



ARTICLE SERIES  
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## SLAB HEAVE: SHOULD YOU BE WORRIED ABOUT IT?



For those who are building a new home, slab heave is an issue about which you should be aware. While not common, slab heave is a serious problem. The cost of fixing it can be significant and in some cases, it may be necessary to seek legal advice for compensation.

### What is slab heave?

Slab heave is a result of uneven movement of a house footing and slab. Uneven changes in ground moisture can also lead to slab heave, where clay soils swell (and expand) when they become wet, and shrink when they dry out. The level of damage to your home can vary, ranging from uneven floors, jammed doors and unsightly cracks, through to severe cracking of brickwork and internal walls.

### Damage from slab heave

There are typical building and structural defects that will be apparent if slab heave exists. Inevitably, a range of experts will need to assess the defects to determine the complexity of the issue. Some indicators of slab heave include:

- Gaps under walls
- Damage to cornice
- Uneven floors/sinking or rising of your structure
- Doors and windows that won't close properly
- Cracks in your brickwork
- Cracks in your internal walls
- Cracks in your floor and wall tiles
- Plumbing and pipe problems
- Cracked sewer and storm water pipes.

Depending on the level of damage, slab heave can be rectified but it has the potential to be a very costly exercise, particularly in cases where the house needs to be demolished and rebuilt. If you are at all unsure about the issues you're seeing, give us a call at SPI Property Inspections. We can help to ascertain the cause and extent of the problem and give you some professional advice on the next steps to take.

### How does this happen?

Slabs can be built in a number of ways, one of these being the waffle slab. There is some debate over whether the waffle slab can trigger slab heave, as opposed to conventional slabs. However, there is no substantial evidence in this regard.

A waffle pad is a concrete slab, usually 100mm plus thick, poured over polystyrene pads which form channels or beams. It is similar in principal to how conventional slabs used to be poured except instead of polystyrene pads, the area was built up with packed sand.





Inevitably, slab heave can be attributed to the following factors:

- Poor design, including drainage design
- Failure to properly perform geotechnical investigations, i.e. soil tests
- Unsatisfactory building practice where industry standards have not been followed
- Inadequate drainage on reactive soil foundations, so that water ingress results.

### How can you avoid slab heave as the property owner?

Overall, water is your enemy when it comes to slab heave. It's important to keep an eye on any possible water damage around your home, especially during the cooler months. Often water drainage is overlooked until substantial heavy rain alerts you to a problem. We recommend that you locate any potential water sources that are entering the ground around your home and eliminate them.

This may include:

- Fixing leaking pipes and dripping taps
- Ensuring that roof guttering is clear of debris such as leaf litter and silt. This will help prevent any water backing up and flowing back into roof spaces or under your home.
- Clearing the sub-floor area of debris, removing any obstruction to the flow of ventilation to prevent any dampness from developing.

It is recommended to check these issues first before speaking with your builder. You may then need to work with your builder to seek a resolution.

### How SPI can help

When building your new home, you can rely on our team at SPI Property Inspections to help you throughout the construction process. As registered builders, our new home inspectors specialise in reporting on construction projects. We provide a series of independent building inspections covering the critical stages of a new house construction, including:

- Base Stage
- Frame Stage
- Lockup/ Pre-Plaster
- Fixing Stage
- Final Handover (PCI)

For the base stage inspection, it's a smart move to organise this prior to the concrete being poured. This is so items can be checked before they are concealed by concrete.

Items that we check at this stage include:

- the site conditions such as gradient, surface drainage, retaining walls and access,
- orientation of the building and positioning of reinforcement starter bars,
- damp-proofing membrane,
- services such as drainage, plumbing, stormwater, electrical, phone/data and
- termite protection.

It's really important to monitor surface drainage and services during construction of your new home. For this reason, we recommend that you call us at SPI Property Inspections.

**We can give you professional advice and put your mind at rest. Phone us today on 1300 721 032 or email us on [info@spipropertyinspections.com.au](mailto:info@spipropertyinspections.com.au).**

