

Lectins: The Least Understood Hot Nutritional Topic These Days

W. Jean Dodds | Hemopet | 11561 Salinaz Avenue | Garden Grove | California | 714.891.2022

Lectins are among the hot nutritional topics these days that need a dose of reality. Some people are touting “Avoid!” Other people respond, “Impossible.” I am firmly in the second camp; we need lectins. So, before discussing them, let’s put them in perspective.

In life, we hope to simplify decision-making into black or white outcomes. Indeed, science has done this with experiments in terms of the hypothesis and its antithesis, the null hypothesis. This method has served us well and helped advance civilization.

When we analyze food, however, it is more complex and we need to weigh its proportionality to achieve the best health outcome.

Here’s an analogy. Think of food as your friends’ personalities. You have friends you may talk to everyday. Friends you shop with once a week or monthly. Friends you simply see on special occasions. You have structured your social life based on their good personality traits that interact best with yours and bear through any less desirable traits. By extension, foods have traits – vitamins, minerals, calories, carbohydrates, fats, proteins, etc. – that tip the overall scale in either a beneficial or potentially harmful way.

What are Lectins?

- Lectins are proteins that bind to sugar
- There are several classes of lectins (A very important point)
- Lectins are ubiquitous and present in all foods (Thus debunking the myth that lectins can be avoided)
- The amount of lectins present varies between each food
- Some lectins are good; but some lectins are bad for health
- One little known purpose of lectins is to act as a natural insecticide and fungicide to protect plants from predators

Lectins are complex and research has only begun scratching the surface on their dietary impact. Thus, we need to proceed judiciously when addressing the topic.

The Function and Dysfunction of Lectins in the Mammalian Body

- Facilitate immune function, cell-to-cell contact, and body fat regulation – all beneficial
- However, may be resistant to digestion, while they enter the blood unchanged
- Can damage the intestinal lining and disrupt intestinal villi; resulting in the body’s decreased ability to absorb nutrients
- May also harm bowel microflora – the beneficial bacteria that live inside the mucosal tissue lining of the gut and thereby contributing to “leaky gut syndrome”
- Diets high in certain toxic lectins may cause conditions such as dementia, and chronic inflammation such as obesity and cancer, as well as contribute to autoimmune diseases

Foods High in Toxic Lectins

- Legumes (beans) – soybeans, black beans, fava beans, garbanzo beans (chickpeas), kidney beans, lima beans, pinto beans, adzuki beans, and anasazi beans

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- Grains – wheat, rye, corn, oats, millet, buckwheat, rice, quinoa, plus others
- Dairy products
- Nightshade Vegetables – eggplant, tomatoes, bell peppers, white potatoes, goji berries

Putting These Foods in Perspective

We have to remember that food is the sum of its parts: vitamins, minerals, calories, carbohydrates, fats and proteins. Their overall benefit can outweigh the undesirable aspects.

With that being said, we recommend **avoiding**:

- **All gluten-containing grains** – i.e. wheat, rye, barley, oats unless labelled as gluten-free, spelt, kamut and even couscous, as they contain *gliadin*, the molecule so like thyroid hormone it can contribute to development of autoimmune thyroid disease)
- **Corn and soybeans** for several reasons beyond the fact they contain lectins – most corn fed to pets is of GMO and soybeans are phytoestrogens).

Lectins simply compound the undesirable traits.

However, so long as your dog is not lectin-intolerant and can digest and assimilate these foods, the nutritious benefits of gluten-free grains and certain legumes warrant their addition in moderation to your dog's diet. We should remember that beans (legumes) are functional carbohydrates that are known to be a good source of calcium, lower cholesterol, combat cancer, and stabilize blood sugar.

Regarding beans, you should watch out for flatulence! *You just need to make sure you soak the beans and cook them properly to reduce their lectin content.* [Sprouting and fermenting beans also reduces their lectin content.]

The list of lectins to feed as long as your dog is not intolerant of the food or lectins:

- Black-eyed peas
- Garbanzo beans (chickpeas)[a favorite of many]
- Gluten-free oats
- Kidney beans
- Lentils
- Lima beans
- Millet (a goitrogen)
- Pinto beans
- Quinoa
- Sorghum

References

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