

Black Lung Disease

What is Black lung disease?



Black lung disease results from inhaling coal dust and carbon over a long period of time. Coal dust settles in the lungs, causing them to harden and make breathing difficult. It is a chronic, progressive, disabling, and often fatal lung disease. There are two types: simple and complicated. The complicated form, sometimes referred to as progressive massive fibrosis, affects less than 2% of those with the simple form. The complicated form involves progressive scarring of the lungs, which leads to premature disability and death. Cigarette smoking adds to the lung damage caused by coal dust.

Sources of exposure

- Underground coal mines
- Preparation of coal for transport
- Transporting coal

Results of prolonged exposure to coal dust may result in

- Chronic Obstructive Pulmonary Disorder (COPD) comprised of chronic bronchitis and/or emphysema
- Simple form of black lung disease
- Complicated form of black lung disease, progressive massive fibrosis
- Silicosis, if the quartz content of the coal is high
- Both black lung disease and silicosis

Symptoms of black lung disease

Early stages

- No symptoms or non-productive cough

Later stages

- Shortness of breath
- Decreased tolerance for exercise
- May have emphysema with productive cough
- May have progressive massive fibrosis
- May have failure of right side of heart
- Respiratory failure, which may eventually lead to death

Preventing black lung disease

- Use engineering controls
- Wear well-fitted appropriate respirators
- Participate in a respiratory protection program

Treatment

- Eliminate or minimize exposure to dust
- Stop smoking
- Treat symptoms
- Use oxygen therapy as needed

1. The Merck Manual of Medical Information Online Medical Library, Second Home Edition. Black Lung. Last reviewed/revised 2/1/2003. <http://www.merck.com/mmhe/sec04/ch049.html>

2. U.S. Department of Labor, Mine Safety and Health Administration, National Mine Safety Academy, "Dust - What you can't see can hurt you." 1999