

Basement Flooding

For more information:

Basement Flooding

web: www.toronto.ca/water/stormwater

telephone: **3 1 1**

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Help Protect yourself against basement flooding

Water can enter your basement for a number of reasons. The good news is that you can prevent or at least reduce the chance of this happening. Water in your basement is most likely to occur when there's been a heavy rainfall, snow is melting or we're experiencing a spring thaw.

Causes of basement flooding:

- A leak in your home's foundation, basement walls, or basement windows or door
- Poor lot drainage
- Failure of the weeping tile system (foundation drains)
- Overflowing eavestroughs
- Leaking/plugged downspouts
- A blocked connection between your home and the main sewer in the street
- A back-up of wastewater in the sewer system (or a combination of wastewater and rainwater from the sanitary or combined sewer system)
- Failure of a sump pump (in some areas) used to pump weeping tile water

There are three types of sewers in Toronto

- **Sanitary sewer:** The sanitary sewer, which carries wastewater (sewage), is connected to your home's plumbing (toilets, sinks, laundry, etc.) and leads to a sewage treatment plant.
- **Storm sewer:** The storm sewer collects stormwater from catchbasins (street drains), eavestroughs, weeping tiles (in many areas of the city) and carries these flows into nearby streams or Lake Ontario.
- **Combined sewer:** In older parts of the city, stormwater and sewage are collected in the same pipe known as a combined sewer. During normal weather conditions, all the wastewater in the combined sewer is treated at the sewage treatment plant. However, in a heavy rainfall or spring thaw, the combined volume of stormwater and sewage may

exceed the treatment plant's capacity and some of the water may overflow untreated into a watercourse or the lake.

Basement flooding may occur when the local sanitary or combined sewer receives more flow than it can carry. The overloaded sewer forces wastewater back through the sewer pipes where it will escape through floor drains or other low-lying plumbing fixtures in the basement.

City acts to stop flooding

The City of Toronto has taken steps to stop the overloading of the sewers and basement flooding. Action taken includes:

- A new by-law requiring homeowners to disconnect their home's downspout from the City's sewer system, where feasible.
- Basement Flooding Protection Subsidy Program—offered to help homeowners with costs to implement flood prevention measures or install devices (such as sump pumps and back-water valves).
- Work underway across the City to make improvements to local sewer systems and overland drainage.
- Regular inspection, cleaning and maintenance of the City's sewer system.
- Water efficiency programs to reduce wastewater volumes.

Stop the flood before it starts

There are some simple steps you can take to reduce the likelihood of basement flooding. If the problem is persistent, further solutions are available.

Solutions to wet basements

- Check for and fix leaks in walls, floors, windows and foundations.
- Clear overflowing eavestroughs and downspouts of leaves and other debris preventing proper drainage.
- Disconnect your downspouts from the sewer system.

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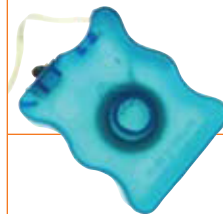
- Make sure your disconnected downspouts are draining properly, ideally 1.8 meters (six feet) from your basement walls.
- Be sure the grading around your home drains water away from all exterior walls and does not impact neighbouring properties.
- Have a plumber/drain specialist inspect your home's flood-proofing devices, such as back-water valves, sump pumps, floor drains or caps, to ensure they're working properly.
- Consider soft-surface landscaping that allows stormwater to soak into the ground rather than run directly into the local sewer systems (i.e. increased sodded areas, porous pavement).
- Be sure your flood insurance is up to date.
- Do not block the sewer connection by pouring grease down the drain or flushing objects down the toilet.
- Repair/replace damaged weeping tile systems.

Expert help needed

Call your plumber or contractor, or check the Yellow Pages, or online for information. Consider getting estimates before going ahead with work.

- Consider installing a back-water valve within the private drainage system (and/or storm drainage system) to prevent the sewer from backing up into your basement. Back-water valves need to be installed properly. They require frequent inspection and maintenance to ensure proper performance and to eliminate the risk that the valve may cause a build up of pressure that may cause structural damage to floors or walls.
- Consider redirecting the foundation drains (weeping tile system) to the storm sewer (in older homes the system may be connected to the sanitary sewer. A better environmental option is to pump the water to ground level for drainage away from the building wall. A sump pump would be needed to bring water to ground level.
- For information on permits for any of the above, call 311.

TIPS >



Dental floss: Don't flush dental floss down the toilet. Many of the newer flosses are shred-resistant, great for flossing, but bad for the sewage pump parts. Please dispose of your floss into the waste basket.



Grease: Never pour cooking grease down sink drains or into toilets. Once cooled, it becomes solid and sticks to the inside wall of sewer pipes. Scrape grease and food scraps into your Green Bin, as long as it can be absorbed by other organic materials. For those who don't have Green Bins, dispose with your regular waste.



Personal hygiene products: Do not flush razor blades, condoms, tampons, pharmaceutical products, or other non-biodegradable products down the toilet. These products can block the sanitary pipes and cause basement flooding.

Hazardous waste: Whenever possible, avoid using chemicals and never pour hazardous waste into curbside sewer grates, down drains or into a toilet. If you can't avoid using chemicals, find ways to reduce the amount that reaches the wastewater system, or find another product that will do the same job and doesn't pollute.

Action List for a basement flood

1 Call 311 immediately, 24 hours a day, seven days a week. City staff will inspect the problem, assess the flooding and attempt to determine the source(s) of the flooding.

2 Call your insurance company as soon as possible and report property damage caused by the flooding:

- Take photos of damage caused by flooding for your insurance claim.
- Keep receipts from emergency repair work or clean-ups done to prevent or reduce further damage.
- If the flooding is a result of a blocked drain pipe, leaking foundation walls or poor lot drainage on your property, the property owner is responsible for repairs and any subsequent damage caused by flooding for your insurance claim.
- The City of Toronto will make all repairs to City pipes when required.

3 Be mindful of health and safety when cleaning up your flooded basement. Exposure to contaminants carried by flood water or sewer back-ups into basements can be dangerous. Homeowners may be exposed to waterborne diseases, including diarrhea illnesses, corrosive cleaning agents and irritants found in leftover sludge from a flooded basement. Electrical accidents may occur because of contact with water and electricity.

- Dress appropriately—wear overalls, gloves, protective eyeglasses, rubber boots and a mask.
- Open windows to let fresh air in.
- Stay away from electrical equipment and do not attempt to change any fuses if standing in water or on damp ground.
- If you can, shut-off the electrical power.
- Minor debris can be put out for regular garbage pick-up (See your Garbage and Recycling Collection Calendar for information).
- Scrub furniture affected by flood water with soap and clean water and place it outside in sunny area to dry (weather permitting) or steam clean.
- Clean and deodorize carpets, or have them professionally cleaned.
- Disinfect walls and floors using a chlorine bleach and water solution (one part bleach to 10 parts water)—make sure the area is thoroughly aired-out and dry before reoccupying it.
- Wash clothing following manufacturer's instructions.
- Throw out canned foods, home-prepared food in jars, meats and dairy products and any packaged foods that may have been affected by the flood waters—check for damaged packaging, leaks, and corrosion at seams and joints of cans.
- If your freezer's power is off, move the frozen food to another freezer or throw it out if you can't keep it frozen.
- Consider getting help with flooding clean-up—look in the Yellow Pages under "Water Damage Restoration".
- Call your insurance company because they may cover the cost and do some of the work.