

BACTERIA

What are bacteria?

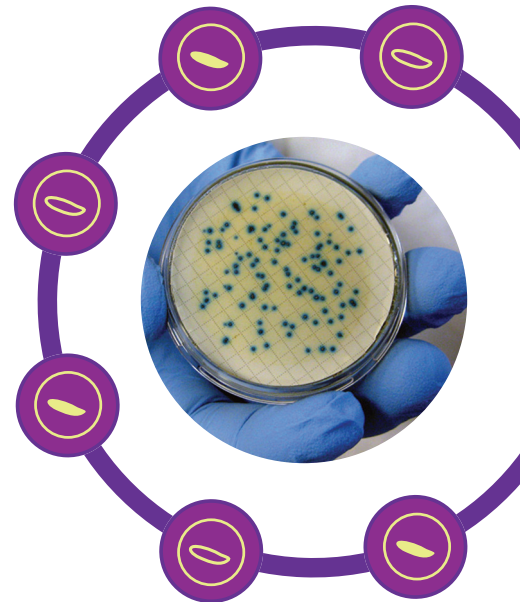
Bacteria are microscopic organisms that live in fresh and salt water and in the intestines of humans and other warm-blooded animals. Bacteria in tidal areas are affected by a variety of factors including water temperature, sedimentation, sunlight, salinity, and currents and tides.

How are bacteria measured?

The bacteria that are measured in brackish and salt water are called enterococci. Measuring bacteria occurs in two ways: using the Coliscan Easygel technique and through whole water samples taken to a lab. The water sample is then filtered to collect bacteria cells, which are grown in a petri dish and counted. Enterococci and other harmful bacteria come from similar sources. Enterococci are harmless to humans, but the presence of large numbers of this bacteria means that harmful bacteria may also be present.

What can bacteria tell us about the Bay?

Bacteria help us determine if there are human or other warm-blooded animals polluting the Bay and its tidal creeks. While bacteria occur naturally in fresh and salt water, harmful bacteria from the feces of humans and animals enter waterways through leaking septic systems, broken sewer lines, and runoff when it rains. These bacteria can cause illness in anyone recreating in or on the water. During significant rainfall, there is an increased risk for high amounts of unsafe bacteria in the Bay and its tidal creeks. It is a good idea to work with the local health department that monitors bacteria at public beaches. Providing more information to the health department can help them issue advisories about high levels of bacteria in local waterways.



Top: High bacteria levels are harmful to people that recreate in or on the water. This public beach is closed due to bacteria (H. Kelsey). Bottom: Bacteria water samples are filtered and placed on a growing medium. Each blue dot is a bacteria colony (B. Sadiowski).