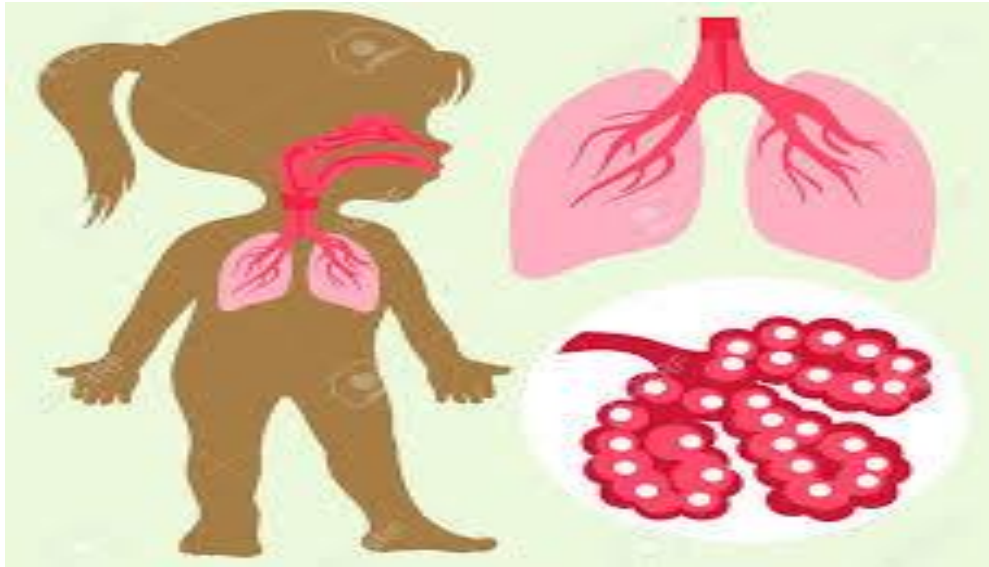


# The Child With Respiratory Dysfunction



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# RESPIRATORY TRACT STRUCTURE

- ▶ The respiratory system is made up of the nose, pharynx (nasopharynx or oropharynx), Epiglottis, larynx, trachea, bronchi, bronchioles, and the lungs.
- ▶ Infections of the respiratory tract are described according to the areas of involvement.
- ▶ **The upper respiratory tract, or upper airway**

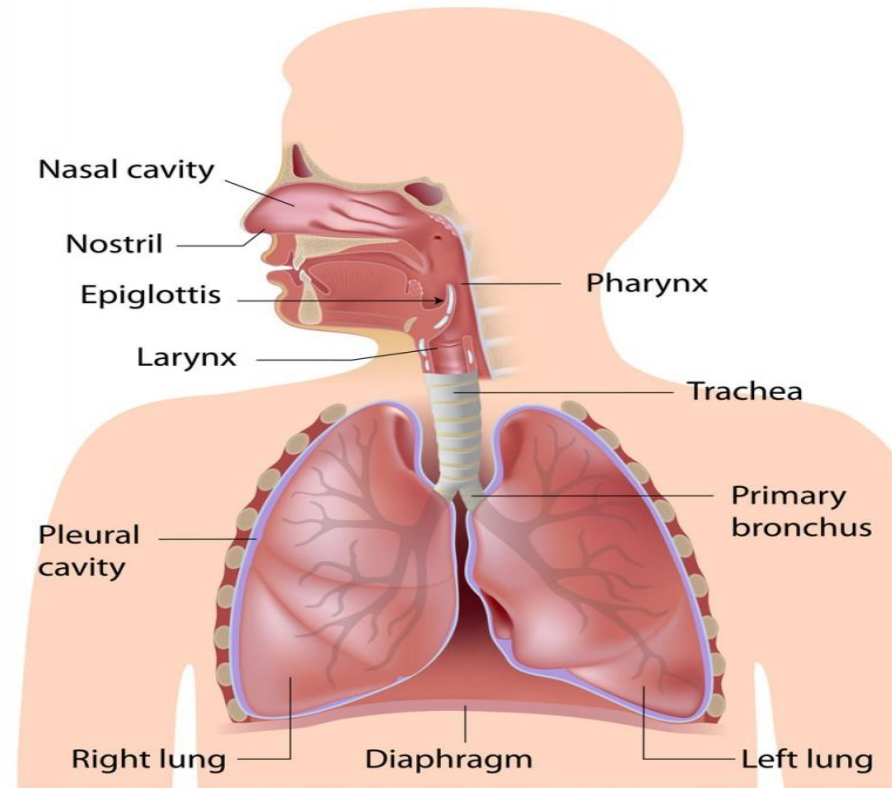
nasopharynx, pharynx, larynx, and upper part of the trachea.

- ▶ **The lower respiratory tract consists of**

the lower trachea, bronchi, bronchioles, lungs and alveoli.

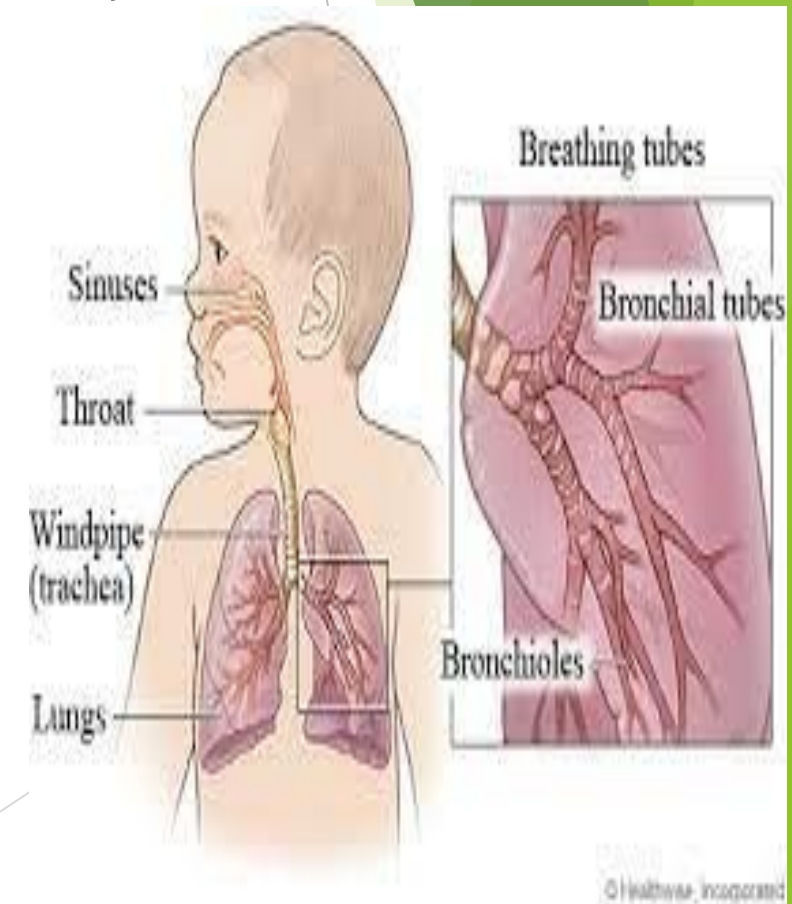
**The right lung has 3 lobes. The left lung has 2 lobes**

The Respiratory System

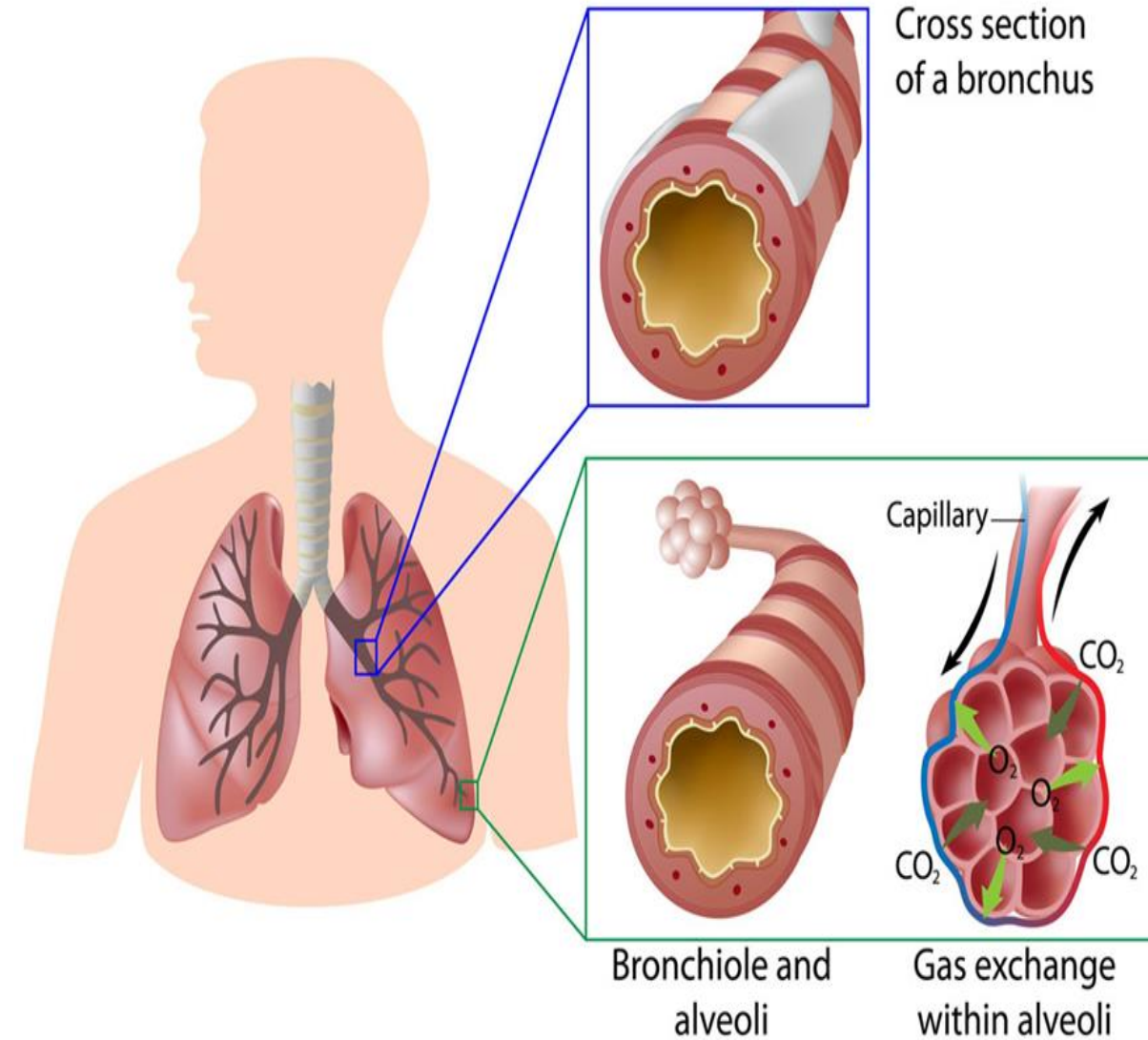
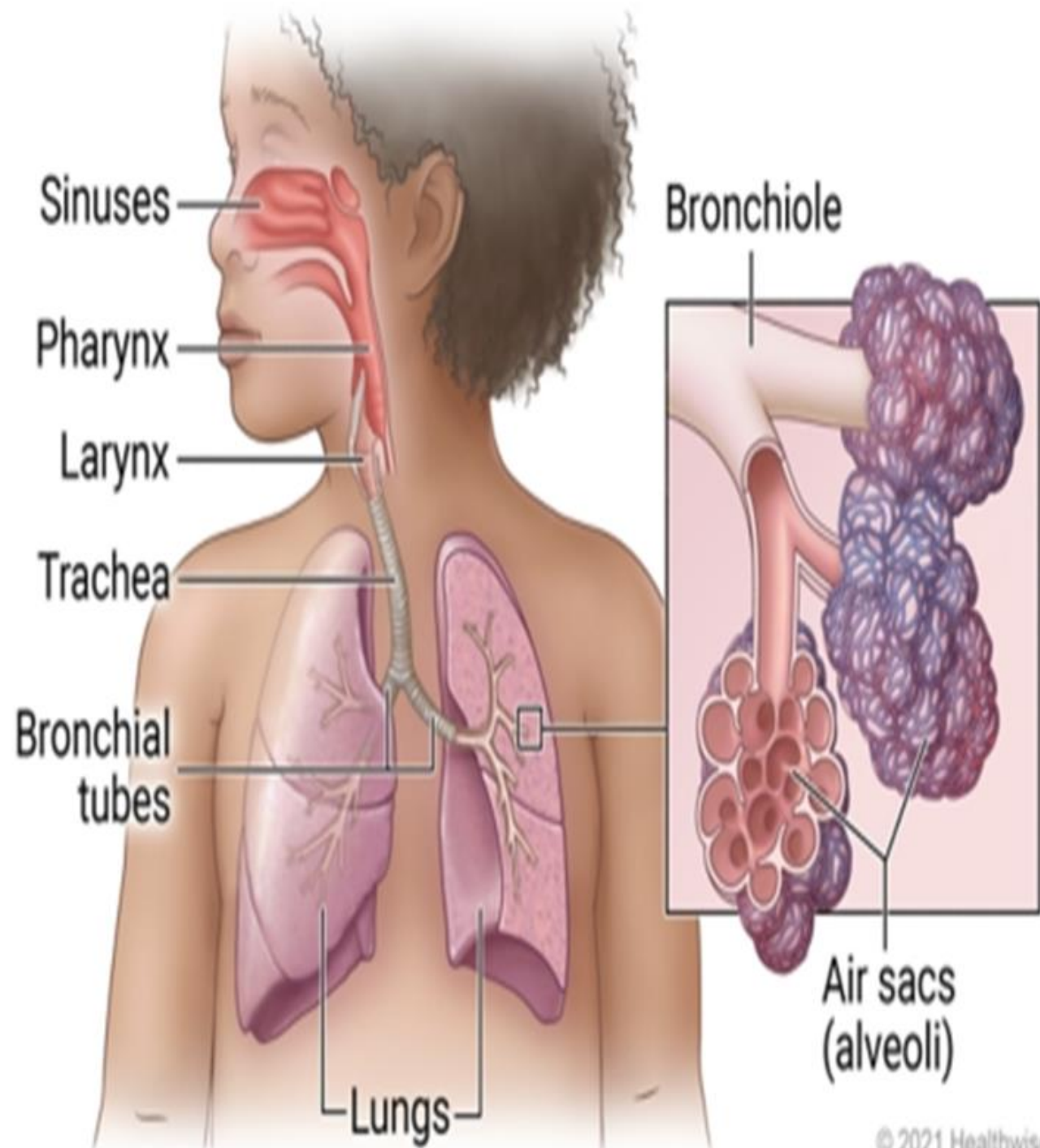


# What is respiration?

- ▶ Respiration is the act of breathing in and breathing out. When you inhale, you take in oxygen. When you exhale, you give off carbon dioxide.
- ▶ When you breathe, the air:
  - Enters the body through the nose or the mouth.
  - Travels down the throat through the larynx and trachea
  - Goes into the lungs through tubes called main-stem bronchi:
    - One main-stem bronchus leads to the right lung and one to the left lung
    - In the lungs, the main-stem bronchi divide into smaller bronchi
    - Then the bronchi divide into even smaller tubes called bronchioles
    - Bronchioles end in tiny air sacs called alveoli



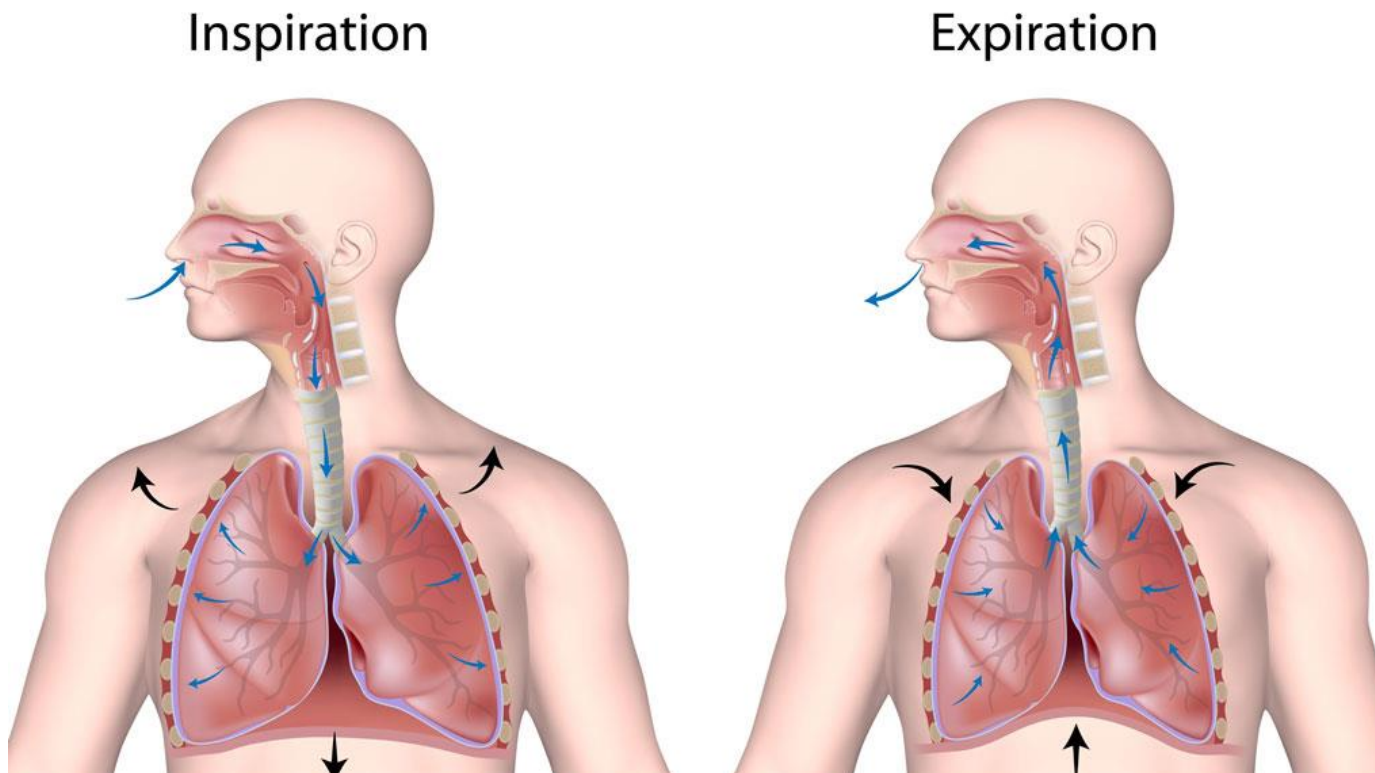
# Human Lung Anatomy and Function





# RESPIRATORY FUNCTION

- Ventilation, the exchange of gases in the lung

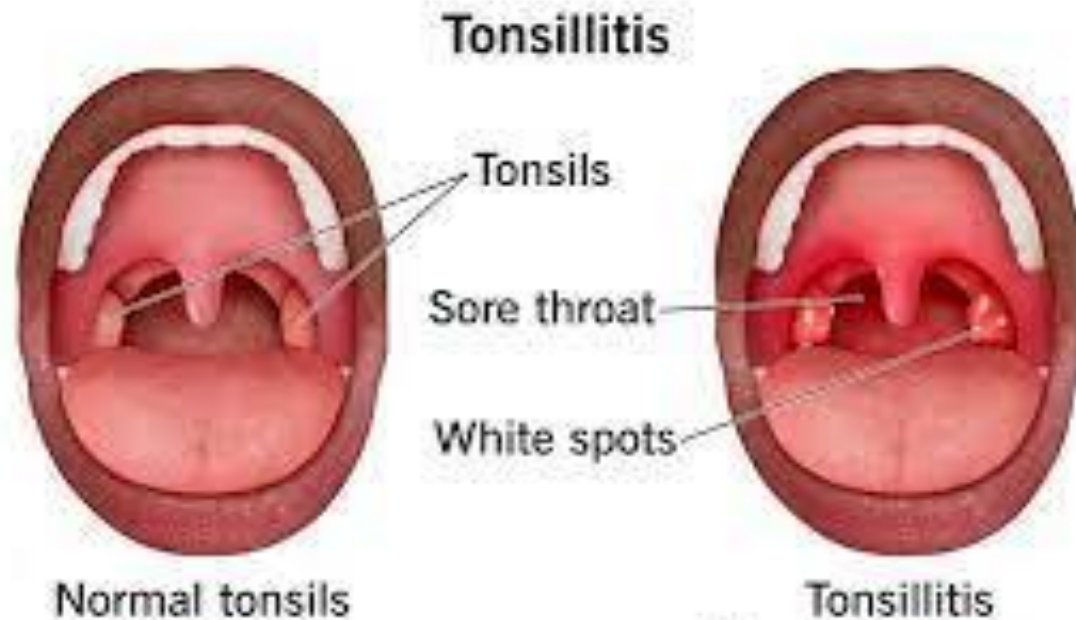




# ► TONSILLITIS

# TONSILLITIS

- ▶ The tonsils are masses of lymphoid tissue located in the pharyngeal cavity. The tonsils filter and protect the respiratory and alimentary tracts from invasion by pathogenic organisms. They also play a role in antibody formation.
- ▶ **Tonsillitis is a common illness in childhood resulting from pharyngitis**



# Etiology

- ▶ Tonsillitis often occurs with pharyngitis. Because of the abundant lymphoid tissue and the frequency of URIs, tonsillitis is a common cause of illness in young children. The causative agent may be viral or bacterial.



# Clinical Manifestations

- ▶ The manifestations of tonsillitis are caused by inflammation.
- ▶ As the palatine tonsils enlarge from edema,
- ▶ Sore throat, often with dysphagia (difficulty swallowing)
- ▶ Hypertrophied tonsils
- ▶ Exudates may be visible on the tonsils
- ▶ The child has difficulty swallowing and breathing.
- ▶ obstruction of breathing during sleep.
- ▶ There may be an offensive mouth odor and impaired senses of taste and smell.
- ▶ A persistent cough is also common

# Therapeutic Management

## Medical treatment of tonsillitis consists of:

- ▶ analgesics for pain
- ▶ antipyretics for fever,
- ▶ antibiotic in the case of streptococcal infection. A standard 10-day course of antibiotics is recommended.
- ▶ Stress the importance of completing the full prescription of antibiotic to ensure that the streptococcal infection is eliminated.
- ▶ A soft or liquid diet is easier to swallow,
- ▶ The child should be encouraged to maintain good fluid intake.
- ▶ A cool-mist vaporizer may be used to ease respirations.

# Surgical Treatment

- ▶ Tonsillectomy (surgical removal of the palatine tonsils) may be indicated for massive hypertrophy that results in difficulty breathing or eating. Absolute indications are peritonsillar abscess
- ▶ Tonsillectomies generally are not performed unless other measures are ineffective or the tonsils are so hypertrophied that breathing and eating are difficult.
- ▶ Tonsillectomies are not performed while the tonsils are infected.

- ▶ An indication for adenoidectomy is hypertrophy of the tissue to the extent of impairing hearing or interfering with breathing.
- ▶ Performing only an adenoidectomy if the tonsil tissue appears to be healthy is an increasingly common practice.

- ▶ Generally, removal of the tonsils should not occur until after 3 or 4 years of age because of the problem of excessive blood loss in young children and the possibility of regrowth or hypertrophy of lymphoid tissue.



# Nursing Care Management

- ▶ Nursing care of the child with tonsillitis involves providing comfort
- ▶ A soft to liquid diet is generally preferred.
- ▶ Warm saltwater gargles, warm fluids, throat lozenges, and analgesic-antipyretic drugs such as acetaminophen are useful to promote comfort.

## If surgery is needed

- ▶ The nurse takes a complete history, with special notation of any bleeding tendencies because the operative site is highly vascular.
- ▶ Baseline vital signs are important for postoperative monitoring and observation.
- ▶ bleeding and clotting times may be obtained with the usual laboratory work requests.
- ▶ During physical assessment the presence of any loose teeth is noted.

# Nursing Process for the Child Having a Tonsillectomy

- ▶ NURSING DIAGNOSES
- ▶ 1.Risk for Aspiration postoperatively related to impaired swallowing and bleeding at the operative site
- ▶ 2.Acute Pain related to surgical procedure
- ▶ 3.Deficient Fluid Volume related to inadequate oral intake secondary to painful swallowing
- ▶ Deficient Knowledge related to caregivers understanding of post discharge home care and signs and symptoms of complications

# The major postoperative goals for the child include:

- ▶ Preventing aspiration;
- ▶ Relieving pain, especially while swallowing
- ▶ Improving fluid intake.
- ▶ increase knowledge and understanding of post discharge care and possible complications.
- ▶ Observe the child for loose teeth that could cause a problem during administration of anesthesia
- ▶ Document findings


# IMPLEMENTATION

## Preventing Aspiration Postoperatively

- ▶ Immediately after a tonsillectomy, place the child in a partially prone position with head turned to one side until the child is completely awake.
- ▶ Encourage the child to expectorate all secretions
- ▶ Discourage the child from coughing.



- ▶ Check vital signs every 10 to 15 minutes until the child is fully awake, and then check every 30 minutes to 1 hour.
- ▶ Hemorrhage is the most common complication of a tonsillectomy. Bleeding is most often a concern within the first 24 hours after surgery and the 5th to 7th postoperative day.
- ▶ Administer pain medication as ordered.
- ▶ Liquid acetaminophen with codeine is often prescribed.
- ▶ Rectal or intravenous analgesics may be used
- ▶ Observe the pharynx with a flashlight each time
- ▶ vital signs are checked.

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- ▶ Encouraging Fluid Intake
  - ▶ Food and fluid are restricted until children are able to swallow them and are alert with no signs of hemorrhage.
  - ▶ Cool water, crushed ice, flavored ice pops, or diluted fruit juice is given
  - ▶ fluids with a red or brown color are generally avoided to distinguish fresh or old blood in emesis from the ingested liquid.
  - ▶ Children often begin soft foods, cooked fruits, soup, and mashed potatoes, on the first or second postoperative day or as the child tolerates feeding.
  - ▶ Avoid irritating liquids such as orange juice and lemonade.

THANK  
YOU