# CENTRAL TEXAS ALLERGY & ASTHMA Priyanka Gupta, M.D. www.CTxAA.com



# **Vasomotor Rhinitis (Non-Allergic)**

If you have the symptom complex known as VASOMOTOR RHINITIS, you may be able to identify with this cartoon well!!

As you probably realize already, this condition can cause you much frustration and discomfort. While there is certainly no cure for this process, there *is* a way to help.

As with most chronic problems, the key to control is UNDERSTANDING on your part. This is an extremely difficult problem to explain, but it is hoped the following information may be sufficient to let you live with this most vexing problem more comfortably.



#### What Is It?

The cause of VASOMOTOR RHINITIS remains obscure despite its recognition for many years. We do know that the lining inside an infected nose OVERREACTS to anything that irritates it. Blood vessels enlarge or vasodilate and this results in long standing or chronic swelling and nasal obstruction. There is some evidence that individuals with vasomotor rhinitis have an imbalance of the nerve supply to the nose, which leads to the enlarged blood vessels.

Persons with vasomotor rhinitis, because of chronic swelling, have difficulty in breathing nasally. They may have a small amount of thin, watery nasal discharge, a recurrent postnasal drip, or no discharge at all. Because of the chronic swelling, normal drainage may be blocked, which may lead to recurrent sinusitis (sinus infection) and ear infections. Some individuals may also experience burning of the eyes.

### What Makes It Worse?

The thing that aggravates vasomotor rhinitis in a nutshell is AEROSOL products. These may include hair sprays, deodorants, and insecticides among many others. Other nonspecific factors, which aggravate this condition, are cigarette smoke, air pollution, and even specific changes in weather or humidity (especially rainy weather). Any type of irritant that you can inhale into the nose may aggravate symptoms.

### Is It an Allergy?



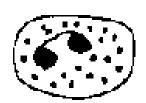
The answer is usually NO. Despite what any skin testing or other laboratory data might suggest, individuals with allergic symptoms

typically present to the allergist with a history of sneezing spells (usually greater than five sneezes per spell); itching of the eyes, nose, and throat; and a large amount of watery nasal discharge. These symptoms may occur only during certain seasons or sometimes even year round. People with allergic rhinitis usually have a positive family history of allergy and usually respond favorably to antihistamines and steroid hormones. The individual with vasomotor rhinitis does not.

#### Laboratory

There are two basic laboratory tests that we use in addition to historical data to HELP distinguish allergic rhinitis form vasomotor rhinitis.

- 1. <u>Skin Testing</u>: Individuals with allergic nasal problems usually react to injections of the problem causing substance (called allergens) with a large "hive". This type of testing is much more complicated than it would appear on the surface. There are many such substances to which ANYONE will react with a red irritation without allergy being indicated. Picking the substances associated with antibody mediated allergy is a task for even a formally trained allergist. Individuals with vasomotor rhinitis do not have significant reactions when screened with a battery of skin tests, or they may show a reaction to a material on the skin, which causes no nasal problem (this is irrelevant skin test positivity).
- 2. Nasal Smear: In this test, an allergist looks at the dried and stained nasal secretion with a microscope. The



appearance of a certain type of cell in the mucus called EOSINOPHIL is a very positive sign of allergy. Individuals with vasomotor rhinitis usually have no eosinophils present but instead may have cells reflective of mild inflammation of just the cells, which normally line the nasal and respiratory tract.



This can be of immense help to the physician in deciding what the mechanism of the problem is.

## **Different Types of Non-Allergic Rhinitis**

<u>Vasomotor rhinitis</u>, or irritant rhinitis, is a condition of unknown origin which seems to be aggravated by fumes, odors, temperature and atmospheric changes, smoke, and other irritants. This form of rhinitis, which usually afflicts adults, causes year-round symptoms, especially nasal congestion. Decongestants are usually prescribed for this illness, although no known medications can give complete relief from symptoms. Regular exercise can also be helpful.

Similar symptoms may occur as a result of pregnancy, thyroid disorders, or as a response to certain medications. When the symptoms are traced to a deficiency of thyroid hormone, thyroid medication can help.

<u>Eosinophilic Non-Allergic Rhinitis</u> is named after the blood cell which distinguishes it from other forms of non-allergic rhinitis—the eosinophil. This type of rhinitis behaves like allergic rhinitis in that it causes frequent, recurrent bouts of sneezing and runny nose. This disorder, which may seem to appear from out of the blue, can be provoked by changes in the environment such as air pressure variations or weather shifts. Allergy skin tests are negative with this type of rhinitis, and nasal polyps are a common complication. Antihistamines, decongestants, and topical cromolyn may be beneficial, but topical steroids provide relief for may patients.

<u>Rhinitis medicamentosa</u> occurs when topical decongestants (nasal sprays) are used in excess. In these cases, patients have used over-the-counter nasal sprays for more than three days. This form of rhinitis causes severe nasal congestion and is best treated by going "cold turkey" and discontinuing the offending nasal spray. Topical or oral corticosteroids can be used to help end nasal spray dependency.

<u>Neutrophilic rhinosinusitis</u> is usually precipitated by a sinus or related infection but may also be associated with colds and flu. It causes postnasal drip, sinus pain, and pus-filled secretions, which may be treated with decongestants, nasal saline solution, and antibiotics.

<u>Structural rhinitis</u> is caused by structural abnormalities in the nasal septum normally resulting from an injury or congenital abnormality. This type of rhinitis may produce perennial (year-round) congestion that usually affects one side of the nose more than the other. Surgery may aid in correcting this abnormality.

<u>Nasal polyps</u> are growths on the mucus membrane, which cause congestion and loss of sense of smell. They provoke symptoms year-round and usually begin between the ages of 20 and 40. Nasal polyps may be associated with aspirin sensitivity and asthma and may cause recurrent sinusitis. Decongestants or corticosteroids (topical or oral) may provide temporary relief. Nasal polyps may be surgically removed, but they have a tendency to recur.

## What Can Help?

Although we have no "cure" for vasomotor rhinitis, there are several methods you can use to improve this condition.

#### General Measures

These measures may reduce your symptoms to a pleasantly surprising degree. Obviously, you need to AVOID the agents you know to be a problem. Two of the most frequent irritants are cigarette smoke and nose drops or sprays. If you smoke or live with a family member who smokes heavily, it is unlikely that your symptoms will ever be in complete control. You will need to STOP SMOKING!!!



Nose drops and sprays (Afrin, Otrivin, Neosynephrine, etc.) will produce dramatic improvement in the symptoms of vasomotor rhinitis due to the ability of shrinking or contracting the nasal blood vessels. Used OCCASIONALLY they are helpful treatment. Used consistently these preparations cause "rebound" swelling...that is, the more you use them, the more you need them until they do more harm than good. Try not to use these preparations more than 2 to 3 days in a row, and try not to use this pattern more than once a week. Use them as a last resort when all else fails.

Nonspecific irritants should be avoided. Use a roll on deodorant instead of sprays. If you must use hair spray use the pump type. Avoid high concentrations of house dust. We will gladly furnish you with printed information regarding the approach to house dust control. Certain medications such as aspirin or blood pressure agents can cause problems, which stimulate vasomotor rhinitis; check with us if there are any questions in this regard.

If you must treat your home with insecticide, try to be elsewhere during the actual application. During periods of heavy pollution, drive your car with the windows and vents closed when possible.

#### Specific Measures

\*\*\*Salt water nose drops may be useful in vasomotor rhinitis. You can make your own by adding a level teaspoon of salt to a 6 ounce glass of distilled water. Insert several drops into each nostril. You may find it more convenient to use a bulb syringe.

Some patients derive significant help from either a room or central humidifier especially in the winter, when heaters are turned on and the air is very dry.

\*\*\*Decongestants give the most consistent relief by shrinking the nasal blood vessels. Sometimes it is a trial and error thing to find the right one for you, but it can be done. These drugs are quite safe even if taken for prolonged periods. On occasion some people experience nervousness, which usually goes away with a minor

dosage decrease. If you have high blood pressure, please advise us of this since some decongestants may aggravate hypertension.

Antihistamines are less effective in vasomotor rhinitis. They cause excessive and irritating drying which can lead to sinus infections. Antihistamines may be helpful when used in combination with decongestants. These are also safe drugs, but may cause drowsiness. We sometimes alternate these two types of preparations (antihistamines and decongestants) to avoid the development of tolerance or resistance to one drug because of chronic use.

You can help yourself and us by learning to recognize a common complication that occurs in individuals with this problem—SINUS INFECTIONS. Because the sinus opening may be blocked (because of the problem itself or through abuse with nose sprays, etc.) the sinuses will not drain properly. This leads to increased pressure and infection, which can be interpreted by the individual as tooth pain or facial fullness. If this happens, early antibiotic treatment is indicated.

The best thing you can do is take your medications as directed and DON'T GET DISCOURAGED. We will do our best to answer any questions you may have. The more you know, the better your problems will be controlled. It is hoped that this information will help you reach a goal towards which we are all striving—BETTER HEALTH.