

Clearing the air, natural ways to soothe nasal congestion

Definition and impact of nasal congestion

Nasal congestion is a common symptom in upper respiratory conditions (such as rhinitis, sinusitis, common cold, nasal surgery...) defined as the objective restriction of nasal cavity airflow caused by mucosal pathology and/or increased mucous secretions. ^{1, 2}

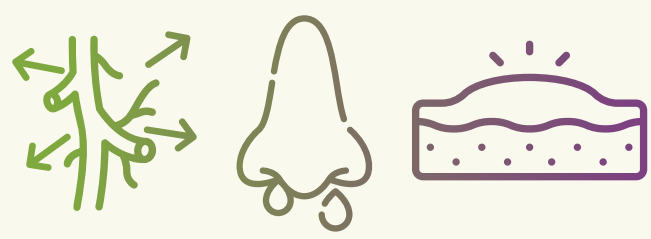
64.7%
of allergic rhinitis patients
reported nasal congestion
in a cross-sectional study
in Arabia Saudi with
524 participants ³



Classified as the
symptom with the
highest impact
among allergic
rhinitis patients ⁴

Pathophysiology of nasal congestion ¹

Several underlying mechanisms are involved:



Mucosal inflammation

which is responsible for
elevated venous engorgement,
increased nasal secretions,
and tissue swelling



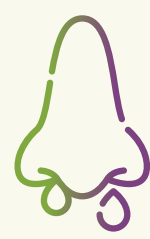
Blockade of nasal airways

due to physical
problems



Abnormal sensory perception

due to anomalous neural
signalling may give the
sensation of congestion

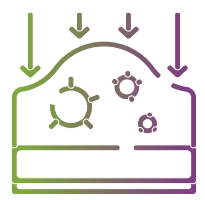


Increased mucus production

Factors affecting the optimal nasal environment



Reduced nasal
mucosa hydration ^{5, 6}



Increased epithelial
inflammation ^{1, 7}



Reduced ciliary beat
frequency ⁶



Damaged nasal
epithelial barrier ⁸

Impair mucus clearance and favour nasal congestion

Common approaches enhancing nasal decongestion



Isotonic and hypertonic nasal irrigations ^{6, 9}

Are widely used and have good tolerability. They play mechanical and hydrating roles in the nasal cavity. Saline concentration impacts differently on ciliary beat frequency and mucociliary clearance.



Steam and humidified air ^{10, 11}

Steam may help with mucus drainage and hydration in nasal congestion. Humidified air may help relieving common cold symptoms, such as nasal congestion.



Sensory cooling agents ¹²

Menthol and eucalyptus have the ability to stimulate some cold receptors in the nasal mucosa. This activation creates a sensation of improved airflow, producing a subjective relief by altering sensory perception.



Herbal formulations ^{12, 13}

Different herbal oils and extracts are considered to be effective providing relieve in some nasal congestion mechanisms. Aloe has demonstrated to provide immunomodulatory and antiviral effects. Chamomile may contribute to hamper excessive microbial growth and reduce mucociliary clearance time.

References

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