

# Tilly Spots a Tsunami

A tsunami (soo-nah-mee) is a series of waves that can cause dangerous surges of water along shorelines. These surges can last minutes, or even hours. Most tsunamis are caused by earthquakes under the ocean. The energy released from the earthquake pushes the entire column of ocean water and sends waves rushing through the ocean until they run up on the shore. The word *tsunami* is Japanese for harbor (tsu) and wave (nami).

Tsunamis move fast when they are in the ocean, sometimes as fast as a jet plane. They can be caused by earthquakes, volcanoes, or meteor impacts thousands of miles away. Sometimes, even landslides can cause tsunamis. That's why it's important to be on the lookout for the warning signs of a tsunami when you are near the ocean, so that you can get away from the water and as high as possible before the tsunami comes to shore.

What are the warning signs of a tsunami? Here's the story of a 10-year-old girl named Tilly Smith who learned about tsunamis in school. Tilly shared what she learned when a tsunami was on its way to a beach where her family was taking a vacation. See if you can spot the warning signs that helped Tilly save the day. This is Tilly's story:

It was another beautiful day on the beach in Thailand. Back home in England, most people were bundled up against the cold on the day after Christmas, but Tilly Smith and her family were spending the holidays where the sun was warm and the water was bright blue.

One day, Tilly noticed fizzy bubbles on the water, and the water seemed to be rolling farther up the beach than it had a few minutes ago. "That's strange," Tilly said to her mom. "It looks like the beach is getting smaller."

Then Tilly remembered where she had seen this before.

"We should get off the beach," Tilly told her mother. "I think there may be a tsunami coming!"

"What's a tsunami?" her mother asked.

Tilly explained that she had learned about tsunamis at school a few weeks ago. "They are strong waves caused by undersea earthquakes," she said. "And they travel very fast. We have to leave the beach now!"

Even though Tilly's mom and dad had never heard of a tsunami, they could see that the ocean was behaving in an

unusual way, so they started back to their hotel. They told the hotel staff what Tilly had seen, and the staff immediately ran out to the beach and told everyone to get away from the water. Then, a few minutes later, a tsunami did crash onto the beach, spilling water past the hotel and for miles beyond.

Thanks to Tilly, everyone on that beach was safe!



What warning sign made Tilly think that a tsunami was coming?

ANSWER: Ocean water rising quickly up the beach, making it look smaller

**Be Prepared!** If you see the warning signs of a tsunami or hear a tsunami warning on the news, move immediately away from the shoreline and as high up as possible. If you feel an earthquake while you are near a beach, that could be the start of a tsunami, too. Drop, Cover, and Hold On to protect yourself from the earthquake. Then, once the shaking stops, move as quickly as possible away from the shoreline and as high up as possible. Don't try to watch a tsunami — if you can see the waves, you are too close for safety.

**To Learn More** about tsunamis, visit [www.tsunami.noaa.gov](http://www.tsunami.noaa.gov) and [www.ready.gov/kids/know-the-facts/tsunamis](http://www.ready.gov/kids/know-the-facts/tsunamis), and play the tsunami episode of Monster Guard, a free app available at [redcross.org/monsterguard](http://redcross.org/monsterguard). You can see Tilly Smith talk about her experience at <http://youtu.be/V0s2i7Cc7wA>. You can also ask an adult to download the free Red Cross emergency apps at [redcross.org/mobile-apps](http://redcross.org/mobile-apps). To learn more about all kinds of emergencies, visit [redcross.org/pillowcase](http://redcross.org/pillowcase).