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'Black lung is back' researcher says

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The dangers of coal mining enter the spotlight periodically when disasters strike, but one West Virginia University researcher argues that coal mine dust exposure, which has caused an increase in the prevalence and severity of chronic lung diseases, is happening every day and deserves more attention.

In a concise clinical review published online last month in the *American Journal of Respiratory and Critical Care Medicine*, Edward Petsonk, M.D., and two other respected lung specialists provide an update on recent advances in the understanding of coal miners' respiratory health issues.

Titled "Coal Mine Dust Lung Disease: New Lessons from an Old Exposure," the article focuses on the spectrum of disease caused by inhalation of coal mine dust, termed coal mine dust lung disease (CMDLD). The print version of the paper will be published June 1.

A professor in the Section of Pulmonary and Critical Care in the WVU School of Medicine Department of Medicine, Dr. Petsonk has been researching occupational lung disease since 1979. His work has revealed that young coal miners are getting sicker than their older counterparts, while coal workers' pneumoconiosis (CWP), better known as "black lung disease," is becoming more lethal. This is all in spite of safety mandates at coal mines that were established in 1969, along with requirements that coal operators offer underground employees periodic chest X-rays.

"This is very important to the people of West Virginia and particularly to

the people who work in coal mines," Petsonk said. "We have identified clusters or pockets of disease in southern West Virginia, eastern Kentucky, western Virginia and some areas of Pennsylvania. Black lung disease does occur in in Illinois, Indiana, Utah, Colorado and other coal mining states, but fewer miners have the disease. In the cluster areas, black lung disease is both more prevalent and more severe."

In addition to black lung disease, coal miners are at increased risk for silicosis, mixed dust pneumoconiosis and dust-related diffuse fibrosis, as well as chronic airway diseases like emphysema and chronic bronchitis. In the article, Petsonk wrote that there is an "increased sense of urgency and the need for vigilance in medical research, clinical diagnosis and exposure prevention." He emphasized the role of chest physicians in recognizing and managing lung disease in coal miners.

"Sadly, black lung is back," Petsonk said. "The number of miners stricken with dust disease has been increasing since about the year 2000, when it was at its lowest level in 30 years."

Petsonk and his co-authors believe the increase in disease has multiple explanations, including flaws in existing regulations, dust control practices and enforcement. They reported that the science clearly demonstrates that the type of massive lung scarring seen on coal miners' chest X-rays does not occur from tobacco smoking and must be related to the miners breathing in excessive amounts of dust.

"This article should help physicians be more effective in evaluating and managing miners' respiratory problems," Petsonk added.

More information: www.atsjournals.org/doi/pdf/10 … 4/rccm.201301-0042CI

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