

Working with cement

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Health effects

Cement is one of the most widely used construction materials. Unless used safely, it can harm your health by:

- **Skin contact**

- **Cement burns**

If wet cement gets trapped against the skin, for example by falling inside boots or gloves, serious burns or ulcers can result without you realising as the nerves are rapidly damaged reducing sensitivity

- **Dermatitis**

Two types of dermatitis may occur, both of which result in itchy, sore skin which appears red, scaly & cracked

- (i) **irritant dermatitis**

results from direct damage to the skin caused by a combination of wetness, chemical corrosiveness and abrasiveness of cement

- (ii) **allergic dermatitis**

results when workers become sensitised to the chromate in cement. Plasterers, concreters and bricklayers are particularly at risk

- **Eye contact**

Cement powder or wet cement can cause

serious chemical burns, irritation and inflammation

- **Inhalation of dust**

Nose and throat irritation, and difficulty in breathing in the short-term, can be caused by dust inhalation. Long term exposure may be associated with chronic chest trouble

- **Musculoskeletal problems**

Manually handling cement bags can cause back problems, sprains, strains, etc.



'Pizza knee' from a cement burn



A UK worker lost a leg after he suffered horrific cement burns from laying a floor.

Having spent a whole morning kneeling in the cement, his jeans became soaked with a mixture of cement and water. When he finished the job and removed his jeans, he found that his legs had been burned by the chemicals in the cement. In places he could see to the bone. Despite receiving specialist treatment at a burns unit, his right leg had to be amputated.

Burned by cement

What to do when working with cement

Anyone using cement, or who is responsible for managing or supervising its use, must first consider whether they can **prevent** or **substitute** contact with cement, otherwise control measures should be implemented:

- **Wear appropriate personal protective equipment (PPE)**, such as waterproof overalls with long sleeves, waterproof footwear, appropriate eye protection and waterproof knee pads if kneeling. Alkali-resistant gloves may help but they may not always be suitable for the nature of the work. Ensure clothing is worn so as to avoid cement traps; for example, wear sleeves over gloves, trouser legs over boots
- **Control dust exposure** by purchasing ready mixed concrete and wear respiratory protection when dusty conditions cannot be avoided
- **Buy cement in bulk supply or 25kg bags.** Where manual handling is unavoidable, the risks should be assessed and appropriate control measures adopted
- **Maintain good hygiene** by washing hands and face with soap and warm water before eating, drinking, smoking or going to the toilet and at the end of the day
- **Simple health surveillance** in the form of regular skin inspections by a competent person
- **First Aid:** immediately remove contaminated clothing then wash contaminated skin with running, cold, clean water. Seek medical attention if discomfort persists. Eye contamination should be washed with cold tap water for at least 15 minutes before taking the person to hospital