MYTH NUMBER ONE - "Big earthquakes always happen in the morning"
Several recent damaging earthquakes HAVE happened in the early morning hours so many people assume that all big earthquakes happened then. In fact, earthquakes occur at all times during the day. The 1933 Long Beach earthquake was a 5:54 p.m. and the 1940 Imperial Valley event was at 9:36 p.m. Even recently, the 1990 Upland earthquake was at 3:43 p.m. and the 1989 Loma Prieta event was at 5:02 p.m. It is easy to notice the earthquakes that fit the pattern and forget about the ones that don't.

MYTH NUMBER TWO - "It's hot and dry - earthquake weather!"
Many people believe that earthquakes are more common in certain kinds of weather. In fact, no correlation with weather has been found. Earthquakes begin many kilometers below the region affected by surface weather. People tend to notice earthquakes that fit the pattern and forget the ones that don't. Also, every region of the world has a story about earthquake weather, but the type of weather is whatever they had for their most memorable earthquake.

MYTH NUMBER THREE - "Beachfront property in Arizona."
The idea of California falling into the ocean has had an enduring appeal to those envious of the life in the Golden State. Of course, the ocean is not a great hole into which California can fall, but it is itself land at a somewhat lower elevation with water above it. The motion of plates will not make California sink - California is moving horizontally along the San Andreas fault and up around the Transverse Ranges.

MYTH NUMBER FOUR - "We have good building codes so we must have good buildings."
The tragedy in Kobe, Japan, one year after the Northridge earthquake, painfully reminds us that the best building codes in the world do nothing for buildings built before the code was enacted. Fixing problems in older buildings (retrofitting) is the responsibility of the building's owner.

MYTH NUMBER FIVE - "Head for the doorway!"
An enduring earthquake image of California is a collapsed adobe home with the door frame as the only standing part. From this came our belief that a doorway is the safest place to be during an earthquake. True - if you live in an old, unreinforced adobe house. In modern houses, doorways are no stronger than any other part of the house and usually have doors that will swing and can injure you. You are safer under a table.

MYTH NUMBER SIX - "My friend knows someone at Caltech and he says they have just called the mayor..."
Within a few days after every significant earthquake, a rumor will begin to circulate that "Cal. Tech." has predicted a "major" earthquake for some time in the near future.

Neither Caltech, its scientists, nor the scientists of any other research organization in southern California have ever successfully predicted an earthquake's time within days, nor do they know how, or expect to know how, any time in the foreseeable future. Caltech denies these rumors each time, but since part of the rumor is that "they are keeping it quiet to prevent a panic," this is not always effective.

One source of confusion is that probabilities are estimated from the rate of aftershocks and these are sometimes confused with the prediction of a particular event.

MYTH NUMBER SEVEN - "And the earth opened..."
A popular literary device is a fault that opens during an earthquake to swallow up an inconvenient character. But unfortunately for principled writers, gaping faults exist only in novels.

The ground moves across a fault during an earthquake, not away from it. If the fault could open there would be no friction. Without friction, there would be no earthquakes.

MYTH NUMBER EIGHT - The vertical earthquake.
Some people think that because the Northridge earthquake happened on a thrust fault, lifting up the

northern San Fernando Valley, that the shaking must have been vertical. This is like saying that because your thumb moves up when snapping your fingers, the air vibrating in your ear when you hear the snap is also vibrating vertically. In fact, as in all earthquakes, the horizontal shaking in the Northridge earthquake was on average twice as large as the vertical shaking.

Sources:
Federal Emergency Management Agency
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