Cold Storage & Freezer Work: Unique Risks of Chill Environments Stats and Facts



FACTS

1. **Cold-Induced Slip Risk:** Ice buildup, frost, and condensation on freezer floors reduce traction and cause sudden slips during routine walking or material handling.
2. **Reduced Dexterity:** Cold temperatures numb fingers and stiffen joints, decreasing grip strength and fine motor control when handling tools, boxes, or equipment.
3. **Cold Stress Exposure:** Prolonged work in freezer environments lowers core body temperature, increasing the risk of hypothermia and fatigue-related errors.
4. **Bulky PPE Limitation:** Insulated gloves and layered clothing restrict movement, visibility, and reach, increasing awkward postures and delayed reactions.
5. **Condensation Transition Hazard:** Moving between warm and cold zones creates fogged eyewear, icy surfaces, and moisture buildup that hides floor hazards.
6. **Equipment Performance Issues:** Cold temperatures affect forklifts, pallet jacks, batteries, and hydraulics, leading to delayed response or unexpected movement.

STATS

- Slips, trips, and falls account for over 25% of nonfatal injuries in U.S. warehousing and cold-storage operations, according to the Bureau of Labor Statistics.
- US private industry saw slips, trips, and falls cause over 479,000 days-away cases in 2024, with cold storage environments increasing risks from ice buildup and condensation on floors in warehouses and freezers.
- In Canada, cold-related injuries (including frostbite and hypothermia) were most common in winter months (November-March), with nearly 90% of cases occurring then, affecting workers in artificial cold like freezers and storage.
- Canadian lost-time claims in warehousing and storage (including cold facilities) totaled around 348,747 in 2022, with cold stress and slips from frozen/wet surfaces contributing disproportionately in refrigerated roles.
- NIOSH research shows that muscle strength and manual performance can drop by up to 20% when working in cold environments below freezing.
- In the US, cold stress from environmental exposure (including freezer work) contributed to an average of 22 deaths and 171 serious injuries annually from 2020-2024, with slips and falls amplified by icy surfaces in refrigerated facilities.