

## **Broncho-pulmonary ailments caused by dusts from basic slags**

### **Definition of causal agent**

Basic (Thomas) slag is a fine powder by-product that separates off in metal smelting and floats as a fused layer on liquid metal. It is obtained in the Thomas process of making steel. Burned dolomite reacts with phosphorus from pig iron to form converter lining. It consists of oxides of phosphorus, silicon, calcium, iron, aluminium, magnesium, and manganese contaminated by vanadium.

### ***Main occupational uses and sources of exposure:***

Historically, iron production, basic slag mills. Basic slag was used as fertilizer. Rare disease, mainly of historical relevance.

### **Toxic effects**

#### ***1. Acute and sub acute effects***

Non specific effects are acute bronchitis with cough, sputum, pharyngitis, laryngitis, tracheitis; acute chemical pneumonitis with fever, shivering, cough, dyspnoea and headache. The clinical picture may resemble infectious pneumonia.

#### ***Exposure criteria:***

*Minimum intensity of exposure:* Unknown

*Minimum duration of exposure:* A few days

*Maximum latent period before onset of disease:* A few days

#### ***2. Chronic effects***

Chronic bronchitis and emphysema are possible.