

Histamine Reaction

THE IMMUNE SENTINELS

Mast cells are like the watchmen of the immune army, scanning the body for known or potential threats. They concentrate in tissues that contact the outside world, like the respiratory, digestive, and urinary tracts. These cells have granules containing 200+ active compounds, including amines (like histamine), cytokines, proteases, and anticoagulants. When a mast cell identifies an infection, allergen, insect sting, or tissue trauma, it dumps these defensive compounds and alerts other immune cells to the site. These compounds cause membrane "leakiness", leading to the watery eyes, runny nose, flushing, and swelling symptoms that characterize an allergic reaction.

ABNORMAL ACTIVATION

While mast cells play an essential role in the immune response, they can also become overstimulated (known as *mast cell activation syndrome* or MCAS). This condition causes systemic inflammation, predominantly impacting the organs and nerves in the gut. Symptoms of MCAS often overlap with or contribute to other GI issues like acid reflux, nausea, SIBO, IBS, or dysbiosis. However, it can also be experienced as rashes, migraines, irregular blood pressure, fatigue, joint and muscle pain, brain fog, or other inflammation-related symptoms.

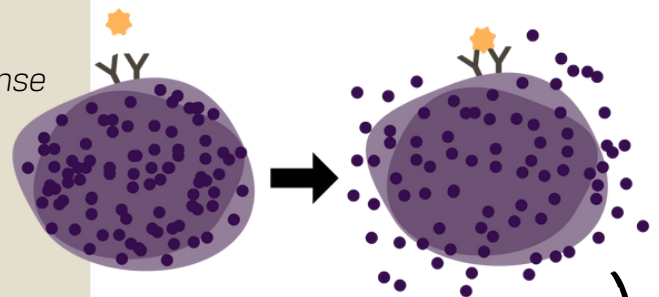
FACTORS & TRIGGERS

- genetics
- emotional stress
- infection
- poor diet
- histamine containing or triggering foods
- allergens
- toxins & chemicals
- compounds in meds & supplements
- mold exposure
- heat
- dysbiosis
- high estrogen

MANAGE HIGH HISTAMINE

- **ADDRESS THE ROOT CAUSE**
unmanaged stress, intestinal dysbiosis, and toxic exposure can drive an abnormal histamine response
- **TRY A LOW-HISTAMINE DIET**
fermented foods, aged cheese, vinegar, alcohol, tomatoes, chocolate, canned meat & fish, and bone broth are high in histamine
- **SUPPLEMENTAL NUTRIENTS**
vitamin C, vitamin D, quercetin, luteolin, DAO, low-histamine probiotic

MCAS can be difficult to identify because there is significant symptom overlap with other conditions (and no simple diagnostic test).



Mastocytosis is a related condition, characterized by overproduction of mast cells (versus overreaction).

Heal Your Hormones