



**Are You
Prepared?**

Tsunamis

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Tsunamis, also known as seismic sea waves (mistakenly called “tidal waves”), are a series of enormous waves created by an underwater disturbance such as an earthquake, volcanic eruption or meteorite. A tsunami can move hundreds of miles per hour in the open ocean and smash into land with waves as high as 100 feet or more.

From the area where the tsunami originates, waves travel outward in all directions. As the wave approaches the shore, it builds in height. The coastline and ocean floor landscape will influence the size of the wave. There may be more than one wave, and succeeding waves may be larger than the ones before. That is why a small tsunami at one beach can be a giant wave a few miles away.

All tsunamis can be dangerous, even though they may not damage every coastline they strike. A tsunami can strike anywhere along most of the U.S. coastline. The most destructive tsunamis have occurred along the coasts of California, Oregon, Washington, Alaska and Hawaii.

Earthquake-induced movement of the ocean floor most often causes tsunamis. If a major earthquake or landslide occurs close to shore, the first wave in a series could reach the beach in a few minutes, even before a warning is issued. Areas are at greater risk if they are less than 25 feet above sea level and within a mile of the shoreline. Drowning is the most common cause of death associated with a tsunami. Tsunami waves and the receding water are very destructive to structures in the run-up zone (the area where waves come onshore). Other hazards include flooding, contamination of drinking water and fires from gas lines or ruptured tanks.

Know the Terms

Familiarize yourself with these terms to help identify a tsunami hazard:

- **Warning**—Issued when a tsunami with the potential to cause widespread flooding is imminent or expected. Warnings alert the public that dangerous coastal flooding accompanied by powerful currents is possible and may continue for several hours after it arrives. Warnings also alert emergency management officials to take action for the entire tsunami hazard zone. Appropriate actions local officials should take may include evacuating low-lying coastal areas and repositioning ships to deep waters while there is time to safely do so. Warnings may be updated, adjusted geographically, downgraded or canceled. To provide the earliest possible alert, initial warnings are normally based only on seismic information.
- **Advisory**—A tsunami advisory is issued when a tsunami that can cause strong currents or waves dangerous to those in or very near the water is imminent or expected. The threat may last for several hours after initial arrival, but significant flooding is not expected for areas under an advisory. Appropriate actions for local officials to take may include closing beaches, evacuating harbors and marinas, and repositioning ships to deep waters while there is time to safely do so. Advisories are normally updated to continue the advisory, expand/reduce affected areas, upgrade to a warning or cancel the advisory.
- **Watch**—A tsunami watch is issued to alert emergency management officials and the public of a tsunami event that may later affect the watch area. The watch area may be upgraded to a warning or advisory—or canceled—based on updated information and analysis. Therefore, emergency management officials and the public should prepare to take action. Watches are normally issued based on seismic information without confirmation that a destructive tsunami is underway.
- **Information statement**—A tsunami information statement is issued to inform emergency management officials and the public that an earthquake has occurred, or that a tsunami warning, watch or advisory has been issued for another section of the ocean. In most cases, information statements are issued to indicate there is no threat of a destructive tsunami and to prevent unnecessary evacuations. An information statement may, in appropriate situations, caution about the possibility of destructive local tsunamis. Information statements may be re-issued with additional information, though normally these messages are not updated. However, a watch, advisory or warning may be issued for the area, if necessary, after analysis and updated information becomes available.

Before a Tsunami

The following are things you can do to protect yourself, your family and your property from the effects of a tsunami:

- Build an emergency kit and make a family communications plan.
- Talk to everyone in your household about what to do if a tsunami occurs. Create and practice an evacuation plan for your family—knowing the plan may save your life. Be able to follow your escape route at night and during inclement weather. You should be able to reach your safe location on foot within 15 minutes. Practicing your plan makes the appropriate response more of a reaction, requiring less thinking during an actual emergency.
- Know your community's warning systems and disaster plans, including evacuation routes.
- Know how high above sea level your street is, as well as how far from the coast or other high-risk waters your street is located. Evacuation orders may be based on these numbers.
- If you are a tourist, familiarize yourself with local tsunami evacuation procedures. You may be able to safely evacuate to the third floor and higher in reinforced concrete hotel structures.
- If an earthquake occurs and you are in a coastal area, turn on your radio to find out whether there is a tsunami warning.

During a Tsunami

- Follow the evacuation order issued by authorities and evacuate immediately. Take your animals with you.

- If the school evacuation plan requires you to, pick your children up from school or from another location. Be aware that telephone lines during a tsunami watch or warning may be overloaded, and routes to and from schools may be jammed.
- Move inland to higher ground immediately. Pick areas 100 feet above sea level or go as far as 2 miles inland, away from the coastline. If you cannot get this high or far, go as high or far as you can. Every foot inland or upward may make a difference.
- Stay away from the beach. Never go down to the beach to watch a tsunami come in. If you can see the wave, you are too close to escape it. CAUTION: If the water is noticeably receding away from the shoreline, move away immediately. This is nature's tsunami warning.
- Save yourself, not your possessions.
- Remember to help your neighbors who may require special assistance, such as infants, elderly people and individuals with access or functional needs.

After a Tsunami

- Return home only after local officials tell you it is safe. Tsunami waves may continue for hours. Do not assume that after one wave the danger is over—the next wave may be larger than the first one.
- Go to a designated public shelter if you have been told to evacuate or you feel it is unsafe to remain in your home. Text **SHELTER** + your ZIP code to **43362** (4FEMA) to find the nearest shelter in your area (example: **shelter 12345**).
- Avoid disaster areas. Your presence might interfere with emergency response operations and put you at further risk from floods.
- Stay away from debris in the water—it may pose a safety hazard to people or pets.
- Check yourself for injuries and get first aid as needed before helping injured or trapped persons.
- If someone needs to be rescued, call professionals with the right equipment to help. Many people have been killed or injured trying to rescue others.
- Help people who require special assistance, such as infants, elderly people, those without transportation, people with access and functional needs and large families who may need additional help.
- Use a National Oceanic and Atmospheric Administration Weather Radio, a Coast Guard radio station or a local radio or television station for the latest updates.
- Stay out of any building that has water around it. Floodwater can cause floors to crack or walls to collapse.
- Use caution when re-entering buildings or homes. Tsunami-driven floodwater may have damaged buildings where you least expect it. Carefully watch every step you take.
- To avoid injury, wear protective clothing and be cautious when cleaning up.

In addition to insuring your home, our team is committed to helping you and your loved ones stay safe when disaster strikes. If you would like more information on developing a family emergency plan or building a disaster supply kit, please contact us today.