Florida Department of Health Volusia County

Office of Disease Control and Health Protection

# **EPI-LOG**



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#### To report a disease or outbreak:

Phone:386-274-0634 M-F, 8a.m.-5p.m. Fax: 386-274-0641 After hours: 386-316-5030

## Enteric Illnesses in Daycare

The Florida Department of Health in Volusia County investigated two outbreaks linked to daycares this summer. One outbreak which affected three people was caused by *Salmonella*, a bacterium that causes diarrhea, fever, and abdominal cramps. *Salmonella* is spread through the fecal-oral route and is transmitted to people when they eat foods contaminated with the bacteria. It can also be spread through contact with animals or their environment.

The Centers for Disease Control and Prevention (CDC) estimates that *Salmonella* causes 1.2 million illnesses every year in the United States and is most common in June, July, and August. Children under age five are at a higher risk

for being infected with Salmonella. Daycares can control the spread of Salmonella by using good hand washing

techniques and keeping pet reptiles and amphibians (such as turtles, salamanders, snakes) out of the daycare.

Another outbreak which affected seven people was caused by *Shigella*, a bacterium that causes diarrhea (sometimes bloody), severe stomach cramps, and dehydration. There are about 500,000 cases of shigellosis in the United States annually. This Issue: Enteric Illnesses in Daycare Page 1 *Naegleria fowleri* Page 2 Scombroid Poisoning Page 2 Disease Activity Page 3 Back to School Precautions for Toddlers and Teenagers Page 4

Shigella is spread through the fecal-oral route and is very contagious. Children under five are at a higher risk for contracting the illness. Shigella can be transmitted person-to-person within households and daycares whenever hand washing is inadequate. Objects such as toys, changing stations, and door knobs can become contaminated and spread the bacteria. Children who have been diagnosed with Shigella by a physician should stay home from daycare until they have been asymptomatic for 48 hours. Daycares and caregivers can control the spread of Shigella by using good hand-washing techniques, eliminating access to shared water play areas, an adhere to sanitary diaper changing techniques.



For more information, visit cdc.gov/salmonella

# Naegleria fowleri

Naegleria fowleri, known as the "brain-eating amoeba" is an organism that can be found in warm freshwater such as lakes, rivers, springs, naturally hot waters such as hot springs, poorly maintained swimming pools, water heaters, contaminated tap water, and soil. This organism causes an infection when it enters the human body through the nose. It migrates to the brain where it can cause a severe infection called Primary Amebic Meningoencephalitis (PAM) that destroys the brain tissue. Symptoms of PAM include headache, fever, nausea, vomiting, stiff neck, confusion, loss of balance, and seizures. These symptoms can start as one to nine days after infection. This disease usually results in death within about five days. The prevention is by avoiding getting water into the back of the nasal cavity. *Naegleria* infections are rare. This organism is commonly found in southern states during summer. From 1962 through 2017, 35 cases have been documented with Florida exposures. Most of them (22 cases) were exposed in Central Florida, including Volusia County. In the last couple of years health care providers have successfully treated a couple of patients with an experimental drug called miltefosine. Time is critical so a strong index of suspicion of disease after a good history is important. Do not wait for confirmation. Any clinicians suspecting this infection should contact the CDC immediately at 770-488-7100. CDC provides diagnostic assistance, specimen collection guidance, shipping instructions, and treatment recommendations. For more information on Naegleria fowleri, visit the CDC website at: cdc.gov/parasites/naegleria or contact the Department of Health in Volusia County at 386-274-0651.

## Amebae penetrate the nasal mucosa Amebae migrate to the brain via the olfactory nerves causing primary amebic meningoencephalitis (PAM) in healthy individuals Water-related activities Trophozoites in CSF and such as swimming brain tissue Flagellated forms underwater, diving, or other water sports occasionally in CSF can result in water 1 Cyst A = Infective Stage A = Diagnostic Stage 4 C. nitosis 0 Trophozoite 3 Flagellated form

## **Scombroid Poisoning**

Fish such as tuna, mackerel, mahi-mahi, and marlin are popular dishes that many Volusia County



residents love to enjoy all year round. It is very important that fish is properly refrigerated or preserved before consumption. Scombrotoxin is a combination of substances that form when certain fishes aren't properly refrigerated before being processed or cooked. The fish might not look or smell bad but can cause illness. Contaminated fish may taste peppery, sharp, metallic, or bitter. Symptoms are usually mild and start within minutes or hours after eating. The reaction often resembles a moderate to severe allergic reaction. They may include tingling or burning of the mouth or throat, rash or hives, low blood pressure, itching, headache, dizziness, nausea, vomiting, diarrhea, fluttery heartbeat, and trouble breathing. The symptoms usually go away in a few hours but can last for days in severe cases. Cooking, freezing, and canning won't get rid of this toxin after it has formed. The best way to prevent Scombroid poisoning is by keeping fish

refrigerated at 40°F or lower. DOH-Volusia county recently investigated and reported a case of scombroid poisoning. Seven cases have been reported statewide so far this year. For more information, visit https://wwwnc.cdc.gov/travel/page/fish-poisoning-ciguatera-scombroid

Volusia County Disease Activity*	2nd Quarter 2018	2nd Quarter 2017	YTD 2018	Full Year 2017
Vaccine Preventable				
Mumps	0	0	0	0
Pertussis	1	1	2	6
Varicella	10	2	19	6
CNS Diseases and Bacteremias	<u>^</u>		<u>^</u>	<u>^</u>
Creutzfeldt-Jakob disease (CJD)	0	0	0	0
Haemophilus innuenzae (invasive)‡	0	0	0	0
Meningacoccal disease	0	0	0	0
Stanbylococcus aureus (GISA//ISA)	0	0	0	0
Streptococcus pneumoniae (invasive disease)‡	1	0	1	0
Enteric Infections		-		
Campylobacteriosis	15	23	35	79
Cryptosporidiosis	2	1	8	12
Cyclosporiasis	0	1	1	7
Escherichia coli, shiga-toxin producing (STEC)+	3	0	5	4
Giardiasis	2	5	8	16
Listeriosis	1	0	1	1
Salmonellosis	38	36	86	126
Shigellosis	18	4	42	14
Typhoid Fever	0	0	0	0
Viral Hepatitis		-		
Hepatitis A	0	0	0	3
Hepatitis B, acute	13	6	23	24
Hepatitis C, acuto	/3	23	140	( /
Hepatitis C, acute	3 238	2	480	9 885
Hepatitis E	0	0	400	0
Hepatitis +HBsAg in pregnant women	4	2	6	3
Vector Borne, Zoonoses				
Brucellosis	0	0	0	0
Chikungunya	0	0	0	0
Dengue Fever	0	0	0	0
Ehrlichiosis/Anaplasmosis	1	0	3	1
Lyme disease	0	0	0	4
Malaria	0	0	0	1
Monkey bite	0	0	0	0
Q Fever, acute	0	0	0	0
Rables, animal	0	0	1	0
Rables (possible exposure)	0	0	0	100
West Nile virus, neuroinvasive	0	0	0	1
Zika virus diseae	0	0	1	1
HIV/AIDS†	Ű	Ū	•	,
HIV	36	26	82	99
AIDS	15	13	33	46
STDs†				
Chlamydia	532	543	1051	2128
Gonorrhea	195	211	384	884
Syphilis				
Infectious (Primary and Secondary)	9	7	18	26
Latent (early and late)	21	12	38	80
Congenital	1	0	1	1
Others				
Carbon monoxide poisoning	6	3	10	19
Ciguatera Fish Poisoning	0	0	0	0
Hansen's Disease (leprosy)	0	1	0	5
Hemolytic Uremic Syndrome	0	0	0	0
Influenza due to novel or pandemic strains	0	0	0	0
Influenza-associated pediatric mortality	0	0	0	0
Lead poisoning	15	3	17	19
Legionellosis	2	3	4	12
Pesticide related illness or injury	0	0	0	0
Saxitoxin Poisoning (Paralytic Shellfish Poisoning)	1	0	1	<u>^</u>
TUDETCUIOSIS Vibriosis	2	2 	2	2
*Includes reported confirmed/probable cases. Data is provisional and subject to change	e + Numbers are for Volusia/ C	ounty only t Only reportable for you	ung children	I

#### **Back to School Precautions for Toddlers and Teenagers**

Students have returned to their classrooms. It is important for them to be healthy and safe. Some diseases and conditions that spread person-to-person in schools can be avoided or prevented. For infants and toddlers attending daycare or preschool, two common illnesses are chickenpox and hand, foot and mouth disease. The best way to prevent chickenpox is to get the chickenpox vaccine. If the child is over 12 months old, they can get the vaccine. Hand, foot and mouth disease is viral illness that usually affects children younger than five years old. The virus is spread through bodily fluids such as saliva, mucus, and blister fluid. There usually are no long-term or severe health consequences associated with these diseases. Students can lower their risk of being infected by using good hand hygiene and not sharing utensils or cups.

For teenagers attending high school, vaccines for meningitis and human papillomavirus are (HPV) are recommended. Meningitis tends to spread where large groups of people gather together. Bacterial meningitis can be spread person to person by close contact like kissing, coughing and sneezing. HPV is transmitted through sexual contact and is very common. Most strains of HPV clear on their own. However, there are some strains that cause genital warts and cancer in women and



men. There is a very effective vaccine available that protects against these strains of HPV. It is recommended for girls aged 9 to 26 years and males aged 13 to 21 years.

For more information on these diseases and conditions, visit https://www.cdc.gov/parents/teens/ diseases\_ conditions.html.



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