your mucosal epithelial tissue. So what does that mean? That means the lining of your nose and your sinuses around your eyes, your mouth, your whole digestive tract, your esophagus, your stomach, even the bladder urethra in the lungs. They're found in all the vascular arised tissues. That means tissues with blood vessels all throughout the

nerve tissues. They surround the nerve sheaths there at every nerve ending even now. Been found in the brain. They're in the connective tissue. So that includes your ligaments, your tendons, your bones, your blood vessels, lymph vessels, hair follicles and skin. Your hair follicles ever hurt. Might have had some mast cell involvement with that. mast cells have a lot of roles in our bodies. We're just going to touch on this briefly but they're hugely involved in immune system responses, coordinating immune defense and infections, wound healing and tissue repair, recovering of your tissues after injury like your skin and your joints forming new blood vessels and dilating your blood vessels, creating new nerve cells. They are even involved in regulation of menstruation and pregnancy. So this is a model of the mast cell and this image comes out of a 2017 paper that was published by David's squirrel at all. And I think this is just an incredible image showing us how our mast cells. It's very simplified. But what we're seeing is they have receptors on the outsides of these different shapes that you can see here these are receptors and all along the outside.

They have these different shapes and then different things can come in and dock on those receptors and activate those receptors And those receptors are activated. The mast cells will release some of their mediators and the best known mediator is histamine. There's all kinds of other mediators as well. You may have heard of things like prostaglandins or lucatrains cytokines even can release neurotransmitters and neuropeptides to signal with the nervous system. And you may have heard also of trip tastes and when this is these mediators are released they cause different kinds of downstream actions in the body, many of them inflammatory, although some of them are anti inflammatory and when the mediators are released in small amounts or little by little this is called selective degranulation or piecemeal degranulation but when it's released all at once it's called complete degranulation and that can result in anaphylaxis or anaphylactic type reactions.

So you'll see this image a few more times in these little mini presentations I'll be doing at the beginning of the day for you. Now let's talk briefly about mast cell activation syndrome. This is a type of mast cell disorder that's very common. The other mast cell disorders like masto psychosis, hereditary alpha trip to see mia. These are not quite as common mast cell activation syndrome occurs if we have mast cells that have gotten overly sensitive and overly responsive and we'll be talking a lot about the summit about why this is happening here is the definition I really like from Dr. Afrin. You'll hear him discussing this. Mast activation syndrome is a multi systemic means it has to happen in

two or more systems of the body inflammatory condition involving overly sensitive and overly responsive mast cells with or without allergy with or without anaphylaxis.

That means not everybody has allergy type symptoms and not everybody has anaphylaxis. But some people do. There is a rare genetic mast activation syndrome and it's called clonal when it's genetic but a very common form of it is called the secondary mast activation syndrome, meaning it's secondary to something secondary to being triggered by something secondary to something that's setting us up for inflammatory conditions. So this is a dis regulation of the mast cells again where they've become overly reactive and they're over releasing inflammatory mediators. Now, here's the thing, population studies Are showing that mast cell activation center is present and up to 17% of the general population. That is so many people and that's about one in six people and then estimates, colleagues are estimating in this field, people who are experts in this field are estimating that 75% or more of people of chronic health conditions likely have mast activation syndrome.

This is because if there's inflammation and two or more systems of the body, so a system might be the G. I. System that's a system or the skin is its own system, the nervous system, the hormone system, there's inflammation affecting two or more of these systems. There's got to be mast cell involvement somehow. So we're going to look very briefly at some of the ways that this can show up in the science and symptoms. And you're going to see that there are a number of different symptoms and presentations but not everybody looks the same. So many people with mast activation syndrome show up completely differently and this is why it's been mystifying for so long. And the reason this is happening is it shows up very differently depending on what the individual root triggers are, the location of the mast cells that are affected, which receptors are affected, which mediators are being over released and then other individual bio individuality and individual genetics.

So you can imagine there's almost an infinite number of ways that this can show up. But some of the symptoms people can see here. I'm just going to pop them up on the screen so we can get systemic symptoms, meaning it's happening throughout the body. Things like sensitivities, inflammation, swelling, fatigue. It can show up if somebody has skin involvement with things like itching, flushing, hives, rashes, Hair loss is common, different skin conditions than the cardiovascular system feeling faint chest pains. Heart palpitations which also overlap. It all overlaps and this cardiovascular system with the

nervous system, dizziness, low blood pressure and then the urinary tract so you can get inflammation there burning pain with urination, the U. T. I. Type symptoms and then in the muscles and skeleton there's osteoporosis arthritis that moves around muscle bone 'pain. Hyper flexible joints like in A. D. S. Degenerative discs in the brain and nervous system. People can have brain fog, difficult to pay attention, headaches, migraine depression, anxiety, tingling numbness. Tinnitus that's ear ringing and just a reminder you have access to these slides at mastcell360. com/summit so you can go back through them as many times as you want. Then there's lung and respiratory symptoms, coughing congestion, shortness of breath, asthma, snows, flemmi reproductive system can be affected with endometriosis, painful periods and fertility hormone imbalances and then the digestive symptoms you get mouth burning, diarrhea or constipation, nausea reflux or heartburn. All kinds of different food sensitivities, I. B. S. Throat and tongue swelling symptoms within 0 to 15 minutes of eating. Not everybody gets this or any of these symptoms, you don't have to have all of these are for sure.

But if you have these symptoms within 0 to 15 minutes of eating, that's a good sign that there may be mast fill involvement. Then the eyes can involve eye pain, redness, trouble focusing, inflammation, blurry itchy, watery eyes, irritated eyes. Some people have anaphylactic anaphylactic oid reactions. These can be life threatening, they feel scary things like difficulty breathing, itchy hives, flushing or pale skin feeling of warmth, weak and rapid pulse, nausea, vomiting, diarrhea, dizziness and fainting and there are other conditions that can have been shown that they're likely related to mast cell activation syndrome as well or have definitely been linked in the research.

This includes chronic fibromyalgia, chronic fatigue, interstitial cystitis, certain cancers actually number of cancers, diabetes E. D. S stands for a ruler stand close postural or the static tachycardia syndrome, autism spectrum disorders, any auto immunity, rheumatoid arthritis, lupus, thyroid autoimmunity, multiple sclerosis, Crohn's disease, ulcerative colitis show grins celiac, messages that you're going to learn today are very related and involved with the development of autoimmunity. Then these are common but not definitive signs. So reacting like we said before, within seconds to minutes to smells, Foods, beverages, stressors. I'm sensitive to a number of agents like supplements, medications, foods, any form of autoimmunity. And if you're not sure you can actually take the mast activation syndrome symptoms survey. I developed this out of the research where the symptoms were definitively correlated with mast cell activation and that's at mastcell360.com/symptoms. So mastcell360. com/symptoms. It's a free

symptom survey and if you want to go through, you can check off the number of symptoms that you have to see what your score is.

So what is the real problem? Mast activation syndrome and history intolerance are not actually the problem. The underlying pathogens, toxicity stressors and genetic weaknesses that are the problem but you can reverse much, if not even all, of the symptoms by removing and addressing the underlying triggers. This is what I'm going to be talking about these many presentations over the next week. So our top triggers here are mold toxicity, tick borne infections, chemical toxins, trauma and chronic stressors, EMFs. There's plenty of others. These are the heaviest hitters in the populations, at least that I work with and the ones that I see over and over and over. So just a reminder here again, you can find your summit resources page at mastcell360.com/summitspecialdiscounts, all the links to things mentioned in the talks and additional special downloads like these slides. I hope that you enjoy today's talks and I can't wait to see you back tomorrow.