

Patient information

Venom Desensitisation

Allergy and Immunology Department

Desensitisation (or immunotherapy) is a highly effective treatment for severe bee and wasp sting allergy and involves the administration by injection of increasing doses of allergen extracts (venom) at safe intervals over a period of three to five years.

Desensitisation is only considered for severe reactions and if you remain at high risk of being stung in the future. The effect of the treatment is to substantially reduce your allergic reaction to further stings.

Allergy develops when the immune system makes IgE antibodies to 'fight off' a substance (allergen) that wouldn't normally bother us, such as pollen, animal dander, house dust mites, mould spores, foods or the venom of bees or wasps. Immunotherapy is an attempt to modify the immune system so that it no longer reacts to allergens as a threat. By giving the patient increasing doses of the allergen at regular intervals (starting with a very small dose) in a carefully controlled way, it is possible to teach the immune system to tolerate the allergen.

Immunotherapy carries a degree of risk, is time-consuming and expensive.

Procedure

Desensitisation involves regular injections under the skin of your arm, initially weekly. We gradually increase the dose (up dosing phase) each time so that by 12-16 weeks you will be able to tolerate a large amount of venom (equivalent to a couple of stings). You will then need monthly injections for one year, then every six weeks for a further two years (three-year maintenance phase).

How long will each visit take?

The injection only takes a few minutes but you will need to stay in the clinic under observation for 30 minutes.

Before each injection, you will have your peak respiratory flow (breathing test) measured by the nurse. The nurse will ask you questions about your general health and whether you developed an allergic reaction with any previous injections.

The injection is given in the outer aspect of the upper arm by the nurse; you may experience some discomfort at the site of the injection. After you have been injected it is necessary to remain in the Clinic under observation for 30 minutes. This is because the reactions do not generally happen after the first 30 minutes following injection.

During this time you will have further measurements of your peak respiratory flow.

Consent

We have to obtain your written consent before we start the desensitisation procedure. Staff will explain all the risks, benefits and alternatives before they ask you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to speak with a senior member of staff again.

Side Effects

There are two types of side effects you may experience:

Local which affects the area injected

Local reactions are often minor: the area that was injected may become slightly swollen and itchy for up to two to three days but these reactions generally improve once the maintenance dose is reached. Placing an ice pack over the area and antihistamine tablets easily treats this.

Local reactions are not a reason to discontinue immunotherapy but may sometimes need adjustments to be made to the dosage, if there was a large local swelling. Taking an antihistamine tablet one to two hours before the injection often reduces local reactions.

General which affects the whole body.

You may feel tired for up to 24 hours after the injection especially during the first three months.

Serious reactions to immunotherapy are very rare. Severe reactions usually occur within 30 minutes after the injections.

You may get an itchy rash, start wheezing or feel faint due to a drop in your blood pressure.

These are all easily treated and are more likely to happen in the up dosing phase rather than in the maintenance phase.

These severe reactions are the reason why it is necessary to have this form of treatment in a specialised Allergy Clinic run by staff that are highly trained in the treatment of allergy.

If you experience any reaction to the vaccines after leaving hospital please telephone: 0151 282 6369 Text phone number: 18001 0151 282 6369 or email allergy.immunology@liverpoolft.nhs.uk

Precautions after an Injection

You must avoid any form of strenuous physical activity and prolonged hot water bathing for at least 24 hours after the injection. These activities make your body absorb the venom too quickly and may increase the risk of delayed reactions.

Effectiveness of Desensitisation

Venom immunotherapy is highly effective, giving 85-95% protection against serious venom reactions. The long-term improvement is only seen if you continue with at least three years treatment. The vast majority of patients remain protected over a prolonged period of time.

Other Medications

It is very important that you tell the doctor which medications you are taking or if you start a new drug during the desensitisation period. Most drugs can be continued during desensitisation but beta-blockers, which are often prescribed for blood pressure or heart conditions, must be stopped before treatment is started. Patients on beta-blockers may be more reactive to the allergenic extracts given for testing or treatment and may be unresponsive to the usual doses of adrenaline used to treat allergic reactions.

If you are unwell

If you are unwell with a cold, flu or have a fever for any other reason your injection will have to be postponed until you recover. Similarly, if you have other allergic symptoms, which have become worse recently, for example hay fever or asthma, the injection dose may be either reduced or delayed.

Immunotherapy injections should not be given at the same time as other vaccines (for example: travel vaccines). We would recommend at least one week between immunotherapy and vaccination.

If you are unsure whether or not to come into hospital for your injection please telephone 0151 282 6369 **Text phone number: 18001 0151 282 6369 or email** allergy.immunology@liverpoolft.nhs.uk

What if I miss an appointment?

It is important to attend the clinic every week for the first 12 weeks (up dosing phase). Please factor this into your personal/professional diaries before starting treatment. If you really cannot attend and have to rearrange an appointment, then please inform the clinic as soon as possible. The dosage and schedule of the injections will have to be readjusted. An interval of greater than three weeks in this phase may mean re-starting the whole treatment.

During the maintenance phase, rearranging the appointment by one to two weeks may not affect the schedule/dosage. Please discuss with the doctor/nurse, if you are more than four weeks late for your injection. If you are unable to keep your appointment, please telephone and rearrange as soon as possible.

Pregnancy

Desensitisation is not usually started or continued during pregnancy because of the risk to the baby should a severe reaction occur.

Do I have to carry my Adrenaline Pen?

Yes, you should continue to carry your adrenaline pen at all times. Although immunotherapy will protect most patients completely from the effects of future stings, there is still a small chance of developing severe reactions (particularly if stung by several wasps/bees at the same time).

Are there any alternatives?

The alternative to desensitisation is to carry two Adrenaline pens with you at all times. This is not a cure, but it will give you time to call an ambulance to take you to your nearest Emergency Department.

Any individual who has been diagnosed with a stinging insect allergy **must always** have an auto-injector of adrenaline available **at all times**. In addition, people with an insect sting allergy should wear a medical alert bracelet stating their specific allergy.

Avoiding Insect Stings

1. Wear shoes that cover your feet at all times.
2. Wear clothing colours when outdoors those do not attract insects, such as white or grey.
3. Wear clothes that fit close to your body. Insects can become trapped in loose fitting clothing.
4. Avoid scented soaps, cosmetics, and perfumes.
5. Stay away from insect feeding grounds such as flower beds, fields of clover, rubbish and orchards with ripe fruit.
6. Keep car windows closed. Aside from the possibility of a sting, stinging insects in a car can cause panic in a sting-sensitive person and lead to hazardous driving.
7. Spray areas around rubbish with an effective insecticide.
8. Nests, hives, or mounds that house stinging insects should be destroyed by a professional exterminator.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

If you need any further information please contact:

Broadgreen Hospital Allergy Clinic

Tel: 0151 282 6369

Text phone number: 18001 0151 282 6369

Or

The Allergy Secretary

Tel: 0151 706 4349

Text phone number: 18001 0151 706 4349

Email: Allergy.immunology@liverpoolft.nhs.uk

Anaphylaxis UK <https://www.anaphylaxis.org.uk>

Allergy UK | National Charity <https://www.allergyuk.org>

Helpline 01322 619898

Author: Allergy and Immunology Department

Review date: October 2027

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