

# Occupational rhinitis

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## Introduction

It is a disease characterized by inflammation of the nasal mucosa, due to exposure to inhalable particles in the workplace. It is dust, gases or vapors, that will produce sensitization in the patient and develop a mediated by an immune mechanism IgE response, often may be associated with bronchial asthma, or may trigger a non-immune process exposure to fumes or irritating gases.

This is a very common disease, in which the prevalence is three times higher than the occupational asthma and major socio-economic consequences, although it is often difficult to diagnose and discover the agent involved. Besides this under diagnosed because workers tend to consult belatedly that when it comes to bronchial asthma. Over 200 agents capable of producing occupational rhinitis, which are the same as bronchial asthma, develop known. Among professionals highest risk of occupational rhinitis are bakers and pastry chefs, food handlers, farmers, workers in plastics, hairdressers, workers in paints, construction workers and textile industry, etc.

## Classification

1. Rhinitis agents that cause no immune mechanism:
2. Rhinitis agents that cause immune mechanism:

## Symptoms

Nasal obstruction, rhinorrhea, sneezing and nasal itching and can also be associated with epistaxis, anosmia, eye symptoms such as ocular itching, tearing and conjunctival redness and irritability and malaise sometimes. The symptoms are recurrent and almost continuous throughout the whole year, usually improving the weekends and worse at work. In non-immune rhinitis nasal congestion prevails against the previous symptoms, and severe burns and eye irritation, pharyngeal, tracheal and bronchial may appear, irritant gases. Signs that should make us suspect atopy or allergic rhinitis are the "allergic salute" transverse nasal groove by scratching repeated oral habit, gingival hyperplasia, geographic tongue, dark circles and eczema among others.

## Diagnosis

We'll have to diagnose rhinitis with the previously mentioned symptoms and make the demonstration that this rhinitis a substance is in the workplace, through medical history and a series of diagnostic techniques.

- A. History:** Detailed history, asking about the profession, the substances handled, frequency of symptoms at work or out of it, and checking of improvement with the change of job, as well as exacerbation after re-exposing the patient to non-irritating levels of the substance involved.
- B. Skin test:** Prick-test, to be performed with standardized reagents. Anyway it is always advisable to test a standard battery of pneumoallergens, which allows knowing the "Atopic status" and the contribution of non-occupational allergens.

**C. Specific IgE:** Using techniques of RAST, ELISA and CAP. Detection of specific IgE may reflect only subclinical sensitization by mere exposure to occupational agents, and therefore should always be valued its presence taking into account the patient's medical history.

**D. Monitoring peak nasal inspiratory flow:** It is done with the flow meter peak and serves to determine the nasal permeability. For its part, the Rhinomanometry give us information about the resistance in the nasal flow.

**E. Rhinoscopy:** Observe the mucosa and the possible existence of polyps or other lesions.

**F. Acoustic Rhinometry:** It is a noninvasive procedure that analyzes the permeability of the nostrils

## G. Medical treatment

- i. Non sedating-Antihistamines
- ii. Intranasal-Medication
- iii. Immunoterapia
- iv. Systemic-Corticoides: only indicated in severe cases
- v. Cysteinyl leukotrienes --Inhibidores as of zafirlukast montelukast.

## WHO opinion

The World Allergy Organization suggests that 400million people suffer from allergic rhinitis, which is the most common of all, and 300million-number asthma is estimated to reach 400million by 2025 and rapidly increasing in children.

In our hospital preponderantly we receive patients with occupational rhinitis in garment workers, construction and domestic workers, we conducted extensive work of awareness for prevention

of rhinitis, emphasizing the use of masks, oral-nasal protectors, gloves, work in ventilated areas and is requiring that the employer air extractors are placed in workplaces. We who know the job insecurity of these workers and abuse of working hours more informal employment status of the 11946 patients seen by the ENT service of our hospital during 2014, 1225 they had allergic rhinitis of which 490 entered the study protocol, to meet the requirements there of.

Occupation	Amount	%
Construction Workers	190	38.80%
Domestic Workers	140	28.60%
Textile Workers	160	32.60%

## Conclusion

Occupational rhinitis is a common condition and underrated by both the patient and doctors, without awareness of the clinical implications that may result, causing associated with absenteeism is taken. We must raise awareness on the one hand to patients on prevention and doctor to detect and begin its rapid treatment equipment, highlighting how difficult it is the latter in the presence of increasingly informal work.

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## Conflicts of interest

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