

BioBites: Histamine Intolerance

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Dr. Martin Hart, DC, NASM-CES

Senior Doctor at the Biologix Center for Optimum Health

Discussion

What is Histamine Intolerance (HIT)? Histamine is a molecule that we need in our body. When it's in excess, it becomes intolerable and toxic. Histamine is made from the amino acid histadine, which we get from foods. Histamine stimulates digestion and blood flow, helps with immune function and inflammation, regulates brain function, is an immune molecule and a neurotransmitter, and it's a stress hormone.

What does histamine do? Histamine helps with vasodilation (opening blood vessels), allows for vascular hyperpermeability which allows the immune system to function, helps with glandular secretions (mucus, etc.), regulates sleep and wake cycle, releases stomach acid for digestion, stimulates neurons to fire, regulates appetite, helps with smooth muscle contractions, is a main player in sexual function, has a big role in pain and in immune response, helps move MAST cells, and is a major neurotransmitter regulator (stimulates and regulates neurons, playing a role in mood, anxiety, etc.).

What happens when histamine becomes toxic? Reverse the function list to understand the symptoms of HIT. Toxicity can lead to flushing and low blood pressure, leaky gut/leaky brain syndrome, increased mucus, poor sleep and day/night cycle issues, acid reflux, burning/itching/rashes, food reactions, poor appetite, overstimulated nervous system, smooth muscle spasms/cramping, sexual dysfunction, increased pain, bloating/swelling/inflammation, fluid retention, reactive immune system, increased mast cell activation, and neurotransmitter dysregulation.

How do you pinpoint HIT? The best thing to do is try to get a really good case history. You may find there are "classic" symptoms like rashes, flushing, or itching; but you should also look at the whole list and look for disparate patterns. You can do a whole blood histamine lab test; taking this test while in a flare may be most productive, but you can take a test even if not experiencing a flare. Results over 70 mean that HIT may be at play; HIT is definitely a factor for results over 100. Patients can also take an Organic Acid Test (OAT) to look at histamine or histadine levels in the urine, and/or complete a symptom questionnaire. Genetic testing is useful in pinpointing genetic mutations (SNPs) that may signal the body's inability to break down histamine. Single allergy testing or prick testing can also be used to gauge reaction to histamine. Dermatographia (writing on the skin and observing for red marks afterwards) is another way to observe for HIT.

How biological medicine informs our understanding of HIT. We gather inputs from our environment (foods, EMFs, thoughts). As we take in inputs, the body processes information based on inputs and creates feedback in response. This feedback helps regulate our systems: detoxification, immune, etc. If all is functioning well, our body adapts and we remain healthy. If the body is functioning well, stress (desirable levels of stress) is added to that system and it produces a stronger body - a body that can adapt and become more resilient to changes in the environment. When stress is added to a dysfunctional system, however, maladaptation results, eventually leading to dis-ease. As dis-ease adds up, we then experience named diseases.

Similarly, a lot of stress (trauma, accident, massive toxic exposure, etc.) added to a healthy system can break down the system to produce maladaptation, dis-ease, and disease.

HIT's impact on biological flow. Deficiency in enzymes that break down histamine (DAO, HNMT, MAO-B) can lead to an overabundance of histamine in the body. Dysbiosis in the microbiome can lead to an abundance of histamine; we need a healthy population of certain probiotics to help break down histamine. Small intestinal bacterial overgrowth (SIBO) creates digestive disturbances that contribute to overproduction of histamine in the long-term. Parasitic infections can also contribute to HIT, as the body produces histamine to try to defend against these. Additionally, some parasites produce histamine. Mold toxicity (CIRS) creates toxicity and inflammation in the body, which encourages histamine release. Additionally, chronic infections can dysregulate the body's immune system and in turn lead to excess histamine, allergies, and Th2 dominance. Stress is another contributor; stress dysregulates the immune system and provokes histamine release. Finally, field disruptors (infected teeth, poor diet, etc.) can also cause dysregulation to the body's systems, which makes HIT more likely. In sum, histamine intolerance is often a secondary effect, which takes hold as other disturbances settle in.

Healing HIT. It's important to consult your own medical practitioner when seeking treatment for HIT and to consider the biological flows that enable HIT in the body. The following are common practices to help address HIT in the short term: low histamine diet; natural antihistamines; co-enzyme factors for DAO, HNMT, MAO-B; avoid triggers; integrate low and histamine degrading probiotics. In the long-term: work with a qualified biological/bioregulatory medicine practitioners; address root causes, such as SIBO, parasites, dysbiosis, and chronic infections; restore the body's regulatory and adaptive capabilities (the body's "software"); shift from a low-histamine diet to an anti-histamine diet; balance the Th1 versus Th2 immune response.

What's the difference between HIT, allergies, or Mast Cell Activation (MCAS)? Histamine Intolerance arises from excess histamine in the body arising from other issues. Allergies are an immune response against a particular allergen. MCAS is when mast cells (which attack pathogens) become stimulated and degranulate too often and too easily. A patient may or may not have HIT along with allergies or MCAS.

Q&A Synopsis

An individual drinks a vegan protein shake every morning. About half of the time, the sinuses become congested and hearing is reduced as though under water. If the individual drinks a lot of water, this condition improves; otherwise, it may take several hours for improvement. Could this arise from excessive histamine in the body? It's possible. Reacting some of the time could depend on the histamine load on the body that day; some days, the load is greater while others it's lower. Also, a lot of vegan protein shakes have extra fiber added or proteins that aren't easy on the gut. They can react with SIBO or other conditions to produce a histamine reaction. HIT does lead to increased mucus, which sounds similar to the congestion described. The recommendation would be to track habits to try to determine the root cause here.

An individual has had a range of experience - a gallbladder attack, anaphylaxis, hives, psoriasis, gingivitis, infrequent sleep - could this be adrenaline dominance or HIT? The body has a toxic load. Anything that over stresses the body and that the body has an immune response to can produce histamine. If a particular supplement helps, it may be helping to clear detox pathways, for instance in the case of the supplement that helped the gallbladder deal with the

gall bladder attack. If detoxing organs (ie liver, kidneys, gallbladder) are congested, detoxification can be slow, which makes the body prone to developing SIBO, which then can lead to histamine intolerance. As for adrenaline dominance, if someone is stuck in adrenaline dominance, hormones will be dysregulated. There is a link between estrogen dominance and HIT; they play hand-in-hand. Some of the methylation factors that allow us to detox both of them can become sluggish and lead to adrenaline dominance and HIT. There is a strong correlation between adrenaline dominance and HIT that can result from a variety of factors and individual circumstances.

How can an individual help the body detoxify naturally? There are four routes: sweat toxins out, breathe them out, urinate them out, or release them through the bowels. Hydration, breathwork, and sweating are some of the easiest ways to move toxins. The next route is to look at the lymphatics and organ drainage. There are bitters, herbs, homeopathics, and synergistic therapies that can support organ drainage. If dealing with a chronic illness or sensitivity, work with a practitioner to go deeper with more specific processes.

Anti-histamine foods. Turmeric, ginger, parsley, onion, apple, watercress, etc. There are 20-25 good antihistamine foods. Anti-estrogenic foods include broccoli and members of the cruciferous family are anti-estrogenic; anything high in zinc is also anti-estrogenic. Avoiding fermented foods, alcohol, and pickled foods can also help counter estrogen and histamine intolerance.

How does prickly heat when exposed to heat correlate with histamine intolerance, and why does it lead to a pimple-like spot afterwards? Prickly heat is a symptom of the body's difficulty with releasing heat. The body's attempt to release heat is a histamine release. If you have HIT, you'll likely have a more difficult time with that histamine release. What results is the feeling of prickly heat at the skin. The heat rash or intolerance will often lead to a pimple because the pores are blocked or unable to release the heat from the skin. In the long-run, the individual experiencing this needs to figure out what's causing this, balance the histamine, and address the cause of the heat intolerance. Infrared saunas can help with this because it helps the skin cleanse and release toxins.

Do you or your practice utilize homeopathy in treating HIT in addition to supplements and medications? Homeopathy, anthroposophical remedies are a big part of what we do, particularly in biological medicine. We use these for various reasons at various times. These can be particularly helpful, especially in the early stages, when a patient is reactive or histamine is high. Homeopathy can help get things moving. Homeopathy and anthroposophical remedies are a great way to assess the information processing side of things.

Could histamine intolerance be a factor that causes very infrequent but severe illness after eating, where digestion shuts down for four hours or more followed by severe vomiting? Recovery is almost immediate once recovery has stopped. HIT could be a factor. If the bowels shut down or if there is a blockage somewhere, there is nowhere for the food to go. Being intelligent, the body will get rid of it. It may be histamine intolerance. Histamine induced cramping can induce diarrhea; for others, however, it can create a blockage or, due to the blockage, secondary histamine intolerance. The key factor is to figure out why the digestive system is shutting down after a meal rather than over-acting.

Would you address histamine before addressing mold or lyme? Dr. Hart recommends doing three things: support the issue that's there, find and correct the cause, support the body to repair the damage that's been done and retrain the body to do these things on its own. Support provides enough relief to try to find the root cause. In this case, the goal is to get enough support/relief for your HIT to have the latitude to look for the root cause and go from there.

An individual who does not take medication, who is very fit, who does not have allergies (according to an allergen test), and who is post-menopausal is continually and indiscriminately suffering from hives. Could this be histamine related? Many times, this is histamine related. Standard food intolerance testing may not be noticing the body's histamine reaction to foods; these tests measure the body's immune reaction to the foods, and this can be different. This highlights the difference between allergies and histamine intolerance. It's recommended that patients track their hives based on known environmental toxins (ie pollen) and foods. Sometimes the triggers and cause may take more work to locate.

What type of sauna would you recommend? Biologix utilizes a combination of near, mid, and far infrared saunas. If you're at home, a far infrared is typically recommended - it's affordable and it comes with a lot of detoxification benefits. Biologix uses Sunlighten saunas and High Tech Health saunas. They do have some personal saunas.

Can you speak a bit more about the neurological impacts of histamine intolerance? HIT and histamine itself as a neurological modulator, play a large role, including in different neuro-degenerative diseases like Parkinson's. If dysregulated, histamine will create dysregulation in dopamine, for instance, which can lead to an angry depressive condition. Or, if you're wired all the time, you may be anxious due to overstimulation. Histamine's impact is two-fold: it impacts the regulation of other neurotransmitters and directly affects the brain. From a whole-body perspective, high levels of histamine mean that something else is happening, as well; this triggers the body that there's 'danger', which invites a fight or flight response. The impact to the body and neurologically is a lot to bear.

What percentage of patients with HIT have a genetic polymorphism that contributes to their condition? About 25% have a really strong polymorphism and another 30-45% have some mild dysregulation that is exacerbated by a trigger.

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