Experimental Red Tide Respiratory Forecast

Overview: Know the Risk

This Experimental Forecast provides information on when the red tide caused by *Karenia brevis* could be impacting area beaches so that people who are susceptible to its impacts will know the risks.

Impacts happen when *K. brevis*, the organism that causes red tides in the Gulf of Mexico, is present and winds blow onshore or alongshore (generally from the west). Offshore winds (typically from the east) usually keep respiratory impacts to a minimum.

Most People: Experience minor respiratory irritation — coughing, sneezing, teary eyes and an itchy throat — when red tide is present and winds are blowing onshore. These symptoms go away when you leave the beach.

People with Chronic Lung Problems: People with asthma, COPD or other lung diseases can have severe reactions when they breathe in airborne red tide toxins. Health officials advise that these people avoid red tide areas altogether and take all medications as prescribed, including having access to rescue inhalers. People with chronic lung disease should leave the beach if they begin experiencing respiratory problems, even if red tide is at very low or low concentrations.

- Red Tide FAQ
- I want to bring this forecast to my county

Key Features

This tool is produced using current wind forecasts produced by the National Weather Service that are combined with *K. brevis* cell counts gathered by Pinellas County Environmental Management. It shows:

- The day and time for the potential risk of respiratory impacts to beachgoers.
- Forecasts in 3-hour increments projected over 24 hours that are updated with the latest wind models every 3 hours.
- Wind speed and direction
- The day and time of day water samples were collected
- The day and time of day that the forecast model was produced

N/A (not available) means that current water samples are not available so no forecast is available at this time. Please check back later or the next day.

Risk Chart

	Absent/Very Low	Low	Moderate	High
People Without Lung Disease	No or very low risk of irritation	Low risk of irritation	Moderate risk of irritation	High risk of irritation
People With Lung Disease	Leave the beach if you begin feeling effects	Leave the beach if you begin feeling effects	Avoid this area	Avoid this area

Disclaimer
This is an experimental forecast of potential respiratory irritation that may occur because of airborne toxins produced by the Gulf of Mexico red tide organism *Karenia brevis*. It indicates the likelihood of negative conditions based on predicted wind and ocean currents.

The location and time of respiratory irritation can change due to unpredicted bloom movements or unexpected changes in actual wind or ocean currents. Health officials advise that people with underlying chronic respiratory problems should avoid red tide areas and take all medications as prescribed, including having access to rescue inhalers.

This experimental forecast is currently being tested for efficacy and is not yet an official forecast. Daily availability of the product cannot be assured.

About this Forecast
This Experimental Red Tide Respiratory Forecast was developed by the National Oceanic and Atmospheric Administration's National Centers for Coastal Ocean Science (NOAA-NCCOS) in partnership with the Gulf of Mexico Coastal Ocean Observing System (GCOOS), the Florida Fish and Wildlife Conservation Commission (FWC) and Pinellas County Environmental Management.