Immunotherapy

ASCIA EDUCATION RESOURCES (AER) PATIENT INFORMATION

Immunotherapy, often referred to as desensitisation, is the closest thing to a cure for allergy, particularly for allergies to stinging insects or pollen.

Immunotherapy switches off allergy

Immunotherapy involves the administration of gradually increasing doses of allergen extracts over a period of years, given to patients by injection or sublingual drops (under the tongue). Immunotherapy alters the way in which the immune system reacts to allergens, by switching off allergy. The end result is that you become immune to the allergens, so that you can tolerate them with fewer or no symptoms.

Immunotherapy is beneficial in certain allergic conditions

Immunotherapy is usually recommended for the treatment of potentially life threatening allergic reactions to stinging insects. Published data on immunotherapy injections shows that venom immunotherapy can reduce the risk of a severe reaction in adults from around 60% per sting, down to less than 10%.

Immunotherapy is often recommended for treatment of hay fever (allergic rhinitis) due to pollen or dust mite allergy (and sometimes asthma) when:

- symptoms are severe
- the cause is difficult to avoid (such as grass pollen)
- medications don't help or cause adverse side effects
- people prefer to avoid medications

Immunotherapy is only occasionally recommended for the treatment of atopic eczema as evidence of its effectiveness is limited, although recently published studies have shown good results in some patients. Evidence that food allergy can be controlled in this way is very limited, although research is ongoing.

Improvement with immunotherapy does not occur immediately. It usually requires at least 4-5 months before symptoms improve, sometimes longer. If you are having treatment because of spring/summer allergic rhinitis, you usually know quite clearly in the first season.

It is recommended that immunotherapy is continued for about 3-5 years, to decrease the chance that your allergies will return. Whilst undergoing immunotherapy, you can still use your allergy medications and you should continue your asthma medications at the same time in the usual way. It is important to note that immunotherapy should only be initiated by a doctor who is fully trained in allergy.
Immunotherapy injections versus sublingual Immunotherapy

Immunotherapy has been given by injection for more than 60 years and many studies prove that it is effective. A number of studies published in the last 5 years have shown that very high dose sublingual immunotherapy (SLIT), where several drops of the allergen extract are retained under the tongue for a few minutes, then swallowed, can also be effective. This form of treatment has a longer history of use in Europe than in Australia and New Zealand, where it is used more commonly than injected immunotherapy.

The allergen extracts currently available in Australia and New Zealand for oral and injected therapy are very potent, and NOT the extremely weak and ineffective extracts used by some medical practitioners ten or more years ago.

Immunotherapy Injections

Allergy injections start with a very low dose. A small diabetic needle is used which may be uncomfortable, but not very painful. The dose is gradually increased on a regular (usually weekly) basis, until a therapeutic or maintenance dose is reached. This usually takes four to six months. This dose may vary between patients, depending on the degree of sensitivity.

Once the maintenance dose is reached, injections are administered less often, usually monthly, although still on a regular basis. Immunotherapy injections should be administered in a medical facility under medical supervision.

Side effects of immunotherapy injections

Many patients develop a localised swelling at the site of the injection, which can be treated with oral antihistamines or ice packs. If the swelling is large, your doctor may need to reduce the dose.

More serious reactions (such as wheezing, rash, dizziness or even anaphylaxis) are uncommon. Up to 10 per cent of people may have more than a local reaction. Simple measures reduce the risk considerably. For example, patients are normally advised:

- to remain in their doctor’s surgery for at least 30 to 45 minutes after injection
- to avoid exercising for several hours afterwards
- to avoid some heart and blood pressure medications (eg. beta blockers such as metoprolol or propranolol)
- that sometimes taking an antihistamine before the injection may reduce the local itching and swelling and is recommended by some doctors

It is important to inform your doctors about any reactions you may have experienced after your last injection and any new medications you are taking (such as eye drops, new heart/blood pressure tablets).

Patients who are pregnant (or planning to become pregnant in the near future) are not routinely commenced on immunotherapy until after they have given birth. If the patient is on maintenance doses of immunotherapy and then becomes pregnant, the injections can be continued (unless the patient wishes to stop), but the supervising specialist should be contacted to discuss relevant safety issues.
Sublingual Immunotherapy

The potential advantages of sublingual treatment are those of no injections, fewer regular doctor visits, no waiting periods after the injections, and a lower likelihood of side-effects. The main disadvantage of this form of treatment is cost. Much more allergen needs to be swallowed than injected, resulting in the cost per allergen being approximately 3 times that paid for injected treatments. Some people also dislike the salty taste.

On the other hand, this needs to be balanced with the time, cost and convenience in having fewer doctor visits. In practice, those more likely to choose SLIT will be those who dislike needles, people who don't have time to wait in doctors’ rooms after injections, and parents of young children, who may not wish for their child to have lots of injections.

Common methods for taking the allergen extracts:

- Take in the morning on an empty stomach
- Keep them under the tongue for at least 2 minutes, then swallow.
- Do NOT eat anything for 15 minutes.
- Avoid crunchy cereals as these may cut the tongue and increase the likelihood of mouth irritation from the extracts
- If you forget to take them in the morning, continue treatment the next morning at the usual dosage.

Side-effects of Sublingual Immunotherapy

Uncommon ~ 5 - 10 %

Irritation or itching inside the mouth - this can be controlled by temporarily reducing the dose or taking an antihistamine beforehand.

Rare ~ 3-5%

Stomach upset

At the time of writing, based on surveys, the risk of potentially dangerous side-effects arising from this form of treatment, such as difficulty breathing or rashes, is considered to be extremely low. Nevertheless, there are at least theoretical reasons for considering the risk not to be zero, as allergic reactions have been reported with some pollen-containing herbal medicines.

Unorthodox use of immunotherapy

There is no proven role for immunotherapy to reduce the severity of symptoms related to food intolerance or any perceived adverse reactions to food chemicals, additives, preservatives, artificial colours or smoke. At this time, immunotherapy to switch off food allergy is the subject of research, but is yet to enter routine clinical practice. There is no proven role for the addition of bacterial extracts to allergen extracts for immunotherapy, or for the use of bacterial extracts to treat any allergic disease at this time.
Immunotherapy is the closest thing to a "cure" for allergy

Although medications available for allergy are usually very effective, they do not cure people of allergies. Immunotherapy is the closest thing to a "cure" for allergy that we have, reducing the severity of symptoms and the need for medication for many allergy sufferers.

Immunotherapy is not, however, a quick fix form of treatment. You need to be committed to three to five years of continuous treatment for it to work, and to cooperate with your doctor to minimise the frequency of side effects. It is important to note that immunotherapy should only be initiated by a doctor who is fully trained in allergy, such as a medical specialist (Allergist/Clinical Immunologist).

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References


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