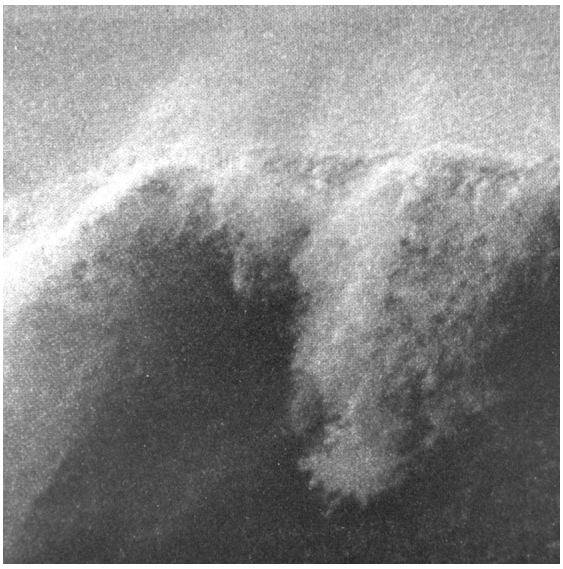
Tsunamis



Tsunami (pronounced soo-ná-mee), sometimes mistakenly called a tidal wave, is a series of enormous waves created by an underwater disturbance such as an earthquake. 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, although most waves are less than 18 feet high.

Take tsunami warnings seriously. Follow local instructions.

From the area where the tsunami originates, waves travel outward in all directions much like the ripples caused by throwing a rock into a pond. In deep water the tsunami wave is not noticeable. Once the wave approaches the shore it builds in height. All tsunamis are potentially 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 generates tsunamis. Landslides, volcanic eruptions, and even meteorites can also generate 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 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. Other hazards include flooding, contamination of drinking water and fires from gas lines or ruptured tanks.

What to do before a tsunami

1. Know the terms used by the West Coast/Alaska Tsunami Warning Center (WC/ATWC—responsible for tsunami warnings for California, Oregon, Washington, British Columbia, and Alaska) and the Pacific Tsunami Warning Center (PTWC—responsible for tsunami warnings to international authorities, Hawaii, and the U.S. territories within the Pacific basin).

   • **Advisory**—An earthquake has occurred in the Pacific basin, which might generate a tsunami. WC/ATWC and PTWC will issue hourly bulletins advising of the situation.

   • **Watch**—A tsunami was or may have been generated, but is at least two hours travel time to the area in Watch status.

   • **Warning**—A tsunami was or may have been generated, which could cause damage; therefore, people in the warned area are strongly advised to evacuate.

2. Listen to radio or television for more information and follow the instructions of your local authorities.

3. Immediate warning of tsunamis sometimes comes in the form of a noticeable recession in water away from the shoreline. This is nature's tsunami warning and it should be heeded by moving inland to higher ground immediately

4. If you feel an earthquake in a coastal area, turn on your radio to learn if there is a tsunami warning.

5. Know that a small tsunami at one beach can be a giant wave a few miles away. The topography of the coastline and the ocean floor will influence the size of the wave.

6. A tsunami may generate more than one wave. Do not let the modest size of one wave allow you to forget how dangerous a tsunami is. The next wave may be bigger.

7. Prepare for possible evacuation. Learn evacuation routes. Determine where you would go and how you would get there if you needed to evacuate. See the "Evacuation" and "Emergency Planning and Disaster Supplies" chapters for information.

Do not let the modest size of one wave allow you to forget how dangerous tsunamis are. The next wave in the series may be much larger.

What to do during a tsunami

1. If you are advised to evacuate, do so immediately.

2. Stay away from the area until local authorities say it is safe. Do not be fooled into thinking that the danger is over after a single wave—a tsunami is not a single wave but a series of waves that can vary in size.

3. Do not go to the shoreline to watch for a tsunami. When you can see the wave, it is too late to escape.

What to do after a tsunami

1. Avoid flooded and damaged areas until officials say it is safe to return.

2. Stay away from debris in the water, it may pose a safety hazard to boats and people.

3. See the "Recovering From Disaster" chapter for more information.