

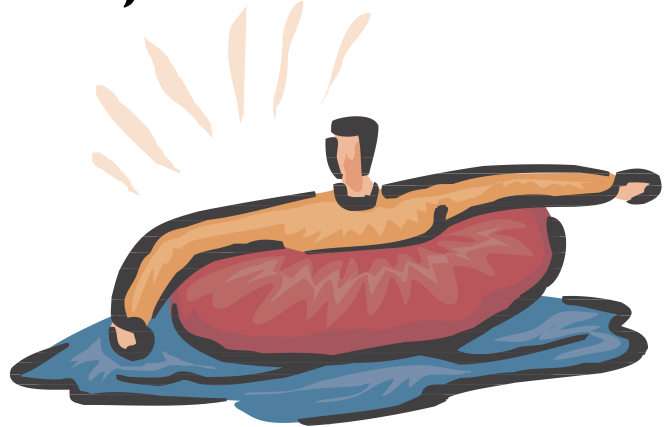
# WATER

Fact Sheet | June 2010

## Swimming In Oklahoma's Lakes, Rivers, And Streams

When dealing with lakes, rivers, and streams, one can be almost certain that some bacteria, viruses, protozoa, and other microorganisms are present in the water. Some of these organisms are indigenous to surface waters. Others are carried from wastewater sources including septic systems and runoff from animal and wildfowl areas. Swimmers themselves are also sources of bacteria.

Conditions that may favor the growth of these organisms include warm to hot water (80°F to 120°F), shallow or unmoving water, and excessive algal growth. During extended periods of very high temperatures, small bodies of water may reach temperatures warm enough to support a variety of microorganisms. A small portion of these microorganisms is associated with human illnesses. One kind of organism that may be responsible for human disease is bacteria. Some types of bacteria can cause diarrhea and nausea; other types can cause nose and throat infections. These organisms normally occur in such small numbers that they do not cause



harm; however, warm, unmoving water encourages these bacteria to grow and multiply. Also related to these conditions is a much more serious illness, Primary Amoebic Meningoencephalitis (PAM). PAM may be contracted through swimming but is extremely rare. For more information on PAM, refer to the Oklahoma Department of Environmental Quality (DEQ) [Primary Amoebic Meningoencephalitis Fact Sheet](#).

### Swimmers can take the following steps to reduce exposure to waterborne microorganisms:

- Avoid swimming in polluted water (oil sheen, floating debris, and dead fish are visible signs of polluted water)
- Avoid swimming in stagnant (unmoving) water
- Avoid swimming in water with a temperature greater than 80°F  
(If water does not feel cool when you first enter, it is likely to be warmer than 80°F.)
- Avoid swimming in water with a green surface scum
- Avoid swimming after a heavy rain
- Avoid swimming near storm drains
- Avoid swallowing water while swimming
- Hold nose or wear nose plugs when jumping into water
- Wear ear plugs
- Wear swim goggles
- Wash cuts and scrapes with clean water and soap
- Shower before and after swimming
- Take children to the restroom frequently
- Use swim diapers on infants

