

EPISODES

15 August 2015



Vibrio: Myths vs. Facts

“Flesh-eating bacteria” is a phrase often attached to infections associated with the group of bacteria called *Vibrios*. This phrase is also often followed by the warning that these bacteria have been found in local waters and that someone died after getting infected.

While “flesh eating bacteria” is a media favorite, it is misleading, inaccurate and creates anxiety for many people. The presence of *Vibrios* in nature does not mean that anyone who goes swimming or fishing risks a skin dissolving bacterial infection.

Fact is, *Vibrios* are a group of free-living bacteria found in coastal waters worldwide that reproduce rapidly in warmer, brackish or low salt waters. About a dozen species of *Vibrio* can cause disease in humans. In the US, we focus on two categories of infection: cholera (caused by *V. cholerae*, rarely found in the United States) and vibriosis (caused by *V. parahaemolyticus* and *V. vulnificus*).

V. parahaemolyticus

When you get infected by mouth, symptoms of infection include:

- * Watery diarrhea
- * Stomach cramps
- * Nausea
- * Vomiting
- * Fever and chills

V. parahaemolyticus can also cause a skin infection if *an open wound* is exposed to warm seawater.

V. vulnificus (Vv)

If you're healthy, Vv can cause:

- * Vomiting
- * Diarrhea
- * Stomach cramps

In people with weakened immune systems (including those with diabetes or liver disease), Vv infection can cause:

- * Infection of the blood
- * Septic shock (fever, dangerously low blood pressure and death)
- * Blistering skin infections

Vv can also cause a skin infection if *an open wound* is exposed to warm seawater. Vv can cause ulcers and skin breakdown. Those with

weakened immune systems are at higher risk for these type of infections as well. Called a “necrotizing skin infection,” this is a rare, very severe infection that can destroy muscles, skin and surrounding tissues.

Many different bacteria can cause necrotizing fasciitis. *Streptococcus* (group A Strep) is the most common cause. Others include: *Staph aureus* (found on most people's skin), *E. coli*, and *Clostridium*, to name a few.

“NO VIBRIO” TIPS

Continue to enjoy your water and beach activities using the following prevention measures:

- If you have a weakened immune system, liver disease or other chronic condition, avoid eating raw seafood, especially oysters— you are many times more likely to get an infection that will spread through your bloodstream. Be careful if you are shucking fresh oysters, too (think of how many little cuts you get on your hands)
- Don't wash out fresh cuts/scrapes in brackish or sea water. Avoid going into these areas if you have open wounds.
- If you develop blistering ulcers, fever, chills, vomiting/diarrhea and belly pains, don't try to wait it out— go see your healthcare provider and get checked! out

MYTH VS. FACT

Myth: If you avoid oysters from polluted waters, you don't need to worry.

Fact: *Vibrio vulnificus* has nothing to do with pollution; these bacteria thrive in warm coastal areas where oysters grow.

Myth: Alcohol kills harmful bacteria.

Fact: Just as with hot sauce, the active ingredients in alcohol does not kill harmful bacteria any more than plain water does.

Myth: Avoid raw oysters in months without the letter “R” and you're safe.

Fact: While *Vibrio vulnificus* bacteria are most abundant in warmer months, according to the CDC, a full 40 percent of cases occur in the cooler time of the year from September through April.

PUBLIC BEACH WATER PROGRAM

If you would like information on Florida's Public Beach Water Program and beach water testing results email AskEH@floridahealth.gov.



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Additional *Vibrio Vulnificus* information can be found at: <http://www.floridahealth.gov/diseases-and-conditions/vibrio-infections/vibrio-vulnificus/index.html>

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MERLIN Registry System*

Year to Date Incidence Comparisons of Selected Diseases for St. Lucie County and Florida

1 Jan 2015– 31 Jul 2015

- Data include confirmed/probable cases in St. Lucie County residents by date reported to the health department, regardless of where infection was acquired
- Counts are accurate at the time of publication but these may change and/or vary from other reports depending on criteria used
- Alterations of case definitions can result in dramatic changes in case counts

	St. Lucie County		State of Florida	
	1Jan-31 Jul 2015	1Jan-31 Jul 2014	1Jan-31 Jul 2015	1Jan-31 Jul 2014
Central Nervous System & Invasive Diseases				
CREUTZFELDT-JAKOB DISEASE (CJD)	1	1	19	13
MENINGITIS (BACTERIAL, CRYPTOCOCCAL, MYCOTIC)	5	3	78	81
MENINGOCOCCAL DISEASE	0	0	15	28
Hepatitides				
HEPATITIS A	3	0	69	67
HEPATITIS B ACUTE	5	3	295	221
HEPATITIS B, CHRONIC	37	32	3318	2719
HEPATITIS B (+HBsAg IN PREGNANT WOMEN)	9	9	271	309
HEPATITIS C, ACUTE	4	3	98	118
HEPATITIS C, CHRONIC	301	213	16511	12863
Enteric Diseases				
CAMPYLOBACTERIOSIS	27	22	2175	1800
CHOLERA (VIBRIO CHOLERAEE, TYPE O1)	0	0	4	2
CRYPTOSPORIDIOSIS	5	2	374	405
CYCLOSPORIASIS	0	0	13	22
ESCHERICHIA COLI, SHIGA TOXIN PRODUCING	8	2	265	291
GIARDIASIS	8	6	570	620
HEMOLYTIC UREMIC SYNDROME	0	1	4	4
SALMONELLOSIS	46	44	2934	2823
SHIGELLOSIS	27	5	1349	1652
VIBRIO ALGINOLYTICUS	1	1	36	35
VIBRIO CHOLERAEE TYPE NON-O1	1	0	4	5
VIBRIO FLUVIALIS	0	0	5	2
VIBRIO PARAHAEMOLYTICUS	2	0	25	13
VIBRIO VULNIFICUS	2	0	20	12
Vaccine Preventable Diseases				
INFLUENZA A (NOVEL OR PANDEMIC STRAINS)	0	0	0	0
INFLUENZA A (PEDIATRIC MORTALITY)	0	0	3	3
MEASLES	2	0	5	0
MUMPS	2	0	14	12
PERTUSSIS	3	3	198	520
VARICELLA	9	6	450	344
Vector Borne & Zoonotic Diseases				
POSSIBLE RABIES EXPOSURE PROPHYLAXIS (HUMAN)	43	64	1965	1568
BRUCELLA	1	1	6	2
CHIKUNGUNYA	1	1	88	117
DENGUE FEVER	1 (Imported)	1	24	48
LYME DISEASE	1	1	114	59
MALARIA	0	0	21	30
RABID ANIMALS	2	2	41	47
SPOTTED FEVER RICKETTSIOSES	1	0	26	20
Others				
CARBON MONOXIDE POISONING	1	2	131	98
CIGUATERA	1	1	20	23
LEAD POISONING	9	2	506	434
LEGIONELLA	3	2	160	150
LISTERIOSIS	0	2	23	20
PESTICIDE-RELATED ILLNESS/INJURY	0	9	13	13
STAPH AUREUS (INTERMED OR RESIST TO VANCO)	0	0	4	1

*Data in MERLIN reports are provisional, based on cases entered by county health departments and are not considered official data