## **Low Histamine Foods List**

Generally, fresh foods have the lowest amounts of histamine.

#### Some low-histamine foods to include:

- **Fruits:** apples, apricots, blackberries, blueberries, cherries, coconut, melons, peaches, plums, pomegranate, and raspberries, among others.
- **Vegetables:** arugula, asparagus, bell peppers, beets, bok choy, broccoli, brussels sprouts, cabbage, carrots, cauliflower, garlic, greens, leeks, lettuce, onions, rhubarb, rutabaga, shallot, summer squash, sweet potato, turnip, watercress, winter squash, and zucchini, among others.
- **Grains:** gluten-free options like amaranth, corn, millet, quinoa, rice, teff are less likely to exacerbate an irritated gut than gluten-containing grains.
- Fresh herbs
- Olive oil
- Fresh animal proteins: chicken, beef, lamb, goat

Just because a food is low in histamine does not mean that it will be tolerated well by your body.

# Foods to Avoid - High Histamine Foods List

On a low-histamine diet, it is important to avoid foods that contain high amounts of histamine. In severe cases, it may also be helpful to try cutting back on histamine-releasing and DAO-blocking foods (see below).

The longer food has been aged, the more amino acids have been converted to histamine. So, fermented foods have the highest levels (2). Keep in mind that histamine levels in food can vary significantly depending on aging, storage time, and how it is processed (20). In general, aged and fermented items are much higher in histamine than fresh foods.

#### Foods that are generally high in histamine include:

- Aged cheeses
- Alcohol of any kind (red wine tends to have ~3x more histamine than white wine, and wine on tap is higher in histamine than bottled wine) (62)
- Avocado (63)
- Dried fruits
- Eggplant (63)
- Fermented/aged meats (salami, sausages, pepperoni, lunch meat, hot dogs, canned meats/fish)
- Fermented beverages (kombucha)
- Fermented dairy (yogurt, kefir, sour cream, buttermilk, cottage & ricotta cheese)
- Fermented vegetables (kimchi, sauerkraut, pickles, miso, natto)

- Fish and seafood, especially if leftover, smoked, salted, or canned (levels can vary widely) (64)
- Ketchup
- Pineapple
- Spinach
- Strawberries
- Tomatoes

## **DAO Blockers**

There are other foods that are called "DAO blockers" because they inhibit the activity of DAO. This is mainly alcohol (7). Since alcohol is both high in histamine AND slows its breakdown, it should be avoided by people with histamine intolerance.

# **Histamine Degrading Probiotics**

Optimizing gut bacteria is vital for overall health and disease prevention (37, 38). Unfortunately, that's not easy to do for those with histamine intolerance because probiotic foods (yogurt, kefir, kombucha, etc.) are high in histamine and should be avoided. Another option is to use probiotic supplements, but it's important to choose probiotic supplements containing bacteria that do not produce histamine.

The following strains may be helpful because they have been found to break down or reduce the formation of histamine:

- Lactobacillus plantarum (39)
- Lactobacillus rhamnosus (40, 41)
- Bifidobacterium infantis (42)
- Bifidobacterium lactis (43)
- Bifidobacterium longum (42)

These strains should be avoided because they produce histamine in the GI tract:

- Lactobacillus brevis (44)
- Lactobacillus casei (45, 46)
- Lactobacillus delbrueckii (45)
- Lactobacillus fermentum (47)
- Lactobacillus helveticus (47)
- Lactobacillus hilgardii (44)
- Lactobacillus lactis (47)
- Enterococcus faecium (47)
- Streptococcus thermophilus (48, 49)