

## CRACKS IN WALLS

**As a general rule, all walls made from paper-covered gypsum board, plasterboard, sheet-rock, lath and plaster or gyprock - will crack!** In some instances, this also includes brick, concrete and concrete block walls as well. Most fractures are caused by shrinkage of the wall material as it cures or expansion of the wall material as it absorbs moisture. Other cracks are caused by physical movement of the wall, its foundation or other concerns.

If you find a crack, rub your fingers across it. If both sides of the crack are even, the crack is most likely from shrinkage. This is a common cracking pattern and is rarely a structural concern. Occasionally, the surface of the wall on each side of the crack is not even. This type of crack may be caused by movement of framing, stress, vibration or any number of events. The best suggestion is to monitor and measure fractures for a few months, or until you notice a significant change in size or direction.

Monitor the fracture? Fractures can move at a slow pace and usually start off as “fine and undefined in depth and direction” - it’s very difficult to tell if it changes. Although, sometimes they appear overnight and are accompanied by a noise, as you might have already experienced. When inspectors discover a fracture in a wall, the first thing we do is try to determine what the fracture has been doing lately. Is it active ... or is it dormant? Fractures that appeared two, five or ten years ago, are far less of a concern than a fracture that is active today.

If there is no evidence to determine or suggest the primary reason for the cracks and fractures in your house - look for a combination of events or activities which may include:

- shrinkage of plaster or gyprock
- extreme or recent temperature variations
- shrinkage or expansion of subsurface materials
- extreme or recent change in humidity levels
- damaged or weak framing materials
- movement of the structure
- settling of footings and foundation walls due to frost and moisture or settling soil
- incorrect thickness of plaster or other materials
- improper installation of lath behind plaster walls
- damaged keys (lath and plaster ceilings and walls)
- construction vibration inside the house or in proximity of the property

Cracks and fractures are generally caused by major changes in temperature or humidity, wall movement, exterior excavation, changes in ground-water patterns, addition or removal of exterior or interior wall materials, inappropriate in-wall ventilation (wrong location of moisture barrier, blocked weep holes, improper spacing of wall materials)