TOOLBOX TALK · HEALTH & SAFETY

Silica Dust: *The Damage You Breathe In*

COSHH 2002: respirable crystalline silica, the workplace exposure limit, water suppression, extraction and why a dust mask off the shelf is not enough.

Last reviewed: August 2026 HSE · COSHH 2002 England, Scotland and Wales ukworkrights.co.uk

In Northern Ireland, similar duties come from Northern Ireland's own health and safety law. Contact HSENI (Health and Safety Executive for Northern Ireland), not the HSE.

THE RISK

Why construction dust kills

- **Respirable crystalline silica (RCS)** is released when you cut, grind, drill or break concrete, brick, stone, tile, mortar and some engineered stone
- It causes **silicosis, which is incurable and progressive**, plus chronic obstructive pulmonary disease and lung cancer
- The particles that do the damage are **too fine to see**, if you can see dust hanging in the air, far more is invisible
- Symptoms often appear **years after exposure**, by which point the damage is permanent
- Engineered stone worktops have caused a **resurgence of severe, rapid-onset silicosis** in younger workers internationally
- Silicosis is not on the RIDDOR list of reportable diseases, but a cancer diagnosed and attributed to work exposure to a known human carcinogen must be reported

THERE IS NO TREATMENT

Silicosis cannot be cured or reversed. Lungs do not recover. Every control you use today is the only protection you will ever get for the exposure happening now.

THE CONTROLS

What works

- **Eliminate the dust first**: order materials cut to size, use pre-formed products, or use a different method entirely
- **Water suppression**: enough water, fed continuously, not a quick splash at the start
- **On-tool extraction**: an M or H class vacuum designed for the tool, emptied and maintained
- **RPE comes last**, and only after the other controls are in place, usually FFP3 as a minimum for silica
- RPE must be **face-fit tested to the individual**, and a tight-fitting mask cannot seal over a beard
- Controls must be **maintained and examined**, and extraction units need regular testing
- Where exposure is significant, **health surveillance including lung function testing** is required

A SHOP-BOUGHT DUST MASK IS NOT RPE

A nuisance dust mask offers almost no protection against respirable silica. Adequate RPE is rated, face-fit tested to the person wearing it, and used alongside water or extraction, never instead of them.

YOUR RIGHTS

What you're entitled to

- **Controls provided and maintained free of charge**, Health and Safety at Work etc. Act 1974 s.9 means you never pay for RPE or PPE
- **Face-fit testing** for any tight-fitting mask you are required to wear
- **Information and training** on the risk and how to use the controls
- **Health surveillance** where exposure warrants it, in working time and at no cost to you
- Somewhere clean to **eat and drink away from the dust**, and facilities to wash
- Protection from **detriment for raising dust concerns** (Employment Rights Act 1996 s.44 and s.100)

BEARDS AND TIGHT-FITTING MASKS DON'T MIX

Facial hair at the seal breaks the mask's protection completely. If you have a beard, you need a powered hood or loose-fitting respirator, and your employer must provide it.

COMMON QUESTIONS

Frequently asked questions

Q Is a normal dust mask enough for cutting concrete?

No. A basic nuisance dust mask gives almost no protection against respirable crystalline silica. You need adequate RPE, typically FFP3 as a minimum, face-fit tested to you, and it should be used alongside water suppression or on-tool extraction rather than instead of them.

Q Can I be charged for my own mask?

No. Section 9 of the Health and Safety at Work etc. Act 1974 prohibits employers charging employees for anything provided to meet a specific health and safety requirement. That includes RPE, face-fit testing and replacement filters.

Q What health surveillance should I get?

Where exposure to silica is significant, COSHH requires health surveillance, which typically includes a respiratory questionnaire and lung function testing, repeated periodically. It must be provided in working time at no cost, and you are entitled to be told your own results.

FOR WHOEVER RUNS THIS TALK

Delivery notes & attendance record

Before you start

Bring the point home with the cutting task people do most often here. Silicosis is irreversible and there is no treatment. The two controls that work best are water suppression and on-tool extraction. Masks come third.

Questions to ask the team

1. Which jobs here produce the most dust, and what do we do about it?
2. Is water suppression or on-tool extraction available, and is it used?
3. Has anyone been face-fit tested for the mask they use?
4. Could the material be ordered cut to size so we don't cut it here at all?

The law behind this talk

Control of Substances Hazardous to Health Regulations 2002 (regs. 6, 7, 9 and 11: assessment, control, maintenance of controls and health surveillance); Health and Safety at Work etc. Act 1974 s.2(2)(c)

Employers must give workers comprehensible information, instruction and training on the risks they face, Health and Safety at Work etc. Act 1974 s.2(2)(c) and Management of Health and Safety at Work Regulations 1999 reg. 10. Keep the record below as evidence that you did.

Attendance record

Topic	Silica Dust: The Damage You Breathe In
Date	
Site / location	
Delivered by	
Actions agreed	
Next talk due	

Attendees

Name	Signature

Use the Print handout button to print this record. General information only, not legal advice. This toolbox talk is generic material and is not a substitute for a suitable and sufficient risk assessment by a competent person. Employers remain responsible for their duties under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999.

FREE H&S GUIDES

Silica Dust *free guide*

Get plain-English information on your rights and your employer's legal duties.

HSE INFOLINE
0300 003 1647
hse.gov.uk

ACAS
0300 123 1100
acas.org.uk

CITIZENS ADVICE (ENGLAND)
0800 144 8848
citizensadvice.org.uk

CITIZENS ADVICE (WALES)
0800 702 2020
citizensadvice.org.uk

CITIZENS ADVICE SCOTLAND
0800 028 1456
cas.org.uk

UK WORK RIGHTS
Silica Dust
ukworkrights.co.uk/toolbox-silica.html

General information only, not legal advice · © UK Work Rights Ltd · Company No. 17228507 · ICO Registration No. ZC239465 · Registered office: 71–75 Shelton Street, Covent Garden, London, WC2H 9JQ · hello@ukworkrights.co.uk
Published by UK Work Rights Ltd
Contains public sector information licensed under the Open Government Licence v3.0.

OTHER WAYS TO GET HELP

Ways to contact Acas

- Helpline: 0300 123 1100, Monday to Friday, 8am to 6pm.
- Another language: call the helpline and ask for an interpreter. Acas says it can provide one straight away.
- Welsh: Acas can provide its services in Welsh if you ask.
- Cannot hear or speak on the phone: Relay UK, 18001 0300 123 1100, on the Relay UK app or a textphone. You type what you want to say and get text replies from the adviser.
- British Sign Language (BSL): call the helpline through the InterpretersLive! video relay service, in your browser or on the InterpretersLive! app. The interpreter calls Acas and translates between you and the adviser.
- If you cannot call the helpline (for example, you find it hard to speak on the phone, you are not in the UK, or you don't have enough phone credit), use the Acas accessibility form to ask for advice another way. Acas usually replies by email within 10 working days, by BSL or lip reading video call within 2 working days, or by phone within 5 working days. Acas reviews these requests Tuesday to Friday, 9am to 5pm.
- Early conciliation: if your case is already in conciliation, contact your conciliator. Their details are in your "Introducing Your Conciliator" email.
- Training, mediation support, collective conciliation or arbitration (not advice): Acas Training and Customer Services, 0300 123 1150, Monday to Friday, 9am to 5pm, or email events@acas.org.uk. Relay UK: 18001 0300 123 1150. You can ask for an interpreter or call through InterpretersLive!. To book a BSL interpreter in advance for any Acas service, email events@acas.org.uk or call 0300 123 1150.

OTHER WAYS TO GET HELP

Ways to contact Citizens Advice in England

- Adviceline: 0800 144 8848. Usually open Monday to Friday, 9am to 5pm, not on public holidays. Free from mobiles and landlines. At busy times you might wait up to an hour. If you call from a mobile you'll be asked for your postcode.
- Cannot hear or speak on the phone: Relay UK. Dial 18001 then 0800 144 8848, using the app or a textphone. There's no extra charge.
- Money or debt: debt helpline 0800 240 4420, Monday to Friday 9am to 8pm, Saturday 9.30am to 1pm, not on public holidays. Relay UK: 18001 then 0800 240 4420.
- Online chat with an adviser: debt problems (Monday to Friday 9am to 8pm, Saturday 9.30am to 1pm); claiming Universal Credit (Monday to Friday 8am to 6pm); energy bills or supply, consumer problems, or any other problem (Monday to Friday 9am to 5pm).
- Your local Citizens Advice: search by postcode or town on the Citizens Advice website. Most can only help if you live or work in their area.

OTHER WAYS TO GET HELP

Ways to contact Citizens Advice in Wales

- Advicelink: 0800 702 2020. Monday to Friday 8am to 7pm, Saturday 9am to 1pm, not on public holidays. Free from mobiles and landlines. At busy times you might wait up to an hour.
- Cannot hear or speak on the phone: Relay UK. Dial 18001 then 0800 702 2020, using the app or a textphone. There's no extra charge.
- Online chat with an adviser: usually Monday to Friday, 9am to 5pm.
- Your local Citizens Advice: search by postcode or town on the Citizens Advice website.

OTHER WAYS TO GET HELP

Ways to contact Citizens Advice in Scotland

- Free phone line to your local bureau: 0800 028 1456. Say the first part of your postcode and you'll be put through.
- British Sign Language (BSL): make a free BSL call to an adviser through the Contact Scotland BSL website or app (video relay interpreting on a computer, tablet or mobile). Contact Scotland BSL is open 24 hours a day, 7 days a week.
- Language or access needs: tell the bureau and they'll do their best to meet them.
- Applying for Universal Credit for the first time: Help to Claim helpline 0800 023 2581, Monday to Friday, 8am to 6pm, or webchat on the Citizens Advice Scotland website. There's also a BSL service for Universal Credit applications.
- Defined contribution pensions (aged 50 or over): Pension Wise, 0800 138 3944, or +44 20 3733 3495 from outside the UK.
- NHS complaints in Scotland: Patient Advice and Support Service (PASS), 0800 917 2127, Monday to Friday, 9am to 5pm.
- Gambling Support Service advice line: 0800 328 1131, Monday to Friday, 10am to 3pm.
- Your local bureau: find its contact details and opening times by postcode on the Citizens Advice Scotland website.
- If you cannot hear or speak on the phone, you can use Relay UK to make the call by typing. Use the free Relay UK app, or a textphone: dial 18001 first, then the number.

OTHER WAYS TO GET HELP

Ways to contact HSE

- Tell HSE about a health and safety issue: use the online form, or call 0300 003 1647 and HSE will fill it in for you. Building safety (Building Safety Regulator): 0300 790 6787.
- Ask HSE about health and safety, or reach a named person at HSE: use the online form, or call 0300 003 1747.
- Both lines: Monday and Tuesday 8.30am to 5pm, Wednesday 10am to 5pm, Thursday and Friday 8.30am to 5pm.
- Fatal and major injuries only: Incident Contact Centre, 0345 300 9923, Monday to Friday, 8.30am to 5pm. Report everything else online.
- Out of hours, only after a work-related death, a serious incident with several casualties, or one causing major disruption: duty officer, 0151 922 9235.
- Cannot hear or speak on the phone: HSE says it provides a text relay service for people who are D/deaf, hard of hearing or have a speech impairment.
- If you cannot hear or speak on the phone, you can use Relay UK to make the call by typing. Use the free Relay UK app, or a textphone: dial 18001 first, then the number.
- Website information in another format (accessible PDF, large print, easy read, audio or braille): use HSE's online contact form. HSE replies within 21 days.
- Other languages: HSE publishes translated information in many languages (hse.gov.uk/languages).

KEEP GOING

More free *toolbox talks*

TOOLBOX TALK

Asbestos Awareness

ukworkrights.co.uk/toolbox-asbestos.html

TOOLBOX TALK

COSHH

ukworkrights.co.uk/toolbox-coshh.html

TOOLBOX TALK

PPE

ukworkrights.co.uk/toolbox-ppe.html

FREE GUIDE

Health and safety at work

ukworkrights.co.uk/guide-health-safety.html