

## The Story with Sinkholes

Sinkholes are one of those aspects of Florida life that create fear and trigger a barrage of questions. Where are they hiding? Will one appear and swallow up my house, car and everything I own? The phenomenon of sinkholes, like hurricanes, is often misunderstood and fueled by journalistic sensationalism. However, it is a reality that needs to be viewed in perspective of the real-world threat they represent and degree of damage they can cause.

Let 's begin by understanding what a sinkhole is and why it develops. Most of Florida's land area is comprised of the carbonate rock of limestone in varying thickness and different mixtures of sand and clay. Florida limestone is porous and allows rainwater to percolate through layers of the stone. Rainwater which is inherently slightly acidic and becomes more acidic as it flows through layers of decaying organic plants makes up much of the water coming in contact with the limestone. Over long periods of time this flow of water dissolves the limestone resulting in collapse of layers of rock into underground cavities. The result is a surface depression that is referred to as a sinkhole, which can vary greatly in diameter and depth. Some occurrences include sudden large-scale collapses while others progress slowly and result in rather shallow depressions.

Circumstances contributing to the formation of a sinkhole include heavy rainfall, particularly following a drought, and excessive pumping of groundwater.

The fact is, sinkholes occur in 20% of 48 contiguous states with Florida reporting more sinkholes than any other state. Other states with a history of significant sinkhole activity include Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania.

Due to Florida's overall subsurface coverage by carbonate rocks a sinkhole can in theory occur anywhere. However, some regions have a higher risk. Typical of these locations are where the limestone is closer to the surface or places where concentrated construction and develop activity has altered natural drainage patterns or caused cracks in the limestone layer. You'll find a by-product in those locations greater insurance claims resulting in higher homeowner insurance premiums. An example is the region affectionately called "sinkhole alley" comprised of Hernando, Pasco and Hillsborough Counties.

Due to a change in rulings a few years ago standard homeowner insurance policies in Florida only cover catastrophic sinkhole damage. Lesser levels of damage resulting from sinkholes is available by adding a special sinkhole coverage rider to a homeowner policy. Like an area with a greater threat for hurricanes an region in the state with greater sinkhole activity will result in overall higher homeowner insurance rates.

Keep in mind that not all depressions that occur are sinkholes. There are a variety of other situations that can form what appear to be a sinkhole. They include broken sewer/drain pipes, broken septic tanks, subsurface organic layers that compress as water is removed, decay of buried debris and excavation activity with improperly compacted soil.

On a final note, many sinkholes ultimately do not impact the structural integrity of buildings. In fact many occurrences are found in rural settings far away offering no threat of gobbling up the family sedan.

In the end, the likelihood of significant sinkhole damage to a home remains statistically small and not worth the stress of losing sleep over. Then again, if your home is the one that falls prey to a significant sinkhole, a few restless nights is a likely consequence.