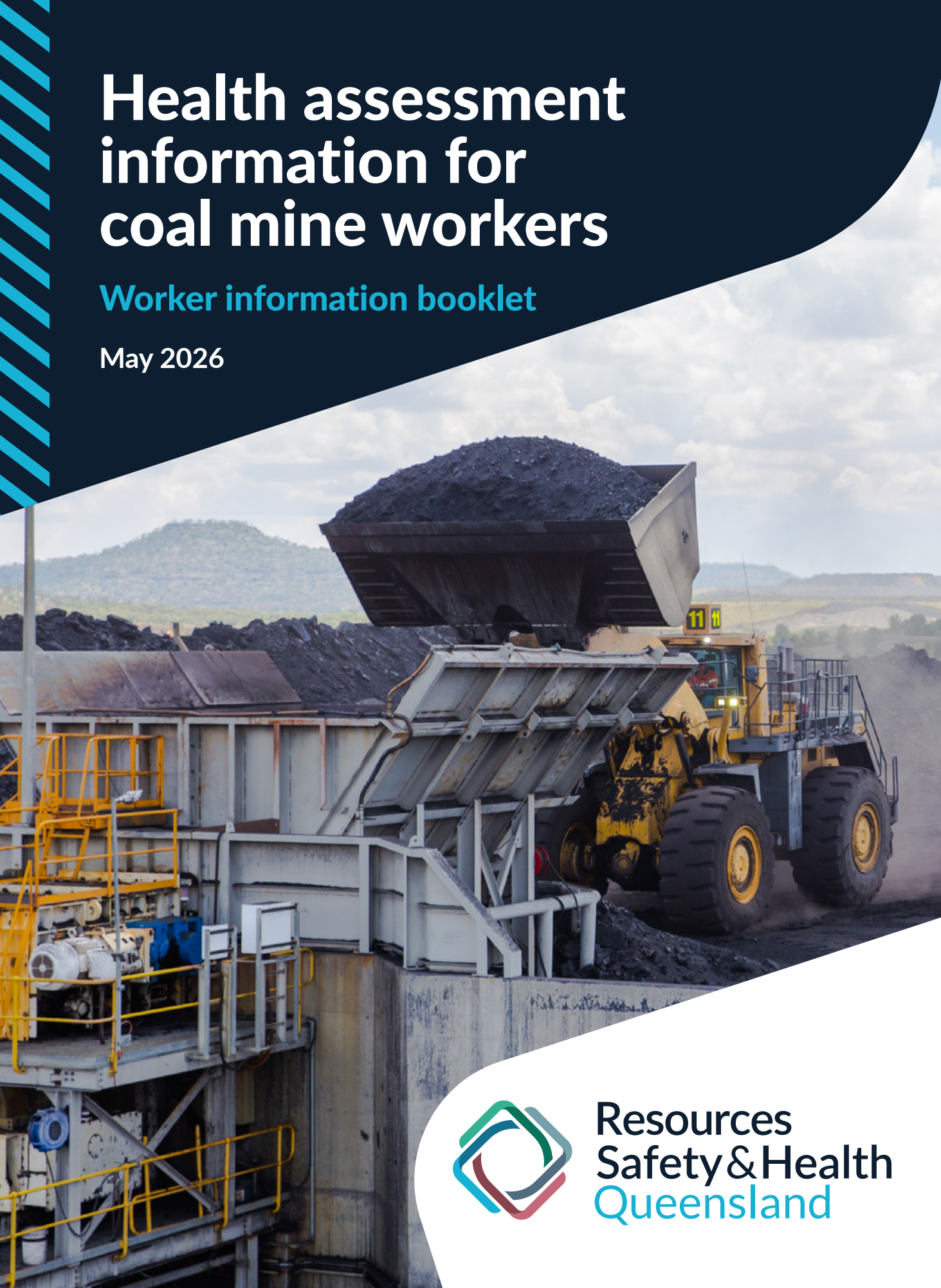
Health assessment information for coal mine workers

Worker information booklet

May 2026



Resources Safety & Health Queensland

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About this booklet

This booklet provides information to Queensland coal mine workers about mine dust lung diseases and the health assessments under the Coal Mine Workers' Health Scheme (the Scheme), with a focus on its respiratory component.

The respiratory component of the Scheme includes the regular monitoring or testing of a person's respiratory system to check for damage to the lungs, including changes in lung function, because of exposure to respiratory hazards at work.

Undertaking respiratory health examinations does not remove the requirement to implement and constantly review control measures to reduce exposure to respiratory hazards.

This booklet should be read alongside the following Resources Safety and Health Queensland (RSHQ) worker booklets:

- ***Airborne dust exposure in mines and quarries*** – information about controls to protect from dust exposure
- ***Respiratory health surveillance for mineral mine and quarry workers*** – explanation of the respiratory health surveillance process for mineral mine and quarry workers.

The key to managing mine dust lung disease is early detection, which is why regular health assessments are important to preserving respiratory health.

Protecting Queensland's coal mine workers

The Coal Mine Workers' Health Scheme protects the health of Queensland coal mine workers by ensuring they undergo compulsory health assessments. Coal mine workers can be exposed to a range of hazards, including mineral dust from development, production and processing as well as welding fumes and diesel engine exhaust emissions.

Occupational exposure to harmful levels of respiratory hazards can lead to a range of lung diseases; these include forms of pneumoconiosis (e.g. coal workers' pneumoconiosis and silicosis), chronic obstructive pulmonary disease and lung cancer.

Mine dust lung disease may take ten years or more to develop. However, in some instances, signs of disease may appear earlier.

The risk of developing disease might be higher if you are sensitive to the effects of dust or are a smoker.

Lung damage is irreversible, however, if the lung damage is detected early, the progress to more severe stages of disease may be prevented or slowed.



What is mine dust lung disease?

Mine dust lung diseases include:

- pneumoconiosis (pronounced 'NEW-mo-co-nee-O-sis'), including:
  - coal worker's pneumoconiosis (CWP)
  - silicosis
  - mixed dust pneumoconiosis
- chronic obstructive pulmonary disease (COPD), which includes:
  - chronic bronchitis
  - emphysema
- diffuse dust-related fibrosis (DDF)
- asbestosis and asbestos pleural disease, and
- lung cancer.

A worker with mine dust lung disease may often have more than one of these diseases. For example, a worker could have pneumoconiosis and emphysema.

Asbestos and asbestiform fibres, and crystalline silica are carcinogenic and may increase the risk of lung cancer.

Pneumoconiosis

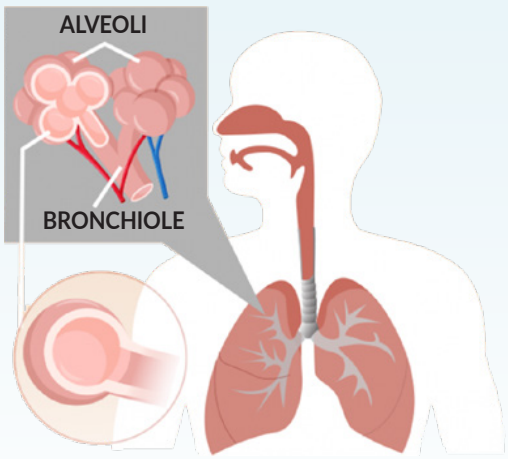
Pneumoconiosis is the result of the body repeatedly trying to heal irritations caused by breathing in respirable coal, crystalline silica or mixed dusts.

Respirable dust is so small that, when breathed in, the particles can travel past the body's initial defence mechanisms (such as sneezing and coughing). The smallest particles are able to reach the deepest parts of the lungs (the alveoli), where they are deposited and may remain.

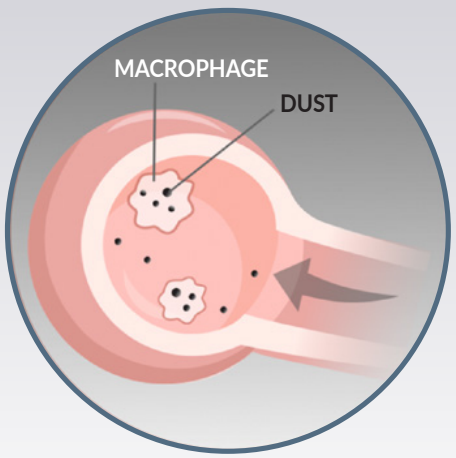
If a worker is exposed to harmful levels of respirable dust over several years, the accumulated damage results in scarring of the lung tissue which reduces the ability of the lungs to get oxygen from the air into the bloodstream. The scarring may show up as small, nodular or irregular shapes on a chest X-ray.

Figure 1 *(page 6)* shows how pneumoconiosis, such as **CWP** and **silicosis**, develop.

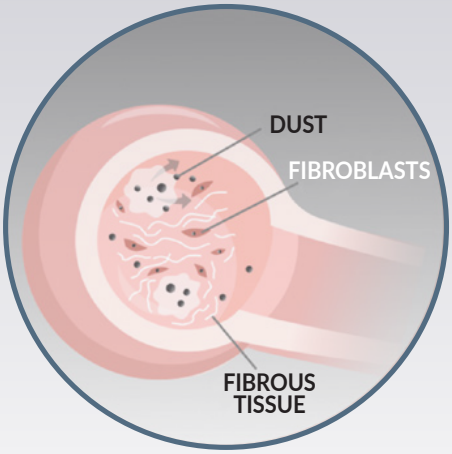
Figure 1: Continued overexposure to respirable dust can result in development of pneumoconiosis, such as CWP and silicosis.



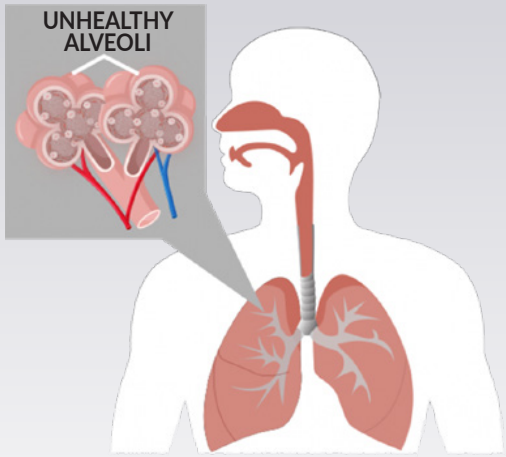
Alveoli are tiny air sacs responsible for exchanging oxygen and carbon dioxide with the blood. A typical pair of lungs contain approximately 700 million alveoli.



When dust particles reach the alveoli, macrophages (a type of white blood cell) engulf the dust particles to clear them away.



If there is too much dust, fibroblast cells come to the aid of the macrophages. Fibroblasts knit together and form scar tissue around the particles.



With continued dust exposure, the alveoli are overcome with scar tissue and cannot function normally. The scarring becomes extensive and it gets hard to breathe deeply. Oxygen entering the bloodstream is reduced.

Coal workers' pneumoconiosis (CWP) is caused by long-term occupational exposure to harmful levels of respirable coal dust.

CWP can progress from simple pneumoconiosis (small scars) to complicated pneumoconiosis, also called progressive massive fibrosis (PMF), with scars greater than 10mm in diameter.

In early stages, symptoms may not prevent a person from working or carrying out most normal activities, but can cause significant symptoms like shortness of breath.

Silicosis is similar to CWP and is caused by prolonged exposure to respirable crystalline silica.

Silicosis may also present in simple or complicated forms and can progress to PMF.

There are three forms of silicosis based on the duration and severity of exposure:

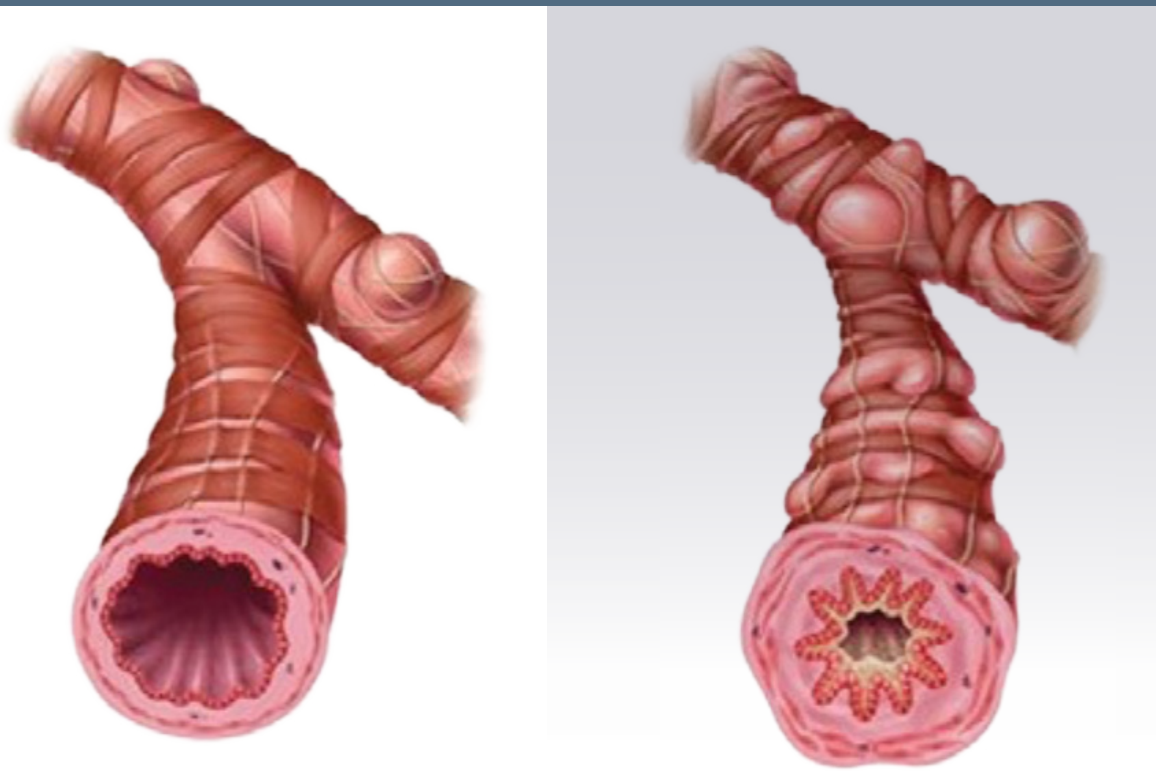
- *Chronic silicosis* – the most common form in mine and quarry workers where fibrosis occurs more slowly over ten to thirty years.
- *Accelerated silicosis* – where there is a rapid increase of scarring in the lung within less than ten years of first exposure.
- *Acute silicosis* – the lungs fill with fluid which causes severe breathlessness. This form of silicosis is rare but can develop from very short duration and heavy exposure.

Chronic obstructive pulmonary disease (COPD)

COPD is a condition that causes shortness of breath by blocking the flow of air out of the breathing tubes of the lungs. The two most common forms of COPD are **chronic bronchitis** and **emphysema**.

Chronic bronchitis is an inflammation of the lining of the bronchial passages that causes the mucus glands in these airways to produce a lot of extra mucus (**Figure 2**). This causes the person to cough and produce phlegm. Dust is a common cause of chronic bronchitis in mine and quarry workers. Another common cause is smoking.

Figure 2: A normal airway (left) and an airway affected by chronic bronchitis (right).



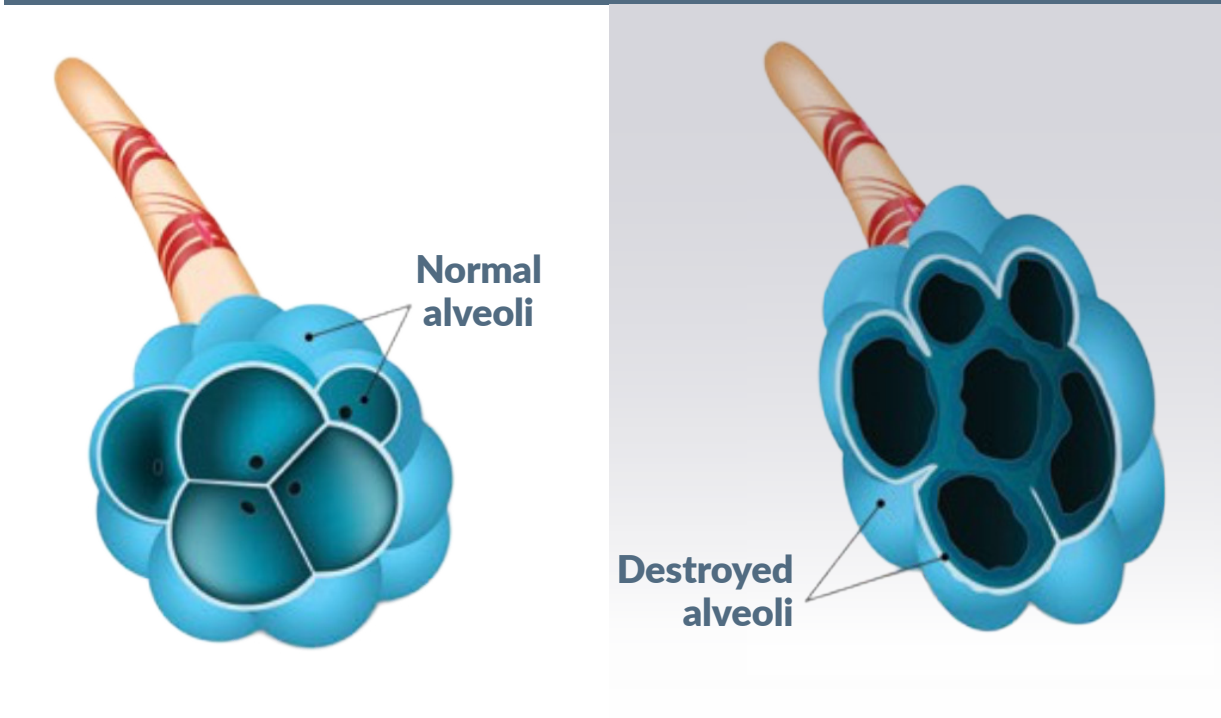
Normal airway | Chronic bronchitis

Emphysema (**Figure 3**) is the destruction of the walls of air sacs in the lung, known as alveoli, resulting in enlarged spaces or holes in the lungs like Swiss cheese. This causes shortness of breath in two ways:

- there are fewer air sacs to do the work of getting oxygen into the body
- the damaged lung cannot support the airways normally and they collapse easily.

Dust is a common cause of emphysema in mine and quarry workers. Smoking is another common cause. Inhalation of silica, asbestos, and mixed dusts may also cause emphysema.

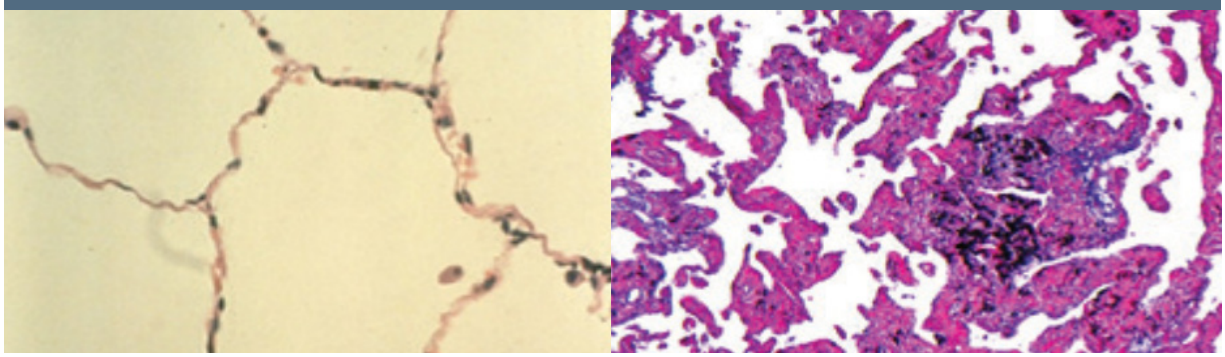
Figure 3: Normal air sacs of the lung, known as alveoli look like clusters of grapes. In emphysema, these alveoli are damaged and form abnormally large holes. Breathing is impaired as a result of the emphysema.



Diffuse dust-related fibrosis (DDF)

This form of mine dust lung disease is another type of scarring disease (**Figure 4**). In chest X-rays, the scars appear as irregular linear scars. This is important because some doctors may not be familiar with this form of mine dust lung disease and confuse it with other scarring diseases of the lungs found in the general public.

Figure 4: In a normal lung, the air sacs have thin walls (left). In an individual with diffuse dust-related fibrosis, the walls of the air sacs become thickened or scarred.



Normal lung | Diffuse dust-related fibrosis

Asbestosis and asbestos pleural disease

Mine and quarry workers may be exposed to asbestos and asbestiform mineral dust in the form of naturally occurring asbestos (NOA) or asbestos in insulation in older buildings and preparation plants.

Asbestos can cause lung disease with irregular scars that are often found in the lower parts of the lungs. This may look very similar to diffuse dust-related fibrosis. Asbestos can also affect the lining of the lung, known as the pleura, causing thickened plaques, fluid around the lung, or even cancer of the pleura, known as mesothelioma.





What health assessments am I entitled to?

Under the Coal Mining Safety and Health Regulation 2017, employers must ensure a health assessment is carried out for each person who is to be employed, or is employed, as a coal mine worker for a task other than a 'low risk' task.

Health assessments are required:

- before you start work as a coal mine worker and when you change employers
- periodically, as required by the employer's Appointed Medical Adviser, but at least once every five years, and
- if the employer's Appointed Medical Adviser decides it is necessary.

Employers must arrange and pay for your health assessments.

What can I expect from my health assessment?

How it works

Health assessments are completed by your employer's Appointed Medical Adviser using the RSHQ approved health assessment form, accessed via ResHealth. Doctors who are Examining Medical Officers can undertake health assessments and exit examinations, provided they are under the supervision of an Appointed Medical Adviser. This form has four sections:

1. **Employer section (completed by your employer)**
   It includes information about:
   - the Appointed Medical Adviser
   - them as your employer
   - your position
   - similar exposure groups, and
   - workplace hazards and exposure risks.

2. **Worker section (completed by you)**
   It includes your personal details, as well as work and medical history. This information allows the Examining Medical Officer to understand your exposure to hazards as well as any pre-existing conditions such as asthma.

3. **Examination section (completed by the Examining Medical Officer)**
   It details clinical findings of the examinations. This includes results from the examinations of your respiratory system.



4. Health assessment report (completed by the Appointed Medical Advisor)

The health assessment report details:

- fitness for work
- any work restrictions, and
- any subsequent assessment required.

Only this section of the health assessment is forwarded to you and your employer.

Outcome of the health assessment

When the health assessment is complete, the Appointed Medical Adviser completes your Health Assessment report:

- The completed health assessment form and all medical reports are sent to RSHQ via ResHealth.
- A copy of your health assessment report is available within ResHealth for you and your employer.

If your employer requires an explanation of a health assessment report from the Appointed Medical Adviser, they must obtain your consent and ensure that you are present.

Medical records

Copies of your past health assessments can be obtained from either the Appointed Medical Adviser or RSHQ (copies can usually be provided within five-ten business days).

For assistance, please call RSHQ on **(07) 3818 5420**.

Level of service

Medical examinations are to be completed by an appropriately qualified medical provider.

Employers must use doctors and medical providers who are approved by RSHQ. These providers meet specific criteria for suitability, qualifications and experience. The register of approved providers is available online and aims to ensure appropriate providers are used.

Only the Appointed Medical Adviser can complete the health assessment or exit examination report.

Respiratory health screening

Your health assessment may include medical examinations to test your respiratory system.

The examinations will include:

- Chest examination – this is a physical examination of the chest and includes listening to your lungs.
- Chest X-ray – this is dual-read to the International Labour Organization (ILO) International Classification of Radiographs of Pneumoconioses.
- Lung function test (spirometry) – this is a standard test used to detect conditions that affect lung function. Workers will be required to breathe forcefully into a machine called a spirometer. The doctor will compare the results with previous spirometry results if available.

Regular monitoring of your respiratory system helps to identify any changes in your lung function because of exposure to respiratory hazards at work.

Based upon the results of the examinations, the Appointed Medical Adviser will then apply the *Mine Dust Lung Disease Clinical Pathways Guideline* (the guideline).

The guideline documents the recommended process for follow-up investigation and referral to medical specialists for workers with abnormal results on the screening tests. Specialist tests may include a high-resolution computed tomography scan, laboratory lung function tests and referral to a respiratory physician. Your employer must pay for these follow-up specialist tests, including reasonable travel expenses.



Your chest X-ray is sent to specially trained readers who determine the presence of any abnormality.

The ILO classification provides a rigorous process for reporting on the presence of an abnormality and describing its features.

What if I'm planning to retire soon?

Exit assessments

Any coal mine worker who is permanently leaving the industry and has worked in the industry for at least three years has an opportunity to voluntarily undergo an exit assessment. This includes spirometry and chest X-ray examinations.

Employers must organise and pay for an exit assessment for any eligible worker who requests one.

Assessment process

You can ask for an exit assessment conducted by the Appointed Medical Adviser up to three months before you permanently stop working or three months after. You will not be eligible for an exit assessment if you have undergone a health assessment that has included a lung function test and chest X-ray within the last three years.

The exit assessment is conducted by the Appointed Medical Adviser using the RSHQ exit assessment form.

The process for exit assessments is similar to the respiratory health screening set out in this booklet (*page 16*).


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Retired and former workers

If you have permanently stopped working in the industry, you may be eligible for a free lung check, including spirometry and chest X-ray examinations. Any follow-up investigations of abnormal results are also provided.

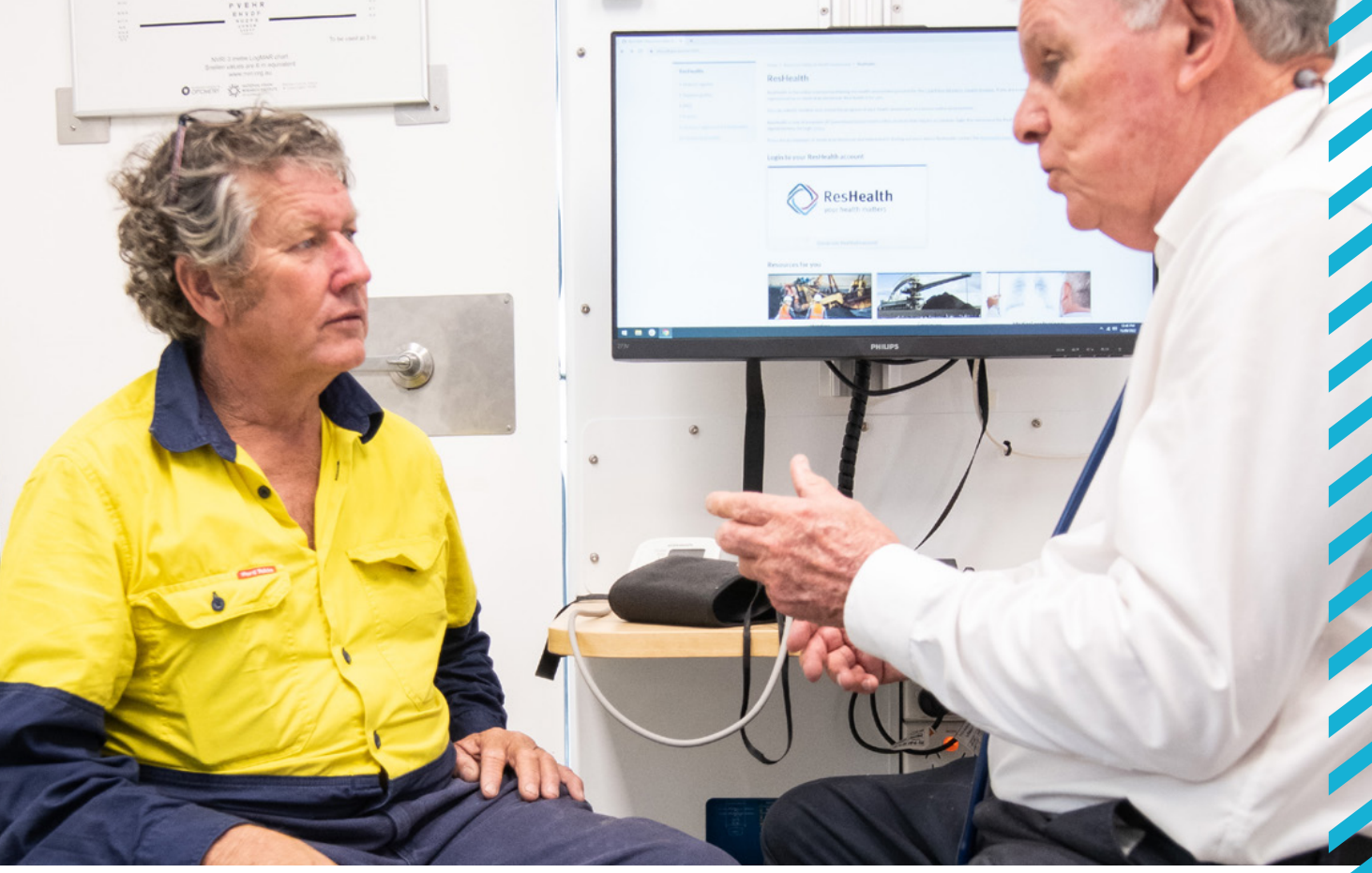
You may qualify for a free lung check if you meet all of the following criteria:

- you have worked in the industry for at least three years
- you have permanently ceased working in a coal mine, and
- at least five years have passed since your last respiratory health examination.

Note: your most recent assessment can be less than five years ago if a doctor has recommended a sooner assessment, as shown in your last health assessment record or a medical certificate.

If you qualify, RSHQ will arrange and pay for your respiratory health examination including reasonable travel and accommodation costs.

To apply, contact the Mine Dust Health Support Service on **1300 445 715** or email **info@minedusthealthsupport.com**



What if I'm diagnosed with lung disease?

Workers diagnosed with any lung disease should avoid additional exposure to respiratory hazards, especially mine dust, and have their respiratory health monitored on an ongoing basis by a specialist physician.

It is important to note that with early detection and appropriate management, some mine dust lung diseases are unlikely to be life-threatening and workers can live a normal life.

You should discuss the management of your ongoing exposure with your workplace and the Appointed Medical Adviser. Your general practitioner can also guide you with ongoing health care.

The Mine Dust Health Support Service can provide free advice on accessing support.

Mine Dust Health Support Service

Current or former Queensland coal mine workers, their families and representatives can contact the Mine Dust Health Support Service.

The service provides confidential support to help you understand:

- your rights
- the screening and diagnosis process
- compensation pathways if diagnosed with a mine dust lung disease, and
- how to access ongoing support, including psychological support.

MINE DUST HEALTH SUPPORT SERVICE

1300 445 715

info@minedusthealthsupport.com

Workers' compensation

If you develop a mine dust lung disease because of your employment, you may be entitled to workers' compensation.

Entitlements can include:

- weekly compensation for lost wages
- medical expenses
- counselling and pulmonary rehabilitation services
- travelling expenses
- lump sum compensation (depending on your degree of permanent impairment), and/or
- additional lump sum compensation for those diagnosed with pneumoconiosis.

Coal mine workers diagnosed with any mine dust lung disease can submit a claim for compensation to WorkCover Queensland or the relevant self-insured employer.

Learn more about making a workers' compensation claim and the support available for workplace injuries at **www.worksafe.qld.gov.au** or contact the Mine Dust Health Support Service.


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More information

To keep up to date with the latest advice on airborne dust exposure and other mine safety and health information, visit the RSHQ website at **www.rshq.qld.gov.au**

Keep up to date and stay informed – follow RSHQ social media channels:



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