

Nasal Obstruction

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Nasal Obstruction

Definition:

Is a sense of blockage within the nose or difficulty breathing out of one or both nostrils.



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Classification:

- ❖ Physiological: Alternating, or Position-dependent.
- ❖ Bilateral or unilateral.
- ❖ Partial or complete.
- ❖ Continuous or intermittent.
- ❖ Acute, chronic or recurrent.

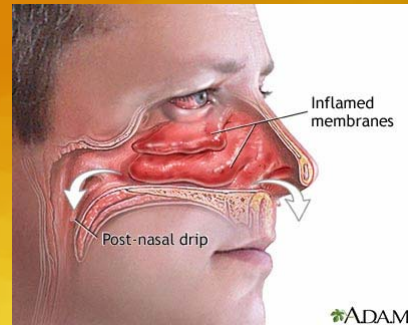
Causes:

- Almost all nasal diseases may cause nasal obstruction.
- Common cold is the commonest cause of nasal obstruction.
- Allergy is the second common cause of nasal obstruction in general, and the commonest cause of chronic or recurrent nasal obstruction.

Classification

Classification:

- 1- Nose
- 2- Sinuses
- 3- Nasopharynx



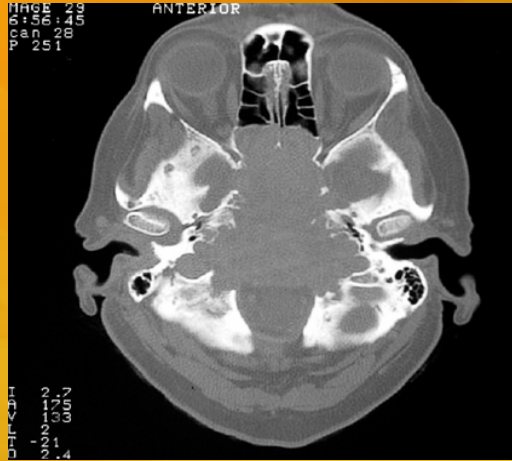
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Coronal CT



Axial CT

This is an axial CT scan of the head at the level of the orbits. The image is displayed in grayscale. The word "ANTERIOR" is printed at the top center of the scan. On the left side of the image, there is a vertical column of text: "IMAGE 23", "6156", "can 26", "251". On the bottom left, there is another vertical column of text: "I", "AV", "2", "15", "362", "232", "1", "3", "4". The scan shows the bony structures of the skull, including the orbits, nasal cavity, and maxilla. The soft tissue structures, including the brain and sinuses, are also visible.



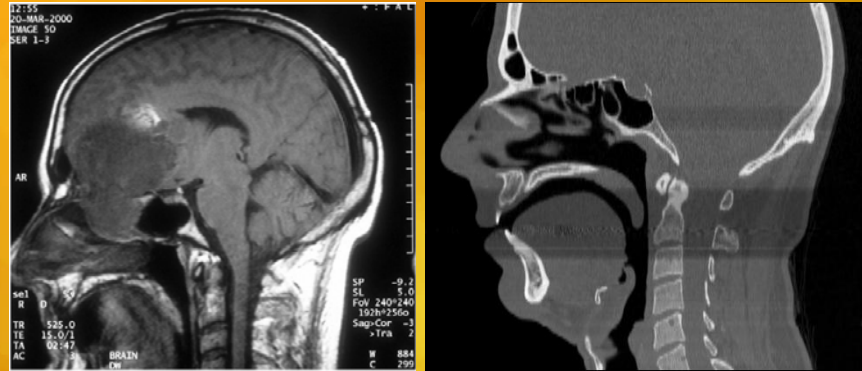
Sagittal CT



A sagittal CT scan of the head and neck. The image shows the bony structures of the skull, including the nasal cavity, maxilla, and mandible. The cervical spine is visible in the lower half of the image. The soft tissue structures of the neck, including the larynx and trachea, are also visible. The image is presented in a sagittal view, showing the profile of the head and neck.



MRI vs CT



Causes (Cont'd):

A- Causes in the Nose:

1. Congenital choanal

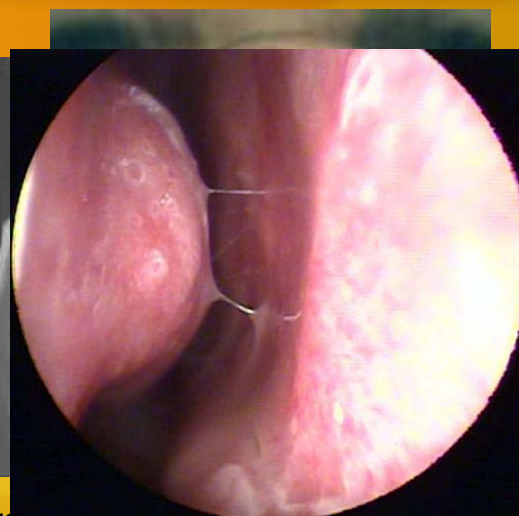
2. Trauma & septal



ii. Chronic:

a. Non-specific
(secondary)

b. Specific (granulomata), e.g. Scleroma

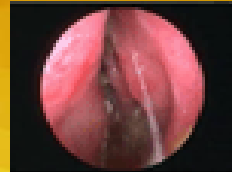


- Atrophic rhinitis:

Atrophy of the nasal mucosa and turbinates.

The aetiology is largely unknown.

Nasal obstruction is caused by turbulent airflow and crusting in the nasal passages.



5- Iatrogenic:

1. Rhinitis medicamentosa:

prolonged use of topical nasal decongestants may result in rebound congestion of the nasal mucosa.



2. Other ; include alcohol (engorgement of nasal membrane), oestrogen (engorgement of nasal mucosa), tobacco (irritation of mucous membranes and impairment of ciliary action).



3. Post-operative, e.g. post septo rhinoplasty.

Causes (Cont'd):

6. Nasal Polyps

7. Developmental
septum.

8. Nasal allergies
rhinitis.

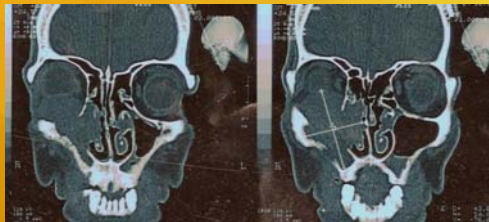
9. Tumors:
carcinoma.



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B. Causes in the Sinuses:

1. Acute rhinosinusitis.
2. Chronic rhinosinusitis.
3. Tumors

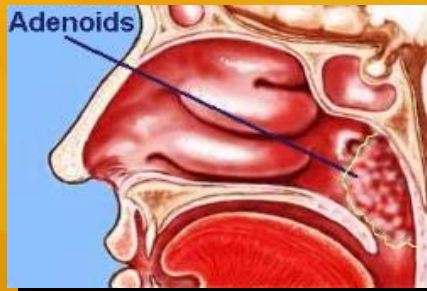


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Causes (Cont'd):

C- Causes in the Nasopharynx:

1. Adenoids (Children).



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Causes (Cont'd):

C- Causes in the Nasopharynx:

1. Adenoids (Children).

2. Nasopharyngeal angiofibroma (young adult males).



Figura 7. Exérese do nódulo (angiofibroma).



Figura 8. Nódulo *Rhinoplasty4you.net*

Causes (Cont'd):

C- Causes in the Nasopharynx:

1. Adenoids (Children).
2. Nasopharyngeal angiofibroma (young adult males).
3. Nasopharyngeal carcinoma (old males).



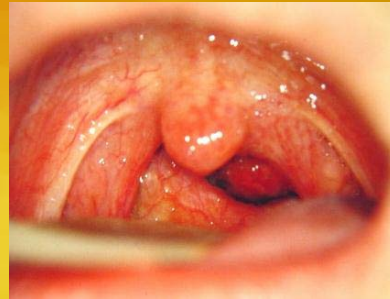
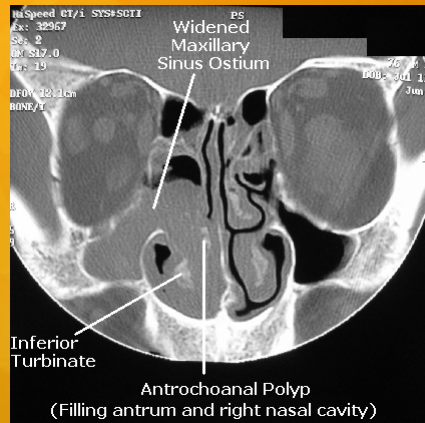
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Commonest causes of Unilateral Nasal Obstruction

1. Congenital Choanal atresia
2. Traumatic eg. FB
3. Deviated septum
4. Tumors

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5. Antrochoanal Nasal Polyp



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6. Dental Maxillary sinusitis



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Secondary Effects of nasal obstruction (specially bilateral longstanding obstruction):

1. Mouth breathing.
2. Nasal tone of speech (Rhinolalia clausa).
3. Snoring.
4. Eustachian tube obstruction.
5. Bronchopulmonary infections.
6. Skeletal changes in children e.g. adenoid facies



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Management of Nasal Obstruction:

A. Diagnosis:

1. Clinical examination.
2. Endoscopy
3. Assessment of nasal patency:
 - i. Subjective (scoring systems).
 - ii. Objective: Rhinomanometry and acoustic rhinometry.
4. Other investigations: X-rays, CT scans, MRI, allergy testing, biopsy....etc.



B. Treatment of the Cause.

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