



Histamine Intolerance

A Gut Microbiome Consideration

Histamine is an extremely important, natural chemical that plays an essential role in defending the body against pathogenic bacteria, viruses and other foreign bodies.

What it does:

- Helps regulate stomach acid
- Controls blood vessel permeability
- Is necessary for muscle contraction
- Regulates the lungs inflammatory response to the external environment
- Is required for proper brain function

Where does it come from?

When the immune system is activated in response to a foreign protein entering the body, the body releases the “defense chemical” histamine. This is the body’s natural response to a perceived or actual threat.

Histamine is also produced by microorganisms in the gut as a normal part of their metabolic process. Bacteria that live in the colon release an enzyme that converts the protein, histidine, into histamine. If an individual has a high amount of this histamine producing bacteria in their gut and they consume large quantities of protein, excessive amounts of histamine are released and can end up overwhelming the body.

The third source of histamine comes from the foods we eat (or foods that trigger the release of histamine). Examples of these foods are: fish, shellfish, cured meats (pepperoni, salami, bacon, sausage), leftover meats, aged cheeses, egg whites, nuts, chocolate, red wine, vinegars, pickles, tomatoes, eggplant, spinach, avocado, citrus fruits, strawberries, papaya, kefir, sauerkraut ... **AND BONE BROTH.**

Bone Broth helps heal the gut mucosa, but histamine-intolerant people may not be able to use it until after there is significant improvement in the gut microbiome and a less inflammation in the gut lining. **A substitute for bone broth to consider for leaky gut healing is aloe**



vera and organic, young green coconut water and gel. Together they provide nutrients and peptides that the body can use to repair itself.

Note: Aloe vera may be contraindicated for some individual in Plan S

The Truth About Shellfish Allergies (an interesting side note)

Some foods such as shellfish are known to have elevated histamine levels. Microorganisms capable of converting histidine to histamine exist in fish intestines and in shellfish. As soon as a fish dies, its innate gut bacteria start to break down the food-tissue proteins, releasing histidine, which converts to histamine. The level of histamine in the un-gutted fish can double in just 20 minutes.

The longer a fish remains un-gutted after it dies, the higher the level of histamine in its tissues. Shellfish are not gutted after harvesting and so their gut bacteria will produce histamine as long as the fish remains uncooked. Many a reaction to fish or shellfish has been blamed on “shellfish allergy”, when actually it was a histamine reaction. Interestingly, cooking shrimp in beer helps reduce the histamines.

What is a Histamine Intolerance?

A histamine intolerance is not a true allergy, but a reaction that takes place when the body does not have enough of the specific enzymes that are needed to break down histamine.

Many drugs also contribute to a histamine intolerance, including “baby aspirin,” antibiotics, non-steroidal anti-inflammatory drugs (NSAIDs), diuretics, and antidepressants, because they ALL interfere with an enzyme in the body that helps break down histamine.

Whether histamine comes directly from food or is triggered by the immune system, if levels exceed the body’s ability to break it down, excess histamine symptoms occur.

Histamine that comes from food can end up transferring through the bowel wall to various sites in the body and contribute to unwanted symptoms such as heat, swelling, redness, and hives.



Symptoms of Histamine Excess

- Anaphylaxis
- Anxiety / Panic Attack
- Blackouts lasting a couple of seconds
- Chest pain
- Confusion
- Conjunctivitis (irritated, watery, reddened eyes)
- Eczema
- Fatigue
- Itching: skin, eyes, ears, and nose
- Headaches
- Heartburn
- Hives
- Indigestion
- Irritability
- Low Blood Pressure
- Menstrual Pain
- Nasal congestion and runny nose
- Reflux
- Swelling of face, lips, mouth, throat. Tight throat.
- Tachycardia (increased pulse rate, “heart racing”)

Other Factors

Because multiple factors contribute to excess histamine, and every individual's capacity to handle histamine varies, symptoms of a histamine intolerance can fluctuate from day to day.

For example, when a person is experiencing an allergy to airborne pollens, the histamine released in that allergic response can increase sensitivity to histamine foods. When histamine levels in the body are high, avoiding histamine associated foods is recommended. In addition, implementing [Christa's bee pollen tolerance test](#) to alleviate seasonal allergies by building up antibodies to local flora and fauna may be helpful.

Reducing Symptoms

Gut Thrive implements natural health techniques that improve the gut-microbiome, reduce the set-point of inflammation, and heal leaky gut. Improving the integrity of the lining in the GI track and shifting the balance of microorganisms in a positive way can help restore the body's histamine response and reduce or eliminate histamine intolerance. Many people that experience a histamine intolerance find that they are able to include bone broth (and other foods) in their diet later in the program. This process takes time and patience. but is well worth the effort!