



PIONEER
Basement Solutions

An Introductory Guide to **Basement Waterproofing**

TABLE OF CONTENTS:

- 3 Introduction
- 4 Basement Waterproofing: A Critical Step in Protecting Your Home
- 5 When is Basement Waterproofing Needed?
- 7 Why Basement Waterproofing is Important
- 8 Types of Waterproofing Solutions Available
 - 8 – Interior Waterproofing
 - 10 – Exterior Waterproofing
 - 13 – Additional Waterproofing Solutions
- 14 Why Choose Pioneer Basement Solutions
- 16 The Bottom Line



[Basement waterproofing](#) is a critical aspect of home maintenance that often goes overlooked. A dry basement enhances the overall value of your property, protects your home's foundation, and ensures a healthy living environment. Understanding the principles and practices of waterproofing can save you from expensive repairs and health issues caused by mold and mildew.

This eBook explores the basics of basement waterproofing, empowering you with the knowledge to keep your basement dry and secure. Whether you're facing existing moisture problems or simply looking to prevent future issues, this comprehensive guide will equip you with practical solutions and expert advice.



Basement Waterproofing: A Critical Step in Protecting Your Home

Water is essential for life, but when it seeps into the wrong places — like your basement — it can cause a host of problems. Whether it's due to heavy rains, poor drainage, or rising groundwater, moisture in your basement can lead to structural damage, mold growth, and other issues that can jeopardize your home and health.

Basement waterproofing is a critical home improvement step that helps protect your investment, maintain your property's value, and provide a safe, healthy living environment. By implementing various techniques and materials, basement waterproofing aims to prevent water from entering your home's foundation or structural elements.

Basement waterproofing can also help redirect moisture away from your basement, keeping it dry and free of potential hazards. A waterproofed basement is a sound investment that can save you time, money, and headaches in the long run.

Unfortunately, many homeowners overlook basement waterproofing or don't know where to start. With a basic understanding of fundamental principles and practices, you can take proactive steps to safeguard your basement and ensure peace of mind.

When Is Basement Waterproofing Needed?

Basement waterproofing is not just a preventive measure; it's often a necessary response to specific issues. Recognizing the signs that your basement needs waterproofing can save you from expensive repairs and health hazards down the line. Here are some situations that may indicate the need for waterproofing.

Visible Water or Dampness

Visible water or dampness in your basement is an obvious sign of moisture problems. Water can seep into your basement through cracks in the foundation, gaps around pipes, or poorly sealed windows and doors. If you see standing water, puddles, or wet spots on walls and floors, it's time to take action. Damp walls and floors can also feel clammy to the touch, indicating high humidity levels in your basement.

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Musty Odors and Mold Growth

Mold and mildew thrive in damp, humid environments, making your basement a perfect breeding ground. If you notice persistent musty odors or visible mold growth, it's a clear indication that moisture is present and needs to be addressed immediately. Mold can not only cause damage to your home but also lead to health issues such as respiratory problems and allergies.

Cracks in the Foundation

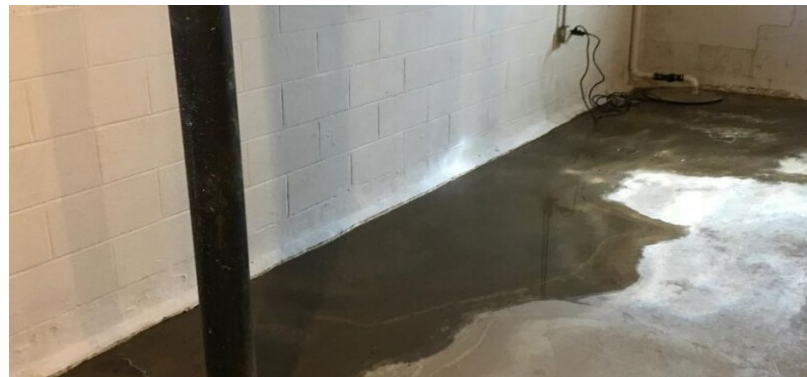
Horizontal or vertical cracks in your basement walls and floors can be a warning sign of underlying moisture problems. Stair step cracks in the foundation are often a result of pressure from saturated soil. Water seeps into the foundation, causing cracks to widen or multiply. While some small cracks may not pose an immediate threat, they can eventually lead to structural damage if left untreated.

High Humidity Levels

Excess humidity in your basement can cause a variety of issues, from mold growth to warped wood and peeling paint. If you notice condensation on pipes, windows, or walls or a damp, clammy feeling in the air, your basement may have high humidity levels. High humidity levels can result from poor ventilation, lack of insulation, or inadequate drainage systems. Addressing these underlying causes is essential to prevent future moisture problems and maintain a dry basement.

Water Stains

Water stains on walls, floors, or furniture indicate previous water intrusion and the potential for recurring issues. Discoloration or peeling paint can also be signs of water damage that require immediate attention. Even if the water has dried up, stains can be a sign of hidden moisture or ongoing leaks that need to be addressed. Identifying and eliminating the source of water intrusion is crucial before waterproofing your basement.





Why Basement Waterproofing Is Important

Investing in basement waterproofing offers a range of benefits that extend beyond just keeping your basement dry. Let's explore why waterproofing is crucial for your home and health.

Protection Against Structural Damage

Water is a powerful force that can cause significant damage to your home's foundation and structural elements. When water seeps into the foundation, it can weaken its integrity, leading to cracks, shifts, and collapses. This issue threatens your home's safety and requires expensive structural repairs that could have been prevented with proper waterproofing measures.

Improved Indoor Air Quality

A damp basement is a breeding ground for mold and mildew, which can release harmful spores into the air. These spores can trigger respiratory problems and allergies, especially in vulnerable individuals such as children and the elderly. By waterproofing your basement, you reduce excess moisture that provides a suitable environment for mold growth, leading to improved indoor air quality. It also helps eliminate the conditions that cause unpleasant, musty odors.

Increased Home Value

A waterproofed basement is a valuable asset that adds to your home's appeal and market value. A dry, usable basement can serve as an additional living area, extra storage space, a home gym, or a recreational room, increasing the overall livable square footage of your home. When selling your home, a waterproofed basement can be a significant selling point that sets your property apart from others in the real estate market.

Energy Efficiency

Basement waterproofing also has the potential to improve your home's energy efficiency. Sealing cracks and gaps in your foundation helps eliminate drafts that can cause heat loss and increase your energy bills. It also helps regulate indoor temperatures and reduce humidity by preventing excess moisture from affecting heating and cooling systems.

Types of Waterproofing Solutions Available

Basement waterproofing isn't a one-size-fits-all solution. The best approach depends on your specific situation, including the extent of water intrusion, the condition of your foundation, and your long-term goals. Let's explore the various types of waterproofing solutions available.

Interior Waterproofing Solutions

[Interior waterproofing](#) addresses water that has already entered your home. These methods are often more cost-effective and less invasive than exterior options.



Gutter Channel Drain

Gutter Channel Drain

A gutter channel drainage system involves installing a perimeter channel drain around the interior of your basement on top of the footer and next to the bottom of the wall.

How It Works: A gutter channel drain is installed along the perimeter of your basement floor, capturing water that seeps through weep holes installed in the bottom of the walls directing it to a sump pump. The pump removes the water from your basement and discharges it away from your home through a discharge pipe.

PROS:

- Controls water seepage
- Minimal concrete floor removal
- Faster installation

CONS:

- The gutter drain is installed level so it will collect and build up water until there is enough of it to push out of the end at the sump pump system
- Water held in the gutter channel drain can cause water to build up at the bottom of the foundation wall, which can deteriorate the foundation
- Because gutter channel drains are not installed down next to the footer, they are not relieving as much hydrostatic pressure under the basement floor as a traditional footer drain (or hydrostatic pressure relief system) will

Interior Footer Drain

An interior footer drain — also known as a French drain, involves installing perforated drain pipes under the basement floor around the perimeter of your foundation. Interior footer drains are also referred to as hydrostatic pressure relief systems.

How It Works: An interior footer drain is installed with a slope at the base of your foundation to collect and direct groundwater into a sump pump system which discharges it away from your home through a discharge pipe. Cement block foundations will have weep holes drilled at the bottom with a cove diverter to direct any water out of the foundation down into the footer drain system.

PROS:

- Most effective at hydrostatic pressure relief
- Lowers the water collection point to help preserve the bottom of the foundation wall
- Lower investment than exterior waterproofing

CONS:

- Interior footer drains do not stop water from entering your foundation walls



Bonus Tips

Not all interior footer drains are equal!

Look for PVC drains vs corrugated.

The corrugated drain type comes on a roll and the thin wall plastic has memory. This can cause the drains to have dips that collect water and do not flow as efficiently as PVC. The perforations in the corrugated drain are very small, reducing the flow potential of water to enter the drains.

Look for a closed vs. open system.

Your interior waterproofing system should be sealed to the foundation wall to prevent moisture, insects and potentially Radon gas from entering your basement.



Exterior Waterproofing Solutions

[Exterior waterproofing](#) addresses the root of the problem by preventing water from entering your home in the first place. These methods are more comprehensive but can be more expensive and disruptive. Exterior waterproofing involves digging to the bottom of your foundation, applying a waterproof coating or membrane to the exterior walls and replacing the exterior foundation drains.

How It Works: The ground is excavated around your foundation, exposing the basement wall. The wall is then cleaned, cracks and gaps patched and then coated with a waterproofing material. The best exterior waterproofing systems also involve the installation of a drainage board or waterproof membrane. New exterior footer/foundation drains are installed to direct water away from the foundation.

Pros:

- Restoration of the exterior seal on the foundation preserves the integrity of the foundation wall
- Offers long-lasting protection against water intrusion, as it addresses the root cause of the problem
- Drying the foundation wall from the exterior reduces moisture evaporation into the air of the home

Cons:

- Exterior waterproofing requires the removal of landscaping, decks and any other obstacles to excavation
- Highest overall project investment



Waterproof Drainage Boards and Membranes

Waterproofing Drainage Boards

Waterproofing drainage boards are applied to the exterior walls of your foundation after the foundation waterproofing coating is applied, typically while the coating is still wet so that the drainage board will stick to the wall.

PROS:

- Protects the foundation sealer from the backfilling of gravel and soil
- Directs water down to the footer drain
- Lower cost than the waterproof membrane

CONS:

- These drainage boards are often made of compressed fiberglass or a cushion like material that are intended to work on the wick effect, like how a wet sponge will drain to the bottom. This means the wet drainage board is pinned against the foundation seal, which is biodegradable and will wear down overtime.
- Can allow water to get to the foundation between the 4' panel seams
- Can get clogged and breakdown in the soil

Waterproof Membranes

Waterproof membranes come on a roll and are applied to the foundation wall after the foundation sealer is dry.

PROS:

- The best waterproof membranes are non biodegradable and will never breakdown in the soil for a permanent waterproof seal
- The best waterproof membrane is also referred to as “dimple board” and it is sealed at the top and sides so no water gets behind it. This creates an air gap for the best possible dry foundation wall.

CONS:

- Higher initial investment

Exterior waterproofing involves digging to the bottom of your foundation, applying a waterproof coating or membrane to the exterior walls and replacing the exterior foundation drains.

Additional Waterproofing Solutions

Other essential waterproofing solutions exist beyond the standard interior and exterior methods, particularly in areas with high water tables or frequent power outages.

Battery Backup for Sump Pumps

Power outages are a common issue that can render your sump pump useless during heavy rainfall. A [battery backup system](#) ensures your sump pump continues to function even without electricity.

How It Works: A battery backup system consists of a secondary pump connected to a battery and control module. It will kick in when there is a power outage for uninterrupted protection.

BENEFITS:

- Offers peace of mind during storms
- Self-testing to monitor system health
- Prevents water damage
- Both pumps can activate if the power is still on but there is heavy water flow into the sump pump crock

Humidity Control

Controlling the humidity level in your home is a crucial component to a healthy living environment. Waterproofing alone will not prevent humidity in the air from causing issues.

How It Works: Dehumidifiers balance your home's humidity by reducing moisture in the air and thus reducing mold and mildew. [Installing a dehumidifier](#) will help to keep you protected against the associated health problems that moisture problems in the home can cause.

BENEFITS:

- Controls humidity levels
- Improves indoor air quality
- Reduces musty odors in basements and crawl spaces



Why Choose Pioneer Basement Solutions

When it comes to something as critical as basement waterproofing, you want to work with a company that has experience, expertise, and a commitment to quality you can trust.

[Pioneer Basement Solutions](#) is the premier choice for Northeast Ohio homeowners who want to protect their homes and families. When you choose us, you can expect the following.

A Local, Family-Owned Business for Over 45 Years

The basement waterproofing industry has recently seen large corporations acquiring local businesses and forming mega-sized companies, and there have always been chain-style and or franchise companies in our market. Still locally owned & operated by the founding family, Pioneer has held strong to its core values, mainly we always treat people the way we want to be treated, with honesty and integrity. With that as the root of our success, we have waterproofed tens of thousands of basements, earning a reputation for excellence in the industry. Our team of professionals is highly trained and dedicated to providing the best possible customer experience and solutions for your home. You can confidently trust in our experience and knowledge to get the job done right the first time.

We conduct a thorough inspection of your home and start with helping you understand what is causing your basement or foundation issues.

Customized Solutions

Every home is unique, so we offer customized waterproofing solutions tailored to your specific needs and challenges. We conduct a thorough inspection of your home and start with helping you understand what is causing your basement or foundation issues. We will walk you through the options for repair to ensure you have the information you need to make the best decision for your home and then provide a detailed plan that addresses the root cause of your water intrusion issues. From initial inspection to post-service support, we offer a full range of solutions to ensure your basement remains dry and secure.

High-Quality Materials

We use only the highest quality materials and products designed to last, providing long-term protection for your home. Our waterproofing solutions use advanced technology that delivers superior performance and reliability. We are constantly researching and testing new materials to ensure we offer our customers the most innovative and effective solutions.

Excellent Customer Service and Written Guarantees

Your satisfaction is our top priority. We proudly stand behind our work with a written guarantee that provides you peace of mind. Our team is always available to answer any questions and address concerns about our services. We strive to provide exceptional customer service from start to finish, ensuring a positive experience for all our customers.

Affordable Pricing

We offer competitive pricing without compromising quality, making top-tier basement waterproofing accessible to all homeowners. To help make your project more affordable, we offer flexible financing options that fit your budget. We also provide transparent pricing and detailed quotes, so you know exactly what to expect from the start.



The Bottom Line

Basement waterproofing is a crucial investment in the longevity and safety of your home. Whether you're dealing with visible water issues or simply want to prevent future problems, taking action now can save you money, protect your health, and increase the value of your property.

At Pioneer Basement Solutions, we are committed to providing high-quality, customized waterproofing solutions that meet the needs of every homeowner. With over 45 years of expertise and an unbeatable reputation, a team of skilled professionals, and a dedication to customer satisfaction, we are your trusted partner in keeping your basement dry and healthy.

Take the first step toward a dry, healthy home today by [contacting us for a free estimate](#). Let us help you protect your home and your peace of mind.