



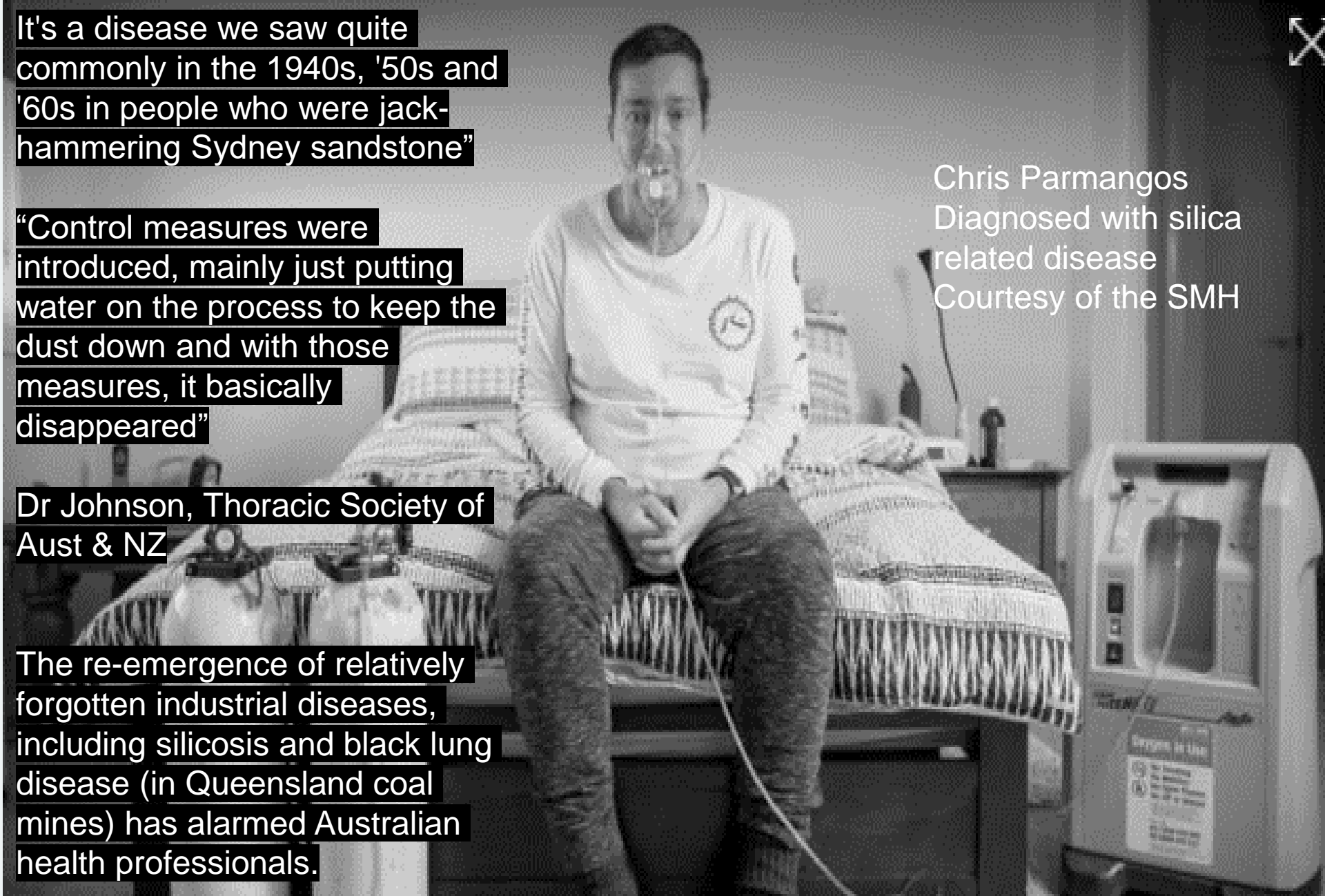
**SafeWork
Regional Operations and
Sector initiatives**

**Silica Related Dust
Diseases
Construction**

Presenter

**Daniel Middleton / Michael
Weller**

SafeWork NSW



Chris Parmangos
Diagnosed with silica
related disease
Courtesy of the SMH

It's a disease we saw quite commonly in the 1940s, '50s and '60s in people who were jack-hammering Sydney sandstone"

"Control measures were introduced, mainly just putting water on the process to keep the dust down and with those measures, it basically disappeared"

Dr Johnson, Thoracic Society of Aust & NZ

The re-emergence of relatively forgotten industrial diseases, including silicosis and black lung disease (in Queensland coal mines) has alarmed Australian health professionals.

HAZARDOUS CHEMICALS STRATEGY



WORK HEALTH AND SAFETY ROADMAP FOR NSW 2022

*We believe you should
be safe and supported*
SAFework NSW



LET'S TALK SAFETY



2017-2022 HAZARDOUS CHEMICALS AND MATERIALS EXPOSURES BASELINE AND REDUCTION STRATEGY

OCTOBER 2017



LET'S TALK SAFETY

- 
- **Working with and building industry capability**
 - **AWARENESS**
 - **SITE VISITS/INTERACTIONS**
 - **LEGISLATIVE CHANGE**
 - **BENCHMARK INTERNATIONAL PRACTICE**

HEALTH EFFECTS

SILICOSIS

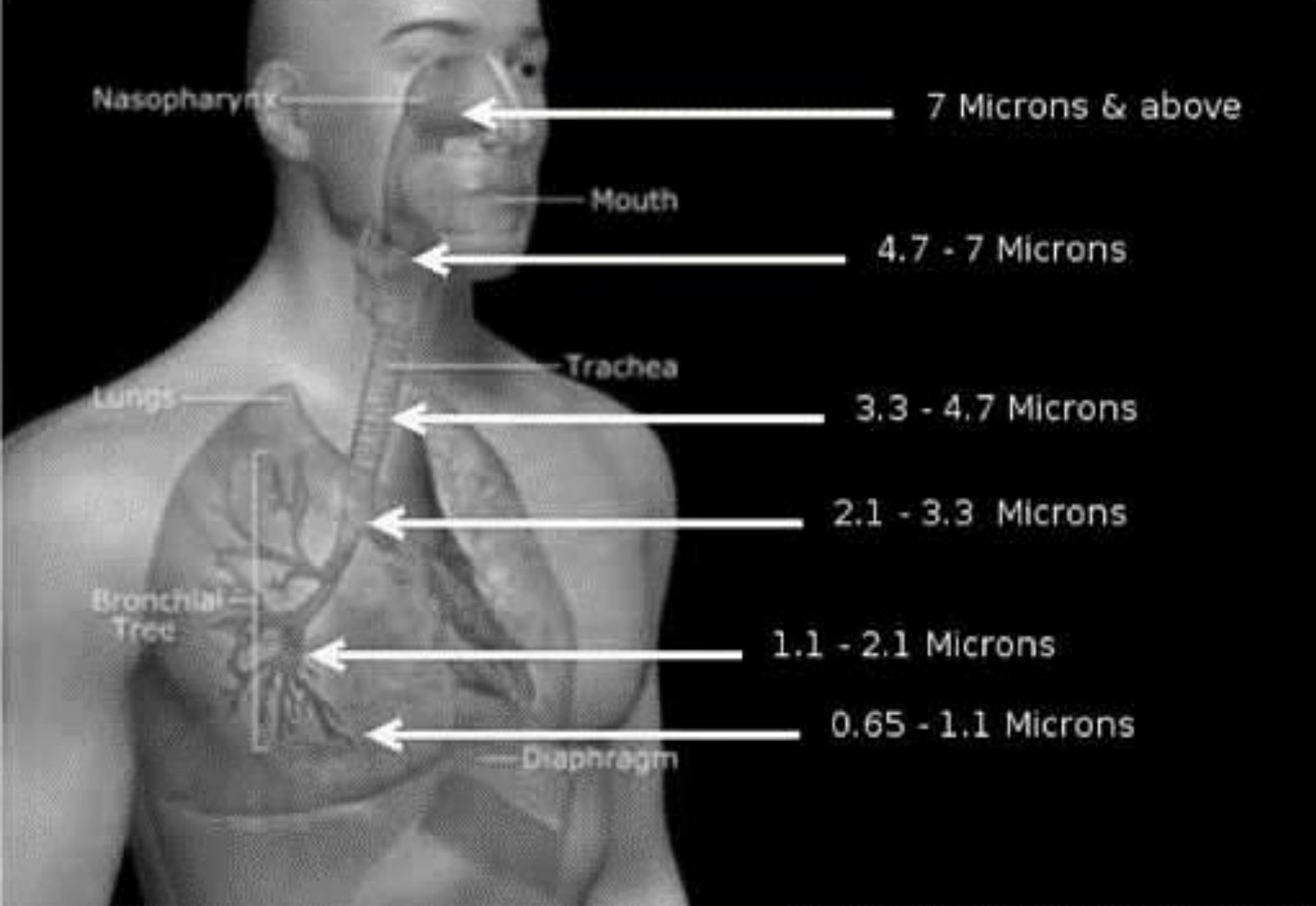
Classic

Accelerated

Acute (very rare)

LUNG CANCER

CHRONIC
OBSTRUCTIVE
PULMONARY
DISEASE (COPD)



WHAT COMMON PRODUCTS HAVE HIGH SILICA CONTENT

Material	Crystalline silica content %
Sandstone	70 – 90
Concrete/Mortar	25 – 70
Tile	30 - 45
Granite	20 – 45 (typically 30)
Slate	20 - 40
Brick	Up to 30
Manufactured stone	90

UK Health and Safety Executive “Control of Exposure to Silica Dust – A Guide for Employees” 2013 and Hoy RF, et al. *Occup Environ Med* 2017;0:1–3. doi:10.1136/oemed-2017-104428



RESIDENTIAL CONSTRUCTION HIGH RISK SILICA TASKS

Workers in NSW at risk of high exposures include:

Hand demo and strip out for renovation

Masonry repointing

Stonemasons

Stone bench top installation involving cutting


Hand mixing cement

Cutting brick and fibro board

Jackhammering

Tiling

Brick cutting

A person wearing a white protective suit and a dark mask is working on a wall. The wall has a large, irregular crack running diagonally across it. The person is using a tool, possibly a chisel or a small hammer, to work on the wall near the crack. The background is a plain, light-colored wall.

A visible dust cloud is a good indication

Respirable size particles are tiny so *the absence* of a visible dust cloud does not necessarily mean there is no risk.



**DON'T IGNORE;
MANAGE SILICA
RISK**

PPE (P2) IS RECOMMENDED BUT ONLY HALF THE STORY

Guard required

½ facepiece reusable and disposable respirators have an assigned protection factor of 10x for RCS dust, if correctly worn

Powered Air Purified Respirators (PAPR) are powered respirators providing a higher level of comfort for the wearer

RIGHT GEAR FOR THE JOB:

WET CUT

CLASS M OR CLASS H (HEPA) VACUUM EXTRACTION

RIGHT BLADE





Safety

Best practice guide

Working safely with fibre cement products

Tools

James Hardie® has been actively working with tool and blade manufacturers to develop tools to specifically minimise dust exposure.

HARDIBLADE® SAW BLADE

The only blade recommended by James Hardie.

NEVER USE A CARBIDE FRAMING BLADE OR CONTINUOUS RIM DIAMOND BLADE.

HardiBlade Saw Blade generates larger dust particles and reduces the risk of respirable silica.

The 185mm diamond tip HardiBlade Saw Blade fits a dust reducing 185mm circular saw and the Makita LS0714 190mm dual slide compound mitre saw. Always use circular saws outdoors and in a well ventilated area.

MAKITA 5057KB 185MM CIRCULAR SAW

- Easily attaches to tool start vacuum with HEPA filter to further reduce dust exposure
- Remote guard lever allows for plunge cutting
- Fully enclosed upper guard
- Rigid aluminium base provides greater stability and accuracy
- 60mm cutting depth capacity
- 90° to 45° base adjustment
- Easy emptying dust collector



HEALTH MONITORING

- If you use the right PPE and dust control tools all available evidence indicates that this works.
- Icare Dust Diseases Care.
- Lung Bus.
- ½ hour of your time to have your lungs checked.

