

Frequently Asked Questions

• What is ShakeAlert®?

ShakeAlert is an Earthquake Early Warning system developed by the U.S. Geological Survey (USGS) and its partners that detects significant earthquakes quickly, so alerts can tell people to take protective action when weak or greater shaking is expected at their location. ShakeAlert also delivers alerts that trigger automated actions, such as slowing a train and opening fire station doors.



DETECTION AND PROCESSING (USGS)

Using sensors in the field, the ShakeAlert® Earthquake Early Warning system **DETECTS** ground motion from an earthquake that has already begun and passes that information to a **PROCESSING** center. ShakeAlert quickly estimates the location, magnitude, and shaking intensity of the earthquake and if the event fits the right profile, a ShakeAlert Message is issued by the USGS.



DELIVER (Distribution Partners)

Once a ShakeAlert Message is issued, it is picked up by distribution partners, such as utilities, hospitals, transportation systems, schools, emergency management agencies, and others. The contents of the Message are used to produce and **DELIVER** an alert that tells people to take protective actions, such as **DROP-COVER-HOLD ON**, or triggers automated actions.



PROTECT (Technical Partners)

The alert protects people and vital infrastructure by instructing computers to trigger automated actions, such as slowing trains, closing water valves, opening firehouse doors, starting back-up generators, and issuing public announcements.



PROTECT (You)

You may get an alert to a cell phone through a downloadable app or automatically as a Wireless Emergency Alert (WEA), just like severe weather and AMBER alerts. You may also get an alert by TV, radio, or as a public announcement. You may only have seconds to take immediate protective actions, such as **DROP-COVER-HOLD ON**. You may have to adjust to your situation and environment.

If you feel shaking or get an alert, immediately DROP-COVER-HOLD ON.
Do not wait, because seconds matter!

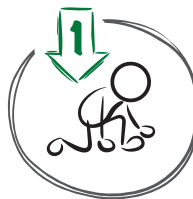
• How should you protect yourself when you get an alert?

When you get an alert, immediately **DROP-COVER-HOLD ON**. *Do not wait to feel shaking!*

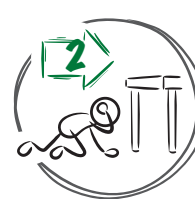
- **DROP** where you are onto your hands and knees. This position protects you from being knocked down and allows you to stay low and crawl to shelter, if it is nearby.
- **COVER** your head and neck with both arms and hands. If a sturdy table or desk is nearby, crawl underneath it for shelter. If no shelter is nearby, crawl next to an interior wall (away from windows, hanging objects, and tall furniture).
- **HOLD ON** to your shelter until shaking stops. Be prepared to move with your shelter if it shifts.



If you FEEL SHAKING or GET AN ALERT...



DROP!



COVER!



HOLD ON!

• What if you can't cover under a desk or table when you get an alert?

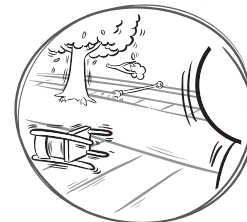
You may have to adapt to your situation and environment.

- **If you are outside**, stay away from buildings, streetlights, and overhead utility lines. Do not go inside! **DROP** to your knees and bend over to protect vital organs, then **COVER** your head and neck with your arms and hands. **Do not go inside!**
- **If you are in a recliner or chair**, bend over to protect vital organs and **COVER** your head and neck with a book, pillow, or your hands and arms.
- **If you are in a bed**, stay there. If possible, lie face down and **COVER** your head and neck with a pillow. **HOLD ON** to your head and neck with both hands until shaking stops. You are less likely to be injured by objects by staying where you are.
- **If you use a wheelchair**, move to an interior wall and **LOCK** your wheels. Bend over and **COVER** your head and neck with your arms, a book, or a pillow. Then, **HOLD ON** until shaking stops.
- **If you are in a vehicle**, activate the emergency alert flashers, pull over, and stay inside the vehicle. Never stop under or near trees, utility wires, overpasses, bridges, or gas stations.
- **If you are in a store** or where there is no place to take cover, move away from overhead objects to an interior space, then **DROP** to your knees and bend over to protect vital organs, and **HOLD ON** to your head and neck with both arms and hands.



• When can you expect to get an alert?

- You may get an alert before, during, or after shaking begins at your location, depending on your distance from the quake. Typically, people at farther distances from an earthquake epicenter will have more time to self-protect and may experience less intense shaking. For every earthquake, there is a region near the epicenter where alerts will not arrive before shaking begins.
- If you feel shaking and did not get an alert, immediately **DROP-COVER-HOLD ON**. In rare cases, you could get an alert when there was no earthquake. Accuracy is expected to increase as ShakeAlert system technology improves over time.



You may feel shaking and not get an alert.



You may get an alert after you feel shaking.



You may get an alert and not feel strong shaking or any shaking at all.

For more information about ShakeAlert and additional ways to stay safe during an earthquake, visit ShakeAlert.org and follow USGS on Twitter @USGS_ShakeAlert.



ORShakeAlert.us

ShakeAlert™