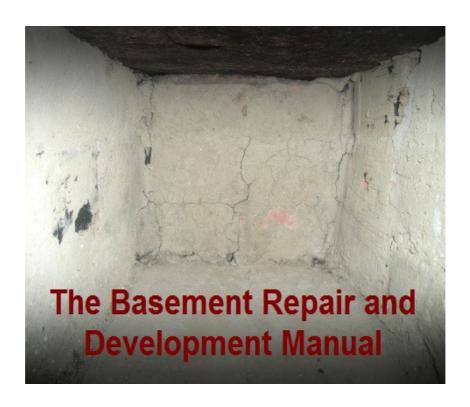
The Basement Repair and Development Manual



Presented By The FRED67 Community

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What's That Smell In The Basement?

A basement's air quality can be the poorest in the entire house. We tend to associate basements with a stale, musty, damp, earthy, smell. Depending on their cause, some of these may be dangerous to your health. However, there are things that you can't smell that pose health risks, as well. Lets go over some of the basement odours and things that can reduce the air quality to help you answer, "What's that smell in the basement?"

Basement Odours

Typically, the underlying causes of odours in the basement are excessive moisture and poor air circulation. While you might think of it as normal, that "earthy" smell shouldn't be ignored. It is likely coming from mould spores that can get into your lungs and multiply beyond medical help, slowly suffocating you.

Do you think your finished basement is safe? Think again. Finished basements can have mould and mildew problems too. If the floor is carpeted, the carpet may be the hidden source of that "earthy" smell. Carpet and its padding absorb moisture so keep a close check on it as well as furniture fabric and padding.

In addition, this area is often where the furnace, hot water heater, washer and dryer as well as the freezer are stored. Some of these may run on propane or natural gas, which can give off an odour.

If you store household repair items, such as paint, gardening items, such as fertilizer, or workshop tools, such as petrol-powered saws, you may have many odours in your basement. Some of these can be hazardous to your health, if the basement isn't well ventilated.

Odourless Air Quality Hazards

Carbon monoxide is an odourless, colourless, tasteless gas.

It is extremely toxic and is the most common cause of air poisoning. In most cases in the home, it is produced by malfunctioning fuel-burning appliances such as furnaces, ranges, hot water heaters, as well as room heaters, and unvented open fires. This is one of the many reasons you should never use a charcoal grill indoors.

Whatever the condition of your basement, good or bad, you should always have carbon monoxide alarm fitted as you never know 'what' is producing that gas.



Methane is another odourless gas, which can literally be deadly. While methane is odourless, some of the odours that accompany it are not. Methane is often associated with sewage problems, and those smelly odours. If you smell sewage in your basement's bathroom, or in any room, methane may also be present. (Rotting veg to a decomposing rat can produce the deadly gases)

How to Fix the Hazards and Air Quality

How do you fix all of these smells and odourless hazards that jeopardize your air quality, your health, and even your home? Begin by getting an air quality test done on your home. This will help determine what you need to work on.

You can test to get the humidity level in your basement by putting a clear plastic sheet on the floor. After 2-3 days, check the plastic. If there is condensation under the plastic, the humidity is too high. You can use a dehumidifier.

Do you suspect that there are leaks? Check the basement walls, ceiling, floor, and the perimeter of your home for cracks. Fill them if you can and call in a contractor when a professional is needed. Have you seen any mould and mildew? Clean the area with a mixture of borax and water. Then fix the leaks. You may need to hire a professional plumber, depending on your skill. If the leak isn't fixed correctly, you may find that the leak is back and bigger than ever, at some point in the future.

Beef up your air circulation and ventilation systems. Installing a fan, heater, and/or a dehumidifier in the basement can help with the air quality. If you continue to have issues, you may need to call in an air quality control specialist. These trained professionals can help you pinpoint the problems and help you create a plan of action to turn your smelly old basement into one of your favourite areas.



Basement Cracks How Serious Are They

Cracks are relatively common in basements. They can be alarming because this is often the foundation of the home, but it's not always something that indicates a serious problem. Before you go rushing to get a contractor out to your house to inspect the problem you can assess the problem yourself and determine if it's a major repair or something minor that you can just fill yourself and go about your day. Whatever you do though, **don't ignore any cracks** even if it's just a minor problem. You will want to take 'some' sort of action on cracks you find, but the severity of the issue is going to depend on the crack itself.

Vertical or Diagonal Wall Cracks

These tend to be minor, common cracks on your basement wall. They're most often caused when the concrete shrinks. However, it could also be damage from a settling foundation. If it's a small crack, this generally is not a major problem. A jagged crack, at a 45-degree angle, can mean that your foundation is settling. Feel the edges of the crack. If the edges feel even, it's likely a minor problem and easily fixed.

You want to fix these cracks, especially if there's any leaking. Prolonged leaking can make the crack even bigger, causing more damage. You can fill them in with caulk. This is best if you're sure that the crack is not due to a water leak and is just superficial.

An epoxy injection is a good option if the wall is completely dry. If not, the epoxy won't adhere to the wall. Urethane injections are good for sealing leaking cracks. It can flex slightly for wall movement too, helping to prevent future cracks. A polyurethane polymer is most likely the best solution for a leaky crack. The polyurethane polymer can expand to twenty times its volume, if needed. If water makes its way through this repair, a foam strip will need to be installed over the crack repair.

Horizontal Cracks

These serious cracks can lead to foundation damage. This means there's pressure against the side of the walls causing these cracks. Call in a professional if you see horizontal cracks. This is especially important if you see horizontal cracks in multiple areas of your home. If you can slide a penney into the crack, it will require a professional.



If you do have a foundation problem, there are a few ways to fix it. The most common way is to add anchors to your walls. This is a cost effective fix without having to replace the entire foundation. It's a relatively quick fix to do too and can be done any time of year. Foundation piers are another way that a foundation can be repaired. These are used if any vertical movement of your foundation is noted.

Floor Cracks

Cracks in the basement floor can be common. This can be what leads to basement flooding. Fixing these cracks is simple. Installing a drain will keep your basement from flooding. You can have the pipe lead to a sump pump or a perimeter drain.

If you notice large cracks, leaning chimneys or porches, cracks running from your windows, or wall cracks that go all the way through to the outside of the house, get help immediately. You likely have a very serious foundation problem on your hands.

Do I Need a Professional for that Basement Renovation?

Renovating your basement can be a huge undertaking, financially and in terms of work-hours required. However, the basement can also provide some nice extra living space in your home and can cost less to do than adding on an addition to your home. If you are handy with tools, you may think you can turn this into a DIY project. However, some things are just better left to the professionals and this is one of them. Here are some things you might be able to do yourself when renovating your basement and the things you should call in a professional to do for you.

Start with an Inspection

Before you begin renovating your basement, there are things you should look for. If you're not comfortable doing these, you can always call in a professional. The cost isn't all that much and it's well worth it to know what you're getting in to before you begin.



Moisture & leaks. Tape 2-foot squares of plastic sheeting on the floor and walls. Wait two weeks. If you get condensation under the plastic sheeting, your foundation is not sealed. If there is condensation on top of the plastic sheeting, your basement needs to be dehumidified.

Rot & insect damage. Look for rot and insect damage in the floor joists, header joists, wood window frames, and the sill plate. You can check this by using an awl to probe these areas for any weaknesses.

Sagging floor joists. To do this, climb a ladder until you're eye level with the underside of the floor joists. Look at them perpendicularly to see if any are out of line or not straight.

Carbon monoxide leaks. Fuel-burning equipment and ventilation should be inspected to ensure your home is safe before work beings.

Depending on what you find in your inspection, you may need to make some repairs prior to remodelling. Again, some of this you may be able to do yourself, others should be left to a professional.

If you are turning your basement into a liveable space, according to code you will need ceilings that are at least 7 feet high, maybe more. If you don't have this then you'll need a contractor to lower the concrete floor. Or, a cheaper option might be moving ducts and pipes. You'll need a contractor to tell you if this is a possibility and to do the work.

Waterproofing

When it comes to waterproofing your basement you can probably tackle small things like sealing small cracks and gaps around your home and pipes with a concrete compound. You can use hydraulic cement to fill larger cracks inside and outside of your home.

You can add gutters and diverters to divert gutter water at least 10 feet away from your home's foundation.

Have a professional repair any cracks that are wider than a pencil. Any major leaks in your home you should reach out to a professional for repair.

If the ground is sloping towards the home, you may want to call in a professional to bring in dirt to raise the height so water runs away from the home.



Pipes

While jobs like moving pipes or redirecting them should be done by a professional, you can insulate pipes before they are boxed up yourself. Putting foam insulation sleeves over hot water heater pipes and cold water pipes will prevent heat loss and prevent condensation from dripping into your new walls.

Walls

Speaking of walls, you might be able to do this job yourself, but you must use the right materials. Don't use standard plasterboard/drywall. Look for plasterboard/sheet rock that is proven and specified to stand up to mould and mildew.

Interlocking panelled walls are good for DIY projects because it's less labour intensive and takes up less floor space. However, if you want a more traditional wall this is likely better done by a professional.

And of course, if you found issues with rot, insects, carbon monoxide or sagging floor joists, unless you have extensive experience in fixing these things, you should always call in a professional.

Just because you 'can' do something, doesn't mean you should.

You can probably handle most minor issues fairly easily. However, complicated jobs such as plumbing, electrical, sagging joists, insects and heavy moisture should be turned over to professionals.

A good way to decide if you need a professional is to ask yourself three things... In the worst case scenario, could it kill me? Could it destroy my home? Does it require special permissions?

While chances are, the worst case scenario will not happen, the possibility is there so it's important to carefully consider whether or not you should do it yourself.



Help! My Basement is Bowing and Buckling

You go into your basement and you notice that the walls appear to be bowing and buckling. That doesn't sound good, does it? Well it's likely not and it's something that has likely been building for quite some time.

Bowing most often occurs because of hydrostatic pressure, which is when water is pressing against the basement walls. The expansion of the soil against the walls of the basement can also cause bowing in the walls. The good news is you don't necessarily need to replace the foundation. You can explore other options, depending on your particular situation. However, this serious problem needs to be repaired sooner rather than later.

Here are your repair options when you notice any bowing and buckling in your basement.

Steel Beam Reinforcement

You can strengthen your foundation with steel beams. You will be placing steel beams along the foundation walls, which means you're likely going to need to jack-hammer the wall to add the beams. The beams are then bolted to the wooden floor joists above the basement. This shifts the pressure to the wood floor joists instead which the drawback is that eventually this can lead to damage and buckling of the floor above.

There are numerous drawbacks to doing this as a repair. It's not a long-term solution. You should only do this to buy a little time until you can afford a more permanent solution.

Carbon Fibre Fabric

This is really just another band-aid solution to the problem, although it has its advantages over steel beam reinforcement. Carbon fibre fabric strips are applied with epoxy glue to the entire wall that is buckling in order to reinforce the weakened areas. The drawback is it doesn't cover the bottom portion of the wall, which can still crack, shift, and move. This will not repair major cracking in the wall so it should not be considered as an option for more severe cases.



Foundation Helical Anchors

This long rod, with a corkscrew at the end, will attach to the wall plate inside the wall foundation. You install these by drilling large holes in the wall and into the soil on the other side. Then the hole you created is filled in with concrete. The trouble with this is the hole you create in the wall weakens it even more. This can lead to water leaks in your basement.

Foundation Anchors

These anchors are different from the helical anchors. They have three parts: an exterior earth anchor, an interior wall plate, and a connecting steel rod. These counteract the pressure on the wall. The installation requires some outside work where you remove part of the lawn and excavate it. The earth anchor is place in the hole and a hole is drilled through the foundation on the inside.

The steel rod is driven through the hole and into the earth anchor in the yard. The anchor is tightened against the wall. Continued tightening over time helps straighten the wall. Once installed, the hole is filled with concrete and the yard is cleaned up. This can be a cost effective and relatively simple solution to the problem.

Rebuild the Foundation Wall

When all else fails, you may need to rebuild the wall, especially in extreme cases. This is the last thing you want to do because of the amount of work, the destruction of the yard, and the time it takes to do it. However, the wall 'must' be fixed.

All of these repair options will be for nothing if you don't do anything to fix the problem that originally caused it to happen. So to avoid more costly repairs, you need to address what caused the foundation to begin to bow and buckle to begin with.



How to Find the Right Contractor for your Basement Repairs

Doing basement repairs and remodels can be an expensive project to take on. You definitely want it done right though. Since the basement is below ground level in your home and the job is done wrong, then it can cause numerous problems with your home. So it's important that you get it done right and the best way to do that is to find the right contractor for the job.

But how do you know if you're hiring the right contractor? Here are 8 questions you should ask potential contractors before you hire one.

Eight Questions to Ask Potential Basement Contractors

1. How long have you been repairing basements and do you have any references? While this isn't a perfect indicator, you don't want this to be someone's first job. Getting an idea of how long someone has been doing basement repairs gives you a good idea of the amount of experience they will have for the job. Finding out if other people are pleased with the work that has been done will also be helpful. Going a step further and asking to see work that has already been done will go a long way to helping you choose the right contractor for the basement repair.

(*But remember that references can be manipulated* so always go back and talk to the neighbours who will most certainly tell you if there were any problems with the contractor, or even 'if' they used your prospective contractor. Yes, it's a Dog-Eat-Dog world out there in the world of Construction)

- 2. Do you specialize in basements? Basement repairs can be quite tricky and often require specialized knowledge. It's good to have a contractor who specializes in basements.
- 3. Are you licensed and insured? This is something that you should ask 'everyone' who works on your house. Without a license and insurance, the homeowner can be held responsible if something goes wrong. The contractor should carry enough insurance to cover the cost of rebuilding your home. If someone is injured on your property, regardless of who hired them, you could be held liable.
- 4. Do you have company employees or do you hire subcontractors do the work? There's nothing wrong with subcontractors, but the quality of work might not be up to par, depending on their training and experience. If a contractor uses subcontractors, the company may not have to take responsibility if the work is not up to par.



However, when the contractors name is on the work, he's more apt to require a certain level of quality, training, and experience from employees.

- 5. What is your start and end date? This should be understood that's it's only a framework. And idea of when the work will start barring there are no problems with pulling permits and how often they expect to be the working depending on inspections and estimated materials being delivered. You don't want anything to be hard and fast with exact start and finish dates written in the contract, but you do want to have any idea of how often you should expect workers at your home and consistent updates of the progress of work.
- 6. Will you pull/organise all permissions? This is something a contractor 'should do' and that is required for any basement repairs to make sure everything is on the up and up. If not then you leave yourself at risk so the contractor shouldn't have a problem pulling permissions for the job prior to the start and for arranging inspections when and where needed. (Always double-check with your local authority each time any permissions have been given as unscrupulous contractors will provide you with fake documents just so that they can continue working without hold-ups trusting that those 'permissions' will eventually be granted *they may not*)
- 7. What kind of products do you use in the basement? Because the basement is susceptible to moisture and mould it's important to make sure the contractor is aware of the proper materials to be used in your home to minimize and potential mould and moisture issues that could arise in the future. (Again, always double check independently if you don't recognise the materials your contractor intends using)
- 8. Can you give me a detailed quote? Knowing the cost of 'everything' is very important in helping you choose the right contractor. If a contractor won't give you a breakdown of the entire project, *you should question the validity of the quote*, especially if it's extremely different from other quotes. You don't want to find out later that something was not included in the original quote and something was tacked on at the end.

(This is a recurring problem and it 'will' leave you seriously out of pocket)

Choosing the right contractor to repair your basement can be a difficult. Professionals will have information written out for you, a high rating, and experience with basements.

Asking the above 8 question will at least 'help' you choose the right contractor for the job.



How to get Mould Out of Your Basement

Underground basements are a prime breeding ground for mould, since it thrives in moist areas. Mould can be a particularly difficult problem. It can cause all sorts of issues, not just to people's health, but also to food, paper, drywall, and other materials. Removing mould as soon as you see it and preventing it from returning is paramount. Here are some easy steps to follow to remove and prevent mould in your basement.

How to Remove Mould in Your Basement

To remove mould, you should begin by cleaning the area. Mix 1-cup of borax with 1-gallon of water to create a cleaning solution. Apply some of this mixture to a rag and wipe areas where you see mould. (Or you should buy a cheap pressure-spray-gun, the type you would use to spray weed-killer or paint as you will get the mould-killer right into every crack and crevice.) The borax is more effective at cleaning mould than bleach because it can kill mould on porous surfaces. It also will not give off any fumes like bleach does, but it is toxic so be careful when using it around pets and small children.

In extreme cases, you may need to replace the materials, if the mould cannot be removed. Once the materials in the area have been replaced, use mould prevention strategies to keep mould at bay. Let's look at those strategies now.

How to Prevent Mould in Your Basement

Basements are often humid, so preventing mould can be as simple as running a dehumidifier. Dehumidifiers help to dry out the air by removing the moisture from it. An air conditioner can also remove humidity, so this may be another option. If you live in a particularly humid area, you might need both. If you are using your basement as a living space or storage area, this can be particularly important to ensure that items in the basement aren't damaged by mould.

You will also need to check the pipes for leaks and other ways that water might enter your basement. Rain gutter run-off may be a culprit. Redirect this water away from the foundation of your house to help prevent it from seeping into your basement. You'll also want the dirt around your house to slope away from the foundation and basement.



Check your basement for cracks and leaky pipes. You can seal some cracks yourself, if they are not too large. Repair cracked pipes and then also put a sleeve on the pipes to help prevent moisture from coming into your basement will be an effective way of keeping moisture out of your basement and therefore mould from forming.

If the basement is still humid after running a dehumidifier, repairing leaks and cracks, and routing run-off away from the foundation, call in a professional. The moisture could be caused by other issues in your home or even from neighbouring property. Consult a plumber or heating/cooling specialist to see if they can find any issues with the plumbing or heating and cooling system.

Monitor the moisture in your basement to prevent mould from growing and make repairs as soon as possible to keep a small issue from becoming a huge problem.

How to Keep Your Sump Pump Working Properly

A sump pump can be an important tool for removing water in a basement, especially if you live in an area that tends to flood. Sump pumps are generally like large vacuum cleaners, only they pump water out of an area. The pump is usually placed in the lowest part of your basement. When water reaches a certain level, it will begin pumping the water out of your home. This automatic pumping helps to protect the basement as well as things stored at a higher level in the basement.

However, when a sump pump stops working, this can be a recipe for disaster. So, it's important to maintain your sump pump. You may not always realize how often the pump comes on and goes off, depending on your situation. During the rainy season, it's important to keep checking on the pump to ensure that it works properly when you need it most. Here are a few things you can do to keep your sump pump working well.

Regular Maintenance

This is the number one way to know if something has gone wrong with your sump pump, or is about to go wrong.



Sump pumps don't require a lot of maintenance, but it is important that you do maintain them. Here's what they need.

Check the discharge line regularly. It can become clogged with debris or freeze up in cold weather. You may also need to unclog the air vent hole in the line. Make this part of your emergency preparedness routine, especially when expecting rain.

Check the inlet screen. This too can get clogged with debris and should be cleaned 3-4 times a year.

Check the float component. This should be unobstructed and move smoothly. If it doesn't, you won't get an accurate reading and the pump may not do its job when you need it most.

Check the area around your sump pump. Keep debris away from the pump. It could be sucked into the pump and clog the discharge line. If you're expecting rain, this is the perfect time to clean around your sump pump.

Test your sump pump by slowly pouring water into the area where your sump pump is housed. Watch to make sure the float rises with the water level and triggers the sump pump to start up. If it doesn't start, do some basic trouble shooting like making sure that the unit is plugged in and power is running to it. Also, check your float switch and valve to make sure both are functioning. If it still doesn't come on, contact a repair-person to check it out.

Check to make sure the pump is discharging the water and it's directed well away from your home.

Once a year you should disconnect the unit and flush it out with water to remove any debris. Be

sure to clean out any debris in the general area while you have the pump pulled out. When you put the sump pump back and reconnect it, make sure you test it again by pouring water slowly in so you know you it works correctly.

Don't forget the back-up battery. Replace the battery every two to three years, if you have a pump with a back-up battery.

Just doing these few simple things on a regular basis can keep your sump pump operational when you need it most.



How to Repair Leaky Basement Windows

If you notice water coming in your basement and you have checked all the down-spouts, plugged all of the cracks, and ruled out every other possible common scenario, it's time to check the windows. Water could be leaking in there. But, how do you repair the damage and prevent it from happening again? Here are five ways to repair leaky basement windows.

- 1. Caulk. Adding caulk around the inside of the window is your very first line of defence against basement window water leaks. Before you do this, check the frame around the windows. If you have been experiencing leaks for a while, the frame could be damaged and you'll want to repair that before you caulk around the window. Otherwise, the water will just be coming in from the window frame instead of the window itself.
- **2. Window wells.** This is a curved piece of galvanized metal, or masonry plastic, or pressure treated wood, that surrounds a basement window that will block moisture. If you already have a window well installed, make sure you add some gravel inside of the well. It will help deter the water. Also, make sure it's not clogged or else it's useless. You can put a window well cover on the window well so you don't need to clean out the leaf, dirt, and snow clogs. Discuss your options with a professional when it comes to installing and maintaining a window well.
- **3. Check the slope of your home.** If the grade of your yard is sloped towards your house, then this will not stop any leaks through basement windows or any other possible small cracks not visible to the naked eye. A professional landscaper can help ensure that the slop of your home is correct and that the grade is not too high and above your windows causing water to get into your basement.
- **4. Check your down-spouts.** It's important to make sure your down-spouts are clear of debris and are positioned away from your house so you don't end up with pools of water that eventually find ways into your basement. So get those gutters cleaned out and redirect those down-spouts away from your home. This is a simple fix that you might be able to do yourself.
- **5. Install new windows.** When all else is lost it might be time to install new basement windows to prevent leaks. If there has been any shift of your foundation or long damage being done to the frame of your basement windows then you're



probably better off just replacing and then resealing the frame and adding new windows to your basement to prevent any more leaks.

The best way to avoid costly repairs in the future is to be observant. Always check your basement after it rains. If you live in an area, where it snows, check your basement, and see if you're getting any water from the melting snow. Fixing the problem when it first arises will most likely mean a simple fix like adding some caulk rather than a larger repair like having to install new windows all together.

Tips for Waterproofing Your Basement

Having a damp basement might be common, but it's not a good thing to have. Just because it's a basement doesn't mean it has to be damp. A basement can be another living area or comfortable space in your home. The most common reasons for moisture in your basement are condensation, run-off, and ground water swelling. If you are tired of that cold clammy feel, here are a few tips for waterproofing your basement to get rid of the dampness, but first you'll need to pin down what is causing the excessive moisture.

Condensation

Condensation occurs when moist warm air hits something cool. Check to see if you have a condensation problem by taping clear plastic sheeting to the wall and sealing all of the edges. If water droplets appear on the underside of the plastic, there's a leak. However, if the droplets are on the top, it's condensation issue. To fix this you can open a window in the room to aerate it, or for a more permanent solution if you have a dehumidifier, running that regularly will eliminate that moisture. An air conditioner can also be used in a pinch.

Run-off

Run-off is simply water which has overflowed it's normally contained boundaries.



To prevent the natural flow of run-off from causing problems, you need to make sure your yard is sloped away from the house, at an angle of one vertical inch for every 12 inches the water travels. Make sure that down-spouts are not leaking or pooling near the foundation.

Groundwater Swelling

Groundwater swelling occurs when the water table exceeds its high point. The soil surrounding your home can't hold the water in when it rises above the water table. It's an expensive problem to fix and it can cause your basement to be wet for a long time

In addition to using dehumidifiers and deferring water away from the home as best you can it's important to waterproofing to check for leaks around the perimeter of your home for any pooling water, cracks in the driveway, and cracks in basement walls and floors. Fix these things as you encounter them to avoid a larger problem later.

Apply a concrete sealer to your basement floor and walls. This can be applied to a wet floor, but make sure there's no standing water before you apply.

A polyethylene membrane can be used to hold back the water flow. It may be necessary to install a sump pump and install channels to collect and remove water from behind the membrane. Seek professional help to determine if this is required.

It's important for the structural integrity of your home that you waterproof your basement and combat any problems you discover as soon as you find them.

Top Tips for Basement Climate Control

Whether you're using your basement as additional living space in your home, or you just use it for additional storage you probably want to consider how you'll go about controlling the climate. Basements tend to stay naturally cool because they are partially insulated by the ground around them. This might be great for the summer months, but in the winter months maybe not so much.



Whether you have created yourself a nice little oasis in the basement or you are using it as storage you probably want to make sure the basement remains at a more consistent temperature and does not get too cold. Your needs might vary depending on whether or not you have a walk out basement or even just how you use the space. Here are some tips to help you control the temperature.

Heaters

Portable electric heaters are always an option, but this is best used only when you're actually using the basement. They are costly to run and you don't want to leave that going 24/7. Plus you want to be present when using an electric heater because they can over heat and start a fire.

Baseboard electric heating is the same thing. It can be expensive to run. Unless it's something that's connected to your heating system already, or perhaps on a separate thermostat, this might only be a good option if you're only interested in heating the basement while you're in it.

You can also use electric wall heaters that have a fan built in. These use fans to distribute the heated air and they are placed on the wall. This is best for a small space like a basement bathroom perhaps. You have to watch furniture placement with these so you don't cover the fan. Plus the fan can be noisy.

Direct vent gas heaters are a quieter more energy efficient option. They also use a fan to distribute the air, but it's much quieter. These can be temperature controlled much easier than some of the electric heating options.

Fireplaces

This can give a basement a cosy feel, but unless you want to remodel your basement completely or you already have a fireplace, this might not be the most cost effective option. You might be able to install a wood burning fireplace or a vent-less gas fireplace. However, both of these have their own issues.

The wood burning fireplace isn't a good heat source. While the vent-less gas fireplace depletes the air of oxygen and produces fumes, which can be a hazard. Check with local authorities too. Some authorities have banned the use of vent-less gas fireplaces, especially in basements.

If you're interested in a wood burning fireplace, you need a steady supply of wood on hand.



These also require a lot of work and maintenance including lighting, stocking, ash cleaning, as well as cutting and carrying wood inside. This provides more ambience than heat unless you get an airtight wood burning stove so you can see the flames.

The best option for a fireplace would be a direct vent gas fireplace. You can see the flames, while the radiant heat does a good job of heating the room and controlling the humidity. You will need someone to install this and you will need to have gas lines in your home. But if you're ever without power, your gas fireplace will provide the heat that you need, until your power comes back on.

If none of these options appeals to you, speak with a heating and cooling specialist about running ductwork to your basement and using your existing heating and cooling system. This should be a relatively inexpensive job to do since in most cases the furnace and air compressor are located in or near the basement, making it a relatively simple process.

Overall, you need to look at your heating and cooling needs. Factor in how you'll be using your basement to determine the best option for you.

There are many 'Trusted Trades' websites around these days. Most promote themselves on the fact that their listings are 'double-checked' and 'reviewed' by their customers, but we all know that these 'checks' and 'reviews' can be manipulated in the chase for advertising 'cash'. Always do your own due-diligence when using these websites.

Throughout this E-book you'll have noticed the 'Check Fred' banners.

This is a local 'Trusted Trades & Services Finder' with a difference. All listings are recommended by existing members only who truly 'value' their own reputations, and as they have 'their own' business link associated with their referrals it would be totally counter-productive for them to recommend 'any' trades or services that they wouldn't 100% recommend and 'use' themselves. Because it would surely reflect on the 'trust' and 'reputation' they've probably taken years to develop.

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