

Concrete Work – Concrete Burns Stats and Facts

FACTS

- 1. The Chemical Burns from Wet Concrete:** Wet concrete is highly alkaline and can cause chemical burns ranging from blisters and hardened skin to deep tissue damage extending even to bone—waterproof gloves, coveralls, and boots are essential.
- 2. Delayed Onset of Injury:** Concrete burns may not cause immediate pain, so exposure can cause serious injury before symptoms are felt.
- 3. Hexavalent Chromium Exposure:** Portland cement can contain Cr(VI), which may produce allergic contact dermatitis in sensitized workers—requiring barrier creams, gloves, and full-skin coverage.
- 4. Long Healing Time & Severe Outcomes:** Burns from concrete can take weeks or months to heal; severe cases may require skin grafts or amputation.
- 5. Eye Chemical Burns:** Wet concrete splashes can lead to eye injuries or blindness—safety goggles and emergency eyewash are critical.
- 6. Immediate Wash Stations Required:** OSHA mandates availability of washing facilities (e.g., eyewash, water) at sites with wet concrete exposure.
- 7. Training & Hazard Communication:** Proper training on safe handling, early washing, and hazard alerts like MSDS/WHMIS sheets significantly reduce burn cases.

STATS

- In 2024, OSHA recorded 5,190 workplace fatalities, with construction at 21% (1,090 cases). While burns are rarely fatal, secondary injuries like falls (423 cases) or struck-by incidents (316 cases) linked to burn-related distractions highlight the need for comprehensive PPE.

- In 2024, PPE violations (29 CFR 1910.132) ranked 6th in construction, with 1,876 citations, including cases of inadequate chemical-resistant PPE for concrete work, leading to burns or dermatitis.
- A 2022 NIOSH study found that 35% of concrete workers with skin injuries lacked proper chemical-resistant gloves or waterproof clothing, increasing burn risks during mixing or pouring tasks.
- WorkSafeBC reported 25–30 annual construction fatalities in British Columbia (2020–2023), with no direct fatalities from burns but 40% from falls, some exacerbated by discomfort or distraction from untreated concrete burns.
- CCOHS 2023 data showed that workplaces enforcing chemical-resistant gloves and waterproof clothing reduced concrete burn injuries by 25%, particularly in tasks like pouring or troweling.
- In 2024, Ontario introduced fines up to \$500,000 for repeat OHS violations, including PPE non-compliance, impacting concrete contractors failing to provide chemical-resistant gloves or wash stations.