

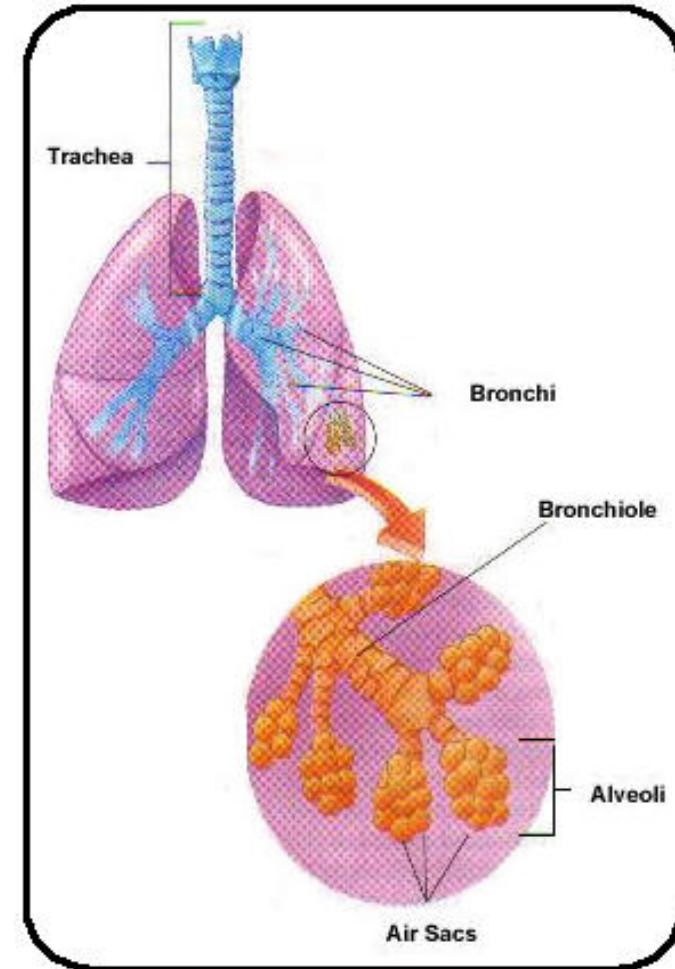
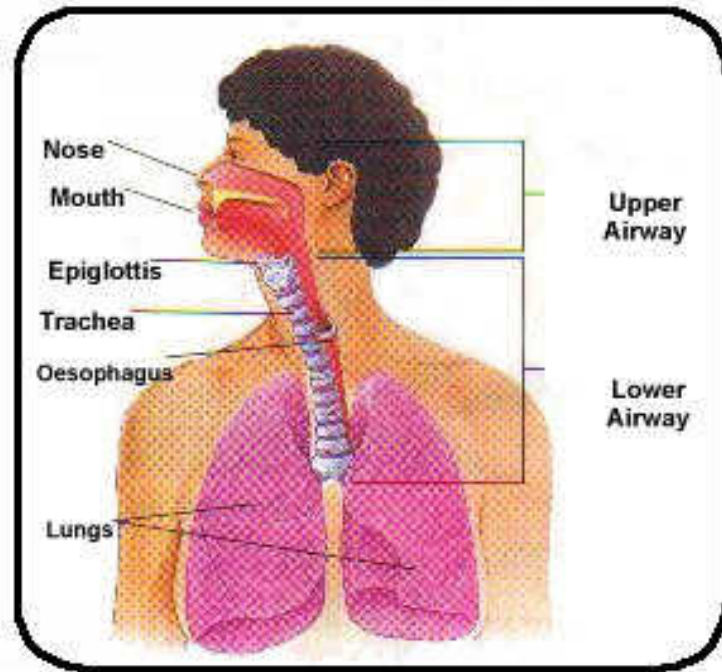
(A) Respiratory System:

i) Organs and its functions:

❖ Upper Respiratory Tract: Mouth, Nose, Windpipe (Trachea)

Oxygen enters the respiratory system through the mouth and the nose. Oxygen then passes through the larynx (where speech sounds are produced) and the trachea, which is a tube that enters the chest cavity. In the chest cavity, Trachea splits into two smaller tubes called Bronchi. Each bronchus then divides again forming the bronchial tubes. The bronchial tubes lead directly into the lungs where they divide into many smaller tubes, which connect to tiny sacs called alveoli. Average adult's lungs contain about 600 million of these spongy, air-filled sacs that are surrounded by capillaries. The inhaled oxygen passes into the alveoli and then diffuses through the capillaries into the arterial blood. Meanwhile, the waste-rich blood from the veins releases its carbon dioxide into the alveoli. Carbon dioxide follows the same path out of the lungs when we exhale. The diaphragm is a sheet of muscles that lies across the bottom of the chest cavity. As the diaphragm contracts and relaxes, breathing takes place. When Diaphragm contracts, oxygen is pulled into lungs. When diaphragm relaxes, carbon dioxide is pumped out of the lungs.

❖ Lungs and Diaphragm.



ZEAL product perspective in management of Cough & Cold



The respiratory system is the system of the body that deals with breathing. When we breathe, the body takes in the oxygen that it needs and removes the carbon dioxide that it doesn't need. The primary function of the respiratory system is to supply blood with oxygen in order for the blood to deliver oxygen to all parts of the body. The respiratory system does this through breathing. When we breathe, we inhale oxygen and exhale carbon dioxide. This exchange of gases is the respiratory system's means of getting oxygen to the blood.

(B) Cough & its etiology:

Cough occurs in association with acute Upper Respiratory Infection, acute Pharyngitis, acute Bronchitis and chronic Sinusitis.

Cough is one of the most common reasons for visits to Doctors. Normal coughing is important to keep our throat and airways clear. However, excessive coughing may mean an underlying disease or disorder. Coughs generally fall into one of the two following categories.

(C) Types of Cough:

- 1) Acute cough (typically lasting no longer than three weeks) usually begins suddenly because of a cold, flu, or sinus infection.
- 2) Chronic cough (lasting longer than three weeks) is most commonly caused by cigarette smoke, airborne pollutants, postnasal drip, asthma, and bronchitis.

ZEAL product perspective in management of Cough & Cold



(D) Signs and Symptoms of Cough:

- Upper respiratory tract infection (URTI)
- Postnasal drip
- Wheezing (possible asthma)
- Heartburn
- Vomiting
- Fever, chills, night sweat
- Edema, or fluid retention

(E) Cough Treatment:

Medications such as cough suppressants, inhalers, antibiotics, antihistamines, or expectorants, are being generally advised depending on the type of cough.

(As per Modern Medicines)

- Cough suppressants: Oral (codeine [15 mg 4 times a day] or dextromethorphan [15 mg 4 times a day])
- Antibiotics/antihistamines/decongestants—for upper respiratory infections
- Antibiotics—for chronic sinusitis (amoxicillin-clavulanate potassium, trimethoprim-sulfamethoxazole, oral cephalosporin)
- Bronchodilators, beta-agonists, or corticosteroids—for asthma

ZEAL product perspective in management of Cough & Cold



(As per Ayurveda)

(F) Important Herbs used in treating cough & cold problems:

Tulsi: The antibacterial activity of Tulsi is known world over. Tulsi also provides protective action against histamine induced bronchospasm.

Vasaka: Has bronchodilator & expectorant properties. Vasaka is useful for the treatment of Bronchitis, Asthma & it also relieves breathlessness.

Yashtimadhu: Has demulcent, mild expectorant & anti-inflammatory properties. Also relieves inflammation caused due to kapha.

Trikatu: Increases the bioavailability of all the ingredients incorporated.

Sunthi: Treats chest congestion and thereby facilitates breathing

ZEAL product perspective in management of Cough & Cold



ZEAL SYRUP:

- ❖ Liquefies thick viscid mucus
- ❖ Relieves nasal congestion
- ❖ Relieves bronchial spasm
- ❖ Non sedating, Alcohol free

Indications: Allergic cough, Dry & productive cough, Smoker's cough & as an expectorant.

ZEAL LOZENGES:

- ❖ Antibacterial, Antiallergic properties
- ❖ Demulcent, Antitussive, Expectorant
- ❖ Antioxidant properties
- ❖ Adjuvant to NSAIDS so as to counter gastritis
- ❖ Decreases tendency towards Nausea, hence useful during pregnancy also

Indications: Cough & cold, Throat irritation, Antioxidant, Helps subside Nausea during pregnancy and travel sickness.

ZEAL product perspective in management of Cough & Cold



ZEAL PLUS LOZENGES:

- ❖ (Sunthi) Treats chest congestion and thereby facilitates breathing
- ❖ (Amla) Protects body from free radicals of Nicotine & Tar Oil generated by smoking
- ❖ (Amla) Protects bronchus, throat and lungs because it supplements Vitamin 'C'
- ❖ (Amla) Guarantees long term and high level of anti-oxidative protection
- ❖ (Amla) also strengthens the Immune System
- ❖ (Yashtimadhu) Demulcent, Antitussive & Expectorant

Indications: Cough, Throat irritation, Bad taste in mouth

Advantage of Zeal & Zeal Plus Lozenges:

- ❖ Taste is widely accepted
- ❖ Safe during pregnancy & for nursing mothers
- ❖ Also offers Antioxidant properties
- ❖ Cost effective as compared to Alex & TusQ-D Lozenges
- ❖ Can also be given to children above 10 years of age
- ❖ Economical as compared to the competitors
- ❖ Attractive & convenient packing

ZEAL product perspective in management of Cough & Cold



ZEAL KID DROPS:

- ❖ Help relax bronchial muscles
- ❖ Relieve nasal congestion
- ❖ Facilitate easy breathing
- ❖ Ensure sound sleep
- ❖ Prevent recurrence

Indications: Cough, Cold, Nasal & Chest Congestion

Conclusion: ZEAL Group is the Comprehensive & Complete Combination Ayurvedic therapy for treating all types of cough problems, from Pediatric to Geriatric.

ZEAL IS THE ONLY BRAND HAVING COMPLETE RANGE i.e. SYRUP, LOZENGES & KID DROPS