

# DENTAL EXPRESSIONS®

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## Winter Safety: Averting Slips, Falls and Sprinkler Freeze-ups

Ice, snow and low temperatures are at the core of many property-related lawsuits, including personal injury claims for slips and falls and building damage due to frozen pipes and fire sprinkler systems. This issue of *Dental Expressions*® examines cold weather-related exposures and provides a range of preventive measures designed to mitigate risks and increase defensibility in the event of a claim.

### SLIP AND FALL PREVENTION

Slip and fall risks escalate in winter for all dental offices located in cold climates, as sidewalks become coated with ice and melted snow turns floors slippery. Even offices in more moderate weather regions may experience the occasional snow or ice storm, producing dangerous conditions.

Any slip and fall on the premises – whether by a patient, employee or visitor – can have serious liability consequences for the practice. Fall-related injuries range from painful scrapes and bruises to broken limbs and hips, which can potentially result in hospitalization, reduced mobility and costly lawsuits. Fortunately, such accidents are largely preventable.

**Legal considerations.** In general, property owners are responsible for providing reasonably safe access to their homes or businesses. However, this basic principle is subject to varying interpretation. In many but not all states, the law distinguishes between natural and unnatural accumulations of snow. Where this distinction abides, property owners can be held responsible for a snow- or ice-related injury only if the slippery conditions are unnatural, i.e., caused or aggravated by the business owner (such as a leaking pipe producing an ice sheet.) In other states, property owners are judged not by the source of the ice or snow, but by whether they have maintained their property in a reasonably safe condition. As jurisdictions differ considerably in terms of statutes and regulations, a knowledgeable attorney should be consulted regarding applicable snow-clearance requirements.

Plaintiffs who suffer an injury from a fall have the burden of proving both that the injury was caused by unsafe, remediable conditions and that the owner knew or should have known of the hazard simply by the exercise of reasonable care. If the incident could not have been prevented (e.g., a slip during a heavy snowfall) or if the plaintiff was evidently distracted or careless, liability typically will not attach.

**Environmental safeguards.** Prevention is the key to reducing slip and fall liability, beginning with a commitment to keeping sidewalks, pathways and parking areas clear of ice and snow, and indoor areas dry. The following measures can help reduce the likelihood of wintertime slips and falls:

- *Develop and implement written policies addressing snow and ice hazards.* These protocols can strengthen legal defense efforts in the event of a fall.
- *Proactively maintain equipment and supplies.* Inspect snowblowers and other equipment prior to the first heavy snowfall and document inspections in a maintenance log. In addition, stock up on salt and other supplies ahead of time, as local shortages often develop following blizzards or ice storms.
- *Equip the office with an NOAA weather radio.* Ongoing monitoring of weather alerts permits swift implementation of snow removal protocols and other seasonal safety measures.
- *Salt and/or sand walkways and parking lots during or immediately after storms.* Spreading salt before snow melts and refreezes, or is compacted by footsteps or vehicles, helps prevent dangerous ice buildup.
- *Draft legally sound snow-removal agreements.* If an outside vendor is engaged, ensure that:
  - The vendor has adequate liability insurance.
  - The dental practice is listed as an additional insured on the vendor’s policy.
  - The agreement specifies exactly what areas and paths are to be cleared, and under what conditions.
  - The contract is reviewed by an attorney to prevent possible misunderstandings.
- *Keep floors as dry as possible.* Place mats and boot-scrapers near doorways, and assign responsibility for promptly wiping up snowmelt puddles. Also, consider posting signs near entrances warning of potentially slippery surfaces and requesting individuals to wipe their shoes thoroughly on the mat for safety reasons.
- *Guard against “black ice” and other hazardous conditions.* Treacherous black ice can form in parking lots and other paved areas after snow has been cleared, leaving behind a thin layer of water that later refreezes, creating almost invisible slippery patches. To protect pedestrians, areas where black ice typically forms should be posted with warning signs, and potholes, large cracks, slopes and other snow-covered perils should be blocked off pending repair or snow removal.

## **AVOIDING FROZEN SPRINKLER SYSTEMS**

Cold weather can lead to freezing of sprinkler piping, underground mains, gravity suction tanks and fire pumps. Such freeze-ups not only leave dental offices vulnerable to fire, but they also may necessitate expensive repairs to the sprinkler system. Owners should be prepared to take the following preventive measures prior to the onset of winter, even in milder climates:

**Evaluate environmental risk factors.** Sprinkler system freeze-ups occur most frequently in exposed and out-of-the-way places, and are often associated with such risk factors as doors and windows that fail to close, cracks in pipes, loose siding and defects in building maintenance. The following inspections should be undertaken before the first serious cold snap:

- *Check the heating system* to ensure that it delivers adequate heat throughout the facility.
- *Pay special attention to less conspicuous spaces*, such as attics, basements, entrances, stairways, storage areas and vestibules, ensuring that they have open heating ducts and sufficient airflow.
- *Examine false ceilings under sprinklers or piping with pendant heads* to confirm that they receive sufficient heat to prevent freezing.
- *Search for isolated drafts or cold air leaks near sprinkler pipes*, keeping in mind the possibility of high winds during cold spells.
- *Inspect windows and doors at least annually* and repair or replace them when necessary.
- *Maintain a tight building “envelope,”* closing up even small openings and keeping all doors and windows tightly shut when not in use.
- *Protect exposed pipes* by enclosing them in heated weather-proof boxing.

*Prevention is the key to reducing slip and fall liability, beginning with a commitment to keeping sidewalks, pathways and parking areas clear of ice and snow, and indoor areas dry.*

**Anticipate freezing temperatures.** Most sprinkler system freeze-ups result from failure to provide adequate heat during a sudden cold snap, often during weekends or other periods when a building is empty. If the heating system breaks down for more than a few hours, and the temperature in the building drops below 40 degrees Fahrenheit, it may become necessary to drain the water from wet sprinkler piping. Otherwise, ice plugs can form, blocking pipes and possibly damaging fittings and sprinklers.

The following proactive measures can help safeguard dental offices from the effects of sudden temperature drops:

- *Raise the thermostat during periods of extreme cold* to keep sprinkler piping from freezing.
- *If practicable, conduct drain tests of sprinkler risers during cold snaps* to determine if underground mains are frozen. (This involves opening the drain and letting water run for half a minute or longer before shutting the drain. If the pressure fails to return to normal, clear the mains of ice as soon as possible.)
- *Check room temperatures frequently following a heating system breakdown*, especially if the thermometer drops toward the danger zone of approximately 40 degrees Fahrenheit.
- *Know how to drain the wet sprinkler system* in the event that no contractor is able to respond quickly during an emergency weather situation.
- *Suspend any operations, such as the use of open gas flames in the office dental laboratory, that may potentially ignite a fire while sprinkler pipes are dry.* During this time, implement a fire watch and keep a fire extinguisher and first aid kit nearby.

For additional information on dry pipe sprinkler systems, antifreeze systems, gravity/suction tanks and fire pumps, see the CNA Risk Control Bulletin, [Polar Prep: The Sprinkler System Freeze-up Prevention Guide](#).

**Mitigate damage in the event of a system freeze-up.** Despite preventive efforts, sprinkler systems may freeze during extreme cold spells. In the event of a freeze-up, the following measures, if swiftly implemented, can help minimize the threat of fire or water damage while the system is out of service:

- *Stop the flow of water* by closing the control valve to the affected sprinkler system.
- *Open the two-inch drain on the riser* and any low-point drains on the system.
- *Spread plastic tarps underneath broken pipes* to limit water damage to supplies and equipment.
- *Notify the fire department* that the office sprinkler system is out of service and may require repairs.
- *Do not attempt to thaw piping in the building* by using a blowtorch or other open-flame device.
- *Suspend use of gas burners in the dental laboratory* while sprinklers are out of service.
- *Enforce a strict no-smoking policy* and place extra fire extinguishers throughout the office.
- *If portable heaters are needed*, use only UL-approved units, placing them in areas where they can be readily observed.
- *Do not attach electrical resistance heating to overhead piping.* Additionally, only well-trained personnel should attempt to thaw underground pipes with electrical resistance heating.
- *If repairs are required, determine if a partial system restoration is feasible*, such as temporarily plugging or blocking the damaged section.
- *Once the sprinkler system is restored to service, examine it for cracked fittings, split pipes or leaking sprinkler heads.* When the system is fully back in service, notify the fire department.

Planning and preparation help render wintertime risks manageable. By taking action now, dentists can help protect patients and others from snow- and ice-related falls, and also prevent cold-weather damage to plumbing and sprinkler systems.

## QUICK LINKS

- Hopkins, K. [Winter's Coming: How to Prepare Your Business to Help Prevent Slip Fall Accidents](#). *Huff Post Business's The Blog*, November 5, 2013 (updated January 23, 2014).
- [Preventing Falls During Winter Months](#). Prairie North Health Region (Saskatchewan, Canada) Safety Fact Sheet.

## LOOKING FOR ADDITIONAL RISK MANAGEMENT INFORMATION?

Visit the Professional Protector Plan® for Dentists program website at [www.protectorplan.com](http://www.protectorplan.com) for additional resources. The site's Risk Management tab contains links to information about both our in-person CE seminars and our online self-study CE course.

### Dental Risk Management Seminars

Dentists can obtain risk management information by attending any of the risk management seminars listed below, or by completing the CNA online self-study CE course (see above). For more information about our in-person seminars, please contact the nearest Professional Protector Plan state administrator agent.

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#### Upcoming Seminars

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April 14, 2016	Novi, MI	May 21, 2016	Meredith, NH
April 22, 2016	Phoenix, AZ	June 4, 2016	Albuquerque, NM
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