

The storm surge, though, remains the greatest threat from a hurricane. A storm surge is the rise in ocean level along a coastline caused by a hurricane. It can be a dome of ocean water 20 feet (6 meters) high at its peak and 50 to 100 miles (80 to 161 kilometers) long. If a storm surge occurs near the time of high tide, the height of the water will be even greater. A storm tide is the combination of storm surge and high tide. A storm surge can devastate coastal communities as it sweeps ashore. In recent years, the fatalities associated with storm surge have been greatly reduced as a result of better warning and preparedness in coastal communities.

Strong winds can create large areas of devastation, destroying mobile homes, tearing off roofs, and toppling power lines and trees. Hurricane-force winds can extend well inland from the coast, with the strongest sustained winds normally on the right side of the hurricane based on the heading. If the hurricane is heading north, the strongest winds will be in the eastern half of the storm. In addition, hurricanes can spawn tornadoes, which add to the destructiveness of the storm.

How can I protect myself in a hurricane situation?

Preparation is the best protection against the dangers of a hurricane. Well before a hurricane threatens, people should make their homes as "hurricane proof" as possible and plan and practice what they will do if they are advised to evacuate. And most important, people should evacuate the area if advised by authorities to do so, even if they themselves do not think the situation looks threatening.

Eighty to 90 percent of the people who live in hurricane-prone areas have never experienced the core of a major hurricane. Many of these people have been through weaker storms and have a false impression of a hurricane's damage potential. This can lead to complacency and delayed actions that result in injuries and death. Over the past several years, the hurricane warning system has provided adequate time for people on barrier islands and the immediate coastline to move inland when hurricanes threaten. However, it is becoming more difficult to evacuate people from the barrier islands and other coastal areas because road construction has not kept pace with the rapid population growth. If authorities advise people to evacuate, it is best to leave as soon as possible to avoid traffic tie-ups.

The best ways to protect your home are to install permanent hurricane shutters on windows and doors, tie the roof to the mainframe of your home with metal straps, and prepare a "wind safe" room. (See Appendix: "Wind Safe" Room.) NOTE: a "wind safe" room would be used only for locations where residents have not been asked to leave or evacuate. If you do not have permanent hurricane shutters, use plywood. Well before there is the threat of a hurricane, buy half-inch plywood boards suitable for outside use—marine plywood is best. Cut the boards to fit the outside frame of each window and door; drill the holes for the screws and install the anchors so you can quickly board up your home if necessary. Write on each board which opening it fits. Do not tape glass. Taping does not prevent glass from breaking and takes critical time from more effective preparedness measures.

Every home in hurricane-prone areas should have ready the items needed to board up windows and doors. When a hurricane threatens, supplies are quickly sold out at stores. Most homes destroyed during recent hurricanes had no window protection. When wind enters a home through broken windows, the pressure that builds against the walls can lift a roof and cause walls to collapse.

Make sure that you protect any outbuildings that may house animals in the same way you protect your home.