



Ensuring a safe and secure homeland for all North Dakotans

Floods: First Entry of a Flooded Home - Precautions

■ **Structural Integrity**

When first returning to a flooded home, you may face many threats to life and health. The first and most obvious issue: is the building structurally sound? Only a structural engineer or other building official can answer this with any certainty, but some warning signs include:

- Is the building shifted off its foundation?
- Is the foundation itself damaged?
- Is the building racking – no longer square, but leaning to one side?
- Is the building partly destroyed – missing a wall, for example, or partially crushed?
- Is the roofline out of position?

If any of these are true, then the building may collapse at any time. It must not be entered unless a qualified official has declared it safe. Don't take any chances!

Is the basement flooded? If so, then make sure ground water has receded before pumping it out. Basements that are pumped out while the ground is still soaked may collapse as the outside water pressure is no longer balanced by pressure inside the basement.

■ **Site Hazards**

- Beware of debris piles--they may shift or collapse at any time. They may harbor rodents, snakes or other vermin.
- Beware of walking through flooded areas; there may be holes or drop offs that you can't see.

■ **Other Hazards**

Electrical hazards:

- Is the electricity turned off? Do you know this for certain? If you are not certain:
- Do not enter the basement if it is flooded.
- Do not touch any electrical devices especially if you are standing in water or in contact with the earth.

Combustible or explosive gases:

When flooding is severe, gas lines are often broken if the building has shifted or if major appliances have moved about. Open all windows when first entering a building. If you smell gas or hear it escaping:

- Don't smoke or light matches.
- Don't use cell phones or regular phones.

- Don't operate any electrical switches, which may spark.
- Don't create any other source of ignition.
- Exit the building immediately, leaving doors and windows open.
- Do notify emergency authorities.

Carbon monoxide:

Carbon monoxide (CO) is a colorless, odorless gas that is produced when any fuel is burned. High concentrations can kill! When coming back to a house that is wet, cold and without heat or power, it is tempting to use an electric generator, or an improvised heater, such as a BBQ or camp stove. Do not operate these devices indoors. (Opening windows is not sufficient to prevent CO buildup.) Make sure gas-powered electric generators are outdoors (or, if indoors, properly vented) and away from windows or other air intakes. Fuel-fired, unvented space heaters can be used if manufacturers' directions are carefully followed. Note that these devices produce large amounts of moisture as fuel is burned, so their drying ability is quite limited.

Do check chimneys and flues for blockage by debris before using furnaces, hot water heaters, wood stoves, etc.

Mold:

Mold and other organisms, such as bacteria and viruses that thrive in wet environments can trigger negative health effects. These range from irritation, coughing and headache to asthma attacks and possibly life-threatening infections.

Here are a few of the most important things that you should know about mold:

- There is an association between exposure to mold spores and debris from mold cells and health problems.
- Mold that is killed can still cause health problems; killing mold, with bleach for example, does not make it harmless. Some people are especially sensitive to mold, and react strongly to levels that don't bother others.
- There are likely to be large amounts of mold in the air after a flood, both inside and outside.
- Disturbing dry moldy materials can release large amounts of spores and debris into the air.
- Common "dust masks" do not give needed protection against mold. The minimum needed is a mask with an "N 95" designation. Stronger protection - N 100 masks or toxic particle respirators along with goggles and other protective gear - will be needed for high levels of mold exposure.