Chest X-ray screening process for coal mine workers

This information sheet explains the screening process introduced in July 2016 by the Coal Mine Workers’ Health Scheme.

Overview
Queensland coal mine workers undertake health assessments as part of the Coal Mine Workers’ Health Scheme at least once every five years, or more regularly as required. Miners who work underground, or who are exposed to coal dust, may be required to undergo a chest X-ray as part of their health assessment.

Chest X-rays
Digital imaging using chest X-ray combined with spirometry is considered the best method for early detection of coal mine dust lung diseases.

All chest X-rays taken under the Coal Mine Workers’ Health Scheme:
- are ‘dual read’ - first by an Australian radiologist, and then checked again by a US-based NIOSH\(^\text{i}\) approved reader
- are read to the ILO classification\(^\text{ii}\).

Dual reading
Dual reading of chest X-rays was introduced in July 2016 to improve screening for coal mine workers. This means your chest X-ray is examined first by an Australian radiologist who provides the results back to your nominated medical adviser (NMA). Your digital X-ray is then sent to the United States for a second reading by NIOSH approved readers. This service is organised through the School of Public Health, University of Illinois at Chicago – the same organisation instrumental in delivering the chest X-ray review as part of the independent Monash University review of the respiratory component of the Coal Mine Workers’ Health Scheme.

Results are returned to your NMA. If both readings are clear, your NMA can complete Section 4 of the Health Assessment Form.

If either the Australian radiologist or the US-based reader detect any abnormalities on the chest X-ray, you may be referred to have a high resolution CT scan.

ILO classification
The ILO classification is the accepted international standard to describe and code abnormalities in chest X-rays that indicate pneumoconiosis. The system includes guidelines and a set of 22 standard X-ray images. The radiologist compares your X-ray with standard images in the set which show different abnormalities (number, size and shape of the scars) in patients with possible pneumoconiosis. The physician uses these images to compare and describe the extent and features of pneumoconiosis if present.

More information
- 13 QGOV (13 74 68)
- www.qld.gov.au

\(^\text{i}\) National Institute for Occupational Safety and Health
\(^\text{ii}\) International Labor Organisation (ILO) International Classification of Radiographs of Pneumoconioses