

# The Nasal Filter as a simple treatment for Inhalant Allergy

By

P. Arora

Public Health Nursing Supervisor, Rural Health Centre of A.I.I.M.S.,  
New Delhi at Ballabgarh, Haryana

The writer has suffered with seasonal allergic rhinitis and headache for the last 14 years. She feels relieved 90% with the use of this nasal-filter when used only for two months in a year during the rainy season. No medicine has been used for the last two and a half years. She is also relieved of headache.

## Allergy

This means an altered reaction. An allergic person reacts abnormally to something which is harmless to normal individuals or harmful only in much larger doses. The substance provoking this abnormal reaction is called an *allergen*. Before an allergic reaction can occur the person must become sensitized to the allergen.

## Nasal Filter

This is a device developed at the All-India Institute of Medical Sciences, New Delhi which is useful for persons suffering from the inhalant allergy. This filter is made by mounting a special stainless steel wire gauze in a frame made of methyl methacrylate. The size of the frame is adjusted to fit inside the patient's nostrils as indicated in Figure 1.

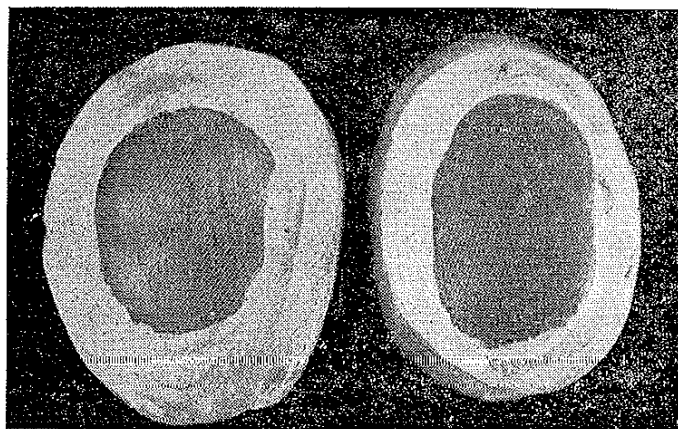


Fig. 1 Nasal Filters

It has been confirmed by tests that particles of any size can be significantly filtered out of the air by the stainless steel wire gauze and that is why it has been

found suitable for use in the Nasal Filter. The methyl methacrylate is a stable and an unbreakable material; therefore it renders good service to the user.

This device has been used to relieve patients suffering from asthma, allergic rhinitis, urticaria, atopic dermatitis and pompholyx and it can be used for any other allergic symptoms also provided the allergy is due to any material which is breathed in.

The nasal-filter is most useful for the patients whose allergy is caused by any type of particles suspended in the air such as dust, pollens, fungal spores, insects or dander. The attacks of allergy in such cases are either seasonal—the patient remaining much better during the rest of the year—or the attacks may occur only when the person goes to a particular place. In every patient the effect of change of place and that of seasons should be taken into consideration.

## Investigations

As the wire gauze filters out all the substances in the air, there is no need to find out the actual substance responsible for the attacks. The person, therefore, need not undergo any tests to find out the cause of his allergy, so long as it is known that the allergen enters his body with the breath.

## How & when to use

One has to prepare a pair of filters, one for each nostril, and use the left filter for the left side and right filter for the right side. Use of wrong filter is likely to be uncomfortable. It can be easily inserted into the nostrils and it is not visible from the outside. It should be used at any time when the antigen is likely to be inhaled or it can be used day and night. It should be cleaned twice a day with soap and water under running tap or whenever it gets blocked with dust or secretions and causes slight difficulty in breathing.

## Precautions

1. Keep the nasal filter in the nostrils only and do not push deep inside the nose.

2. While cleaning the filter avoid poking the wire gauze with any sharp instrument. Cleaning with a cotton swab soaked in soap solution is the best.
3. While wearing the filter, always breathe through the nose and not through the mouth.
4. While sneezing forcibly keep your hand in front of the nose so that the filter is not blown out.
5. When not in use, keep it clean and closed in a small box safely away from the reach of the children.
6. See the doctor for check up at regular intervals and also for further advice.
7. If the nasal filter causes any irritation in the nose or pain, see that the fitting is alright or get it checked from the manufacturer.

#### Side effects -

##### *Initial difficulty in breathing.*

Almost every person is likely to have an initial difficulty in breathing but one gets adjusted within few hours after the use.

##### *Nasal twang.*

This change in the voice occurs in few persons only and is also eliminated within 24 hours.

##### *Hypersensitivity.*

This is considered to be unlikely because the frame material has already been used in the form of artificial dentures for years without any side effects.

##### *Cosmetic acceptability.*

It is good because the filters are worn inside the nostrils and are not visible from outside but it does produce a small outward bulge of the nostrils which is ignorable as shown in Figure 2.

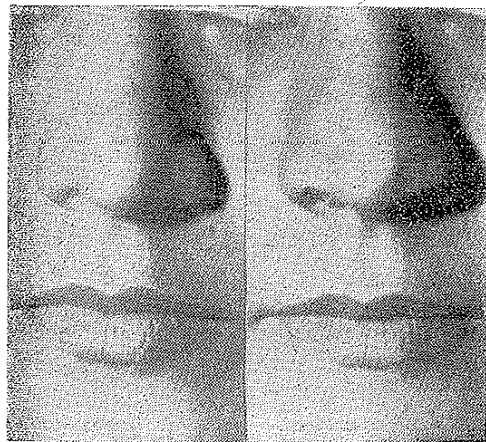


Fig. 2. A patient's nose without Filter (A), with Filter (B)

#### A research study

A study has been conducted by Dr. J.S. Pasricha and Dr. B.M. Abrol at the A.I.I.M.S., New Delhi on the nasal filter. The 11 patients studied so far in detail included five cases of bronchial asthma, three cases of allergic rhinitis and one case each of urticaria, atopic dermatitis and pompholyx. All these patients remained free from symptoms so long as they used the filter but the allergic attacks occurred if they stopped the use of it. In five patients (4 Bronchial Asthma and one Pompholyx), the attacks used to occur when they visited a particular place but this could be avoided with the use of filter whenever they were going to that special area. In the other three patients (Allergic Rhinitis-two, and Atopic Dermatitis-one), the attacks were related to a definite season of the year. Therefore these patients were required to use the filter during these few months only. The rest of the patients had to use the filter day and night as their attacks were persistent without any significant effect of the seasons or the change of the place. Most patients were able to give up medicines completely or their requirements became very much reduced.

The nasal filters are being produced for commercial sale in Delhi at an estimated cost of Rs. 100 per pair.

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