Asbestos
Review Program

Health surveillance - Care - Research

INFORMATION SHEET

Asbestos exposure, health risks and monitoring

For participants in the Asbestos Review Program

What happens after asbestos exposure?

Asbestos fibres can become airborne when asbestos-containing material is damaged, disturbed or handled.

When fibres are breathed in, some may remain in the lungs or in the lining around the lungs. In some people, this can lead to inflammation, scarring or cancer many years later.

Asbestos-related conditions often develop after a long delay. The time between exposure and disease may be several decades.

Not everyone who has been exposed to asbestos will develop disease. Some people remain well throughout their lives, even after substantial exposure.

Does asbestos exposure mean I will develop disease?

No.

Most people exposed to asbestos do not develop mesothelioma, lung cancer or another serious asbestos-related disease.

The likelihood of disease varies between individuals. Risk may be influenced by:

- the type of asbestos fibre
- how much asbestos was inhaled
- how often exposure occurred
- how long exposure lasted
- the time since first exposure
- smoking history
- age
- other lung or health conditions
- biological and genetic factors

In general, greater cumulative exposure is associated with greater risk. However, it is not possible to predict with certainty whether an individual person will develop disease.

Monitoring is offered because important changes may develop long after exposure and may not cause symptoms at first.

What conditions can be associated with asbestos exposure?

Asbestos exposure can be associated with both non-cancerous and cancerous conditions.

Non-cancerous conditions include:

- pleural plaques
- diffuse pleural thickening
- benign asbestos-related pleural effusion
- asbestosis

Cancerous conditions include:

- lung cancer
- mesothelioma

Asbestos exposure may also coexist with other lung conditions that are not caused by asbestos, such as emphysema, asthma or chronic obstructive pulmonary disease.

A CT scan may also identify findings unrelated to asbestos exposure.

What are pleural plaques?

Pleural plaques are localised areas of thickened scar tissue on the lining of the chest wall.

They are a common sign of previous asbestos exposure.

Pleural plaques:

- are not cancer
- do not become mesothelioma
- usually do not cause symptoms
- usually have little or no effect on breathing or lung function
- generally do not require treatment

They can be thought of as scars on the lining outside the lung.

Pleural plaques confirm that asbestos exposure has occurred, but they do not show how much exposure occurred or predict with certainty whether another asbestos-related condition will develop.

Do pleural plaques need treatment or separate follow-up?

Pleural plaques do not usually require treatment.

They also do not usually require extra scans solely because they are present.

A person may continue to have regular ARP monitoring because of their overall asbestos-exposure history and health risk, rather than because the plaques themselves are dangerous.

The ARP team will advise if another finding needs separate follow-up.

Do pleural plaques mean I will develop cancer?

No.

Pleural plaques do not cause lung cancer or mesothelioma and do not themselves become cancer.

They are evidence of previous asbestos exposure. That past exposure may carry some increased risk of other asbestos-related conditions, but most people with pleural plaques do not develop mesothelioma or lung cancer.

What is diffuse pleural thickening?

Diffuse pleural thickening is a non-cancerous condition in which a broader area of the lining around the lung becomes thickened by scar tissue.

It is different from pleural plaques and is not mesothelioma.

Diffuse pleural thickening may affect one or both sides of the chest. In some people it remains stable and causes few or no symptoms.

If the thickening is extensive, it may restrict movement of the lung and contribute to breathlessness.

Will diffuse pleural thickening affect my breathing?

Many people with diffuse pleural thickening have no symptoms or only mild symptoms.

Some people may experience:

- shortness of breath during activity
- reduced exercise tolerance
- chest discomfort
- a restrictive pattern on lung function testing

The effect depends on how extensive the thickening is and whether other lung or heart conditions are present.

The ARP team may monitor symptoms, lung function and CT findings over time.

Does diffuse pleural thickening progress?

Diffuse pleural thickening often remains stable, although progression can occur in some people.

The likelihood and effect of progression vary between individuals.

Regular monitoring helps identify whether there has been a meaningful change in:

- symptoms
- lung function
- CT appearances
- ability to complete usual activities

Tell your GP and the ARP if breathlessness or exercise tolerance changes.

What is asbestosis?

Asbestosis is scarring, or fibrosis, within the lung tissue caused by asbestos exposure.

It usually develops after substantial or prolonged exposure and often appears many years after that exposure occurred.

The scarring can make the lungs less flexible and may reduce their ability to transfer oxygen into the bloodstream.

Possible effects include:

- increasing shortness of breath
- reduced exercise tolerance
- a persistent dry cough

- reduced lung volumes
- reduced gas transfer on lung function testing

The term “asbestosis” should not be used to describe every asbestos-related finding.

Pleural plaques and diffuse pleural thickening are different conditions and are not the same as asbestosis.

Can asbestosis be treated?

Existing lung scarring cannot usually be reversed.

Treatment focuses on managing symptoms, maintaining function and treating other health conditions that may affect breathing.

Management may include:

- stopping smoking
- vaccinations
- regular physical activity
- pulmonary rehabilitation
- treatment of other lung or heart conditions
- oxygen therapy in selected cases
- specialist respiratory review

The most appropriate approach depends on the individual person’s symptoms, lung function, general health and other medical conditions.

How quickly does asbestosis progress?

The course of asbestosis varies.

In some people it remains stable or progresses very slowly over many years. In others, symptoms and lung function may worsen.

Regular assessment of symptoms, lung function and imaging helps the ARP team identify changes that may need further investigation or specialist review.

What is mesothelioma?

Mesothelioma is a rare cancer that most commonly develops in the pleura, the lining around the lungs.

It can also develop in the lining of the abdomen.

Asbestos exposure is the main known cause of mesothelioma. However, most people exposed to asbestos do not develop the disease.

Mesothelioma is different from pleural plaques and diffuse pleural thickening. These non-cancerous conditions do not turn into mesothelioma.

How long after asbestos exposure can mesothelioma develop?

Mesothelioma usually develops after a long delay.

It may occur several decades after asbestos exposure, including 50 years or more after the exposure occurred.

This long delay is one reason monitoring may remain relevant even when:

- the exposure occurred many years ago
- a person feels well
- earlier scans were stable
- the person is no longer exposed to asbestos

What symptoms can mesothelioma cause?

Possible symptoms include:

- increasing shortness of breath
- chest or back pain
- persistent tiredness
- unexplained weight loss
- reduced appetite
- persistent cough

These symptoms are common and can be caused by many conditions that are not mesothelioma.

Do not wait for the next ARP review if a new, unexplained, worsening or concerning symptom develops. Contact a GP for assessment.

How is asbestos exposure related to lung cancer?

Asbestos exposure increases the risk of lung cancer.

Smoking also increases lung cancer risk. When a person has both smoked and been exposed to asbestos, the combined risk is greater than the risk associated with either factor alone.

Lung cancer may not cause symptoms when it is small. Ultra-low-dose CT scanning can identify some lung cancers at an earlier stage, when more treatment options may be available.

However, CT monitoring cannot detect every cancer or guarantee that disease will be found early.

What is a lung nodule?

A lung nodule is a small spot or area seen in the lung on a CT scan.

Lung nodules are common.

They may be caused by:

- previous infection
- inflammation
- scar tissue
- benign growths
- other non-cancerous changes
- occasionally, an early lung cancer

Most lung nodules are not cancer.

The ARP team may compare a nodule with earlier scans or arrange another CT scan after a shorter interval, such as three or six months, to see whether it changes.

A recommendation for a repeat scan does not necessarily mean that cancer is suspected.

Why might a repeat CT scan be needed?

Some findings cannot be fully assessed from a single scan.

A repeat scan may be recommended to determine whether a finding:

- remains stable
- becomes smaller
- resolves
- grows
- changes in another way

The interval between scans depends on the type, size and appearance of the finding and the participant's individual risk factors.

Further assessment may include:

- comparison with earlier imaging
- repeat ultra-low-dose CT
- standard diagnostic CT
- another imaging test
- specialist review
- occasionally, biopsy or another diagnostic procedure

Why is long-term monitoring important?

Asbestos-related disease can develop slowly and may not cause symptoms at first.

Long-term monitoring allows the ARP team to:

- compare current and previous CT scans
- assess changes in lung function
- identify new respiratory symptoms
- monitor known asbestos-related findings
- identify lung nodules or other abnormalities
- recommend further assessment where needed

Monitoring may identify important changes, but it cannot prevent every disease or guarantee that every condition will be detected.

What does ARP monitoring involve?

ARP monitoring generally includes:

- health and respiratory questionnaires
- lung function testing
- ultra-low-dose CT scanning
- review of results by the ARP team
- communication of relevant findings to the participant and GP

Blood samples may also be requested for approved research where applicable.

The exact timing and components of review may vary according to individual circumstances.

Why are lung function tests important?

Lung function tests provide information that cannot be obtained from CT images alone.

They can assess:

- how much air the lungs can hold
- how quickly air can be moved in and out
- whether airflow is obstructed
- how effectively gases move from the lungs into the bloodstream

Results are interpreted together with symptoms, medical history and imaging.

Repeated testing helps identify changes over time.

What is the most important thing I can do for my lung health?

Do not smoke.

Smoking substantially increases the risk of:

- lung cancer
- chronic obstructive pulmonary disease
- heart disease
- stroke
- other serious health conditions

The combination of smoking and asbestos exposure further increases lung cancer risk.

Stopping smoking is beneficial at any age and even after many years of smoking.

Your GP, the ARP team or Quitline can provide advice and support.

Other useful steps include:

- keeping vaccinations up to date
- remaining physically active within your ability
- seeking medical advice about new symptoms
- managing other lung and heart conditions
- attending recommended health reviews

What symptoms should I discuss with my GP?

Contact your GP if you develop:

- new or worsening shortness of breath
- a persistent or worsening cough
- coughing up blood
- unexplained chest or back pain
- unexplained weight loss
- reduced appetite
- persistent fatigue
- reduced exercise tolerance
- persistent hoarseness
- difficulty swallowing

These symptoms may have many causes and do not necessarily indicate asbestos-related disease.

They should still be assessed rather than left until the next ARP review.

When should I seek urgent care?

Call Triple Zero (000) or attend an emergency department for:

- severe or sudden shortness of breath
- sudden or severe chest pain
- coughing up a significant amount of blood
- collapse
- another medical emergency

The ARP is not an emergency or acute-care service.

Important to remember

- Most people exposed to asbestos do not develop a serious asbestos-related disease.
- Pleural plaques are not cancer and do not become cancer.
- Diffuse pleural thickening and asbestosis are different conditions.
- A lung nodule is not the same as lung cancer.
- A recommendation for another CT scan does not necessarily mean that cancer is suspected.
- Monitoring cannot prevent disease or detect every condition.
- New or worsening symptoms should be assessed by a GP rather than left until the next ARP review.

Contact the ARP

Email the ARP if you have questions about:

- ARP participation
- your monitoring schedule
- an upcoming test
- an ARP result or follow-up recommendation
- updating your contact or GP details

Email: arpadmin@uwa.edu.au

For new or worsening symptoms, contact your GP.

For a medical emergency, call Triple Zero (000).