

## Nasal Polyps: A short tutorial

Nasal polyps are greyish masses of tissue that resemble a bunch of grapes. They are generally multiple, nearly always bilateral (anteriorly only), and produce nasal blockage by restricting the nasal airway. Anterior nasal polyps are easily seen with anterior rhinoscopy and may even be seen at the nostril. Less frequently, and more related to OMDs, they may occupy the posterior choanae (the posterior entrance to the nasal cavity). In this location, they are more commonly large, single and unilateral.

This posterior variety generally arise from the maxillary sinuses and are known as antro-choanal polyps (the maxillary sinus is also known as the Antrum of Highmore, the entrance of which is in the posterior part of the nasal cavity). Antrochoanal polyps can cause a valvular obstruction, most often in adolescents and young adults. While inspiration is relatively free-breathing, the impaction of the polyp in the posterior choanae on expiration can produce almost total blockage. Anteriorly, the nose can look entirely normal while posteriorly, the nasopharynx can be almost totally filled by a single smooth polyp. The condition at the posterior choanae can occasionally be bilateral.

The etiology of polyps is usually the end-product of prolonged swelling (edema) in the mucous of the nose and sinuses. The submucosa around the middle meatus is especially lax and easily water-logged, leading to swelling of tissues. The swelling is aggravated by the traction of the tissues such as from efforts to clear the nose and also from interference with lymphatic flow.

It has been claimed that for at least 75% of nasal polyps, the initial cause of the edema is allergy and related vasomotor disorders. The main evidence for this is the histo-pathology and the close association with other allergic diseases, notably asthma. In spite of this, once the polyps have developed, the allergic state of the patient seems to have little if any relation to it, and the recurrence of polyps are often high in spite of anti-allergic treatment. Of special interest to orofacial myologists, there is, generally, no associated evidence of active allergy or infection, so the polyp can be the sole source of the airway issue.

Repeated nasal and sinus infection in which resolution and re-aeration are delayed by an anatomical deformity, such as a deviated septum, can also initiate a vicious circle in which polyps become a pronounced feature. Sometimes suppuration (the formation and discharge of pus) precedes polyps, and sometimes the suppuration follows.

When polyps become obstructive, the resultant stagnation of secretion in the sinuses can lead to infection, and sinusitis will follow. The formation of polyps can follow from poor nasal breathing. Whatever can account for prolonged swelling of the mucous membranes in the nasal cavity, can lead to the development of polyps. It would appear that mouth breathing, allergies, and anything else that can interfere with normal nasal respiration and cause nasal edema can lead to the formation of polyps.

Dr. Bob Robert M Mason, DMD, PhD, ASHA Fellow Speech-Language Pathologist and Orthodontist Emeritus Professor of Surgery and Chief of Orthodontics Duke University Medical Center Private Practice in Orthodontics Durham, NC (now retired and residing in North Myrtle Beach, SC)