

Lupin Allergy

Key points

- Lupin, like other protein containing foods (e.g. peanut, soybean) may trigger an allergic reaction in a small percentage of the population.
- Some people who are allergic to peanuts may also react to lupin.
- If you know or think you are allergic to lupin, it is important that you visit your doctor and ask for a referral to a clinical immunology/allergy specialist.

This document provides information to raise awareness of lupin as a food allergen. It is based on information developed by the Department of Agriculture and Food in Western Australia (DAFWA) and the Centre for Food and Genomic Medicine.

What is lupin?

Lupin is a legume related to peanut and soybean. For thousands of years, pearl lupin (*Lupinus mutabilis*) has been a South American staple and white lupin (*Lupinus albus*), has been a popular snack food in the Mediterranean region. The new Australian Sweet Lupin (*Lupinus angustifolius*) is being increasingly being used worldwide as a versatile, nutritional ingredient in food manufacturing.

Lupin is uniquely high in protein (30-40%) and dietary fibre (30%), and low in fat (4-7%). Nutrition scientists and medical scientists are researching the health benefits of lupin, which could potentially play a role in combating obesity and its associated health problems of diabetes and heart disease.

For most people eating lupin is safe but for a small percentage of the population it may trigger an allergic reaction like other high protein foods (e.g. peanut, soybean). Cases of lupin allergy have been reported since 1994 but many people may still be unaware of lupin as an emerging food allergen.

What is food allergy?

Food allergy is an abnormal immune response to naturally occurring food proteins or derivatives. About 5% of children and 2% of adults are estimated to suffer from some food allergy. Food allergies are not the same as food intolerances, which are generally caused by chemical agents (e.g. sulfites), or certain genetic deficiencies (e.g. lactose intolerance). Most food allergies are caused by peanuts, tree nuts, milk, eggs, fish and shellfish, sesame, soy and wheat.

Mild to moderate symptoms of food allergy include:

- Swelling of lips, face, eyes
- Hives or welts
- Tingling mouth
- Abdominal pain, vomiting

More severe symptoms of food allergy include:

- Difficult/noisy breathing
- Swelling of tongue
- Swelling/tightness in throat

- Difficulty talking and/or hoarse voice
- Wheeze or persistent cough
- Persistent dizziness or collapse
- Pale and floppy (young children)

Additional information about food allergy is available from the ASCIA website:

www.allergy.org.au/patients/food-allergy

Potential cross-allergic reactions

A number of studies have indicated a link between peanut and lupin allergy, which means that if you are allergic to peanuts you may also co-react to legumes, including lupin.

If you are allergic to peanuts, you should discuss this with your doctor or clinical immunology/allergy specialist.

What foods contain lupin?

Lupin can be found in a wide range of food products including baked goods (e.g. bread, pastries, pies), pasta or noodles, sauces, beverages and meat based products (e.g. burgers and sausages). Foods free of gluten, soy or genetically modified ingredients may contain lupin.

Food Standards Australia New Zealand (FSANZ) is currently working on a proposal which is considering the mandatory requirement of allergen labelling for lupin (Standard 1.2.3).

To make labels more helpful to allergy sufferers, Australian food companies are increasingly adopting voluntary allergen labelling for lupin. Lupin is sometimes labelled as lupin flour, lupin flakes, lupinus, lupine, lupini or lupine beans.

There is no evidence that lupin is quantitatively more potent an allergen than other foods. The range of severity of allergic reactions to lupin is similar to that seen with other food allergens.

How common is lupin food allergy?

The prevalence of lupin food allergy is difficult to establish because of the scarcity of studies, but seems to be very low in the general population. It has been claimed that fewer than 1% of the population that have eaten lupin-based foods have been reported to show an immediate allergic reaction.

Confirmed reports of lupin allergy in Australia have been few. In South Australia from 2004-2009 there were 8 cases of acute allergic reactions from lupin ingestion. Further work is needed to establish the prevalence and significance of lupin allergy to help with risk management.

Key messages

- The only way to manage a food allergy is by avoiding the food allergen.
- If you suspect you or someone you care for has a food allergy you should contact a doctor so you can be referred to a clinical immunology/allergy specialist or other doctor with experience in food allergy for ongoing management.
- Currently, there is no law saying lupin must be on food labels however some manufacturers do now include it in the ingredient list.
- Always disclose your allergy and ask about allergen content when eating away from home.
- Always be vigilant in high risk situations where food may be cross contaminated by other customers (e.g. buffet meals, bulk bin food displays).

References

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Content updated 2015