

# Narrative Review Article: Nursing actions in patients undergoing laryngectomy in relation to reducing anxiety and depression

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## ABSTRACT

The Herring Brewer reaction is activated by the alveolar stretch receptors and prevents the lungs from dilating too much. Only 3% of oxygen is dissolved in plasma, which is indicated by Fio<sub>2</sub>, and the rest is dissolved by Hb, which is called oxyhemoglobin. The oxyhemoglobin separation curve shows the relationship between paO<sub>2</sub> and sato<sub>2</sub>. An increase in Co<sub>2</sub>, a decrease in pH through temperature, and an increase in 2 and 3 diphosphoglycerates cause the curve to shift to the right. Patients are advised to avoid alcohol and anti-depressant drugs and lose weight. If the patient develops hypoxemia and hypercapnia, treatment includes using a positive pressure breathing apparatus or O<sub>2</sub> with a visual cannula. CPAP may be used to prevent airway collapse. Usually, medication is recommended. It cannot be used, but medafinil, protrinipillin may be used. Bleeding from the nose is often the site of nosebleeds from the anterior part of the nasal septum, the junction of the three main arteries. Causes include: local infections, systemic infections, nasal inhalers, atherosclerosis, trauma, HTN, thrombocytopenia, aspirin use. Treatment includes: direct pressure at the site of bleeding. The patient is seated with the head to prevent the risk of sinusitis syndrome and toxic shock. The patient should be instructed to avoid heavy work, pushing, tight fins, climbing to heights, and nose injuries. It is also important to provide humidity and prevent the nasal mucosa from drying out.

## Introduction

**I**nterruption of airflow due to obstruction of the throat [1-3] These people may experience 5 apneas per hour to several hundred apneas per night [4-6]. People with obstructive sleep apnea experience symptoms such as morning headaches,

daytime drowsiness [7-9], personality changes and irritability, dementia, and even high blood pressure due to sleep disorders [10-12]. Mirror may occur due to obesity or other conditions affecting muscle tone [13-15]. Coronary artery disease and MI are complications of this type of apnea [16-18].

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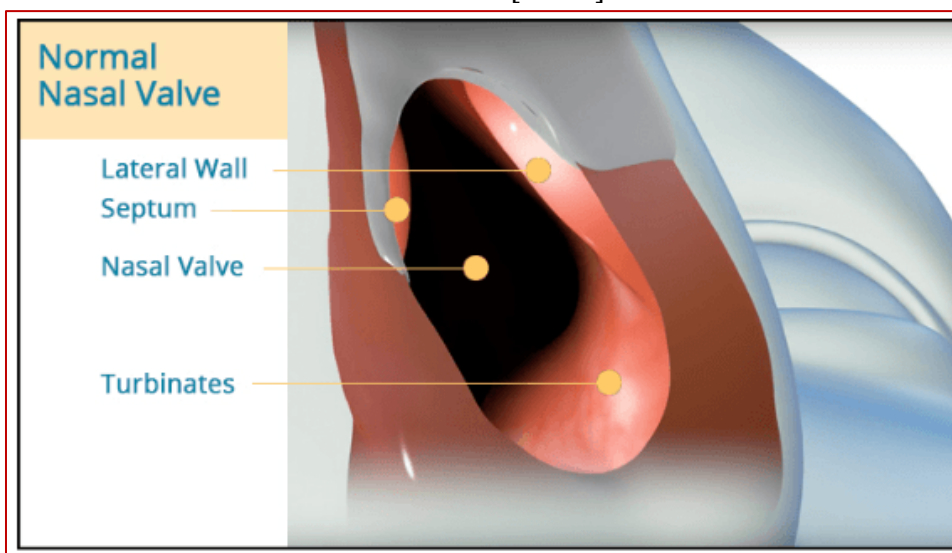
**A2) Central:** due to the cessation of stimulation of the nervous system, which affects breathing and causes respiratory movements [19-21].

**A3) Mixed:** A combination of central and obstructive causes [22-25].

### Nasal obstruction

Nasal septal deviation, tentacle hypertrophy and nasal polyps are the causes of nasal obstruction. In chronic nasal congestion, the patient has to breathe through the mouth, which causes the mucosa to dry out. The patient also suffers from sleep deprivation because he suffers from

respiratory problems during sleep [26-28]. Obstruction can even lead to chronic nasal infections and sinusitis [29-31]. Treatment includes: removing the obstruction, removing the infection, and taking antihistamines. Shrinking drugs are also used to shrink hypertrophic tentacles [32-35]. In case of nose surgery, the patient's head is placed higher in order to better drain the discharge and reduce the person [36-38]. The patient is encouraged to maintain good oral hygiene (Figure 1), as breathing through the mouth causes dry mucus [39-41].



**Figure 1.** Nasal obstruction treatment

### Nasal congestion

The most common involvement is in the nose. Symptoms include pain, bleeding, ecchymosis around the eyes [42-44], and deformity of the nose. A glucometer can be used to monitor CSF fluid leakage from a broken nose to detect nasal discharge of CSF ethnicity [45-47].

Cold compresses are good for controlling swelling and preventing bleeding. Bleeding is controlled using a nasal pack [48-51]. Nasal fractures should be treated within 3-7 days. This time is very important, because if the delay is more than 7-10 days [52-55], the fracture may heal and eventually rhinoplasty may be needed [56-58]. An ice pack is used for 20 minutes 4

times a day to reduce swelling. Keeping your mouth moist and rinsing your mouth regularly is essential, as the client has to breathe through the mouth. NSAIDs or acetaminophen may be used to relieve pain [56-58]. Aspirin should be avoided in patients younger than 20 years of age because of the risk of developing the syndrome [59-61]. The patient should avoid exercise for 6 weeks [62-65].

### Laryngeal obstruction

Laryngeal edema is a serious and possibly fatal condition because the swelling blocks the

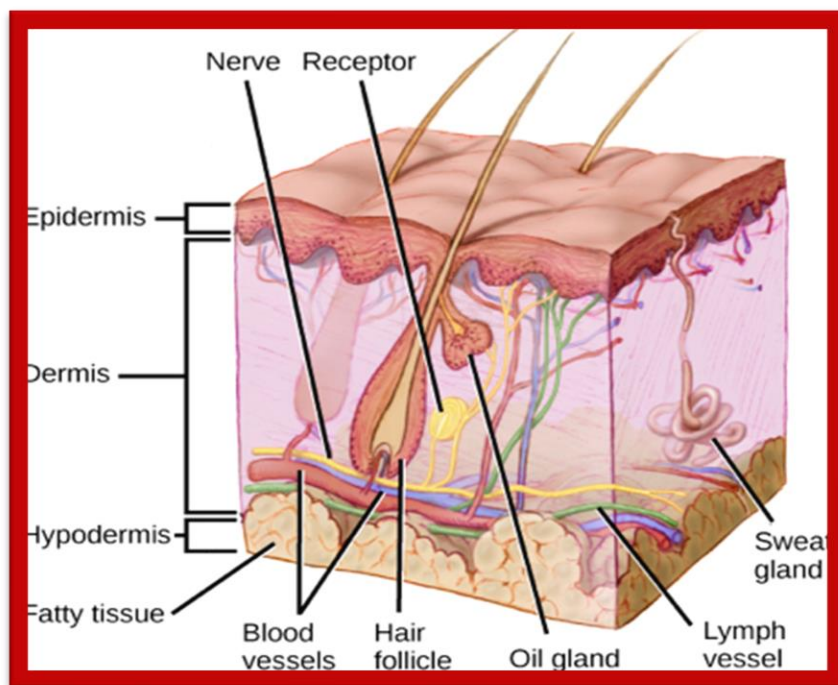
airway [66-68]. Acute laryngitis Allergies, scarlet fever [69-71], scarlet fever, hereditary angioedema and foreign bodies are the causes of obstruction [72-75]. Aspiration of foreign bodies causes two problems:

- ✓ Airway obstruction and suffocation, passage to the lower airways [76].
- ✓ Inflammatory and irritating symptoms such as cough, bleeding and mucus and shortness of breath [77].

The use of the respiratory muscles and the retraction of the respiratory muscles is done to increase oxygen and is a sign of hypoxia, and these symptoms indicate the immediate danger of lung collapse and require vital respiratory measures [78-80]. The object may be removed by hooking the finger [81-83]. Otherwise, the Heimlich maneuver is performed to remove the foreign object [84-86]. If these methods are not successful, a tracheostomy is used. Epinephrine and corticosteroids are prescribed if the cause is allergic reactions and edema [87-89].

**A) Epithelial cell carcinoma:** The most common type of laryngeal cancer. Tobacco and

alcohol consumption, asbestosis [90-92], wool dust and bitumen products are carcinogens. Riboflavin deficiency and chronic laryngitis can also be risk factors for laryngeal cancer. Most laryngeal cancers occur in the glottis [93-95]. More than 2 weeks of voice violence is an early sign that a patient with laryngeal cancer in the glottis is affected because it affects the vocal cords when speaking [96-98]. The sound may be harsh and low in tone. You may feel a sore throat when you drink hot, acidic fluids with a lump in your neck. Difficulty swallowing, dyspnea, unilateral nasal obstruction, persistent hoarseness, and foul-smelling breathing are late symptoms of the disease. Neck lymphadenopathy [99-101], weight loss, general weakness, and diffuse pain in the ear can be due to metastasis. Treatment includes surgery, radiotherapy and chemotherapy [102-104]. A thorough examination of the teeth should be performed before starting treatment to diagnose oral disease, and any dental problems should be corrected before surgery (Figure 2), if possible [105].



**Figure 2.** Layers of skin

The main goals for patients are:

- ✓ Achieve maximum treatment for the patient [106-108].
- ✓ Minimize the effect of surgery on talking, swallowing and breathing [109].

**B) Complete laryngectomy:** The patient will lose his voice forever and will need a hole in the neck to breathe (tracheostomy). The use of CO<sub>2</sub> laser can be useful in the treatment of many laryngeal tumors [110]. Laryngectomy can be partial, complete, unilateral, and above the glottis.

**Partial laryngectomy (laryngofisher thyrotomy):** performed in the early stages of laryngeal cancer, which is limited to the glottis area or only the vocal cords are involved. In this method, an over Lawrence price or a vocal cord or tumor is removed. In this case, the airway is preserved and the patient usually has no difficulty swallowing, but there may be hoarseness [111].

**D) Upper glutectomy laryngectomy:** This surgical method is used to remove tumors above the glottis. The hyoid bone, gluteus, and false vocal cords are removed. A tracheostomy tube is inserted into the patient and removed a few days after the operation [112]. The patient is fed initially via NGT and subsequently fed. In the first 2 weeks after surgery, the patient may have difficulty swallowing. An important advantage of this method is that the patient's voice is preserved, although the sound quality may change. Speech therapy is required before and after surgery. Aspiration is one of the major problems of these patients. The main problem is cancer recurrence [113].

**E) Unilateral laryngectomy:** It is performed when the tumor is not limited to the vocal cords, but is less than Cm in size and occupies the area

below the glottis. In this method, the thyroid cartilage is cut in half in the middle line of the neck and it is removed along with a part of the real and false vocal cords on the other side along with the net. After the operation, the patient has a tracheostomy and NG for several days (prevention of aspiration). There may be changes in the quality of the patient's voice. Complete laryngectomy the entire larynx (hyoid, epiglottis, cricoid, and 2-3 rings of tracheal cartilage) is removed and the tongue, pharyngeal wall, and trachea are preserved. In this method, the person needs a permanent hole in the chip. If the tumor is confined to the vocal cords and does not interfere with the movement of the cords, radiotherapy is the best treatment and the rate of treatment is 85-98%.

It is important to check the condition around the wound at the surgical site, because the carotid artery is close to the larynx, there is a possibility of carotid wear or tear, so it is important to control the symptoms of hematoma and bleeding. To reduce the risk of aspiration after laryngectomy, Swimming is recommended. The patient should be careful not to get traces of hair or beard, perfume, powder or foam into the tracheostomy. If the patient needs CPR, breathing should be given through the mouth of the donor's ostomy patient [114].

### Conclusion

The nurse should give the patient and his or her family the opportunity to ask questions and express their feelings. To keep the airways clean, the patient is in a semi-sitting position after surgery, and it is important to control the symptoms of hypoxia. Coughing, deep breathing and turning to the sides after surgery help to empty the discharge. The patient should get out of bed as soon as possible. Tracheostomy tube suction and discharge are essential. The ostomy on the throat is cleaned daily with N / S solution. Antibiotic solutions are also used around the

ostomy and sutures. If a dry scab forms around the ostomy, the nurse should remove it with sterile forceps or tweezers and apply ointment. There may be a drain at the surgical site, which the doctor usually removes when air enters the trachea directly. Therefore, the sense of smell is not active, and because the sense of smell and taste are closely related, the sense of taste also decreases. Gradually, the patient came to terms with this problem, and the sense of taste and smell returned and appetite increased.

- ✓ Respiratory distress and hypoxia.
- ✓ Bleeding.
- ✓ Infection and change in wound condition at the surgical site.
- ✓ Aspiration.
- ✓ Bleeding from the drain or during suctioning.

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