

Scit

“Allergy diagnosis must be made accurately with correct history and tests including the skin prick test and the blood test like immunoCAP / Phadiatop study. This once made will help decide the dose and the amount of the allergen chosen to give as injection. It is an evolving treatment modality with good results in the correct and most affected patients.”

Ref:

1. Aaai allergy shots brochure leafet. [www.aaaai.org](http://www.aaaai.org).



## CHEST CARE CLINIC, KHARGHAR

Dr. VISHAL GUPTA- CHEST SPECIALIST  
Dr. DEEPIKA UGHAD GUPTA- CHEST SPECIALIST

TIMINGS: MON TO SAT , 10:00 AM TO 1:00 PM  
AND 5:00 PM TO TO 9:00 PM.  
SUNDAY CLOSED

SHOP NO. 21, OM SAI CHS, BELOW MEDICITY  
HOSPITAL, NEAR KHARGHAR POLICE STATION,  
KHARGHAR, NAVI MUMBAI 410210.

Inquiries and Appt. 9869357905  
[www.chestcareclinickharghar.com](http://www.chestcareclinickharghar.com)  
<https://goo.gl/maps/KbphpSWodVx>

# What are Allergy shots / SCIT?



## What is Allergy?

An allergy is an inappropriate reaction by your immune system to harmless substances that are around you for long times every day. These substances can trigger sneezing and nasal blockade runny nose

(Allergic rhinitis) , wheezing, coughing (Allergic Asthma), itching and severe, potentially fatal Reactions (Anaphylaxis /Urticaria).

Allergens enter the body in several ways. Airborne particles such as pollen, dust and mold spores are breathed in through the nose and mouth; insect venom is injected through stingers; foods are ingested or swallowed. Medicines that can cause allergic reactions are injected or ingested. Many people suffer needlessly from allergies because they have never sought medical diagnosis or cannot identify the specific allergen. However, with proper management and patient education, allergies can be controlled and people with allergies can lead normal and productive lives.

## What are types of Allergy?

### Dust Allergy.

Symptoms are the sneezing, runny and stuffy nose, red and itchy eyes. Dust allergy occurring due to House Dust includes: Dust mites, Cockroaches, Mould, pollen, Pet hair/ Fur / Feathers.

Dust Mites are also called as the bed mites NOT BED BUGS. Most common form of allergy to dust at home usually moist environment in hot and humid places. They prefer to temperatures at above 21 degree with a humidity of 75- 80 %..

They die if the humidity falls to below 50 %. They are usually not found in dry climate. They are a common cause for asthma in adults and children. The dust mite particles are too small to be seen and cannot be removed during a normal cleaning procedure. There is a chance that cleaning and dusting may increase the contamination and thus worsen the asthmatic symptoms.

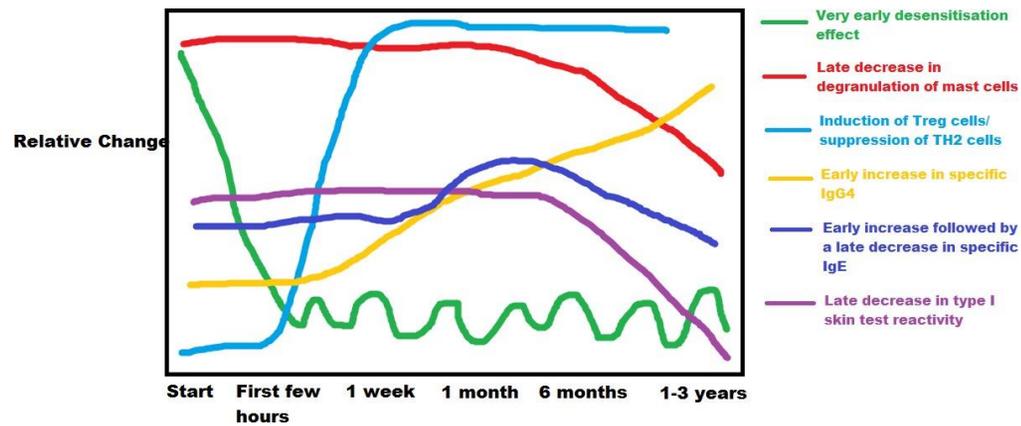
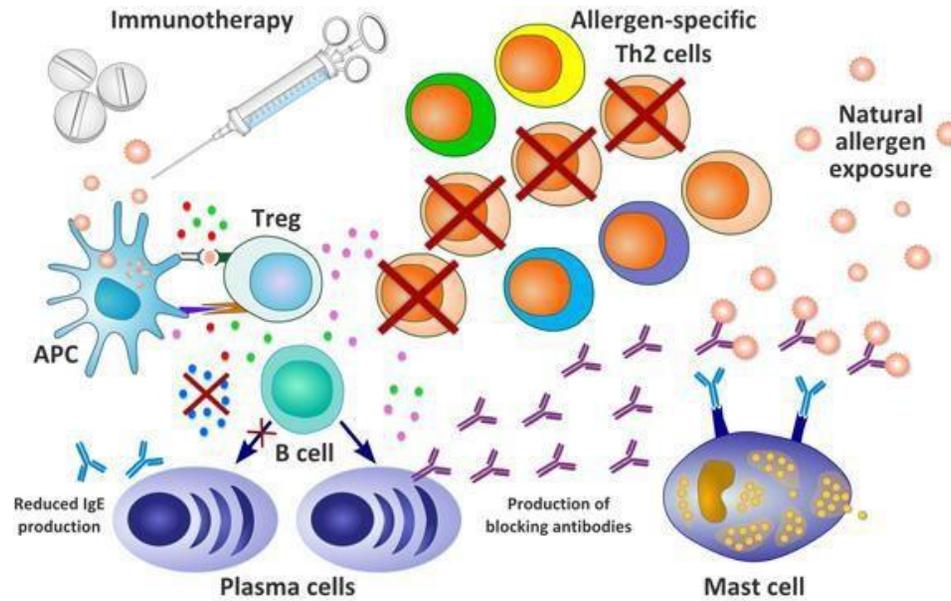


### Hay Fever / Pollen Allergy.

Pollen can come from grass/ weed / trees/ flowers. People can be allergic to different types of pollen. For example people may be allergic to the grasses like "durva" (Bermuda grass) or Parthenium (Congress Grass) plant. Pollen may contaminate the house dust and lead to house dust allergy. Keeping indoors and keeping windows closed during the during the pollen season. Filtering home air (Air conditioning) may give partial benefit.



## MECHANISM OF ALLERGY AND SENSITISATION



## Mould allergy :

Mould / fungal allergy are due to the fungus spores in the air. Mould spores are prolific everywhere. They include the black mould that forms on window frames. Exposure to mould is widespread, so it is difficult to determine how much mould an individual is exposed to in everyday life.



cats completely.

## Pet allergy :

Allergy to pets is a growing menace in urban environment. It is usually related to fur in cats and dogs rarely to urine and epithelial shedding. Dogs can have individual species allergy thus alternative dogs can be chosen but cats if found allergy generally eliminates all

## What is Allergen Immunotherapy?

Allergen immunotherapy, also known as desensitization or hypo-sensitization, commonly also called “Allergy Shots” and useful for the alteration of the response to immunity to the specific allergen. This involves exposing people to larger and larger amounts of allergen to gradually produce the intended tolerance and hence permanent change in the immunity. This theoretically allows basic changes in immune system thus reducing the atopic status of the patient.

These therapies have been studied best use in the allergic rhinitis, allergic asthma and sensitivity to pollen, dust mites and the insect sting allergies. They have controversial use in the food allergy. These benefits may last years longer after the injection have been stopped. The most preferred choice is the injections under the skin called subcutaneous immunotherapy (SCIT) but due to inconvenience in taking multiple injections, the alternative choice is the drops taken under the tongue Sublingual Immunotherapy (SLIT). Safety of SLIT is well established and have shown no serious events in majority of the patients.

SCIT is popularly called Allergy shots are cheaper and possible more effective than the drop therapy. It can be safely given but needs dedicated follow-up on regular visits by the patient.

## Diagnosis of Allergy and workup for

### Immunotherapy?

Diagnosis of allergy is based on allergy history, appropriate skin prick or intradermal testing. The blood test helps confirm the suspects for the allergy evaluation. The measurements on the skin prick testing helps decide the quantity of allergen in each allergy shot. PFT / Spirometry, Sinus and Endoscopic evaluation, Blood investigation and Chest x ray may be needed as per individual case requirements.

## Effectiveness of the Allergen

### Immunotherapy?

Allergen immunotherapy may “turn down” the allergic reaction (asthma and runny nose rarely skin allergy / food allergy) for pollen /and dust mite / less for fungus. In most cases the initial 6 to 12 months course of allergy shots is likely to decrease the sensitivity to the airborne allergens and the continuation of the therapy will lead to continued benefit.

The medication may not cure the patient but need for medications and the reduced sensitivity may results in fewer symptoms. For this it is necessary to maintain appropriate dosing interval between the medications.

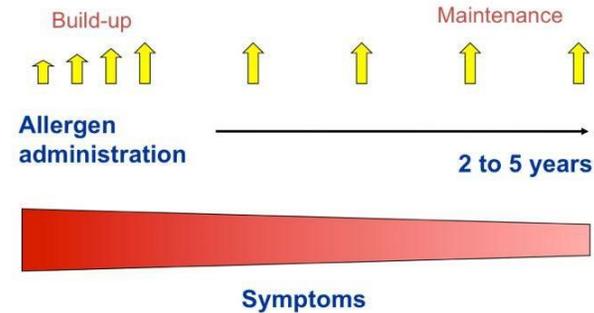
### How long will immunotherapy have to be given for?

**BUILD-UP PHASE:** Involves the build-up of the Allergen antibodies in the blood. Your body responds to injected amounts of a particular allergen given in increasing doses, eventually developing a resistance and tolerance to it. Allergy shots can lead to decreased, minimal or no allergy symptoms. Build-up often ranges from three to six months and involves receiving injections with increasing amounts of the allergens. The shots are typically given once or twice a week, though more rapid build-up schedules are sometimes used.

**MAINTAINENCE PHASE:** This phase begins with the effective therapeutic dose being reached and the concentration of the allergen increased to the therapeutic potential. he maintenance phase begins when the most effective dose is reached. This dose is different for each person, depending on how allergic you are and your response to the build-up injections. Once the maintenance dose is reached, there are longer periods between injections, typically two to four weeks. This in turn leads to the fewer reaction and greater benefit in the allergic person concerned. This may last up to 2 to 2 ½ years. The total therapy may last for a period of up to 3 years or more which varies with the response of the allergen for each patient.

Occasionally doctors give cortisone-type shots that can temporarily reduce allergy symptoms. These types of shots are different and

should not be confused with allergy immunotherapy shots. Tablets taken and injection to control local symptoms from allergy shots are not counted as the allergy shots.



### Who Can Be Treated with Allergy Shots?

Allergy shots may be a good treatment approach for people with allergic rhinitis (hay fever), allergic asthma, conjunctivitis (eye allergy) or stinging insect allergy. Allergy shots are not recommended for food allergies.

Before deciding to begin allergy shots, you should consider:

- The length of allergy season and the severity of your symptoms
- Whether medications and/or changes to your environment can control your symptoms
- Your desire to avoid long-term medication use
- Time: allergy immunotherapy requires a major time commitment
- Cost : usually depends on the skin test results and the number of the allergens chosen for the treatment. It is cheaper and more effective than the tablets and drops nasal sprays in the long term after 1 year period.

Allergy shots for children age five and older are effective and often well tolerated. They might prevent the onset of new allergen sensitivities or the progression to asthma.

Allergy shots are not started on patients who are pregnant but can be continued on patients who become pregnant while receiving them. In some patients with other medical conditions or who take

certain common medications, allergy shots may be of risk. It is important to mention other medications you talk to your allergist.



Dr. Vishal Gupta at the Chest Care Clinic, Kharghar.

### **When Will I Feel Better?**

Some may experience decreased allergy symptoms during the build-up phase. For others, it may take as long as 12 months

on the maintenance dose. If there is no improvement after a year of maintenance, your allergist will discuss other treatment options with you.

If you aren't responding to allergy shots, it may be because there is not enough dose of the allergen in your vaccine or there are missing allergens that were not identified during your allergy testing. Other reasons could be that there are high levels of the allergen in your environment or major exposure to non-allergic triggers like tobacco smoke.

### **When should immunotherapy be stopped?**

If immunotherapy is successful, maintenance treatment is generally continued for three to five years. The decision to stop immunotherapy should be discussed with your allergist/immunologist after three to five years of treatment. Some individuals may experience lasting remission of their allergy symptoms but others may relapse after discontinuing immunotherapy. Therefore, the decision to stop immunotherapy must be individualized.

“Allergy shots may not be curative for all but is a good option considering cost effectiveness over long usage, no medication side-effects, much better quality of life with need for bi weekly injections.”

### **What Are the Possible Reactions?**

The two types of adverse reactions that can occur with allergy shots are local and systemic. Common local reactions include very mild redness and swelling at the injection site, which can happen immediately or several hours after. A systemic reaction, which is less common, affects the entire body or a particular body system. They are usually mild and typically respond quickly to medications. Signs include increased allergy symptoms such as sneezing, a stuffy nose or hives.

Rarely, a serious systemic reaction called anaphylaxis (pronounced an-a-fi-LAK-sis) can develop. Symptoms include swelling in the throat, wheezing, and feeling of tightness in the chest, nausea or dizziness. Most serious systemic reactions develop within 30 minutes of allergy shots. This is why it is strongly recommended you wait in your doctor's office for 30 minutes after your injections. Your allergist is trained to watch for reactions, and his or her staff is trained and equipped with the proper medications to identify and treat them.

### **Summary:**

Allergy immunotherapy is a proven effective treatment for allergic rhinitis, allergic asthma, and stinging Insect allergy. It also may be effective in some individuals with atopic dermatitis (eczema) if they have allergies to airborne allergens. Immunotherapy can potentially modify the allergic disease leading to lasting remission of allergy symptoms. Immunotherapy may play a preventive role in pediatric allergic disease, in terms of development of asthma and new allergies, thus early involvement of the allergy specialist may be important in the child with allergy symptoms. Adverse reactions to immunotherapy are rare but do require immediate medical attention.