Avoiding Lectins and anti-nutrients:

The major sources of vegetarian proteins (nuts, seeds, legumes and grains), contain coatings designed to keep these 'seeds' from being digested which can be damaging to the digestive tract. A common group of chemicals in these coatings are known as Lectins. For our Vegan and vegetarian patients, knowing how to reduce lectin intake while encouraging a healthy balance of protein in the diet is important.

Lectins are resistant to digestion and can be absorbed into the bloodstream. Once into the circulation, they may stimulate the immune system, modify hormone functions or become deposited in blood and lymphatic walls. In the gut lining they cause damage and may increase the uptake of intestinal content by the cells. Some dietary sources of lectins (such as wheat), can directly break tight junctions in the gut walls creating increased intestinal permeability (or 'leaky gut'). This causes increased exposure of both dietary and bacterial antigens (inflammatory agents) to the immune system. Lectins can also interfere with nutrient absorption (they are 'anti-nutrients').

Because of their properties, lectins may trigger autoimmunity in susceptible people. The presence of lectins can also affect the composition of the gut bacteria and may cause dysbiosis (microbial imbalance), also predisposing to autoimmunity.

Sources of Lectins:

Unrefined grains, nuts, seeds and legumes all contain lectins. However, there is a solution to the problem of lectins: **fermenting, sprouting and cooking** will decrease lectin levels and free up the good nutrients.

Sprouting:

Sprouting nuts seeds, grains or beans decreases the lectin content, increases nutrient absorption (B12, iron, magnesium and zinc), increases protein availability and decreases anti-nutrients such as phytic acid. Generally, the longer the duration of sprouting, the more lectins/ anti-nutrients are deactivated.

There is a great beginners Guide here: https://plantbasedtipsandtricks.com/sprouting/

Soaking and cooking:

Soak beans and legumes overnight, and change the water often. Drain and rinse again before cooking. Adding sodium bicarbonate to the soaking water can help neutralize the lectins further. There is a lovely guide here to get you going: https://healthygut.com/articles/how-to-properly-prepare-beans/

Fermenting:

Fermentation allows beneficial bacteria to digest and convert many of the harmful substances. Even some vegetables, such as cabbage, have fewer anti-nutrients when fermented. Cultures with a history of grain eating, traditionally have used some form of fermentation to treat grains. If you've had sourdough bread or beer, you've had fermented grains.

This is a massive topic with much written about it. A good beginners guide is here: https://www.culturesforhealth.com/learn/natural-fermentation/fermenting-beans-and-legumes/

Lectin free Protein Powders – sources of lectin free protein powders include:

- Lectin free pea protein – Eg Nuzest
- Sprouted fermented raw rice protein – Eg: Ezyprotein

Dr Sarah Davies MBChB MRCGP
Institute of Functional Medicine Certified Practitioner
General Practitioner GMC: 6078548

sarahdavies.co.uk
consulting@drsarahdavies.co.uk
07496080755