

## **Before & Afters**

**Patio** Sidewalk **Driveway Before Before Before** After **After** After

## Why Does Concrete Settle?



**Poor Soil Conditions:** As soils become saturated with water, the clay expands and <u>loses strength</u>. This condition allows slabs to sink - just like standing in wet mud. This can occur from heavy rains, melting snow or plumbing leaks.



**Poor Compaction:** Many homes are built on backfilled soils. If the soil is not compacted <u>correctly</u> <u>before construction</u>, backfill will gradually compact unevenly, sometimes over a year, which allows slabs to settle.



**Tree Roots:** Trees and large shrubs can consume up to 30 gallons of water a day. If located near concrete, the loss of water in the soil will make the soil contract and can cause the slabs to settle.



**Poor Drainage:** Improper drainage can cause soil <u>instability</u> by creating saturated soils, which allows the slabs to settle. Poor drainage can be typical of an area, or as minor as a misplaced down spout.

Many homeowners make the mistake of waiting until the problem worsens and then end up spending 3-5 times the amount of money to replace, rather than raise their sinking concrete. Until the problem is fixed, your home remains at risk.

## What Signs to Look For...

Concrete problems can come out of nowhere after a big rainstorm usually a concrete problem is an underlying issue that happens slowly over time. But will you notice them early enough to fix them before they get serious?

We're here to help alert you to some of the most telling signs you may have a concrete issue in its early stages. We'll also help find a solution before the problem escalates.



**Cracks and Crumbling** - Since concrete is one of the strongest building materials in the world, any significant wear and tear is cause for concern. Cracks and crumbling could be superficial and simply the sign of a weathering, but it also could indicate a more serious underlying problem: the lack of foundational stability. If the soil is eroding beneath the slab, cracks and crumbling could only be the beginning of the issue. Sinking and shifting could be next, so make sure you get a full assessment of the slab.



**Pooling Water**-Pooling water on the concrete isn't good news. It means there is likely sinking or shifting beneath that is causing the concrete to hold precipitation and impede drainage. Since concrete is a porous material, it's best not to have standing water on it for long periods, so raising the slab surface to facilitate drainage might help.



**Porches or Patios Pull Away from Foundation**-When you see your front stairs or your back patio begin to pull away from the foundation, it's probably not the foundation that's moving – it's the concrete base of your steps or patio. This signifies a lack of support beneath and that the soil has shifted or eroded, so it's imperative to lift and stabilize the structure before it causes further damage.

**It Only Gets Worse, Unless You Take Action** - Maybe you noticed a trend – we keep warning against waiting, encouraging you to act right away. That's because sinking concrete doesn't ever get better on its own. If you trust us to make repairs now, you may be able to avoid replacing the structure down the road.

## **Before & Afters**

Steps

**Before** 



Garage Approach



Stamped Concrete Before



**After** 



**After** 



**After** 



## Save your Sinking Concrete Slab

When we are called to assist a home owner or business owner with a free estimate on whether they should level their concrete, or replace it, they are often happily surprised they can have perfectly aligned concrete again, in a matter of minutes, saving them time and money. That's because when compared to concrete replacement, the process of raising concrete with polyurethane foam is inexpensive (compared to the alternatives), and is exponentially faster than replacing the concrete.



## Important Reasons to Raise Your Slab

**Safety.** Trip hazards can harm you and your family and leaves your property vulnerable to unwanted liability.

**Cost.** You can raise your concrete for less than half the price of replacing the concrete slab.

**Time.** Your slab problem will only worsen in time, fix it now and avoid the hassle later. Raising concrete with polyurethane foam often takes a couple of hours and the structure is ready immediately upon completion.

**Appearance.** Eye sores and additional structural cracks can be the result of unleveled concrete.

**Home Value.** Trying to sell your home? First appearance is everything to a home buyer.

**Structural Damage.** When a concrete slab settles, doors and windows begin to stick and structures connected to the slab start to settle and crack.

**Water Damage.** Water follows the path of least resistance. A settled or sunken driveway may end up costing a homeowner considerable money in foundation repairs over time.

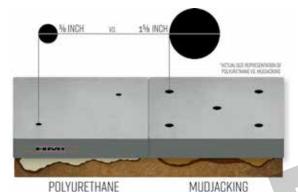
**Be Green.** By raising your concrete, you are saving your current slab from being torn out and deposited in a landfill.







## Difference Between Mudjacking & Polyurethane



#### **Hole Size:**

**Polyurethane** concrete raising drills a nearly invisible 5/8 inch hole and the process calls for considerably fewer holes than traditional mudjacking.

**Mudjacking** involves drilling a series of  $1^{5/8}$  inch holes in a slab of concrete, so the material can be pumped under the settled slab.



## Weight (per cubic foot):

**Polyurethane** concrete raising uses a foam material that is injected under the slab. When the components of this material are mixed, a reaction causes the material to expand. This expanded foam fills any voids beneath the slab and raises concrete. This material will never lose density, is permanent and weighs only about **2 lbs. Per cubic foot**.

**Mudjacking** uses a sand based material that is infused with Portland cement.

This slurry is hydraulically pumped under the slab to fill voids and raise the concrete.

Mudjacking material weighs on average **100 lbs per cubic foot.** 

## **Benefits of Polyurethane Foam**



**Cost Effective:** concrete raising is typically about half the cost of replacing the same concrete. Ultimately, the cost of raising or stabilizing concrete is a direct reflection of how much leveling material the project will require.



**Time:** Ready to use immediately! You can drive on, walk on, and play on it the same day!



**Clean Work Environment:** No concrete or grout splatter and no wash down needed. No heavy equipment will drive through your lawn and disrupt your landscape.



**Smaller Holes:** Polyurethane concrete raising drills a nearly invisible 5/8 inch hole and the process calls for considerably fewer holes than traditional mudjacking; Minimal patchwork needed.



**Lightweight:** This material will never lose its density, is permanent and weighs only 2lbs. per cubic foot. Compared to traditional Mudjacking material, which weighs on average of 100lbs per cubic foot.



**Green:** HMI foam is the top-of-the-line eco friendly material, Every time concrete is raised, we are saving concrete slabs from landfills by raising versus replacing concrete!

## What We Raise...

Essentially, we can raise any form of concrete slab.

All solid slabs of concrete can be raised and stabilized. Gravel areas, blacktop and pavers sitting in sand can not be raised but the soil underneath can be stabilized with Deep Foamjection™. Slabs of concrete that are badly cracked may be too damaged to lift.



## Residential

- Driveways
- Pool Decks
- Walkways
- Garage Floors
- Interior Floors
- Sidewalks



## Commercial

- Factory Floors
- Apartment Complexes



## Municipal and D.O.T

- Roads, Streets, Highways
- Bridge Approach
- Curb & Gutter
- Sidewalk Projects





**Void Fill** 



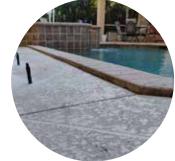


**Sidewalks** 

Porches & Stoops



**Interior Floor Slabs** 



Pool Decks & Patios

## Steps to Raising Your Concrete

Most concrete raising jobs will take a few hours –start to finish–and your concrete will be ready for use immediately upon completion!

**Step 1)** Injection holes are strategically drilled around the areas where the concrete is sunken and requires lifting.

**Step 2)** Once everything is prepped and the hose and materials are in place, the polyurethane foam is injected through the holes. It expands to fill the space underneath the concrete slab, using the slab itself to drive the foam into the crevices, there by lifting the concrete back to its original position.

**Step 3)** Once the concrete is stabilized and lifted to the proper protocol, the injection holes are filled with new cement, allowing you to use your surface immediately.

**Summary:** Polyurethane concrete raising uses a foam material that is injected under the slab. When the components of this material are mixed, a reaction causes the material to expand. This expanded foam fills any voids beneath the slab and raises the concrete. This material will never lose density, is permanent and weighs only about 2 lbs. Per cubic foot.



## Drill.

# Pump.

## Patch.



# We Only Use the Best Foam 🖄

HMI is the ONLY company that makes polyurethane foam for concrete raising from recycled material. HMI manufactures an environmentally friendly, dual component polyurethane foam for raising and stabilizing concrete. Our patented materials (U.S. Provisional Patent Application No. 61/583,295) are made from recycled and biobased components, making it the "greenest" polyurethane foam on the market. Available in 2, 4, 5 and 6 lbs. per cubic foot density (free spray). HMI has developed this revolutionary new foam that is setting new standards in polyurethane foam quality. ASTM tested, this recycled material is the best foam available for raising and stabilizing concrete.



#### Saves our Natural Resources

- Made with Biobased and/or Recycled Material
- Reduces Landfill Waste compared to ripping out and replacing concrete
- Lasts a Lifetime



# Uses Environmentally Friendly Blowing Agents

- VOC Exempt
- US EPA SNAP Listed
- Non-Ozone Depleting
- I nw GWP



#### Non-Toxic and Non-Hazardous

Major toxic chemicals, often associated with some types of polyurethanes, such as formaldehyde and toluene, and VOC's are NOT USED IN HMI FOAMS! Most of what is warned against on the Internet pertains to these chemicals.

- Cured Foam is Fully Inert
- Does Not Leach into Groundwater



## What is Deep Foamjection™?

After

Considered an upgrade to standard concrete raising, Deep Foamjection™ is the process of installing foam deeper to increase the load bearing capacity of the soils.

#### **APPLICATIONS**

- Seawall Repair
- Soil Stabilization
- Void Filling
- Commerical/Residential

- An upgrade to sub-surface concrete lifting
- Repair unstable soils
- Installing a stronger foundation to support slabs and structures that settled
- Foam follows the path of least resistance and will fill weak areas
- Fills fissures and ground voids
- Fills voids holding water & displaces collected water
- Increase load bearing capacity of subgrade
- Permanent repair, foam never changes shape or absorbs ground water
- Foam soaks into the weak soils and then expands, binding the soil and making it solid
- Does not leach chemicals into the ground







# Don't Replace It, RAISEIT

FREE ESTIMATES!