



DAC BEACHCROFT

SILICA: THE NEW ASBESTOS

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SILICA: THE NEW ASBESTOS?

1. What is Silica/Respiratory Crystalline Silica?
2. Why and how is Silica exposure dangerous to human health?
3. Who is at risk?
4. Silicosis and other health conditions
5. Legal basis for claims and the current regulatory framework
6. Recent developments internationally
7. Spotlight on Silicosis: All Party Parliamentary Group
8. Forecast - The New Asbestos?

SILICON AND ITS COMPOUNDS



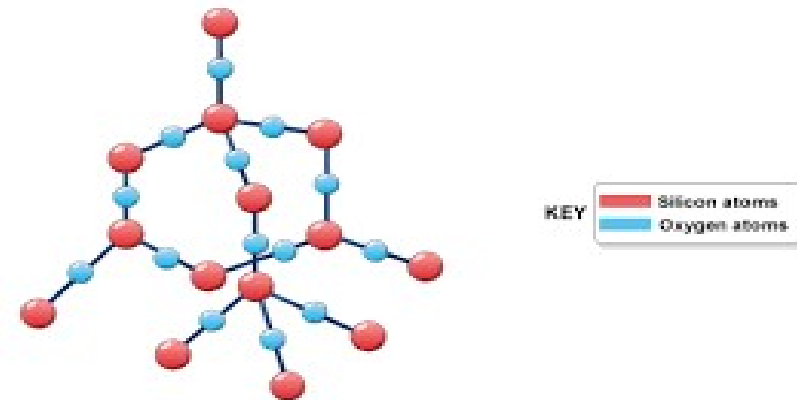
Silicon is a chemical element

It is the most common in the Earth's crust after oxygen

SILICON DIOXIDE 'SILICA'

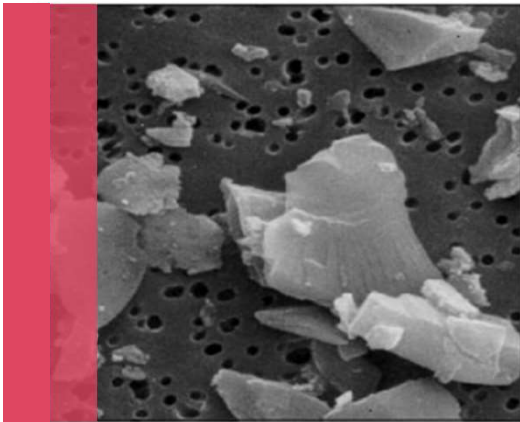


Silicon dioxide, also known as silica, is a compound made out of silicon and oxygen atoms.



RESPIRATORY CRYSTALLINE SILICA

RCS is created when you cut, grind, saw or drill substances which contain silica such as sand and concrete



WHO IS AT RISK?

- Quarrying
- Slate Work
- Foundries
- Potteries
- Stone Masonry
- Construction workers
- Kitchen and bathroom installers
- Workers involved in fracking
- Textile workers working with stonewash denim

HSE estimates that 600,000 workers are exposed to silica

IOSH estimates that 81% of those are in the construction industry or in the manufacture of products used in construction

WHO IS AT RISK?

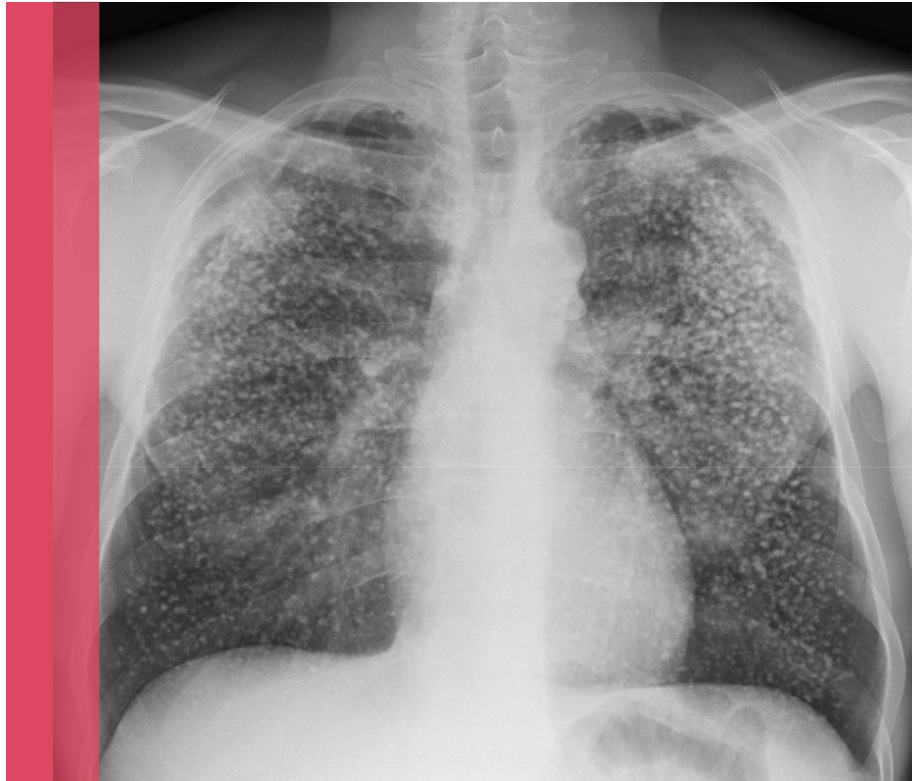
- Stonemasons and bricklayers (26%)
- Other construction-related occupations (25%)
- Mining and quarrying (20%)
- Foundry-related occupations (13%)

WHO IS AT RISK?

- Those who work with artificial / engineered stone



IMPACT ON HEALTH : SILICOSIS



TYPES OF SILICOSIS

Variety	Latency	Radiological Evidence	Symptoms	Lung Function Results
Simple chronic	>10 years	Nodules <10mm	n/a	Normal
Complicated chronic	>10 years	Masses >1cm	SOB and cough	Obstructive or restrictive changes
Interstitial pulmonary fibrosis	>10 years	Diffuse reticular shadowing	SOB and cough	Obstructive or restrictive changes
Accelerated	5-10 years	Rapidly progressing nodules and masses	SOB and cough	Rapidly deteriorating lung function (FVC and FEV1)
Acute	<5 years	Bilateral acinar pattern similar to alveolar proteinosis	SOB	Restrictive changes

DIAGNOSIS OF SILICOSIS

Simple silicosis results in small white spots (nodules) visible on chest x-ray or CT scan. With complicated silicosis there are large areas of scarring called progressive massive fibrosis.

In terms of radiology a chest x-ray should show evidence of:

- small nodules in the upper lobes of the lung (simple silicosis)
- areas of opacities with a ground glass appearance
- evidence of calcification



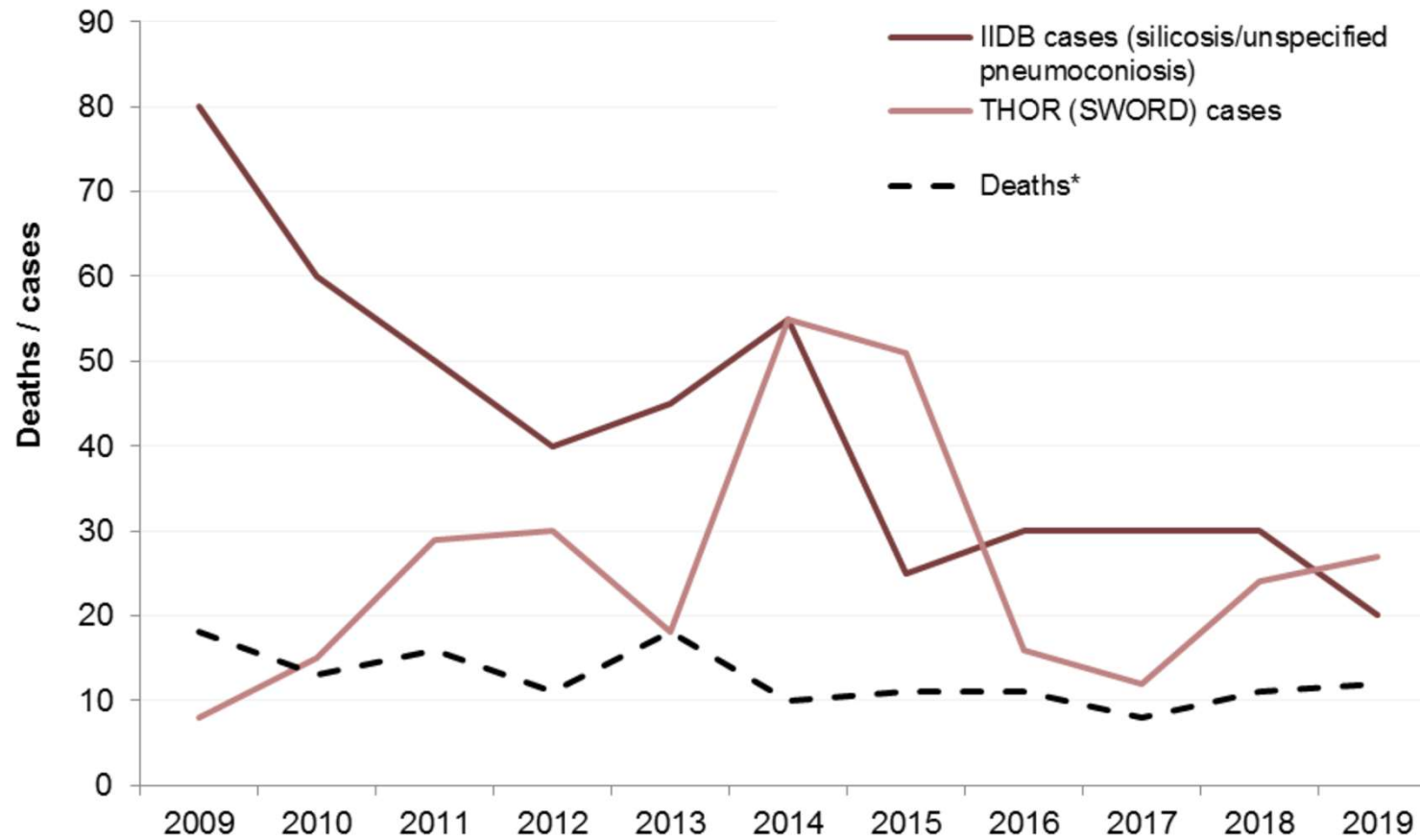
OTHER HEALTH CONDITIONS

- Lung Cancer
- COPD
- Chronic bronchitis
- Dermatitis
- Silicosis impact on lung function can have secondary effects
 - Increased susceptibility to tuberculosis
- Other Auto Immune Conditions
 - Rheumatoid Arthritis
 - Systemic sclerosis
 - Lupus
 - Kidney disease

OTHER HEALTH CONDITIONS CONT....

- Badenoch v Granite Transformations Pty Ltd [2022] NSWDDT 1 (17 March 2022)
- Plaintiff allowed to bring claim for silica induced lymphadenopathy

HOW COMMON IS SILICOSIS?



CLAIMS- PRE COSHH

- Claims for silicosis may arise as a result of working practices which took place a long time in the past and could pre-date the COSHH Regulations. When considering the relevant statutory provisions one must consider the premises in which the exposure took place.
- For example, if exposure took place in a Factory then the Factories Act 1961 will need to be considered.
- Equally if exposure took place in a quarry then the Mine & Quarry Act 1954 will apply.
- Depending on the nature of the alleged exposure the usual pertinent points of the relevant regulations will need be applied.

CLAIMS POST COSHH

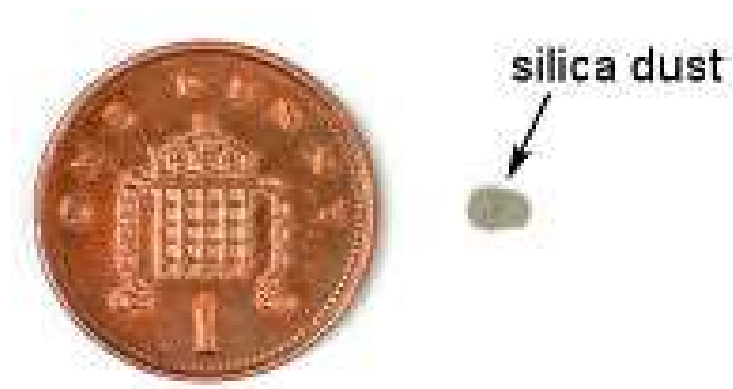
This will relate to any exposure post 01/10/89.



Employers must comply with COSHH and broadly need to:

- Assess the risks to health by way of a risk assessment;
- Consider where practicable substituting material with a lower RCS content;
- Prevent or control exposures to RCS by following good occupational hygiene practice to achieve adequate control of exposure;
- Where necessary provide employees with personal protective equipment;
- Instruct and train employees to use equipment properly, and inform employees about health risks.
- Ensure exposure below the WEL

WORKPLACE EXPOSURE LIMITS



SILICOSIS GLOBALLY

- South African Silicosis Settlement
 - International litigants pursuing UK parent companies in domestic courts for exposure to RCS overseas while employed by UK subsidiaries
- Australian Stone Mason Study
- Australia - Class action against manufacturers of popular kitchen stone benchtops

SPOTLIGHT ON SILICOSIS

- All Party Parliamentary Group report 2020
 - Found a widespread lack of understanding amongst workers and employers of the significance of the hazard presented by RCS
 - Shortcomings in diagnosis
 - Lack of qualified occupational health provision for all workers

SPOTLIGHT ON SILICOSIS

- Jim Shannon MP, Chair of the APPG, summarised the outcomes of the Group's review as follows:

'Our recent joint parliamentary inquiry heard expert evidence that workplace exposure limits for RCS are too high, there are difficulties in diagnosis due to pressure on GPs' time and problems accessing expert specialists, and there is a widespread lack of understanding among construction workers and employers of the risks around RCS. We're calling on the Government to take crucial steps to address these issues and protect construction workers from what could develop into a future occupational health epidemic'.

ALL PARTY PARLIAMENTARY GROUP RECOMMENDATIONS

- Silicosis is included as a reportable condition under RIDDOR
- Development of a targeted awareness campaign
- Government introduce new H&S regulations specifically relating to control of RCS to bring it in line with asbestos
- NHS investigates the introduction of an appropriate screening programme for those exposed to RCS
- Reduction in the workplace exposure limit

SUMMARY

- Silicosis is not a new phenomenon but a historical disease and claim numbers have historically been modest
- Silicosis and silica related health issues are underdiagnosed and lack of claims has been attributed to a lack of awareness
- Potential to affect younger workers than asbestos
- Engineered stone has a high silica content and is now a prevalent building material
- If APPG recommendations are followed then a targeted awareness campaign and NHS screening programme for those exposed to RCS will no doubt increase the number of diagnoses
- Other conditions other than silicosis
- A Silica Dust Register has been launched by law firm and unions
- Evidence is that there will be an increase in incidences of claims as demonstrated in particular in the US and Australia

ANY QUESTIONS?



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