

Algal Toxin Sign Notification – Frequently Asked Questions?



Why are we testing for algal toxins? The United States Environmental Protection Agency (USEPA) has recommended that recreational waters be tested for the presence of algal toxins. The Ohio EPA specific recommendations can be found in the *State of Ohio Harmful Algal Bloom Response Strategy for Recreational Waters (2016)*. The beaches are tested for only one algal toxin – microcystin. The Advisory (Warning) level represents a toxin level above 6 ppb while the Elevated Advisory (Danger) represents levels above 20 ppb. Above 20 ppb, the USEPA suggests one avoid contact with the water. The Lake Management Committee (LMC) coordinates the testing and alerts the Board of Directors of the RomeRock Association if the values exceed the guidelines. They then decide to post a warning sign.

If a sign is posted, is it safe to swim? This is a personal decision that you need to decide on your own. Below are a few common points found in the literature that may help you to decide.

1. Microcystin at high levels can be toxic to the liver and may also cause irritation.
2. The highest toxins levels may be associated with an observed algal bloom (green paint-like discoloration on the water surface). However, toxins can also be present without a visual indication and may persist after a bloom has dissipated.
3. Those that are at higher risk include the young, and those with reduced immune responses (including the elderly). Pets may also be susceptible.
4. If a sign is posted, and you choose to swim, try not to ingest the lake water and shower after exiting. Also wash your swimwear prior to re-use.

If you want more information, you can check the Ohio BeachGuard website (www.odh.ohio.gov/healthybeaches) or the Ohio EPA website (www.ohioalgaefinfo.com)

Bacterial Sign Notification – Frequently Asked Questions?



Why are we testing for bacteria? The United States Environmental Protection Agency (USEPA) has recommended that recreational waters be tested for the presence of pathogens (illness-causing organisms), primarily from fecal contamination. The USEPA guidance documents suggest that should the level of E.coli, an indicator for possible pathogen contamination, exceed a level of 235 cfu/mL, a warning sign should be posted. The Lake Management Committee (LMC) coordinates the testing and alerts the Board of Directors of the RomeRock Association if the values exceed the guidelines. They then decide to post a warning sign.

If a sign is posted, is it safe to swim? This is a personal decision that you need to decide on your own. It is not possible with our current testing to determine which types of pathogens, if any, may be present if the E.coli value exceeds the limit. Below are a few common points found in the literature that may help you to decide.

1. The EPA limits are based on an illness rate of 36 people out of 1000, meaning that above the limit, there is the possibility of an adverse effect from 36 people out of a total of 1000 (less than 4 %). The risk may increase as the values rise.
2. Those that are at higher risk include the young, and those with reduced immune responses (including the elderly).
3. Based on the Ohio Department of Health's website, most swimming-related illnesses due to pathogens are minor. They may include intestinal distress or irritations of soft tissues (eyes, ears, etc.).
4. If a sign is posted, and you choose to swim, try not to ingest the lake water and shower after exiting. Also wash your swimwear prior to re-use.
5. Rain events may increase the likelihood of contamination even if a sign is not posted.

If you want more information, you can check the Ohio BeachGuard website (www.odh.ohio.gov/healthybeaches) or the USEPA website (www.epa.gov/wqc/microbial-pathogenrecreational-water-quality-criteria).