

## Swimming in Oklahoma's Lakes, Rivers and Streams

When swimming in 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 favor the growth of these organisms include water temperatures above 80°F, shallow or unmoving water and excessive algal growth. During extended periods of very warm weather, small bodies of water may reach temperatures warm enough to support a variety of microorganisms.

A small proportion of these microorganisms are 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; others 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's (DEQ's) Primary Amoebic Meningoencephalitis fact sheet.

Swimmers should take the following steps to reduce exposure to waterborne microorganisms:

### DON'T

- Don't swim in water with a temperature greater than 80°F (If the water does not feel cool when you first enter it, then it is likely greater than 80°F)
- Don't swim if you have cuts or scrapes
- Don't swim after a heavy rain
- Don't swim near storm drains
- Don't swim in stagnant (unmoving) water
- Don't swim in water with a green surface scum



### DO

- Do shower with soap and water after swimming
- Do wash cuts & scrapes with clean water and soap after swimming
- Do hold nose or wear nose plugs when jumping into water
- Do wear ear plugs
- Do wear swim goggles
- Do take children to the restroom frequently
- Do use swim diapers on infants
- Do stay away from any area that has floating debris, oil sheens or dead fish

For additional information on this subject you may contact your local DEQ representative or the Water Quality Division of the Department of Environmental Quality at (405) 702-8100.