

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.