



MDE Maryland Department of the Environment

Vibrio overview and outreach

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Maryland Department of the Environment



- General information about *Vibrio* bacteria
- *Vibrio* illness
- Outreach efforts

General information

- *Vibrio* bacteria occur naturally in estuarine and saltwater across the world
- Over 80 *Vibrio* species
- ~12 species are known to cause human illness
 - Cholera
 - **Vibriosis** (the focus of this discussion)

***Vibrio* illness:**

- Gastrointestinal illness
- Skin / soft tissue infections
- Systemic infection / sepsis
- Other infections

Other points:

- *Vibrio* illness can range from mild to severe and life-threatening
- *Vibrio* bacteria are ubiquitous, though *Vibrio* illness is considered rare



Vibrio illness in Maryland

DHMH data: Non-cholera *Vibrio* illnesses reported in Maryland, by year

Year	Number of cases of Vibriosis (Non-Cholera)
2009	34
2010	45
2011	35
2012	53
2013	57

Source:

Maryland Department of Health and Mental Hygiene, Prevention and Health Promotion Administration: Cases of Selected Notifiable Conditions Reported in Maryland. Available at <http://phpa.dhmh.maryland.gov/SitePages/disease-conditions-count-rates.aspx>





How people can be exposed to *Vibrio*

Food: Consumption of raw or undercooked seafood, especially oysters

Skin contact: Open wound / broken skin contact with warm seawater

- Recreational water contact – wading, swimming, boating, crabbing, fishing
- Seafood handling; exposure to raw seafood juice/drippings



Risk factors:

- Liver disease, weakened immune systems, kidney disease, diabetes, and other medical conditions
- Healthy people can get *Vibrio* illness

Treatment:

- Antibiotics
- Surgery can be important for severe cases
- Early treatment can be crucial

Late 2012: outreach planning initiated

2013: two flyers developed

- Marylanders' Guide to Skin Wounds and Water Contact
- *Vibrio* infections: Information for Health Care Providers

Partners for flyer development and distribution:

- Maryland Department of the Environment
- Maryland Department of Health and Mental Hygiene
- Maryland Department of Natural Resources
- Maryland Association of County Health Officers
- Maryland Conference of Local Environmental Health Directors

Water contact flyer

Marylanders' Guide to Skin Wounds and Water Contact

Vibrio are bacteria that naturally occur in brackish water like the Chesapeake Bay and its tributaries, and in salt water, especially during warm weather months.

Vibrio infections are rare. However, when *Vibrio* comes into contact with an open wound, it can cause serious infections characterized by unusual redness, swelling and drainage. This can be particularly dangerous for people with weakened immune systems.



PROTECT YOURSELF AGAINST *VIBRIO*

- Avoid water contact if you have any skin wounds.
- If water contact cannot be avoided, cover wounds with water-proof bandages.
- Clean wounds immediately with soap and clean water after contact. If soap and clean water are not available, clean the wound with hand sanitizer then wash as soon as possible.
- Wear water shoes to avoid cuts and scrapes.
- Wear gloves and use extra care when handling crab pots or other equipment.
- Always shower after swimming in natural waters and wash hands before handling food or eating.

If you develop a wound with unusual redness, swelling or drainage, SEEK MEDICAL ATTENTION IMMEDIATELY and let your healthcare provider know if you came in contact with brackish or salt water.

For more information, check out
Maryland Healthy Beaches: Facts about Vibrio Bacteria at
marylandhealthybeaches.com/vibrio.html



Water contact flyer

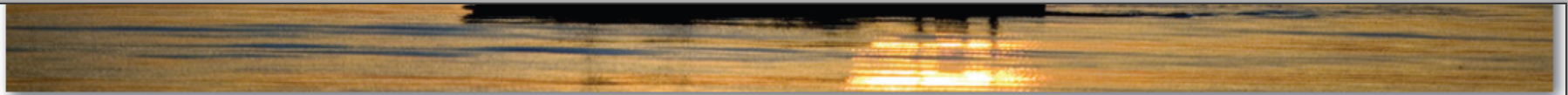
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***Vibrio* Infections**

Information for Health Care Providers

Over the past few years, between 25 and 45 cases of *Vibrio* infections have been reported annually in Maryland; others often go unrecognized and unreported.

TYPES

- ☒ *Vibrio vulnificus*
 - ☒ *Vibrio parahaemolyticus*
- Other species can also cause illness.

EXPOSURE SOURCES

- ☒ eating *Vibrio*-contaminated shellfish
- ☒ direct skin exposure to salt or brackish water containing the bacteria, including the Chesapeake Bay and its tributaries during the warmer months.

CLINICAL PRESENTATIONS

- ☒ skin and soft tissue infections
- ☒ gastrointestinal illness
- ☒ sepsis

IDENTIFICATION culture

TREATMENT see cdc.gov



People with chronic liver disease, chronic kidney disease, diabetes, or those with weakened immune systems are at a higher risk of *Vibrio*-related illness. Such patients should be informed about the risks associated with eating raw shellfish and coming in contact with salt or brackish water.

Report all suspected or confirmed *Vibrio* infections to your local health department.

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Flyer for healthcare providers

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Maryland Association of
COUNTY HEALTH OFFICERS
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Current efforts:

- Discussing yearly outreach for warm weather season, alongside other outreach related to water contact (beaches, general water safety)
- Implementation of Senate Bill 83



Questions?

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