Blocked nose

Nasal obstruction or a blocked nose describes the sensation of reduced air flow either through one nostril (unilateral) or both nostrils (bilateral). There are five main causes of a blocked nose:

- Swelling of the lining of the nose
- Deviated nasal septum
- Collapse of the nasal valves
- Nasopharyngeal obstruction (adenoid enlargement)
- Nasal polyps

Swelling of the lining of the nose

The mucosa is the thin moist lining that covers the bone and cartilage inside the nose. It can become swollen as a result of a number of different problems:

- Allergic rhinitis: Allergy can cause the nasal lining to swell up, causing a blocked nose as well as other symptoms including itching, sneezing and a nasal discharge
- Rhinitis medicamentosa: Overuse of some decongestant nasal sprays (Otrivine, Sinex). These can help decongest the nose for a few hours if you have a cold but should not be taken for more than a few days as they damage the lining of the nose.
- Autonomic rhinitis: Clear mucus production is the primary problem with less nasal obstruction. This is due to over activity of the glands in the nose. It is not common and usually occurs in the over 60s.
- Chronic infection: This is associated with a thick production of green mucus throughout the day
- Idiopathic rhinitis: Where neither allergy nor infection can be found yet the lining of the nose is swollen.

Deviated Nasal Septum

The septum is a thin piece of bone and cartilage in the middle of the nose which separates the nasal cavity into left and right halves. In many people the septum is bent or deviated over to one side, but this in itself does not always cause a feeling of blockage as there is often sufficient room to breathe. However if the septum is significantly deviated over to one side, this may block the air passage through the nose.

A deviated nasal septum may be associated with a history of nasal trauma although it is not necessarily always the case as the cartilage may bend and deform as the nose grows.

Nasal obstruction is the predominant symptom of a deviated septum. The feeling of blockage is usually fixed to one and the same side of the nose.

Management depends on the severity of nasal obstruction. Surgery to correct the deformity can be undertaken if the nose is blocked or unsightly.

Nasal valve collapse

When we breathe in through the nose, it is normal for there to be a small amount of collapse of the outer walls of the nostrils. You can exaggerate this normal response by forcibly breathing in rapidly through the nose. This nasal valve collapse is usually made worse by the presence of other problems within the nose which cause nasal block such as inflammation or a deviated nasal septum. By the same token, treatment of these intranasal abnormalities often results in improvement of the nasal valve collapse.

The nasal valve is made up of skin and a thin piece of cartilage beneath (known as the alar cartilage). Occasionally, collapse of the nasal valve is primarily due to a particularly weak supporting cartilage which is less able to withstand the normal tendency of the side wall of the nose to collapse on breathing in. Treatment involves strengthening the side wall of the nose, which can be achieved in a number of different ways:

- External nasal splint: A Breathe Right strips can be worn on the nose. This stops the side walls from collapsing inwards. They can be helpful at night.
- Surgery to strengthen the nasal valve: Such surgery is not straightforward. It involves using additional cartilage to support the already weakened alar cartilages. The surgery is not always effective as the additional cartilage can also weaken with time.
- Titanium implant: A recent development is the use of a nasal implant made of titanium. This is placed beneath the skin, over the alar cartilages, and has the effect of preventing the weakened alar cartilages from collapsing inwards on breathing in. Since their introduction several years ago, the vast majority of patients having this treatment have reported outstanding results with minimal complications.

Nasopharyngeal obstruction (adenoid enlargement)

The back of the nose where it joins onto the back of the throat is called the nasopharynx. The adenoids are the most common cause of nasal obstruction in this area, particularly in children as they reach maximum size between the age of three and five and then subsequently reduce in size often by the age of seven or eight. They can hardly be seen by the late teens. Adenoid enlargement can cause snoring and sleep apnoea at night, as well as contributing to the development of glue ear.

Snoring alone is not an indication for adenoid removal but if the child also stops breathing while asleep (known as sleep apnoea) then adenoidectomy with or without tonsillectomy may be helpful.

Avoid the long-term use of nasal medication purchased over the counter in chemists unless specifically advised by your family doctor or ear nose and throat surgeon. If in doubt contact your doctor and read the instructions carefully

Nasal polyps

A polyp is a swelling of the internal lining of the nose, which is usually caused by inflammation. They often originate from the ethmoid sinuses, one of the sinuses situated in between the eyes which drain into the side wall of the nasal cavity. Nasal polyps contain inflammatory fluid and, while they can be associated with allergy and infection, the exact reason why some people get them and not others is not known.

Nasal polyps can occur in combination with other more general diseases, most commonly asthma, or can occur in patients with an aspirin intolerance or cystic fibrosis.

Although each individual polyp is small, multiple polyps situated together can collectively fill up the inside of the nose. As a result, the commonest symptom that they cause is a blocked nose, together with a reduced or even absent sense of smell. Other symptoms which may occur include a runny nose, sneezing and catarrh (post nasal drip).

<u>Treatment of nasal polyps</u>

The management of nasal polyps is initially with medications in the form of either topical sprays or drops, or oral (tablet) preparations. The mainstay of treatment is with steroids, as these are effective at reducing inflammation. Intranasal steroid sprays can be taken for many years as very little is absorbed into the body, although they may take up to six weeks of continuous treatment before their full effect can be felt.

Surgical treatment of nasal polyps

If attempts at medical treatment have not been successful and the patient's symptoms and polyps persist, surgical removal of the nasal polyps can be undertaken. This nasal polypectomy procedure is often combined with functional endoscopic sinus surgery (FESS) as the polyps usually originate from the sinuses.

Such surgery is carried out under a general anaesthetic. Unfortunately nasal polyps do have a tendency to recur in the future, even after an apparently successful operation the first time around. This is more likely to occur in patients with either asthma, aspirin sensitivity or both. There is no fixed time frame when this may occur although typically it is after a few years. Very occasionally they may recur sooner, particularly in association with one of these conditions, although many patients enjoy many years and decades without problems.

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