

# Cracks 101 - "So I huffed and I huffed and blew the house down"- Big Bad Wolf

BY TIM OGLESBY, HOME CHECK AMERICA

Serious structural problems in houses are not very common, but when they occur they are expensive to repair. Some can't be fixed at all. This report won't turn you into an expert, but it will give you some of the common indicators.

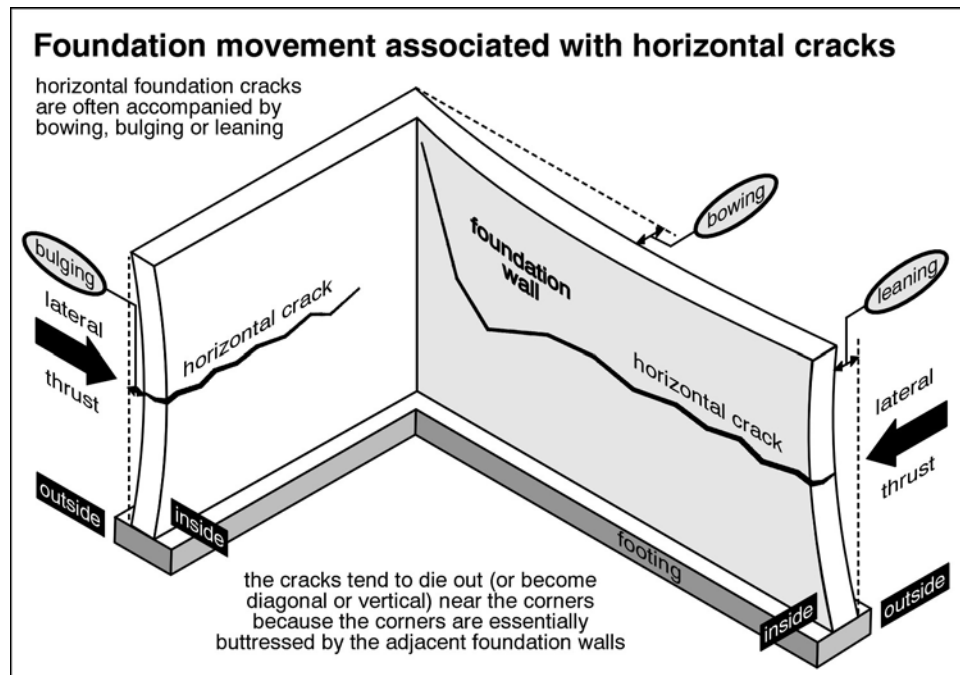
## Uneven Floors

Uneven floors are typical, particularly in older homes. Here is a trick to help distinguish between a typical home with character and a structural problem.

If the floor sags to the middle of the home, it's probably just a charming old home. Houses are like people, they sag in the middle when they get older. On the other hand, if the floor slopes towards an outside wall, there is a good chance that the house has significant structural problems.

## Leaning House

While no house is perfect, this is one area where you should be very careful. Take a look at the house from across the street. If the house appears to be leaning one way or the other, there may be a structural problem. It may help to line up a front corner of the house with the back corner of an adjacent house just for reference. The corners should be parallel. Stepping back from the house to take a look is always a good idea. It is easy to miss something major by standing too close to it! If there is a lean that is detectable by eye, don't take any chances, get it checked out.

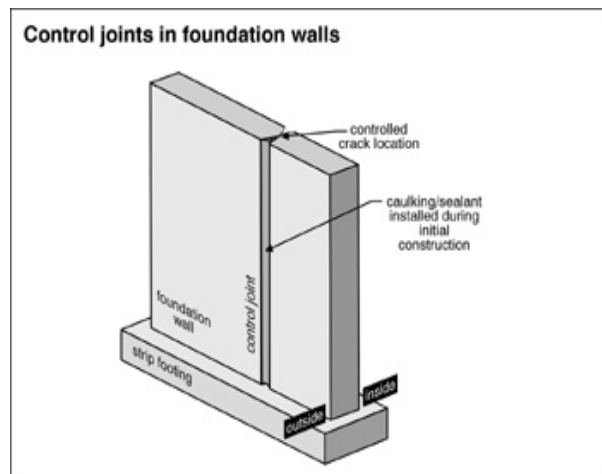
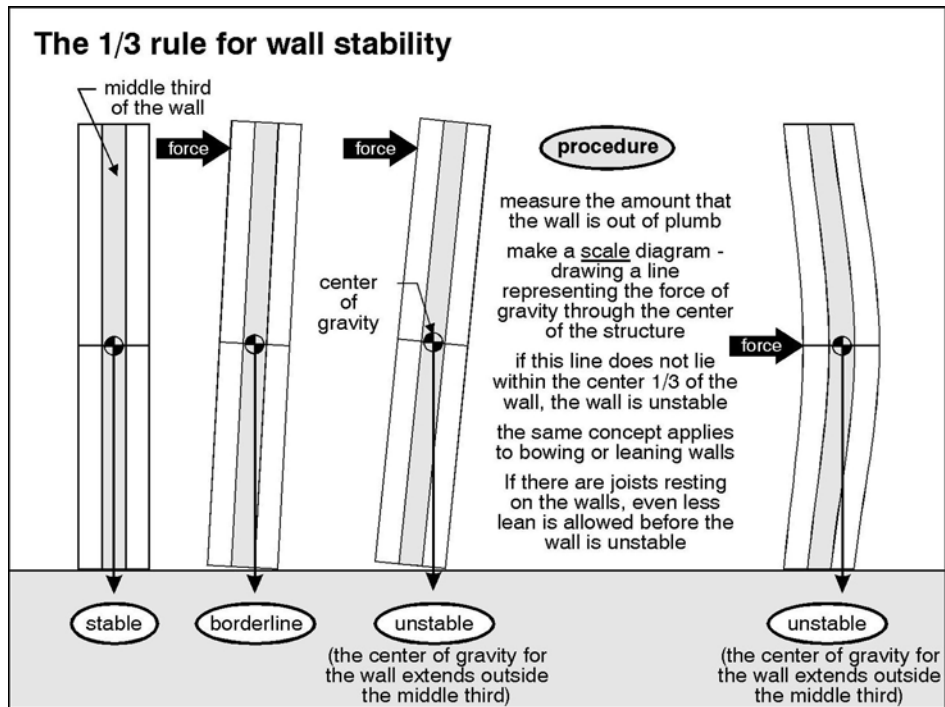


## **HORIZONTAL FOUNDATION CRACKS ARE BAD**

It is not uncommon to find cracks in the foundation, especially poured concrete foundations. This goes for new houses as well as old ones. While there is a great deal of engineering that goes into "reading" these cracks, there is one rule that you should never forget. **"Horizontal cracks are a problem"**. Of course not all vertical cracks are acceptable, but they are generally not as serious as a horizontal crack.

## Leaning Walls

A leaning foundation wall is not ideal either, but may not be a significant defect if movement does not appear to be recent. Home Check America inspectors use the 1/3 rule for wall stability as pictured here.



## Harmless Cracks

Poured concrete shrinks as it cures. Shrinkage cracks in a new house are common and can be small vertical cracks or small 45 degree cracks at the basement windows. These cracks are about 1/8 inch wide or less. They don't affect the structure. The only concern is leakage. If you see small cracks in a new foundation, don't panic. In fact, in a new home, some builders will pre-crack the foundation and fill the crack with flexible material.

## Plaster or Drywall Cracks:

Few things are more misunderstood than plaster or drywall cracks on the inside of the house. See my article on truss uplift.

**The following crack types are not generally related to structural movement: We call these “stress cracks” or “surface cracks”.**

- a small crack (less than 1 /8 inch) that follows the corner of the room where two walls meet, or at the ceiling and wall joint.
- small cracks that extend up from the upper corner of a door opening

**The following cracks may be related to structural movement –**

- large cracks (larger than 1 /8 inch in width) or cracks that have deflection (a lip, where one side of the crack is beyond the other side of the crack).
- cracks that run diagonally across the wall, or in a stair step fashion.
- cracks on the interior finish that is in the same vicinity as cracks on the exterior of the house.

Structural movement or structural damage cracks can be repaired in a number of ways, such as; building buttresses, pilasters, steel tie-backs, steel channel columns, sister walls, etc. A good inspector can describe these methods to you should the need arise.



**About the Author**

In 1984 Tim Oglesby unknowingly bought a home with significant defects. In 1994 he began Home Check America to assist new homeowners in NE Illinois. With degrees in business and management, trained as a home inspector with Carson & Dunlop Engineering, general contractor for ten years, a licensed home inspector and real estate broker; he is a sought after public speaker and author on issues important to property management and homeownership.

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