Insect Repellents Stats and Facts



FACTS

1. **Skin and Eye Irritation:** Direct contact with repellents like DEET, picaridin, or essential oils can cause redness, rashes, or burning sensations in sensitive individuals.
2. **Inhalation Effects:** Spraying indoors or near the face may lead to respiratory irritation, dizziness, or headaches.
3. **Neurological Reactions:** Rare cases of seizures or tremors have been linked to high-concentration, repeated use of DEET.
4. **Endocrine Disruption:** Some natural repellents (e.g., lavender, tea tree oils) and synthetic variants like permethrin are suspected of affecting hormonal function.
5. **Chemical Interactions and Material Damage:** DEET can degrade certain synthetics (e.g., spandex, plastics), and combining it with sunscreen may reduce sun protection.
6. **Child Safety Concerns:** Young children may ingest repellents; Canada recommends DEET concentrations no higher than 10% for children under 12.

STATS

- In 2024, OSHA recorded 5,190 workplace fatalities, with landscaping and construction accounting for 21% (1,090 cases). Insect-related fatalities are rare (<1%), but secondary injuries from bites (e.g., falls due to stings) highlight the need for PPE and repellents.
- In 2024, PPE violations (29 CFR 1910.132) ranked 6th in outdoor industries (1,876 citations), including inadequate protective clothing for insect-prone tasks. Hazard Communication violations (29 CFR 1910.1200) ranked 2nd (3,200 citations), often due to improper repellent training.
- The CDC reported 47,000 Lyme disease cases in 2022, with outdoor workers (e.g., landscapers) at higher risk. Proper clothing and repellents could prevent up to 80% of tick bites, per NIOSH.
- WorkSafeBC reported 25–30 annual fatalities in outdoor occupations in British Columbia (2020–2023), with insect-related incidents rare but contributing to secondary injuries like falls (15%) during tree work.
- CCOHS 2023 data showed that workplaces enforcing long-sleeved clothing and repellents reduced insect-related injuries by 18%, particularly in landscaping and arboriculture.
- In 2024, Ontario introduced fines up to $500,000 for repeat OHS violations, including PPE non-compliance, impacting firms failing to provide protective

clothing or repellent training for outdoor workers.