

## Siderosis

### Definition of causal agent

Fumes or dust of metallic iron or iron oxide.

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

Iron and steel rolling or grinding: fettling: electric arc and oxyacetylene welding: metal, glass or stone polishing with iron oxide powder: boiler scaling: mining or crushing iron ores: mining or milling of emery: manufacture of magnetic tapes: manufacture of pigments.

### Toxic effects

#### 1. Local effects

- At high exposures, irritation of mucous membranes

*Minimum intensity of exposure:* unknown

*Minimum duration of exposure:* immediate

*Maximum latent period:* a few minutes for acute irritant effects

#### 2. Pulmonary

- Siderosis: benign pneumoconiosis

#### **Diagnostic criteria:**

Prolonged occupational exposure to iron dusts

#### Asymptomatic

Chest radiograph or CT scan showing numerous, widespread small opacities of high density. Hilar glands not enlarged but may appear radio-dense. No pleural changes.

Lung function normal

*Minimum intensity of exposure:* unknown

*Minimum duration of exposure:* 10 years (3 years with very high exposure)

*Maximum latent period:* none

- Mixed pneumoconiosis may occur from co-exposures to iron and other dusts. eg. sidero-silicosis: arising from co-exposures to iron fume and silica