

LECTIN FREE DIET

WHAT ARE LECTINS AND WHEN SHOULD YOU AVOID THEM?

Lectins are a type of protein present in most plants, especially legumes, tubers and beans. This type of protein can bind to carbohydrate and human cells such as intestinal cells, causing cellular damage or even death.¹ These lectins can be resistant to digestive enzymes.

Do dietary lectins cause disease?

The evidence suggests that wheat lectin can lead to conditions such as diabetes, obesity, rheumatoid arthritis and coeliac disease.¹ After lectins bind to the gastrointestinal wall, cracks or holes develop in the lining of the gastrointestinal tract, resulting in inflammation and leaky gut.²

Lectin can also stimulate insulin receptors and contribute to insulin resistance or it can bind to leptin, causing leptin resistance and contributing to weight gain.¹

Is there a lectin and histamine correlation?

Lectin can increase histamine, an important part of the body's natural immune response.¹ Histamine can be beneficial to protect tissues, by escorting allergens out of the system. However, when histamine persists longer than necessary, it may hinder the healing process. (Refer to the histamine diagram on page 2).

Histamine is produced from an amino acid called histidine. Vitamin B6 is required for the metabolism of histidine and it is released by immune cells to other body systems.

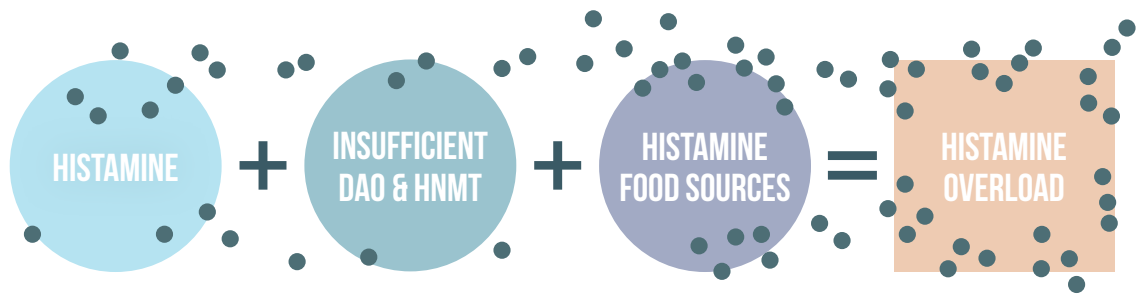
In healthy people, histamine is rapidly eliminated from the body by two enzymes called DAO (diamine oxidase) and HNMT (histamine n-methyltransferase).

When the body is unable to break histamine down effectively, an excess of it accumulates. This can lead to a cascade of symptoms, including allergic responses, bloating, anxiety, headaches, atopic dermatitis³ and asthma⁴. The main cause of histamine accumulation seems to be a malfunction of the DAO enzyme. Genetic predisposition and gastrointestinal diseases are two factors that can impact optimal functioning of this enzyme.

How to reduce or remove lectins from your favourite food:

- Pressure cooking is a great method to reduce lectins in certain grains. Rinse and soak any grains in 2-3 changes of water before pressure cooking them.
- If foods such as cucumber, eggplants and tomatoes are your favourites and you cannot give them up, make sure you peel and deseed them.
- Fermentation can also reduce lectins in certain foods such as soy (miso), cucumber (pickles) and kombucha.

Understanding the processes leading to histamine overload:



Mast cells release histamines to escort allergens out of the system. The cells are located in the eyes, sinuses, skin, brain, GI tract, and elsewhere.

DAO and HNMT aid the gut in eliminating histamines, but, they run low in some people.

Histamine food sources, such as wine, aged cheeses, fish and fermented foods add to the histamine load.

Together, these elements can amount to overload symptoms, such as diarrhoea, watery eyes, bloating, anxiety, headaches and exhaustion.



How do I know this diet is right for me?

While the focus of a lectin-free diet is to reduce or remove lectin from certain foods, it may also limit some nutrient-rich foods, so care must be taken to help support your transition and make sure all of your dietary requirements are met. Like any major change to your diet, it is important to consult your healthcare practitioner first to make sure a lectin-free diet is right for you. Dietary changes may play an integral role in improving a person's health outcomes and these adjustments often work well alongside supplementation and lifestyle modifications.



What to expect

No two individuals will experience symptoms of high lectin in the same way. A diet high in lectin can result in symptoms that are mild to severe or acute to chronic, and people can experience any range of symptoms including, but not limited to, heightened pain, poor sleep, stiffness, asthma, IBS, headaches, poor focus or loss of energy.

SAMPLE LECTIN FREE DIET



Breakfast:

Cereal (cooked millet, shredded coconut, almond milk), macadamia and berries OR omelette (garlic, eggs, mushroom and fennel) with spinach.

Snack:

Green smoothies (apple, kiwi fruit, kale, mint and lemon) OR just ¼ of avocado.

Lunch:

Salad bowl with marinated, grilled and pastured chicken breast with Kojac noodles, leek, radicchio, crispy pear and vinaigrette dressing.

Snack:


Coconut flour paleo wrap with pickled beetroots, endive, parsley and hemp seed pesto or pine nuts in limited amounts. A sprinkle of sesame seeds to finalise the dish.

Dinner:

Fresh salmon (small amount) or white fish (regular amount), with cauliflower rice, mushrooms and asparagus.

FOODS TO AVOID AND ENJOY

To experience the most benefit from a lectin-free diet your practitioner may suggest the following dietary changes as a long-term intervention or lifestyle change.

FOOD GROUP		AVOID	ENJOY
	Refined food, flour & grains	Brown rice, wild rice, pasta, quinoa, rye, kamut, oats, wheat, barley, buckwheat, spelt, corn, rice, potato, pastry, cereal and crackers.	Flours: almond, coconut, hazelnut, cassava, green banana, sweet potato, tiger nut, millet and arrowroot.
	Fats & oils	Corn oil, peanut oil, grape seed oil, soy oil, safflower oil, sunflower oil, canola oil and 'partially hydrogenated vegetable oil.	Olive oil, coconut oil, macadamia oil, MCT oil, avocado oil, sesame seed oil, walnut oil and rice bran oil.
	Dairy	In general dairy should be avoided. Cow's milk that contains A1 protein, ice cream.	Buffalo butter, ghee, goat yoghurt, goat milk as a creamer, goat cheese, organic heavy cream, organic sour cream and organic cream cheese.
	Meat & Eggs	Grain fed animals.	Chicken, turkey, duck, quail, pork, lamb, Bison or Venison.
	Fish, seafood, crustaceans, shellfish	-	Hawaiian fish, Alaskan salmon, sardines, mussels, lobster, oysters, anchovies, calamari, crabs, shrimp.
	Vegetables	Legumes, peas, sugar snap peas, green beans, chickpeas, soy including tofu and edamame, all beans including sprouts, eggplant, pumpkin, tomatoes, cucumber, zucchini, squash, chilli peppers, capsicum.	Broccoli, brussels sprouts, cauliflower, artichokes, arugula, asparagus, beets, bok choy, cabbage, carrots, celery, chives, collards, kale, leafy greens, leeks, mushrooms, okra, onions, Swiss chard, radicchio, kohlrabi, sweet potato, konjac root, taro root, yucca.
	Fruits	Melons and goji berries.	Avocado, apples, blackberries, blueberries, cherries, cranberries, lemons, raspberries, strawberries, kiwi fruit.
	Herbs & Spices	Chilli pepper flakes, cayenne pepper and paprika. All peel and seeds of chilli peppers.	Fresh leafy herbs. Fennel, parsley, basil, mint, fermented hot sauce. All spices except chilli pepper.
	Nuts & Seeds	Pumpkin seeds, sunflower seeds, chia seeds, peanuts and cashews.	Macadamias, pecans, pistachios, flaxseeds, hemp seeds, hazelnuts, chestnuts.
	Sweetener	Agave, artificial sweetener and refined sugar.	Stevia, yacon syrup, inulin, sugar made from chicory, xylitol and erythritol.
	Beverages	Wheatgrass and barley grass drink, diet drinks, alcoholic beverages, soy milk, energy drinks, coffee, juices and soft drink, yerba mate, nettle tea, black and green tea.	Water, coconut milk, red wine.



MON	Breakfast:
	Lunch:
	Dinner:
TUES	Breakfast:
	Lunch:
	Dinner:
WED	Breakfast:
	Lunch:
	Dinner:
THURS	Breakfast:
	Lunch:
	Dinner:
FRI	Breakfast:
	Lunch:
	Dinner:
SAT	Breakfast:
	Lunch:
	Dinner:
SUN	Breakfast:
	Lunch:
	Dinner:

Fresh Fruit & Vegetables:

- ☐ Apples
- ☐ Blueberries
- ☐ Avocados
- ☐ Strawberries
- ☐ Kiwi Fruit
- ☐ Cauliflower
- ☐ Bok Choy
- ☐ Asparagus
- ☐ Beetroot
- ☐ Kale
- ☐ Broccoli
- ☐ Carrots
- ☐ Spinach
- ☐ Spinach
- ☐ Mushrooms
- ☐ Parsley
- ☐ Basil
- ☐ Artichoke
- ☐ Endive
- ☐ Sweet Potato

Fresh Meat:

- ☐ Approved Beef
- ☐ Duck
- ☐ Chicken
- ☐ Pork
- ☐ Shellfish

Non-Dairy:

- ☐ Coconut milk
- ☐ Almond milk
- ☐ Olive oil
- ☐ Coconut oil
- ☐ Avocado oil
- ☐ Rice bran oil

Snacks & Beverages:

- ☐ Macadamia
- ☐ Water
- ☐ Kombucha
- ☐ Hemp seeds
- ☐ Pecan

Sweeteners:

- ☐ Stevia
- ☐ Inulin
- ☐ Xylitol (limited amounts)

Practitioner notes: