

ShakeAlert[®] Basics

• What is ShakeAlert?

ShakeAlert is the nation's only public Earthquake Early Warning (EEW) System, today serving 50+ million people in California, Oregon, and Washington. Managed by the U.S. Geological Survey (USGS), ShakeAlert detects significant earthquakes quickly, so alerts can be delivered to people before strong shaking arrives, urging them to take an immediate protective action, such as **Drop, Cover, and Hold On**. Alerts can also trigger automated protective actions, such as slowing trains, closing water system valves, issuing public announcements, and opening firehouse doors, among others.

• How does ShakeAlert detect an earthquake?

The ShakeAlert Earthquake Early Warning System uses over 2,000 seismic and Global Navigation Satellite System (GNSS) sensors to detect ground movement during earthquakes.

Together, these two types of sensors ensure that the system can rapidly and accurately detect and measure earthquakes of any size (magnitude).

Ultimately, fast detection and processing of earthquake data can lead to rapid alert delivery so people and automated systems on which they depend can take an immediate protective action.

While the ShakeAlert System is constantly improving, it does not predict earthquakes.

ShakeAlert Benefits



Saves lives and minimizes injuries



Reduces earthquake damage to property and infrastructure systems



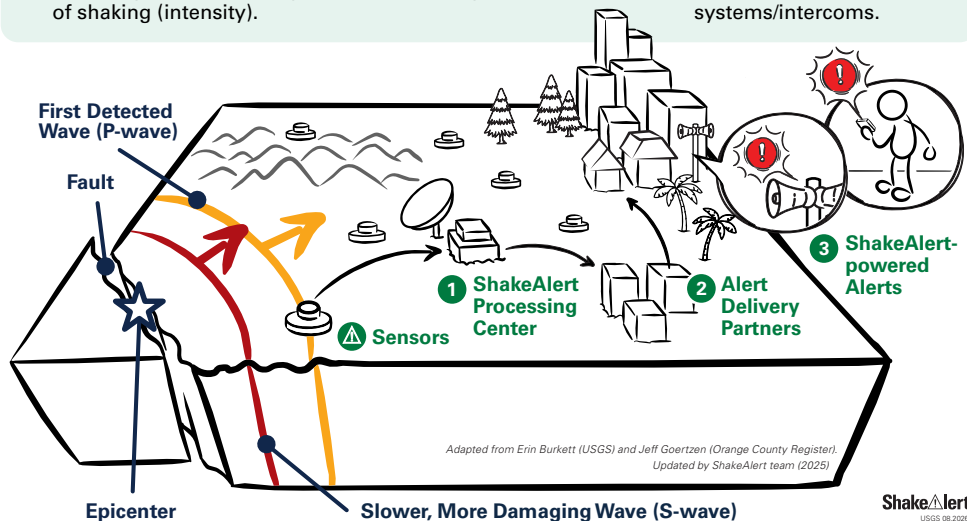
Reduces economic impacts of earthquakes



Speeds the return to normal operations and community recovery

ShakeAlert[®] Earthquake Early Warning

- 1 ShakeAlert sensors detect an earthquake in progress and data Processing Centers rapidly estimate its location, size (magnitude), and degree of shaking (intensity).
- 2 USGS-licensed Alert Delivery Partners pick up this data and deliver alerts where strong shaking may occur.
- 3 Protect yourself if you get feel shaking or get an alert! ShakeAlert also triggers automated systems, such as public address systems/intercoms.



• Will everyone get an alert?

No, not everyone will get an alert every time they may feel shaking. Those who are directly above or very near the earthquake origin are not likely to get an alert before shaking is felt. This is because there may not be enough time to detect, confirm, and deliver an alert to those close to the epicenter before alerted strong shaking arrives. This is why it is important to take a protective action if you feel shaking or get an alert.

• What are some ways ShakeAlert EEW delivers alerts to people and vital systems?

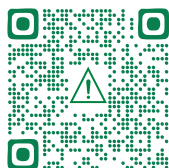
There are several cost-free ways to get ShakeAlert-powered alerts. Having multiple ways of getting alerts increases your chances of being alerted that strong shaking is expected at your location.

- **Wireless Emergency Alerts from FEMA:** Depending on your cell phone, this setting may be found under Emergency Alerts or Government Alerts.
- **Cell Phone Operating Systems:** Android and iOS have built-in EEW alerting.
 - For Android: crisisresponse.google/android-early-earthquake-warnings
 - For iOS: support.apple.com/en-us/102516
- **Apps:** Get the MyShake app from the App Store (iOS devices) or Google Play (Android devices). There is no app called “ShakeAlert” to download.
- ShakeAlert-powered vital systems can also be alerted so they can trigger automated protective actions.

• How can someone be sure they can get alerts on their cell phone?

Chances are your cell phone is “ShakeAlert Ready” when strong shaking is expected near you. Check settings to make sure Wireless Emergency Alerts are enabled. Depending on your cell phone, this setting may be found under Emergency Alerts or Government Alerts.

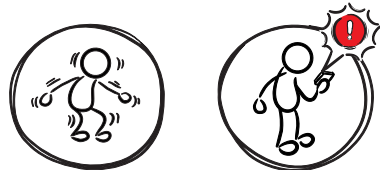
Recognize that operating systems may change the names and locations of these settings from time to time. Stay aware and be ShakeAlert safe!



It is important to have multiple ways to get alerts.

usgs.gov/FAQ/BeShakeAlertSafe

• What should someone do if they feel shaking or get an alert?



If You Feel Shaking OR Get an Alert...



DROP

COVER

HOLD ON

Using a cane?



Drop



Cover



Hold On

Using a walker?



Lock



Cover



Hold On

Using a wheelchair?



Lock



Cover



Hold On

In a bed?



Turn

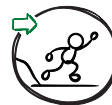


Cover



Hold On

Outdoors?



Move to an Open Space



Drop and Cover



Hold On

Driving?



Slow Down



Pull Over, Stop



Stay Inside

On the Pacific Coast?

Wait for shaking to stop, then...



Go to high ground or inland immediately



Stay there until local officials say it's safe to return

The shaking is your tsunami warning. Tsunami waves may arrive for hours.