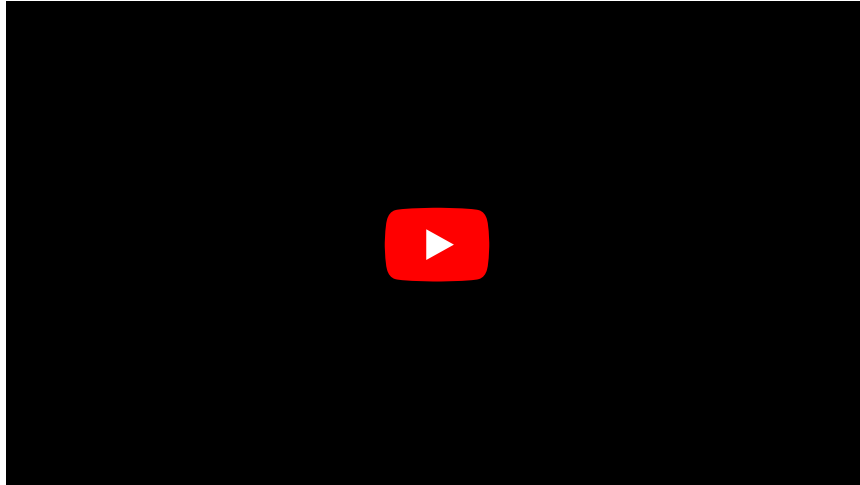


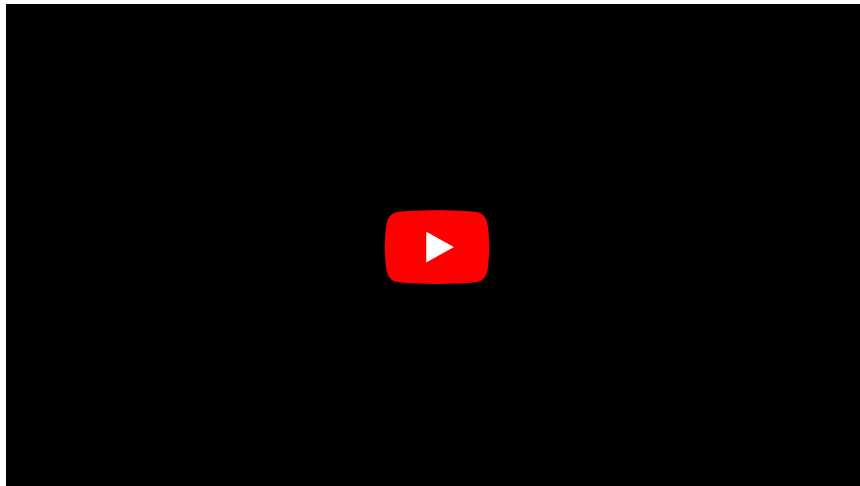
# Chronic bronchitis

Chronic bronchitis is defined as **a chronic productive cough lasting at least three months in two consecutive years**, and at the same time, other possible causes of cough - pulmonary ( bronchiectasis ) and non-pulmonary ( heart failure ) are excluded. The disease is further characterized by an obstructive ventilation disorder.

## Chronic bronchitis:



## Chronic bronchitis 2:



Chronic bronchitis can be considered a component of chronic obstructive pulmonary disease (the other component being emphysema ).

## Etiology

### ▪ Endogenous causes

1. age (incidence increases with age) and male gender (men are affected twice as often as women),
2. individual predisposition – atopy, immune disorders,
3. sinusitis (sinobronchial syndrome),

### ▪ exogenous causes

1. **smoking** – represents probably the most significant risk factor,
2. **repeated respiratory infections** – mainly haemophilic and pneumococcal,
3. work and environmental pollution.

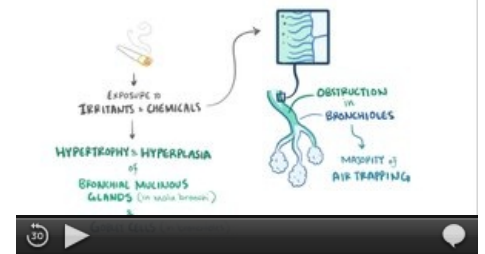
## Pathology

Inflammatory infiltration of the wall of the bronchi, at the same time there are increased and hypertrophic mucus glands in the mucosa (overproduction of mucus). These changes lead to **a narrowing of the lumen of the bronchi** and thus to an obstructive air flow disorder.

# Manifestations of the disease

Spirometric examination – obstructive pulmonary ventilation disorder

- Cough – mostly productive,
- **mucus hypersecretion** ,
- shortness of breath
- hypoxemia to cyanosis – a very advanced symptom,
- pulmonary hypertension – a very advanced symptom, essentially the result of a long-standing lung disease.



Definition, pathogenesis, symptoms, complications, treatment

## Disease types

1. **Simple** chronic bronchitis
2. **Purulent** chronic bronchitis
3. **Obstructive** chronic bronchitis


## Investigation

- **Medical history** (smoker, work environment, recurrent DCD infection),
- **physical examination** - may be completely without findings,
- **X-ray of the lungs** - to rule out infection, bronchogenic carcinoma,
- spirometric examination - reveals an obstructive lung ventilation disorder,
- bronchoscopy - in cases of uncertainty, suspicion of bronchogenic carcinoma .

## Therapy

The therapy of chronic bronchitis is similar to the therapy of COPD, it involves the administration of inhaled forms of drugs, often in combination.

- **Inhaled corticosteroids** (ICS),
- **inhalation bronchodilators** ,
  - $\beta$  2 agonist (THIRD, SEVEN),
  - anticholinergic (SAME, OLD).

 For more information see *Chronic obstructive pulmonary disease (COPD)*.

**Quitting smoking** is an integral part of the therapy .

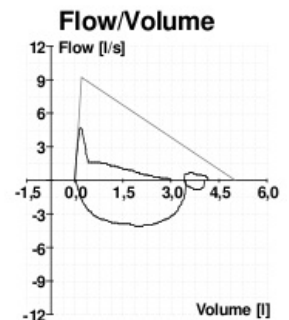
## Links

### Related Articles

- COPD

### References

- KLENER, Pavel, et al. *Vnitřní lékařství*. 3. edition. Praha : Galén, 2006. 285 - 286 pp. ISBN 80-7262-430-X.



Spirometric examination – obstructive pulmonary ventilation disorder