



SNS COLLEGE OF NURSING

SARAVANAPATTI, COIMBATORE-35



DEPARTEMENT OF NURSING

COURSE NAME: BSC (NURSING) IIYEAR

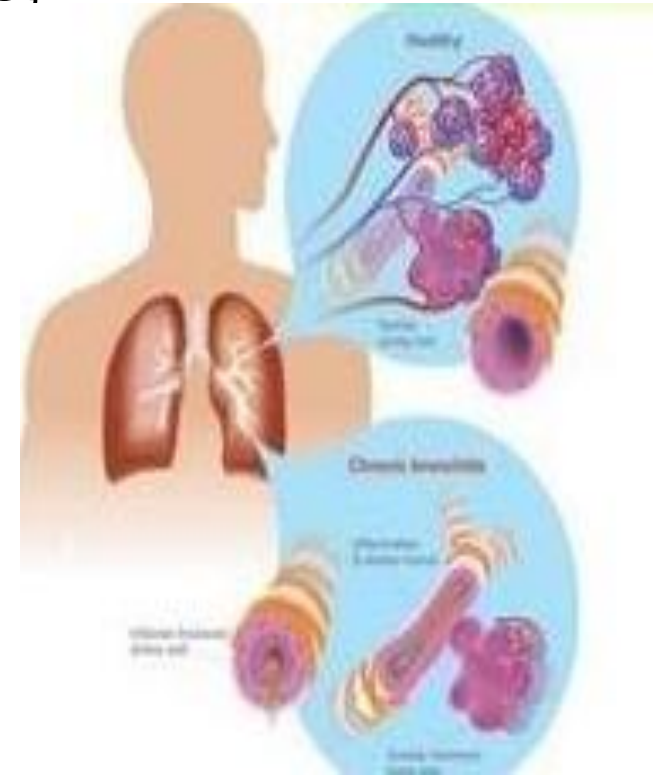
SUBJECT : PATHOLOGY

UNIT II - SPECIAL PATHOLOGY

**TOPIC- PATHOLOGICAL CHANGES IN RESPIRATORY
TRACT ,BRONCHITIS**

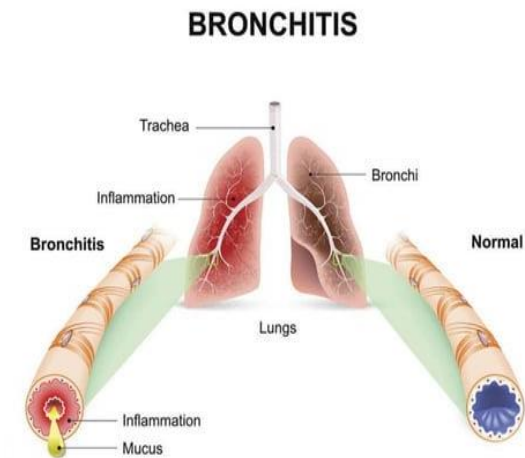
INTRODUCTION

Bronchitis is an inflammation of the bronchial tubes, the airways that carry air to your lungs .
It causes a cough that often brings up mucus .
It can also cause shortness of breath , wheezing , a low fever and chest tightness.



DEFINITION

Bronchitis is an inflammation of the lining of the bronchial tubes. Inflammation of mucous membranes that lines the major bronchi and their branches It can be either an acute or chronic condition.



RISK FACTORS

- Affects children, elderly or other with chronic diseases where their immunity is low.
- Cigarette smoking,
- Exposure to air pollution or lung irritants,
- Recurrent lung infections, after URTI.
- Workers exposed to dust, such as coal miners and grain handlers.





CAUSES

- Viruses cause bronchitis,
 - Including influenza A and B
- Bacteria cause bronchitis,
 - Such as *mycoplasma pneumoniae*,
- Inhalation of irritating fumes or dusts.
- Chemical solvents and smoke, including tobacco smoke.



PATHOPHYSIOLOGY

URTI, inhalation of toxic gas
or chemicals



inflammation



capillary vasodilatation &
mucous membrane edema



excessive mucous produced



Cont.....

mucosal irritation



cough reflex



Respiratory tract may become hyperirritable for an extended period lead to paroxysms coughing (numerous rapid coughs) & bronchospasm.

Assessment



1. Define Bronchitis?

Ans

2. What are the causes of Bronchitis?

Ans.....

3. Explain the pathophysiology of Bronchitis?

Ans



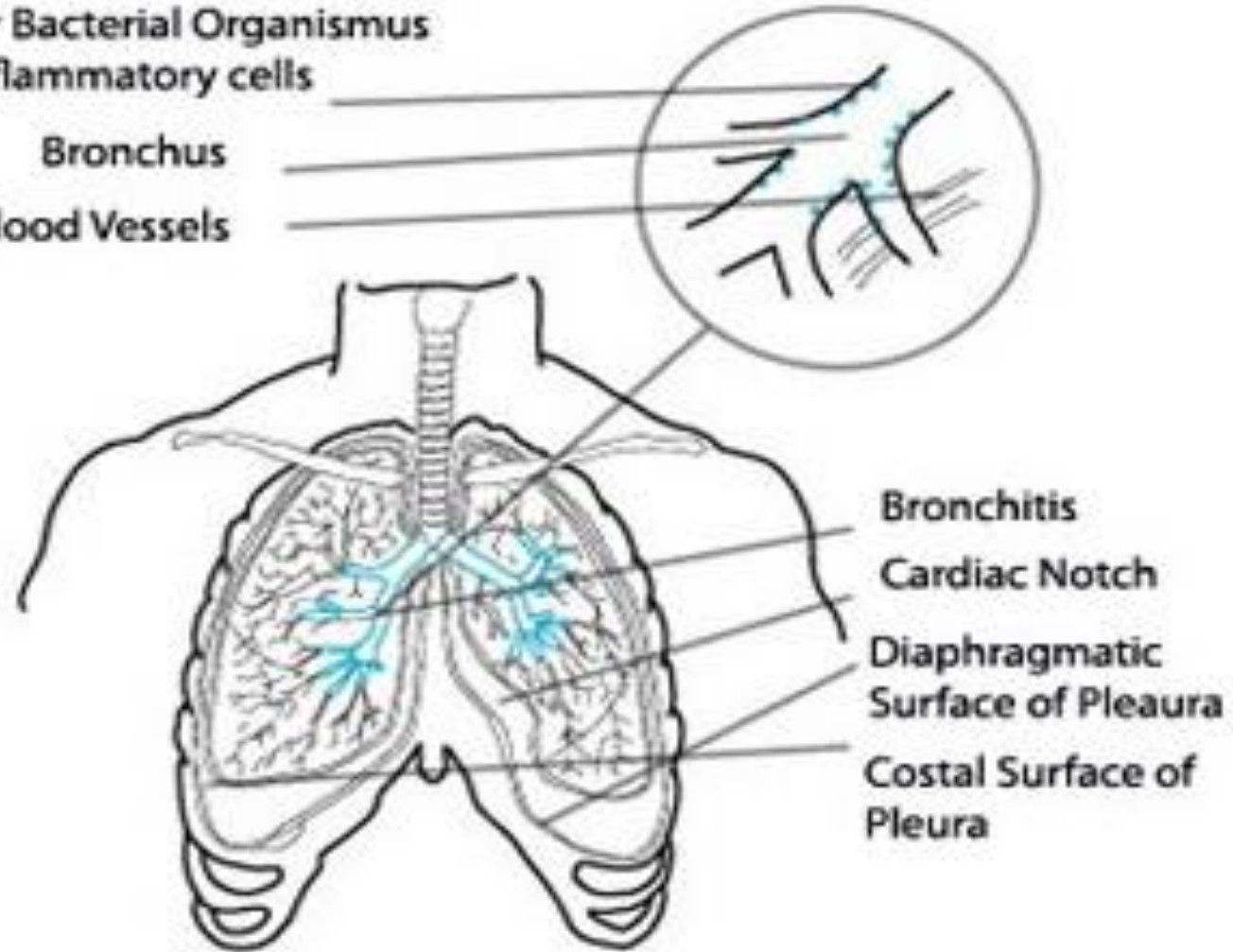
CHRONIC BRONCHITIS IS CHARACTERIZED BY

- reduced maximal expiratory flow during forced exhalation
- a mucus-producing cough (unexplained by other disease) that's present most days of the month and lasts for 3 months of the year in 2 consecutive years.
- The lining of the bronchial tubes becomes inflamed and eventually scarred.
- Excessive mucus is trapped in the swollen airways, obstructing airflow. (COPD)

Viral or Bacterial Organismus
and Inflammatory cells

Bronchus

Blood Vessels





CLINICAL MANIFESTATION/SIGN & SYMPTOMS

- Fever
- Malaise
- Dry, nonproductive cough later producing mucopurulent sputum, which may be blood streaked if airway mucosa becomes irritated.
- Wheezing



Clinical manifestation/sign & symptoms - cont

- Shortness of breath (dyspnea) and wheezing.
- Occasionally chest pains may also occur.
- Additionally, Bronchitis caused by Adenoviridae may cause systemic and gastrointestinal symptoms as well.



Diagnostic evaluation

- A physical examination will often reveal decreased intensity of breath sounds, wheezing and prolonged expiration.
- Most doctors rely on the presence of a persistent dry or wet cough as evidence of bronchitis.
- A sputum sample showing neutrophil granulocytes (inflammatory white blood cells) and culture showing that has pathogenic microorganisms such as Streptococcus.



MEDICAL MANAGEMENT

- Bed rest
- Antipyretics
- Expectorants
- Antitussives
- Increased fluids
- Broad-spectrum antibiotics – erythromycin or penicillin



NURSING MANAGEMENT

- Ineffective airway clearance r/t tracheo-bronchial secretions.
- Ineffective breathing pattern (dyspnoea) r/t productive secretions
- Pain (chest) r/t persistent cough

Assessment



1. Enlist the clinical manifestation of Bronchitis?

Ans

2. Enumerate the diagnostic test of Bronchitis?

Ans.....

3. Explain the Management of Bronchitis?

Ans



REFERENCE

- Pathology for Nurses , 1st Edition by M.D. Swaminathan, JAPEE publications.
- Text book Pathology, 4th Edition by Dr . Preeti Gupta, Pee Vee, publications.
- Textbook Of Pathology,7th Edition by ,Harsh Mohan , Jaypee Brothers Medical publishers.



THANK YOU