



Volume 5, Issue 6, June 2010

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Thinking Like a Home Inspector:

Identifying Conditions for Structural Concerns: Part One of a Four Part Series

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What Causes A Home's Structural Problem?



In this picture, an inspector found a homeowner was shoring up their foundation with logs

There are many potential causes of structural problems. Often these problems are associated with older homes, but structural defects occur in new homes too. In fact, Consumer Reports found that an alarming 15 percent of new homes had serious foundation problems. The majority of these problems were found to have one of the following two causes: 1) poor construction and 2) homes being built on poorly compacted fill soils.

Structural settlement can be due to drought conditions where, over time, soil around the foundation dries and shrinks causing the home to shift and settle. Maturing trees and vegetation with

root systems extending below a home's foundation can also dry the soil under a home.

The opposite can also be true. During periods of extreme wet weather, the ground around the home can soften, again causing the home to sink or settle into the foundation soil. Over-irrigation, poor surface drainage, clogged foundation drains and broken water lines can all contribute to saturation, resulting in structural problems. Increased moisture levels can cause some soil types to expand, putting additional pressure on basement walls and causing them to lean or bow inward.

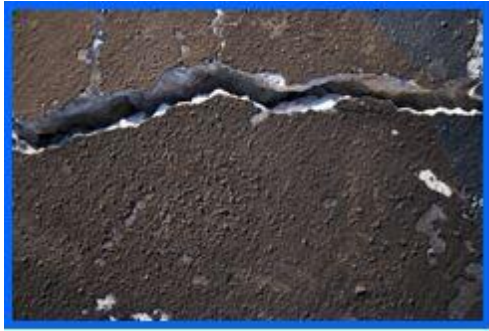
Soils that are highly expansive, organic or collapsible are found throughout the United States and these are generally not well-suited for foundation support. Therefore, due to varying construction techniques, environmental conditions, home and property maintenance issues, and changing soil conditions, no geographic region is free from potential structural problems.



[Click here to learn more about soil conditions along the Front Range!](#)

How Will I Know if a Home Has a Structural Problem?

A home with a settling foundation may display



cracking of exterior cracking, in drywall, and at the corners of door or window framing). Doors and windows may be out of level and difficult to open and close. Floors may also be out of level and concrete floor slabs can display cracking. Evidence of past repairs, such as tuck-pointing brick or patching drywall, are also possible indicators of a settlement problem.

[Want to see more indications of structural concerns? Check out our Foundation Galley by clicking here!](#)

Symptoms of failing basement walls in a home will look different depending upon whether the walls are constructed of concrete block or poured concrete.

Poured walls will typically display diagonal cracks extending upward from the bottom corners of the wall toward the top center. The top of the wall near the middle tends to lean in. Failing basement walls can cause ceiling panels and ceiling drywall to buckle, and cause the drywall on finished walls to crack.

Look closely within crawlspaces for structural problems. Sloping or sagging floors may indicate problems in the crawlspace area below. Sloping or sagging floors are often caused by weakened floor joists due to excess moisture and wood rot in the crawlspace, improper spacing of floor joist support beams or settling of existing interior columns.



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Sincerely,

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