

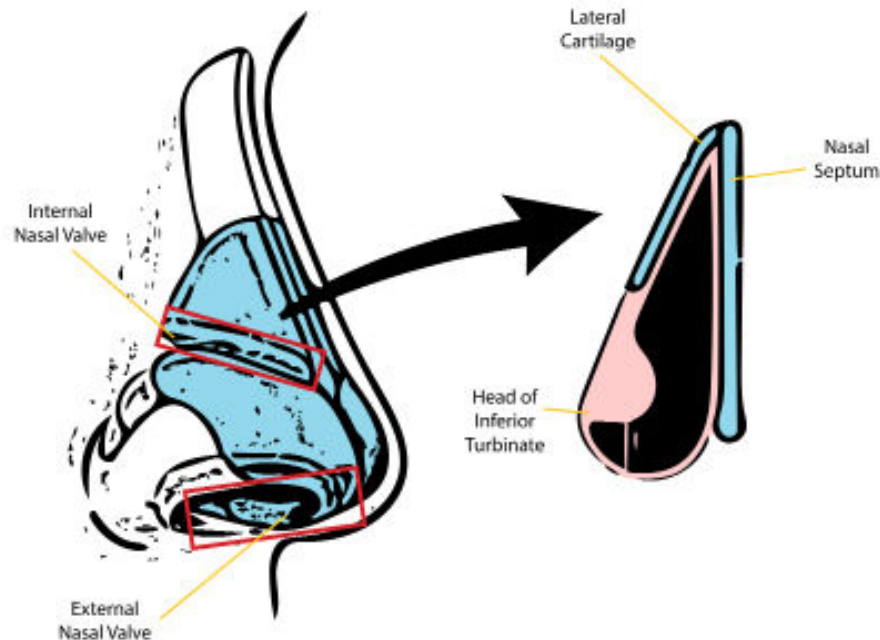
# NASAL VALVE REPAIR



The **nasal valve** is the area of nervous system sensation of airflow. If the nasal valve is collapsed, narrowed, or closed, the brain will not receive sensory input that nasal breathing is occurring normally. Due to this, the brain will then open the mouth to breath leading to difficult, more laborious breathing. The nasal valve area is located between the tip of the nose and the nasal bones in the mid nose area. A nasal valve collapse is called an “hourglass” appearance.

- ▶ To evaluate if a nasal valve collapse is present, pulling the cheek laterally is “the collapse test”. If the breathing has improved, then a valve collapse is present.
- ▶ External “Breath Right Strips” open the nasal valve as an external support leading to improved sensation of breathing.
- ▶ Valve collapse may be developmental, after a fracture/ trauma, or commonly after a cosmetic rhinoplasty.

## Nasal Valve Collapse Repair



The nasal valve is reconstructed with internal stents of cartilage strips “spreader grafts” in the size of small toothpicks. This improves not only the function but improves the hourglass effect of the narrow middle portion of the nose to achieve better symmetry. These grafts are placed internally with no external incisions. At times, the cartilage may become hard or lumpy but this resolves over time. An in-office shave procedure could be done with local anesthesia. The external appearance will appear fuller in the mid-nose and will straighten an apparent twist.

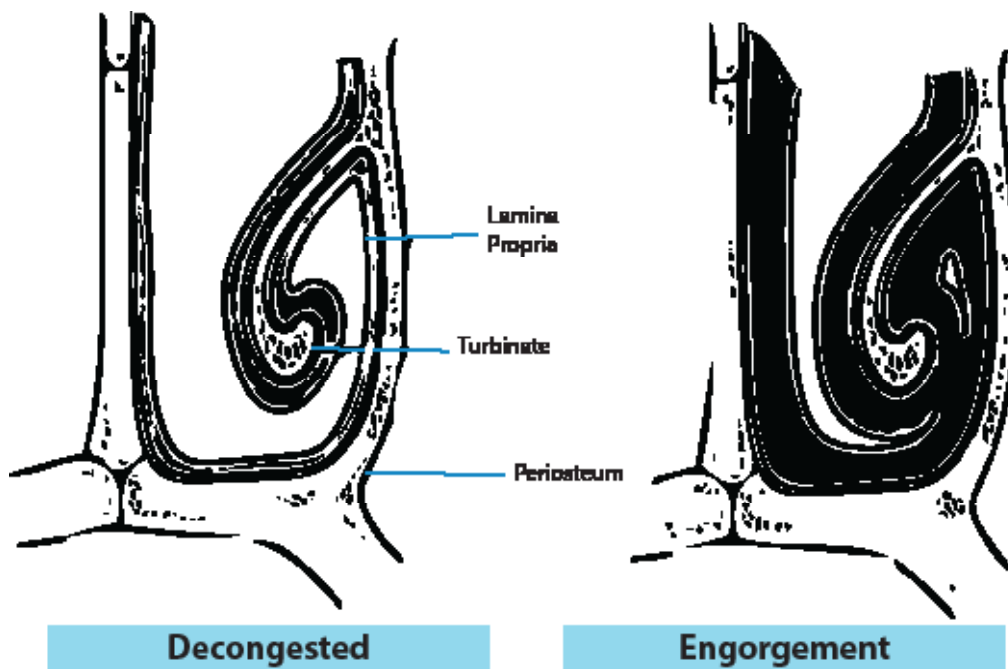
# NASAL CYCLE

The nasal cycle is the periodic alternation in nasal airflow resistance between the two nasal cavities.

It is thought to be regulated in the hypothalamus by the autonomic nervous system, via the sympathetic nervous system. It is controlled by the engorgement by blood of the anterior ends of the inferior nasal turbinates and the septal swell body in the area of the nasal valve. The swelling of these areas are caused by congestion and decongestion of the venous sinusoids (veins) lining the nasal mucosa. The nasal venous sinusoids form a spongy tissue, similar to erectile tissue, which is particularly well-developed at the anterior end of the nasal septum and the inferior turbinate.

We do not usually breathe equally using both nostrils. At any given time, one nostril is more open and has the greater amount of air flow. The cycle has a periodicity of **25 min - 4 hours** on average, however it is highly variable. It is present in **85%** of humans. It can be affected by position, allergies and upper respiratory infections. The nasal cycle is linked to the ultradian rhythm of alternating cerebral hemispheric activity.

Most people with normal nasal configuration do not feel the "Nasal Cycle." When there is a structural abnormality, patients sense the hourly variation. When there is a blockage, patients sense a significant nasal obstruction when the "Good Side" is affected by the "Nasal Cycle" with Swelling of the tissues resulting in a near complete or significantly impaired nasal breathing.



*During sleep, this is very impactful, leading patients to mouth breath, struggle to breath and snore. The nasal cycle is central to various breathing practices in yoga and also in various systems of alternative medicines. These systems believe the breathing pattern is directly linked to the working of the mind. The ultimate desire is to balance the left and right sides of the mind.*