

EPI NOTES

Hillsborough County Health Department Disease Surveillance Newsletter June 2012

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Recreational Water Illnesses

By Kiley Workman

As the weather gets hotter, more and more people are finding refuge in water. Many already know that swimmers, especially children, risk swimmer's ear, injury, or drowning. Few, however, are aware that any swimmer can catch a diarrheal illness from recreational water. In fact, diarrhea is the most commonly reported illness caused by germs found in recreational water, which includes pools, water parks, interactive water fountains, lakes, rivers, and the ocean.

There have even been widespread outbreaks from contaminated recreational water. In 2007, Utah experienced a statewide outbreak of cryptosporidiosis (Crypto) during which more than 1,900 people were infected. To inform the population, the Salt Lake Valley Health Department made a couple of entertaining public service announcements. (Click on the image to the right for a link to the video.) Thankfully, an outbreak of that size has not occurred in Hillsborough County, but we normally experience an increase of Crypto cases, as well as other diarrheal illnesses, in the summer.



According to the Centers for Disease Control and Prevention (CDC), any person will have, on average, 0.14 grams of feces on their body.¹ If that person has diarrhea or has had diarrhea in the previous two weeks, they could contaminate the water with germs. A combination of viruses (e.g.

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norovirus), parasites (e.g. *Crypto* and *Giardia*), and bacteria (e.g. *Shigella* and *E. coli* O157:H7) are the main causes of sickness. The symptoms associated with these germs vary, but they generally are: diarrhea (sometimes bloody, greasy, or watery), abdominal pain, nausea, vomiting, and/or fever. These symptoms are often mild in healthy individuals, but they can be life threatening for persons with weakened immune systems. Exposure typically occurs when contaminated water is swallowed. The incubation period can vary from 12 hours to two weeks, as it depends on the type of infection and amount of water swallowed.

Even chlorinated water can harbor certain germs. Chlorine will kill many harmful germs, but only if the chlorine has been maintained at the correct concentration. Additionally, chlorine does not instantly kill all disease-causing germs, even in properly treated water. For example, *Giardia* will last about 45 minutes and *Crypto* can survive for more than 10 days in treated water!¹

There are six recommendations that the Hillsborough County Health Department (HCHD) and the CDC propose to reduce the risk of catching a diarrheal illness from recreational water.¹

All swimmers should:

- **not** swim if they have diarrhea or if they have had diarrhea in the previous two weeks
- **not** swallow pool water, or even have water in their mouths
- practice good hygiene, especially after going to the restroom and changing diapers

Parents of young kids should:

- check diapers or take their child to the restroom every 30 minutes or hour
- **not** change diapers near the pool
- wash their child with soap and water, especially their rear end, before letting them swim

Sources:

¹ <http://www.cdc.gov/healthywater/swimming/rwi/rwi-how.html>

For further information on recreational water illnesses, go to:

<http://www.cdc.gov/healthywater/swimming/>

Naegleria fowleri, a dangerous parasite in freshwater

By Seyi Omaivboje, MPH

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The Hillsborough County Health Department would like to remind its residents to be careful while participating in freshwater activities this summer. Everyone should take precautions while swimming in warm freshwater lakes and ponds due to the threat caused by the amoeba *Naegleria fowleri*.

Naegleria fowleri is a natural, free living, amoeba most commonly found in warm bodies of freshwater such as lakes, rivers, hot springs, and un-chlorinated or poorly maintained swimming pools. Infection with *Naegleria* is most common during the summer months of June through September. Although the amoeba is commonly found in the environment, infection is very rare. However, this disease is of public health significance because of its high-fatality rate.

Infection occurs when the amoeba enters the body through the nose. Generally, this occurs when people use warm

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freshwater for activities like swimming or diving. The amoeba travels up the nose to the brain and spinal cord where it destroys the brain tissue causing the disease primary amebic meningoencephalitis (PAM).

Symptoms of PAM begin abruptly, usually 1 to 7 days after infection and can include fever, headache, nausea, stiff neck, seizures, and coma as the condition worsens. Death generally occurs from 3 to 7 days following infection with the organism. PAM cannot be transmitted from person-to-person.

In these upcoming summer months, some measures that might reduce your risk of infection include:

- Avoid water-related activities in bodies of warm freshwater, hot springs, and thermally-polluted water such as water around power plants.
- Avoid water-related activities in warm freshwater during periods of high water temperature and low water levels.
- Keep your head out of the water, hold your nose shut or use nose clips when taking part in water-related activities in bodies of warm freshwater such as lakes, rivers, or hot springs.
- Avoid digging in or stirring up the sediment while taking part in water-related activities in shallow, warm freshwater areas.

If you are irrigating, flushing, or rinsing your sinuses (for example, by using a neti pot), use water that has been:

- distilled;
- sterilized;
- Or previously boiled for 1 minute (at elevations above 6,500 feet, boil for 3 minutes) and left to cool.

Seek medical care immediately if you develop a sudden onset of fever, headache, stiff neck, and vomiting, especially if you have been in warm fresh water within the previous 2 weeks.

In the last 4 years, Florida has had 4 reported cases of PAM. Of the 4 cases, 1 was in a Hillsborough County resident. The other cases were from Nassau, Orange and Brevard Counties. All cases died from the disease.

Sources:

<http://www.myfloridaeh.com/medicine/foods-surveillance/pdf/PAMriskcommunicationppt4-23-08.pdf>

http://www.myfloridaeh.com/medicine/foods-surveillance/PAM-Naegleria_fowleri_summary2011.pdf

<http://www.cdc.gov/parasites/naegleria/faqs.html>

<http://www.lcra.org/water/safety/boating/pam.html>

<http://www.ok.gov/health/documents/PAM.2005.pdf>

For further information on PAM, go to:

<http://www.cdc.gov/parasites/naegleria/>



Reportable Disease Surveillance Data

Disease	2009	2010	2011	3 Year Average	Jan-May 2011	Jan-May 2012
AIDS	253	193	NA	N/A	NA	NA
AMEBIC ENCEPHALITIS	1	0	0	0.3	0	0
ANIMAL BITE, PEP RECEIVED	72	55	95	74.0	39	47
ANTHRAX	0	0	0	0.0	0	0
ARSENIC	1	0	0	0.3	0	0
BOTULISM, FOODBORNE	0	0	0	0.0	0	0
BOTULISM, INFANT	1	0	0	0.3	0	0
BRUCELLOSIS	2	0	1	1.0	0	0
CALIFORNIA SEROGROUP, NEUROINVASIVE	0	0	0	0.0	0	0
CAMPYLOBACTERIOSIS	69	76	120	88.3	52	48
CARBON MONOXIDE POISONING	0	7	13	6.7	1	2
CHLAMYDIA	5058	NA	NA	N/A	NA	NA
CIGUATERA	0	0	0	0.0	0	0
CREUTZFELDT-JAKOB DISEASE	1	0	0	0.3	0	1
CRYPTOSPORIDIOSIS	38	14	38	30.0	17	36
CYCLOSPORIASIS	2	3	1	2.0	0	0
DENGUE	3	7	4	4.7	0	0
DIPHTHERIA	0	0	0	0.0	0	0
EHRlichiosis, HUMAN GRANULOCYTIC	0	1	0	0.3	0	0
EHRlichiosis, HUMAN MONOCYTIC	0	1	0	0.3	0	0
EHRlichiosis/ANAPLASMOSIS, UNDETER.	1	1	0	0.7	0	0
ENCEPHALITIS, CALIFORNIA/LACROSSE	0	0	0	0.0	0	0
ENCEPHALITIS, HERPES	0	0	0	0.0	0	0
ENCEPHALITIS, NON-ARBOVIRAL	0	0	0	0.0	0	0
ENCEPHALITIS, OTHER	0	0	0	0.0	0	0
ENCEPHALITIS, EEE	0	2	0	0.7	0	0
ENCEPHALITIS, SLE	0	0	0	0.0	0	0
ENCEPHALITIS, WN	0	0	0	0.0	0	0
ENTEROHEMORRHAGIC E. COLI (O157:H7)	0	0	0	0.0	0	0
E. COLI SHIGA TOXIN + NOT SEROGROUP	0	0	0	0.0	0	0
E. COLI SHIGA TOXIN + NON O157:H7	0	0	0	0.0	0	0
E. COLI SHIGA TOXIN PRODUCING - 0800	11	13	24	16.0	9	10
FOOD AND WATERBORNE CASES	74	NA	NA	N/A	NA	NA
FOOD AND WATERBORNE OUTBREAKS	18	NA	NA	N/A	NA	NA
GIARDIASIS	101	100	81	94.0	23	17
GONORRHEA	1574	NA	NA	N/A	NA	NA
H. INFLUENZAE PNEUMONIA	0	0	0	0.0	0	0
H-FLU, PRIMARY BACTEREMIA, INVASIVE	13	11	16	13.3	8	1
H-FLU, SEPTIC ARTHRITIS	0	0	0	0.0	0	0
HANSEN'S DISEASE (LEPROSY)	1	1	0	0.7	0	1
HANTAVIRUS	0	0	0	0.0	0	0
HEMOLYTIC UREMIC SYNDROME	0	1	0	0.3	0	1
HEPATITIS A, ACUTE	13	6	6	8.3	2	0
HEPATITIS B, ACUTE	29	49	27	35.0	11	13
HEPATITIS B, MATERNAL (HBsAg+ PREGNANT)	65	40	49	51.3	22	12
HEPATITIS B, PERINATAL ACUTE	0	1	0	0.3	0	0
HEPATITIS B, CHRONIC	317	279	316	304.0	97	151
HEPATITIS C, ACUTE	14	12	7	11.0	1	12
HEPATITIS C, CHRONIC	1391	1699	1628	1572.7	613	632
HEPATITIS D	1	0	0	N/A	0	0

NR = Not reportable by law for that year

N/A = Not applicable

NA = Not available (no data received)

Disease	2009	2010	2011	3 Year Average	Jan-May 2011	Jan-May 2012
HEPATITIS E, NON-A, NON-B, ACUTE	0	0	0	0.0	0	0
HEPATITIS G	0	0	0	0.0	0	0
HEPATITIS UNSPECIFIED, ACUTE	0	0	0	0.0	0	0
HIV INFECTION	355	346	NA	N/A	NA	NA
INFLUENZA-ASSOCIATED PEDIATRIC MORTALITY	0	0	0	0.0	0	0
INFLUENZA-A, NOVEL OR PANDEMIC STRAINS	321	7	7	111.7	0	0
LEAD POISONING	77	249	199	175.0	91	144
LEGIONELLOSIS	8	7	12	9.0	0	3
LEPTOSPITOSIS	0	0	0	0.0	0	0
LISTERIOSIS	2	2	3	2.3	1	1
LYME DISEASE	11	4	8	7.7	1	4
MALARIA	2	5	7	4.7	1	1
MEASLES	0	0	0	0.0	0	0
MENINGITIS, GROUP B STREP	0	0	0	0.0	0	0
MENINGITIS, H-FLU	0	0	0	0.0	0	0
MENINGITIS, LISTERIA MONOCYTOGENES	0	0	0	0.0	0	1
MENINGITIS BACTERIAL CYPTOCOCCAL	28	28	21	25.7	11	1
MENINGITIS, STREP, PNEUMONIAE	0	0	0	0.0	0	0
MENINGOCOCCAL DISEASE	1	1	1	1.0	1	1
MERCURY POISONING	0	1	0	0.3	0	0
MUMPS	2	1	1	1.3	0	0
NEUROTOXIC SHELLFISH POISONING	0	0	0	0.0	0	0
PERTUSSIS	25	30	31	28.6	18	56
PESTICIDE RELATED ILLNESS	0	4	16	6.7	3	2
POLIO, PARALYTIC	0	0	0	0.0	0	0
PSITTACOSIS	0	0	0	0.0	0	0
Q FEVER	0	0	0	0.0	0	0
RABIES ANIMAL	5	4	2	3.7	1	2
ROCKY MOUNTAIN SPOTTED FEVER	0	4	1	1.7	0	0
RUBELLA	0	0	0	0.0	0	0
SALMONELLOSIS	337	302	353	330.7	76	97
SHIGELLOSIS	21	134	377	177.3	258	14
SMALLPOX	0	0	0	0.0	0	0
STAPH AUREUS, COM. ASSOC. MORTALITY	2	0	0	0.7	0	2
STAPH AUREUS, VISA/VRSA	0	0	1	0.3	0	1
STREP DISEASE, INVASIVE GROUP A	14	17	17	16.0	9	7
STREP PNEUMO, INVASIVE DRUG RESIST.	54	60	54	56.0	34	19
STREP PNEUMO, INVASIVE SUSCEPTIBLE	35	45	46	42.0	27	16
SYPHILIS, CONGENITAL	0	NA	NA	N/A	NA	NA
SYPHILIS, EARLY	NR	NA	NA	N/A	NA	NA
SYPHILIS, INFECTIOUS	82	NA	NA	N/A	NA	NA
SYPHILIS, LATENT	106	NA	NA	N/A	NA	NA
TETANUS	0	1	0	0.3	0	0
TOXOPLASMOSIS	0	4	1	1.7	0	0
TUBERCULOSIS	79	85	NA	N/A	NA	NA
THPHOID FEVER	0	1	0	0.3	0	0
TYPHUS FEVER, ENDEMIC (MURIN)	2	0	2	0.7	0	0
VARICELLA	28	48	47	41.0	17	30
VIBRIO ALGINOYTICUS	1	2	5	2.7	1	0
VIBRIO CHOLERA NON-01	0	0	0	0.0	0	0
VIBRIO FLUVIALIS	2	0	0	0.7	0	0
VIBRIO HOLLISAE	1	0	0	0.3	0	0
VIBRIO PARAHAEMOLYTICUS	2	4	1	2.3	1	1
VIBRIO VULNIFICUS	0	4	2	2.0	0	0
VIBRIO, OTHER	1	2	0	1.0	0	0
WEST NILE	0	0	0	0.0	0	0
YELLOW FEVER	0	0	0	0.0	0	0

NR = Not reportable by law for that year

N/A = Not applicable

NA = Not available (no data received)



Hillsborough County Health Department

Disease Reporting Telephone Numbers

AIDS, HIV – (813) 307-8011 (DO NOT FAX)

STD – (813) 307-8022, Fax – (813) 307-8027

TB Control – (813) 307-8015 X 4758, Fax – (813) 975-2014

All Others – (813) 307-8010, Fax – (813) 276-2981

After Hours Reporting All Diseases – (813) 307-8000



Section 381.0031 (1,2), Florida Statutes, provides that “Any practitioner, licensed in Florida to practice medicine, osteopathic medicine, chiropractic, naturopathy, or veterinary medicine, who diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health.” The DOH county health departments serve as the Department’s representative in this reporting requirement. Furthermore, this Section provides that “Periodically the Department shall issue a list of diseases determined by it to be of public health significance...and shall furnish a copy of said list to the practitioners....”

Reportable Diseases/Conditions in Florida Practitioner* Guide 11/24/08

*Reporting requirements for laboratories differ. For specific information on disease reporting, consult Rule 64D-3, Florida Administrative Code (FAC).

AIDS, HIV – (813) 307-8011 DO NOT FAX

- + Acquired Immune Deficiency Syndrome (AIDS)
- + Human Immunodeficiency Virus (HIV) infection (all, and including neonates born to an infected woman, exposed newborn)

STD – (813) 307-8027

FAX (813) 307-8027

- Chancroid
- Chlamydia
- Conjunctivitis (in neonates ≤ 14 days old)
- Gonorrhea
- Granuloma inguinale
- Herpes Simplex Virus (HSV) (in infants up to 60 days old with disseminated infection with involvement of liver, encephalitis and infections limited to skin, eyes and mouth; anogenital in children ≤ 12 years old)
- Human papilloma virus (HPV) (associated laryngeal papillomas or recurrent respiratory papillomatosis in children ≤ 6 years old; anogenital in children ≤ 12 years)
- Lymphogranuloma venereum (LGV)
- Syphilis
- ☎ Syphilis (in pregnant women and neonates)

TB CONTROL - (813) 307-8015 x 4758

FAX (813) 975-2014

- Tuberculosis (TB)

CANCER – Tumor Registry Database

- + Cancer (except non-melanoma skin cancer, and including benign and borderline intracranial and CNS tumors)

Epidemiology (813) 307-8010

FAX (813) 276- 2981

- ! Any disease outbreak
- Any case, cluster of cases, or outbreak of a disease or condition found in the general community or any defined setting such as a hospital, school or other institution, not listed below that is of urgent public health significance. This includes those indicative of person to person spread, zoonotic spread, the presence of an environmental, food or waterborne source of exposure and those that result from a deliberate act of terrorism.
- ! Anthrax
- Arsenic poisoning
- ! Botulism (foodborne, wound, unspecified, other)
- Botulism (infant)
- ! Brucellosis
- California serogroup virus (neuroinvasive and non-neuroinvasive disease)
- Campylobacteriosis
- Carbon monoxide poisoning
- ! Cholera
- Ciguatera fish poisoning (Ciguatera)

- Congenital anomalies
- Creutzfeldt-Jakob disease (CJD)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- ! Diphtheria
- Eastern equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)
- Ehrlichiosis
- Encephalitis, other (non-arboviral)

Enteric disease due to:
Escherichia coli, O157:H7
Escherichia coli, other pathogenic
E. coli including entero- toxigenic, invasive, pathogenic, hemorrhagic, aggregative strains and shiga toxin positive strains

- Giardiasis (acute)
- ! Glanders
- ! *Haemophilus influenzae* (meningitis and invasive disease)
- Hansen’s disease (Leprosy)
- ☎ Hantavirus infection
- ☎ Hemolytic uremic syndrome
- ☎ Hepatitis A
- Hepatitis B, C, D, E, and G
- Hepatitis B surface antigen (HBsAg) (positive in a pregnant woman or a child up to 24 months old)
- ! Influenza due to novel or pandemic strains
- ☎ Influenza-associated pediatric mortality (in persons < 18 years)
- Lead Poisoning (blood lead level ≥ 10µg/dL); additional reporting requirements exist for hand held and/or on-site blood lead testing technology, see 64D-3 FAC

- Legionellosis
- Leptospirosis
- ☎ Listeriosis
- Lyme disease
- Malaria
- ! Measles (Rubeola)
- ! Melioidosis
- Meningitis (bacterial, cryptococcal, mycotic)
- ! Meningococcal disease (includes meningitis and meningococcemia)
- Mercury poisoning
- Mumps
- ☎ Neurotoxic shellfish poisoning
- ☎ Pertussis
- Pesticide-related illness and injury
- ! Plague
- ! Poliomyelitis, paralytic and non-paralytic

- Psittacosis (Ornithosis)
- Q Fever
- ☎ Rabies (human, animal)
- ! Rabies (possible exposure)
- ! Ricin toxicity
- Rocky Mountain spotted fever
- ! Rubella (including congenital)
- St. Louis encephalitis (SLE) virus disease (neuroinvasive and non-neuroinvasive)
- Salmonellosis
- Saxitoxin poisoning (including paralytic shellfish poisoning)(PSP)
- ! Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV) disease
- Shigellosis
- ! Smallpox
- Staphylococcus aureus, Community Associated Mortality
- ☎ *Staphylococcus aureus* (infection with intermediate or full resistance to vancomycin, VISA, VRSA)
- ☎ *Staphylococcus enterotoxin B* (disease due to)
- Streptococcal disease (invasive, Group A)
- *Streptococcus pneumoniae* (invasive disease)
- Tetanus
- Toxoplasmosis (acute)
- Trichinellosis (Trichinosis)
- ! Tularemia
- ☎ Typhoid fever
- ! Typhus fever (disease due to *Rickettsia prowazekii* infection)
- Typhus fever (disease due to *Rickettsia typhi*, *R. felis* infection)
- ! Vaccinia disease
- Varicella (Chickenpox)
- Varicella mortality
- ! Venezuelan equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)
- Vibriosis (Vibrio infections)
- ! Viral hemorrhagic fevers (Ebola, Marburg, Lassa, Machupo)
- West Nile virus disease (neuroinvasive and non-neuroinvasive)
- Western equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)
- ! Yellow fever

! = Report immediately 24/7 by phone upon initial suspicion or laboratory test order

☎ = Report immediately 24/7 by phone

• = Report next business day

+ = Other reporting timeframe

