



# Epi Watch

A Monthly Epidemiology Newsletter



Division of Disease Control  
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To report diseases or request  
information call:

(Mon-Fri, 8-5, Area code 727):  
Epidemiology 824-6932  
Hepatitis 824-6932  
HIV/AIDS 824-6964  
Immunizations 824-6936  
STD 824-6911  
Tuberculosis 824-6953  
**Non-business hours 824-6900**

**Epi Watch** is a monthly newsletter produced and distributed by the Pinellas County Health Department Epidemiology Program. For more information, or to add your e-mail address to the distribution list, please contact Andrea Dopico: [andrea\\_dopico@doh.state.fl.us](mailto:andrea_dopico@doh.state.fl.us)

*The reason for collecting, analyzing, and disseminating information on a disease is to control that disease. Collection and analysis should not be allowed to consume resources if action does not follow.*

Foegen, W.H. et al. (1976).

Int. J of Epidemiology, 5:29-37.

## Red Tide Karen A. Alelis, MPH

Red tide is a phenomenon caused by dinoflagellates, which are plant-like organisms. The dinoflagellate species responsible for red tide in the gulf coast of Florida is called *Karenia brevis* or *K. brevis*. The Florida red tide organism can multiply in large amounts forming blooms known as harmful algal blooms (HABs). This organism is always present in the water at low concentrations; however, the conditions that cause the blooms are not completely understood. Depending on several environmental conditions such as currents, wind, and temperature, red tide blooms can last days, weeks, or months. Red tides are not always red; they can vary in color ranging from green, brown, or even purple. Florida red tide is primarily found in the Gulf of Mexico and its presence along Florida's gulf coast has been documented since the 1840s.

Red tide is responsible for extensive fish kills seen along the shoreline. *K. brevis* can kill fish by producing a toxin that affects the central nervous system of fish, resulting in death. Although rare, it may even cause the death of dolphins, manatees and marine birds. Humans are also affected by red tide. *K. brevis* produces a toxin that can cause respiratory irritation in humans; particularly in individuals with severe or persistent respiratory conditions such as chronic lung disease or asthma. When *K. brevis* cells that lie near the surface of the ocean water become broken up by surf at the shore or by breaking waves offshore, the toxin becomes airborne. Common symptoms from exposure to red tide include burning or tearing eyes, throat irritation or coughing, sneezing, and stuffy or runny nose. These symptoms are temporary and usually subside within hours when exposure to red tide is discontinued. People with severe respiratory problems should avoid red tide areas. Although it is safe to swim during a red tide, red tide can cause some people to experience skin irritation and burning eyes.

A major concern of the public during red tide is seafood safety. All commercial seafood from restaurants and groceries is monitored and is safe to eat since it is harvested from areas not affected by red tide. If there is a shellfish-harvesting ban, it is not safe to eat mollusks, particularly clams and oysters, during a red tide. Other types of shellfish such as crabs, shrimp and lobster are not affected by red tide and can be eaten. Eating affected mollusks can cause nausea, vomiting or diarrhea. It is important to emphasize that cooking does not destroy the red tide toxin.

Representatives from Federal, State, and local public health entities, Universities, and Non-Profits (i.e. FL Department of Health, The Centers for Disease Control, FL Fish and Wildlife Research Institute, MOTE Marine Laboratory, University of Miami, and S.T.A.R.T) are working together to monitor, control, and mitigate red tide in Florida. The Florida Fish and Wildlife Research Institute currently monitors for red tide blooms through water sample collection and analysis. Red tide research projects are ongoing to understand the human health impacts of red tide.

For more information on red tide, please contact the Florida Red Tide Health Hotline, a free 24/7 service, at 1-888-232-8635. To report fish kills, please call 1-800-636-0511. For red tide information and status reports, visit: [www.floridamarine.org](http://www.floridamarine.org) or [www.redtideonline.com](http://www.redtideonline.com). For information from S.T.A.R.T, Solutions to Avoid Red Tide, please call 1-888-757-8278.



**Selected Reportable Diseases/Conditions in Pinellas County**

Disease	2006 October	2006 Year-to-Date	2005 Year-to-Date	2005 Total
AIDS	17	194	128	160
Animal Bite, PEP Recommended	4	34	40	48
Animal Rabies			4	5
Arboviral Illness (Human): Dengue		3	3	3
EEE				
SLE				
WNV			18	18
CA/LaCrosse				
Botulism				
Campylobacteriosis	1	21	37	39
Chlamydia	289	2394	2001	2505
Creutzfeldt-Jakob disease (CJD)			2	2
Cryptosporidiosis		8	12	15
Cyclosporiasis			57	57
<i>E. coli</i> O157:H7		1	1	3
Giardiasis	2	30	26	30
Gonorrhea	130	1359	1136	1436
<i>H. influenzae</i> : Meningitis				
Pneumonia	1	3	1	1
Primary bacteremia		4	4	6
Epiglottitis				
Hansen Disease			1	1
Hemolytic Uremic Syndrome (HUS)		1	1	1
Hepatitis, Acute Viral: A		5	9	9
B	1	18	30	36
C		7	6	7
Non-A, Non-B			1	1
Hepatitis B: Pregnant woman +HBsAg	1	24	26	33
Hepatitis, Chronic Viral B	19	130	116	131
C	85	1113	1141	1378
HIV	17	153	188	233
Lead Poisoning: Total:	4	23	28	30
Children < 6 years:		8	9	12
Legionellosis	1	12	8	8
Listeriosis		2	1	1
Lyme Disease	1	4	4	4
Malaria		3	1	1
Meningitis: <i>Group B Strep</i>				
<i>S. pneumoniae</i>		2	6	6
Other bacterial		7	4	5
Meningococcal Disease		5	5	7
Mercury Poisoning		3		
Mumps			1	1
Pertussis	1	19	10	13
Plague (Bubonic & Pneumonic)				
Rocky Mountain Spotted Fever		3		
Salmonellosis	28	137	156	212
Shigellosis		18	141	169
<i>Streptococcal</i> disease, Inv. Group A	1	11	10	11
<i>S. pneumoniae</i> , Inv. disease (DR)	4	17	21	27
<i>S. pneumoniae</i> , Inv. disease (Suscept)		28	26	29
Syphilis: Total	15	121	64	95
Infectious (P and S)	4	33	28	41
Early Latent	4	55	21	32
Late Syphilis(Late Latent; Neurosyphilis)	7	33	15	22
Congenital				
Tuberculosis	1	26	20	27
<i>Vibrio</i> infections		6	5	5

Provisional cases reported by the Pinellas County Health Department. Blank cells indicate no cases reported.

For a complete list of reportable diseases and guidelines for reporting please visit: [http://www.myflorida.com/disease\\_ctrl/epi/surv/lor8\\_4.pdf](http://www.myflorida.com/disease_ctrl/epi/surv/lor8_4.pdf)