

## Non-Allergic Rhinitis

### What is it?

Non-allergic rhinitis is a group of conditions characterised by inflammation of the nasal lining unrelated to the allergic pathway of the immune system.

### What are the symptoms?

The main symptoms are nasal blockage or congestion, a runny nose, sneezing and nasal itching. Postnasal drip (mucus dripping into the throat from the back of the nose) may also be present. Symptoms may fluctuate or be persistent.

### What causes it?

This is not known. In some cases, an imbalance in the nerve signals to the nose plays a role in producing symptoms. Non-allergic rhinitis may be induced by different factors in different patients. These factors include:

- Medications – aspirin and NSAIDS (non-steroidal anti-inflammatory drugs), oral contraceptive pill, blood pressure medications (ACE inhibitors, methyldopa), vasoconstrictor nasal sprays;
- Physical factors – cold, dry air, exercise, elderly, radiation;
- Chemical factors – swimming pools, smoking, occupational agents;
- Hormonal factors – menstrual cycle, pregnancy, underactive thyroid;
- Foods – hot, spicy foods, dyes, preservatives.

### How is it treated?

Unfortunately, there is no cure for non-allergic rhinitis but there are effective treatment options. Generally, medical treatment is given first. If troublesome symptoms persist, a combination of medical and surgical treatment may be offered.

### Medical treatment

#### *a) Medications for prevention*

The mainstay is treatment with a steroid nasal spray, such as **Nasonex** and a **Saline** rinse or spray daily. If other sprays don't work, **Rinar** nasal spray may be given over 3 days and may improve symptoms for weeks afterwards.

#### *b) Medications for symptom relief*

Antihistamine nasal sprays, such as **Azep** or **Livostin**, may help to reduce symptoms of sneezing, itching, runny nose and nasal blockage. **Atrovent** nasal spray helps to reduce runny nose and postnasal drip.

### *What do the medications do?*

Saline rinses help to wash the irritants and mucus out of the nose, thereby reducing inflammation. The steroid sprays reduce the inflammation directly. Atrovent spray reduces the nasal mucus secretion. Rinar depletes the nasal nerves of their chemical transmitters, thereby reducing all symptoms.

### *What are the side effects?*

Nasal sprays are generally well tolerated. They may dry the nose and lead to some bleeding, irritate the nose and throat or leave a bad taste. Some can worsen glaucoma.

### Surgical treatment

Initial surgery aims to improve blockage of the nose, reduce symptoms and to let the sprays penetrate the nose more effectively. This allows more effective topical medical treatment of the inflammation causing the symptoms. Surgery is **not** a substitute to medical treatment: it is important to continue the topical nasal sprays after surgery.

In selected patients, dividing the nerves supplying the nasal mucus glands may be beneficial.