



## JEFFERSON COUNTY HEALTH DEPARTMENT

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### PLESIOMONAS SHIGELLOIDES FACT SHEET

As you may know, there was a recent incident in which a Lake Tishomingo resident who was fishing on the lake was stung on the hand by a catfish barb; he then developed an infection, and died. This fact sheet will provide information about health issues involved, and answer questions people may have regarding this situation.

#### What happened?

- A bacteria called *Plesiomonas shigelloides* was cultured from the wound. This is a bacteria commonly found in streams, lakes and ponds as well as in soil, probably even in most aquariums. There is no real point in testing lake water for this organism, because the expectation is that it will be found. There are no guidelines for what concentration of this bacteria is considered a health threat. If this bacteria is ingested, it can cause a mild diarrheal illness; it is rare for it to cause serious illness or death. Many people probably have a natural immunity to many of these types of organisms.
- Even though the organism is evidently in the lake, it would probably be found most often at the bottom. Since catfish are bottom feeders, this is a likely explanation for how the exposure occurred.
- A number of steps would have had to happen to cause such a serious outcome, which is why this is an unusual situation. First, the organism must be present and exposure to the bacteria must occur. Everyone is protected from these kinds of organisms by our skin. A break in the skin, such as a cut or wound, could allow the bacteria to cause an infection. Does this mean anyone with a cut or wound should not use the lake? Public Health does encourage individuals with serious cuts or wounds not to go swimming. But in this situation, the wound was apparently deep enough so that the bacteria could grow in an environment without oxygen.
- Once such an infection occurs, it can have serious consequences. Recommendations are that cuts or wounds should be properly cleaned. If evidence of infection is present, including significant pain, swelling, redness, heat at the site and/or a fever, medical attention should be sought promptly. Antibiotics are usually effective in stopping an infection if taken early on.
- One result of infection can be a condition called necrotizing fasciitis, caused by what is commonly called "flesh eating bacteria" resulting in skin, muscles and tissue being destroyed. This condition is most often caused by other organisms, including staphylococcus or streptococcus.
- If an infection continues, the bacteria can be spread through the blood, which can then cause the body's systems to shut down and ultimately cause death.

#### What can be done to prevent similar situations?

- As mentioned above, testing for *Plesiomonas shigelloides* would serve no real purpose. There is no evidence that the lake is unsafe for fishing or swimming. This kind of situation could occur in any stream, lake or pond, but rarely does.
- Individuals with significant cuts or wounds should not swim.
- Cuts or wounds should be properly cleaned and treated. If signs of infection occur, medical attention should be sought quickly.
- If anyone has further questions or concerns, please contact Dennis Diehl at 636-789-3372, extension 104, or by e-mail at [diehd@lpha.mopublic.org](mailto:diehd@lpha.mopublic.org).