

# SILICA DUST KILLS

**NO EXCUSES, FIX THE PROBLEM**





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# SILICA DUST KILLS

Each year around 600,000 Australian workers are exposed to respirable crystalline silica (silica) dust at work.

When breathed in, silica dust is small enough to penetrate deep into the lungs, causing irreversible lung damage. It's incurable, progressive and in many cases fatal.

As one of the key components of soil, sand and granite, it's used on a vast scale across Australia in construction, tunnelling, quarrying, excavating, mining, road construction (asphalt) and many more industries.

The exposure to silica dust can be minimised at work but our current laws are a disgrace and workers' lives are being put at unnecessary risk.

Our work health and safety (WHS) laws are inconsistent from state to state and don't get enforced either. There are no national health monitoring programs to detect a dust disease before it becomes terminal and worst of all, workers who have silicosis and other dust diseases don't get industry funded compensation or help to return to work.

This is why The Australian Workers' Union (union) is demanding urgent action:

1. We need a national regulation that applies to every affected industry, outlining minimum benchmarks that must be policed and enforced with severe penalties for any employer that breaks the law.
2. The establishment of a national comprehensive health screening program both during and after employment to assist in identifying the onset of any dust-related disease, preventing the disease from becoming terminal.
3. A national register for all diagnosed cases of dust diseases, to provide information for developing practical ways to protect workers from exposure to silica and other forms of dust at work.
4. A compensation fund for workers exposed to silica dust, backed by employers, operators and manufactures, to help provide financial relief to workers (and their families) diagnosed with silica related disease and who are struggling to return to work and adjusting to life with the devastating impact of their lung disease.

# CHAPTER ONE:

## FACTS ABOUT SILICA DUST

### 1) What is silica?

Respirable Crystalline Silica (commonly referred to as silica) is a natural mineral found in:

- sand
- stone
- rock aggregates
- granite
- mortar
- clay
- marble
- concrete
- shale
- slate
- sandstone

When these materials are worked on during blasting, crushing, cutting, drilling, grinding, polishing or sawing, silica is released as fine dust into the air.

### 2) Why is silica so dangerous?

Silica dust particles are 100 times smaller than a grain of sand and cannot be seen by the naked eye, when inhaled the particles become trapped in the lungs, causing irritation. In response, immune system cells called macrophages unsuccessfully try to clear the dust particles. This can cause the macrophages to die, triggering inflammation and scar tissue formation. As more silica dust is inhaled, more scar tissue forms, making it harder to breathe and resulting in various dust diseases including silicosis and in some cases, severe auto-immune diseases.

### 3) Who is at risk?

If you work in one of these areas, you are at risk of breathing in silica dust:

- a. Mining, quarrying and mineral ore treating processes
- b. Road construction (asphalt) and tunnelling
- c. Brick, concrete or stone cutting; especially using dry methods
- d. Excavation, earthmoving and drilling operations
- e. Paving and surfacing
- f. Foundry casting
- g. Angle grinding, cutting, jackhammering or chiselling of concrete or masonry
- h. Fabrication and installation of engineered stone countertops

# CHAPTER TWO:

## SILICOSIS: THE NEW ASBESTOSIS

### 1) What is silicosis?

Silicosis is a serious, incurable, irreversible and progressive disease affecting the lungs.

It occurs with the body's immune response to the presence of silica dust in the small airways and tiny air sacs (alveoli) of the lungs and results in scarring the lung tissue. In the early stages of silicosis, there aren't any warning signs, but as the disease progresses symptoms such as shortness of breath, coughing, fatigue and weight loss develop.

Silicosis can be categorised as:

#### a. **Acute silicosis**

Results from short-term exposure to very large amounts of silica. The lungs become very inflamed and can fill with fluid, causing severe shortness of breath and a low blood oxygen level.

#### b. **Accelerated silicosis**

Develops after 3 to 10 years of moderate to high levels of silica dust exposure and causes inflammation, and scarring of the lungs (fibrotic nodules).

#### c. **Chronic silicosis**

Can develop after long term exposure to lower levels of silica dust. The silica dust causes swelling in the lungs and chest lymph nodes, resulting in difficulty breathing. This is the most common form of silicosis.

Other diseases caused by breathing in silica dust include:

- a. Lung cancer
- b. Chronic obstructive pulmonary disease (affects lung function)
- c. Kidney disease and renal failure
- d. Scleroderma (affects connective tissue, resulting in scar tissue in skin, joints or other organs of the body)
- e. Rheumatoid arthritis (severe and chronically inflamed joints in hands, hips and knees)
- f. Increased risk of autoimmune disease and tuberculosis
- g. Eye irritation and eye disease

## 2) How many workers are affected by silica dust exposure and silicosis?

The Cancer Council estimates that approximately 600,000 Australians are exposed to silica dust at work each year. However, silicosis is often not diagnosed until it is in its advanced stages. Approximately 350 Australians contract silicosis a year. A further 230 people annually are estimated to be diagnosed with lung cancer caused by exposure to silica dust in the workplace.

## 3) Faces of silica dust exposure

### Allan, 43



**When Allan began to lose weight and felt constantly tired, he knew something was up with his health.**

But it was still a complete shock when he found out he had silicosis in 2019. Allan said: "I am just 43 years old and want to be there to see my grandkids grow up. Whilst I am pretty stable now, I just don't know how long that will last. That's not a good feeling."

Allan, from Brisbane, was exposed to silica dust whilst making concrete fibre reinforced pipes. "I didn't feel particularly comfortable with the amount of dust around but until I was diagnosed with silicosis, I didn't know much about it."

After a series of tests, WorkCover eventually declared he had chronic silicosis and his job became untenable due to health risks.

His lawyer, Jonathan Walsh of Maurice Blackburn says it's important workers pursue their legal entitlements to protect their financial interests and help secure their families' future.

Allan, who has been married to his childhood sweetheart for 20 years and



has two kids, added: "There was no choice but to leave. I had been there for 14 years and had worked up to being in the lab. I'm trying to reskill, but it's been difficult and I was recently in hospital again."

"After reading about silicosis, I found out that employers have known the risks but they've just not taken it seriously or made enough people aware of the risks."

## Kevin, 53



**In 2019 Kevin received a phone call that changed his life.**

The quarry worker was told he had silicosis but not to panic but he should get his affairs in order.

Kevin, 53, said: "I'd been working with the company for almost 28 years. Everyday walking around the site, thinking we were ok and safe. But we weren't. I wasn't that aware that I could get silicosis from what I was doing. But there was dust in the air, you could see the dust in the air."

"It was picked up in an x-ray that there were white spots in my lungs. It was tough to come home and tell my wife and explain it all to my kids as well. It could be 12 months, it could be five years, nobody knows."

"Day to day it slowly creeps upon you, it's not a big change. You might feel all right, but in the back of your mind you know it's there and it's wearing you down."

Kevin says the company failed to protect him and other workers. "For years we had inappropriate PPE, safety rules and regulations, I was even offered second-hand equipment. This should have never happened."

"I shouldn't have contracted silicosis, it was preventable, but my employer failed me. Things need to change across workplaces in Australia, employers must be held accountable and pay for the damage they cause to workers."

Kevin also had to deal with his employment ending as he was declared medically unfit for work.

## Joanna, 34



**After returning from maternity leave, Joanna was asked to undergo a fit for work test. The test result changed her life in an instant.**

The 34-year-old mother of two girls was diagnosed with silicosis.

Joanna said: "It's the unknown which is so terrifying. What I have since learnt about silicosis is that there is no cure and you just don't know how it will progress. At the moment I am feeling healthy, but I don't know if that will be the case in one

year, let alone five or ten years and as a mum of two young daughters that terrifies me."

Joanna contracted silicosis whilst working at a quarry in Montrose, Victoria. She was initially employed in an admin role but it also involved more hands-on work, and for her to visit all parts of the site.

"No matter where you were in the plant you would be exposed to dust. It would be all over your clothes and skin."

"I fear this will affect my life and my family's life and I am angry. I should never have been exposed to this disease."

"There is no information in my employer's induction packs about exposure to silica dust, despite being a large multinational company. There are still no signs and warnings around the plant to warn workers. People need to be aware of this."

## Alan, 34

**Alan was not alone when he discovered he had silicosis. Three other workers at his quarry were also given the terrible news on the same day.**

Alan had worked at the quarry in Victoria for 15 years. He said: "This just came out of the blue. I play a lot of sport, have two young kids and loved my job. Then to be told that I have this disease, a disease that I have seen wreak havoc on other workmates. It's just thrown my life up in the air."

"I started there when I was 18 years old as a mill operator. I milled sand into silica and bagged it. My exposure was very high risk."

"At the minute I am still ok health-wise, but I can't take the risk of working anywhere now where I might be exposed to silica."

"The scary thing about this is that it affects people like me who are relatively young, not like asbestos which gets you many years later."

"We need to change the way this disease is regulated in Australia and make sure that employers don't just get away with breaking laws. Laws that need to be toughened up and enforced."

Alan is now on 'workers' compensation. "I now have to find an entirely new career, but it can't be anything like what I am trained for."

## Craig, 60



**Craig has resigned himself to the fact that he will never work again after being diagnosed with silicosis at the age of 60.**

Craig had worked in the same quarry for 36 years and believes he contracted the disease when packing silica dust into bags or loading the bags onto pallets. With the help of Maurice Blackburn Lawyers, Craig successfully pursued compensation to recover his lost income.

He said: "I was diagnosed with silicosis - a condition I hadn't heard of before. I had not expected to stop working at 60 and not planned for that scenario at all."

# CHAPTER THREE:

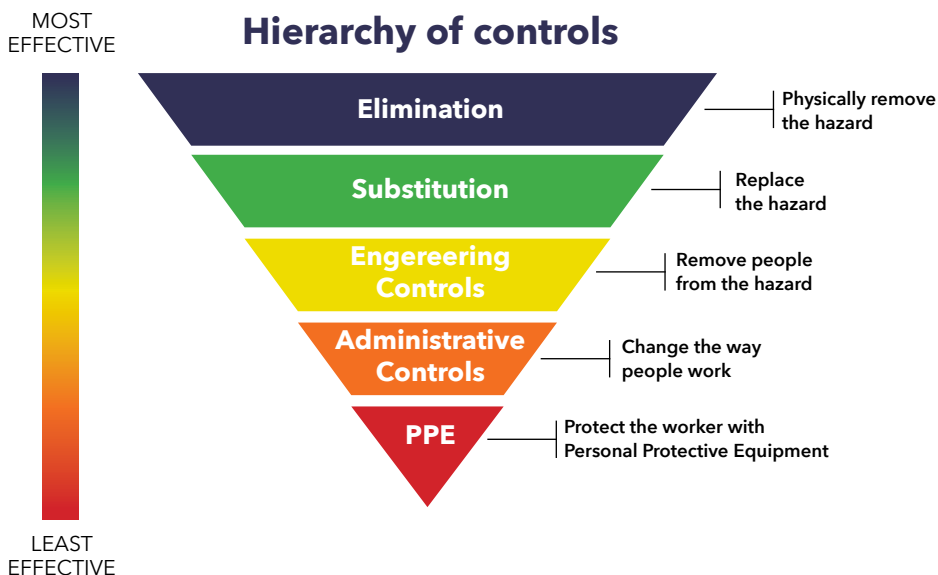
## CONTROLLING THE RISKS

The purpose of WHS laws and regulations are to (1) eliminate risk to workers' health and safety and if this is not possible then (2) minimise risks to the health and safety of workers.

Employers at a minimum have a duty of care under WHS laws to control the risks to workers' health and safety arising from the business or undertaking by using the hierarchy of control.

### 1) Hierarchy of control

The hierarchy of control is a system for controlling risks in the workplace. The hierarchy of control is a step-by-step approach to eliminating or reducing risks and it ranks risk controls from the highest level of protection and reliability through to the lowest and least reliable protection.



Elimination and substitution are not feasible for industries such as road-making, tunnelling, mining, quarrying and manufacturing of construction materials such as cement, concrete and asphalt. Owing to the nature of the products and materials used in these industries, silica cannot be easily removed or substituted.

Therefore, when it is not reasonable to eliminate the exposure to silica dust, employers must reduce silica dust exposure risk by doing the following:

## **2) Minimising the risks to silica dust exposure**

### **a. Workplace Exposure Standard (WES)**

There is no safe level of exposure to silica dust.

However, under WHS laws the legal exposure standard must not be over 0.05mg/m<sup>3</sup>, averaged out over eight hours, five days a week. This average is based on a standard work week. If you have different shift patterns, then the concentration of silica dust will need to be adjusted. For example, if you work 12-hour shifts 4 days a week, then your WES limit is 0.042mg/m<sup>3</sup>.

### **b. Air monitoring**

Under WHS laws, your employer must monitor levels of silica dust in your workplace regularly i.e., every 12 months or when a change in the workplace warrants it to ensure it complies with the WES (see above). The person measuring the silica dust exposure levels must be a 'competent person', that is, a certified occupational hygienist. To accurately measure exposure levels on-site, the hygienist must measure the air during all work patterns and hazards involved with the work.

The air monitoring records must be kept by the employer for 30 years and provided to any worker when requested.

Air monitoring does not reduce silica dust exposure, it simply tells you how much silica dust is in the air.

The following risk control measures must be undertaken by your employer in areas where there is potential silica dust exposure.

### **c. Ventilation**

Work must only be done in well-ventilated areas. Worksites must have enclosures or hoods to separate workers from the source of the dust. For example, for tunnel workers, this can be working in an air-conditioned enclosed cabin.

However, in some industries, it may not be possible to isolate workers from the hazard i.e. in an enclosed space free from silica dust. In this situation,

local exhaust ventilation (LEV) systems must be in place to remove the dust at the point it's produced.

#### **d. House keeping**

Regular housekeeping in dusty work areas must take place to prevent the accumulation of dust.

#### **e. Amenities**

Workers must be provided with separate clean amenities room or area away from silica dust exposure for:

- food preparation and eating;
- showering; and
- work laundry for dusty clothes.

#### **f. Health Monitoring**

Health monitoring measures changes in your health. Your employer must provide health monitoring to all workers who may potentially be exposed to silica dust. The health monitoring should include a:

- CT scan every 5 years
- Occupational history exposure record and review every 12 months
- Respiratory (breathing/lung) function test every 12 months

Workers' health must be monitored before commencing employment, during employment and when ceasing employment.

The health monitoring must be supervised by an appointed medical practitioner (AMP), who should be chosen by the employer in consultation with workers.

Under WHS laws, workers must be provided with a copy of the health monitoring report from the AMP. The health monitoring report cannot be used for any other reasons.

#### **g. Respiratory Protective Equipment**

The use of Respiratory Protective Equipment (RPE) should only occur after the employer has exhausted all other avenues of eliminating the risks associated with silica dust exposure. As a minimum an employer must comply with the following:

- Select RPEs per AS/NZS 1715, for example, a reusable half-face respirator with a P2 filter or preferably a powered air-purifying respirator (PAPR).
- RPEs must be correctly sized/fitted and maintained i.e.

- o Fit testing carried out by a competent person for each worker
- o A written record of fit tests kept by the employer
- o RPE storage conducted per AS/NZS 1715
- Ensure workers are clean-shaven or workers with facial hair are provided with suitable RPE (e.g., hood style powered air-purifying respirator PAPR).
- Ensure that RPE is worn at all times where there may be a risk of exposure to silica dust.
- Provide training to workers by an occupational hygienist on the use and maintenance of RPEs.

#### **h. Information and training**

In addition to the controls identified above, regular training and instructions to workers on minimising silica dust exposure must also be provided. Records of information, instruction and training concerning silica dust must be maintained.

### **3) WHAT ACTIONS CAN I TAKE?**

If your employer is not applying the hierarchy of control to eliminate or reduce the risks of silica dust exposure:

- a. Raise the problem with your employer, providing them with an opportunity to respond and fix the issue.
- b. Ensure you and your workmates demonstrate visible support for solutions to minimise the risks of silica dust exposure.
- c. If your employer fails to or refuses to make the situation safe, contact your union HSR/Delegate or Organiser immediately.

## CHAPTER FOUR: CONSULTATION

In controlling the risks of workplace silica dust exposure, employers must consult with workers (including HSRs) and their union on numerous issues (including when considering making any changes that may have an impact on these issues) such as:

1. Managing risks of silica dust exposure
2. Making changes to processes or procedures that generate silica dust
3. Making changes to controls to protect workers from silica dust
4. Providing health monitoring to workers exposed to silica dust
5. Monitoring the conditions at the workplace
6. Provision of information and training for workers

Employers are unable to make any changes in the workplace relating to health and safety unless they have consulted with workers.

Consultation is not the employer informing workers of a decision they have made. Consultation requires employers to:

1. Provide workers with all the relevant information about the health and safety matter and an opportunity to consider all the relevant information
2. Empower workers to express their views and to raise concerns about the issue
3. Allow workers to contribute to the decision-making process relating to the matter
4. Take into account the views of the workers



# CHAPTER FIVE:

## WORKERS' COMPENSATION

### 1) What do I do if I have health concerns?

If you work in an industry where you are exposed to silica dust and experience:

- a. Persistent shortness of breath
- b. Coughing
- c. Unexplained fatigue
- d. Chest pain, which worsens with deep breathing, laughing or coughing
- e. Changes to voice (such as hoarseness)
- f. Recurring bronchitis or pneumonia
- g. Tightness in the chest

See your GP as soon as you can and inform them of your occupation and dust exposure. In providing them with your occupation, you should provide them with the number of years you have worked in a dusty workplace and the type of materials to which you have been exposed. You should also insist on referral for a CT scan, as many early-stage lung diseases are not visible on a regular chest x-ray and a lung function test.

### 2) Claiming Workers' Compensation

If you have been diagnosed with silicosis, or another type of dust-related lung and/or auto-immune disease, you may be entitled to workers' compensation. You can make a compensation claim, even if:

- a. You are no longer working at the site where exposure to silica dust occurred
- b. You were exposed to dust many years ago
- c. Your employer has since gone out of business
- d. You were exposed to dust at multiple workplaces
- e. You were self-employed or a contractor
- f. You smoke cigarettes.

Workers' compensation is complex. Dust diseases like silicosis are equally as complex. Therefore, always contact your Delegate/HSR or Organiser for

advice on how best to proceed with a workers’ compensation claim. It is best to get legal advice at the time of lodging your ‘workers’ compensation claim for silicosis or silica related work injury.

The AWU has partnered with one of the largest and passionate workers’ compensation law firms in Australia, Maurice Blackburn. Maurice Blackburn has special industry expertise and technical knowledge of the workers compensation system across Australia. In particular, they have a specialised team of Dust Disease lawyers who act for workers across the country in every jurisdiction.

Maurice Blackburn will be able to assist AWU members in making compensation claims for any work-related injury or illness, including illness caused by exposure to silica dust. AWU members will also receive priority service from Maurice Blackburn Lawyers as part of their membership with the union.

Also, Maurice Blackburn has a no-win, no-fee policy, which means AWU members do not have to pay any legal fees until they have successfully secured compensation.

When making a workers’ compensation claim	
Do’s	Don’t
Report the illness or injury to your supervisor and in your employer’s, injuries register	Be talked out of making a compensation claim
Get a “Certificate of Capacity” from your GP to initially support your claim	Be told which doctor to see - choosing your doctor is your right
See your own doctor, not the company doctor	Allow an employer representative to come to your doctors’ appointments
Keep copies of documents and keep a diary	Agree to give a statement without first seeking advice from the union
Contact the union for help and advice about your legal rights	Go it alone - contact the union for help and advice



## **SIGN THE PETITION**

It took two decades to make James Hardie pay for what they did and for the truth to come out about asbestos.

Don't allow asbestos history to repeat itself.

Scan on the QNR code to support the AWU's campaign and protect the 600,000 Australian workers who are breathing in this deadly silica dust every single day.



## **CONTACT THE UNION**

Contact your AWU HSR/Delegate or Organiser for more information, advice and/or representation.

### **Queensland Branch**

Toll-Free: 1800 298 753

### **New South Wales Branch**

Toll-Free: 1300 763 223

### **Victoria Branch**

Toll-Free: 1300 362 298

### **South Australian Branch**

Phone: (08) 8360 1900

### **West Australian Branch**

Toll-Free: 1800 810 723

### **Tasmania Branch**

Toll-Free: 1300 795 677