



PATIENT INFORMATION BROCHURE

SOY ALLERGY

INTRODUCTION

- Soy allergy is an abnormal reaction to the protein found in soybeans.
- The abnormal reaction is caused by the immune system which usually protects us from threats such as infections.
- Allergy occurs when the immune system identifies normal proteins as threats and makes antibodies to that protein.
- In the case of soy, the allergy is most commonly due to soy that is eaten in foodstuffs, but can be to inhaled soy dust.

WHAT IS SOY?

- Soy is a protein-rich plant source derived from soybeans.
- Soybeans are legumes and a small amount of people who are allergic to soy cross react to other legumes such as beans and peanuts. The majority of those who are soy allergic do tolerate other legumes (e.g. peanut).

HOW COMMON IS SOYA ALLERGY?

- Immediate allergies to soy are generally uncommon, but more common in children than adults.
- Soy allergy can however develop at any time, and even in those who previously tolerated soy.
- Soya allergy can co-exist with cow's milk protein allergy, more commonly in the delayed type allergies (eczema or gut problems), in which soya and cow's milk allergy can co-exist in about half of patients.
- Such a co-existence of allergies is far less common in the immediate allergies, in which only about 10% of cow's milk allergic people also have a soya allergy.

CLINICAL FEATURES OF SOYA ALLERGY

- Reactions to soy can be “immediate” (within 2 hours, but most likely within 30 minutes) or may be “delayed.”
- If the reaction is immediate, it may manifest with vomiting, diarrhoea, abdominal cramps or skin changes (itching, redness, wheals (“hives” or “bommels”) or swelling).
- Occasionally a severe reaction may occur with difficult or noisy breathing, or the person may collapse and be unresponsive. This is known as *anaphylaxis*.
- Delayed type reactions to soy protein may present with streaks of blood in the stool of an otherwise well baby.
- Another rare manifestation of soy allergy is the abrupt onset of loose stools or vomiting and is called Food Protein Induced Enterocolitis Syndrome (FPIES).
- Delayed reactions may also manifest as a flare in atopic dermatitis.

HOW IS SOY ALLERGY DIAGNOSED?

- The most important tool for diagnosis of soy allergy is taking a thorough history of a reaction when consuming soy protein.
- There are 2 tests that can be done for immediate reactions. A skin prick test can be performed with ease in an allergy clinic. The patient needs to omit certain medications prior to the test being performed and the result is available within 15 minutes. The second test is called an ImmunoCAP® and involves blood being drawn from the patient.
- While the results of these allergy tests are a guide to whether the person is allergic, they do not predict whether the reaction will be mild or severe. It is also important to know that not all people with a positive skin or blood test to soya are actually allergic.
- In cases which are uncertain, the allergist may recommend a supervised food challenge to test for soy allergy. This entails giving initially tiny, then increasing amounts of soya to the person in a controlled setting.
- Delayed reactions are more difficult to diagnose as there are no laboratory tests to aid diagnosis. If a delayed reaction is suspected, then your allergy doctor will advise an elimination diet and then reintroduction of soy containing foods. This is best done by a trained Allergy Specialist.

TREATMENT OF SOY ALLERGY

- Patients with immediate and severe intermediate and delayed allergy should have soy removed from the diet and alternatives suggested by a dietician to ensure that the patient receives a nutritionally complete meal plan.
- Soy protein is present in a large amount of everyday foods and is often a “hidden” allergen in particular foodstuffs. With the food labelling laws in South Africa, products containing soy should be clearly indicated. Unfortunately not all companies have yet complied with the regulations. Parents need to read all labels and exclude the names provided in the list below.
- The Allergist should decide on the potential for a severe reaction in each individual and decide whether to prescribe an adrenaline auto-injector pen. Those with severe soy allergy should have an emergency action plan, a Medic Alert bracelet and carry an adrenaline autoinjector at all times.
- Parents should ensure that the school is aware of the child’s allergy, and has been given a copy of the emergency action plan and any medication that should be administered.

WILL THE SOY ALLERGY BE OUTGROWN?

- Soy allergy may be outgrown. The allergy doctor will monitor the allergy yearly either by skin prick or blood test.
- If those tests indicate that the allergy may have been outgrown then you (or your child) may be brought into hospital as a day case for a soy challenge.
- A soy challenge is a supervised procedure where increasing doses of soy protein will be fed to the patient to decide if tolerance has developed and if that the person is no longer allergic to soy.

SOURCES OF SOY ALLERGENS / WHAT TO LOOK FOR ON LABELS

- Bean curd
- Carob
- Emulsifier
- Lecithin
- Miso

- Monosodium glutamate (MSG)
- Protein extender
- Soya, soybean, soyabeans
- Soy protein, soy isolate, soy concentrate
- Soy flour, soy fibre, soy albumin, soy oil
- Soy milk
- Soy nuts, soy sprouts
- Soy sauce, shoyu sauce
- Stabiliser
- Starch
- Tofu
- Textured vegetable protein (TVP)
- Thickener
- Vegetable gum
- Vegetable broth
- Vegetable starch