

TOOLBOX TALK

BRIEFKIT

Cement Burns & Dermatitis

A ready-to-deliver toolbox talk for foremen and supervisors. 8-10 minute spoken script plus briefing register for operative sign-in.

REFERENCE	TBT-CEMENT-BURNS-001	DURATION	8-10 minutes
DATE		SITE	
TRAINER (PRINT)		SIGNATURE	

1 Why it matters

Cement burns put people in hospital every year in the UK, and the bad ones lead to skin grafts. The reason they're so dangerous is that wet cement doesn't hurt straight away, so operatives carry on working while it quietly eats into the skin. Add cement dermatitis on top, which can end a tradesman's career once they're sensitised, and this is one of the most underestimated hazards on any site that pours, lays or mixes.

2 PPE required for this task

Waterproof gloves (nitrile or similar, not leather rigger gloves)

Waterproof over-trousers or waterproof knee pads for kneeling work

Wellington boots with trousers worn over the top

Eye protection when mixing, pouring or anywhere cement can splash

3 What to say

Spoken script for the supervisor. Read or paraphrase, in order.

1 What wet cement actually does to skin

Wet cement, concrete and mortar are strongly alkaline, around pH 12 to 13. That's not far off oven cleaner. It doesn't just irritate the skin, it causes a proper chemical burn. And here's the bit that catches people out: alkaline burns are worse than acid burns. An acid tends to burn the surface and stop. An alkali keeps eating deeper into the flesh for as long as it's in contact, so the longer it sits on you, the worse it gets. A cement burn that started as a bit of redness can end up as a full-thickness burn needing a skin graft, purely because it was left in contact too long.

2 The dangerous part: you won't feel it at first

This is the single most important thing on this talk. A cement burn usually doesn't hurt when it starts. There's no sharp pain like a hot burn, so your brain doesn't tell you to stop. People kneel in wet concrete or get cement down a boot, feel nothing much, and carry on for an hour. By the time it starts stinging or blistering, the damage is already done and it's deep. So you cannot rely on pain to warn you. If you know cement is against your skin, deal with it straight away even if it feels fine.

3 How people actually get burned

It's nearly always contact over time, not a one-off splash. The classic ones: kneeling in wet screed or concrete so it soaks through your trousers and sits against your knees and shins; cement or slurry running down inside a wellington and pooling round your foot for the rest of the shift; kneeling on a board that's got wet muck on the underside; and splashes into gloves at the cuff that then sit against your wrist. Notice the pattern, it's cement that's trapped against the skin where you can't see it and don't feel it. Those are the ones that do the real harm, not the bit you wipe off your hand.

4 Cement dermatitis and the chromium problem

Separate from burns, cement causes two kinds of dermatitis. Irritant dermatitis from the alkalinity and the abrasiveness drying and cracking the skin. And allergic dermatitis, caused by hexavalent chromium in the cement. The allergic one matters because once you're sensitised to chromium, you're sensitised for life, and even tiny exposures will flare your hands up. That can finish someone in the trade. UK cement is chromium-reduced to keep the soluble chromium low, but that treatment has a shelf life, so old or badly stored bags lose the protection. Don't assume an old bag at the back of the store is as safe as a fresh one.

5 The right PPE, and why rigger gloves don't count

Leather rigger gloves are useless here, they soak the cement up and hold it against your skin, which is worse than nothing. You want waterproof gloves, nitrile or similar, long enough to cover the wrist. For kneeling work, waterproof over-trousers or proper waterproof knee pads, not just foam ones the slurry soaks through. Wellingtons with your trousers worn over the outside, so muck runs off the trouser onto the boot, not down inside it. And eye protection whenever you're mixing or pouring, because cement in the eye is a medical emergency, not just sore.

6 Wash it off now, not at break

If cement gets on your skin, rinse it off with clean water straight away. Not at the next break, not when you've finished the pour, now. Plenty of water for a good few minutes. If it's soaked through to your knees or run into your boot, stop and sort it, get the contaminated clothing or the boot off and rinse the skin. I know it's a pain to break off mid-pour, but a couple of minutes at the tap is nothing against weeks off with a burn. Make sure there's clean water available wherever we're working with cement, that's on me to provide.

7 First aid for a cement burn or cement in the eye

For skin: brush off any dry powder first, then flood the area with clean water for at least 20 minutes and get any cement-soaked clothing or footwear off while you do it. Don't try to neutralise it with anything, just water. If the skin's blistered, broken or it's a large area, that's a hospital job, tell me and we get them seen. For the eye: this is urgent, irrigate it with clean water or eyewash for at least 20 minutes, hold the eyelid open, and get them to A&E immediately, keep rinsing on the way if you can. Cement in the eye can cause permanent damage fast, so don't wait to see if it settles.

8 Barrier cream is not armour

Barrier and after-work creams have their place for looking after your skin and managing dermatitis, and I'd encourage using them. But get this clear: barrier cream is not a substitute for gloves, and it will not stop a cement burn. It's a maintenance thing for skin condition, not protection against caustic burns. Anyone treating a smear of cream as their reason not to wear waterproof gloves has misunderstood it. Gloves and keeping cement off the skin is the protection, cream is just aftercare.

4 Common mistakes to call out

Carrying on after kneeling in wet concrete because "it doesn't hurt" (no early pain is exactly the danger, the burn is still happening)

Wearing leather rigger gloves with wet cement (they soak it up and hold it against the skin)

Foam knee pads that slurry soaks straight through instead of waterproof kneeling protection

Trousers tucked into wellingtons so cement runs down inside the boot and pools round the foot

Waiting until break to wash cement off skin instead of rinsing immediately

No clean water available at the work area for immediate washing

Using old or badly stored cement bags (chromium-reduction has a shelf life)

Treating barrier cream as a replacement for gloves

No eye protection while mixing or pouring (cement in the eye is an emergency)

Trying to neutralise a cement burn with vinegar or anything else instead of flooding with water

5 Watch on site this week

What the supervisor should be actively spotting on walk-arounds.

Operatives kneeling directly in wet concrete or screed without waterproof knee protection

Leather or fabric gloves being used for wet cement work instead of waterproof gloves

Trousers tucked into boots rather than worn over the top

No washing water or eyewash near the pour, mix station or screeding area

Cement-soaked trousers or socks being worn for the rest of the shift

Workers wiping cement off hands but ignoring what's soaked through clothing

Old, damp or split cement bags still in use from the back of the store

Mixing or pouring happening with no eye protection on

Barrier cream on hands being treated as the reason gloves aren't worn

Anyone who's had skin contact carrying on without rinsing it off

6 Confirm the team understood

Ask one or two of these at the end of the talk.

1. Why is a cement burn more dangerous than it feels at the time? (It's alkaline and doesn't hurt at first, so it keeps burning deeper while you carry on working.)
2. What's wrong with leather rigger gloves for wet cement? (They soak it up and hold it against your skin, worse than waterproof gloves.)
3. You kneel in wet concrete and feel fine. What do you do? (Stop, get the wet clothing off the skin and rinse with water now, don't wait for it to start hurting.)
4. If cement splashes in someone's eye, what's the first aid? (Irrigate with water or eyewash for at least 20 minutes and get them to A&E immediately. It's an emergency.)

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Briefing register: Cement Burns & Dermatitis

All operatives who attend this toolbox talk must sign below. Their signature confirms they have heard and understood the briefing.

Briefing delivered by:

Name (print):		Date:	
Signature:		Time:	
Site:			

Attendees. I confirm I have heard and understood the briefing detailed above:

#	Name (print)	Company / Role	Signature	Date	CSCS / Ticket No.
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Keep this register in the site Safety File. Additional sheets may be appended if more than 12 operatives are briefed.

Generated by Briefkit on 14 June 2026 · Latest version at briefkit.co.uk/toolbox-talks/cement-burns

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