

# A Case Series of Potential Cyanotoxin Exposure

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**Introduction:** Harmful algal blooms (HABs) are increasing in prevalence and severity globally and locally in the Great Lakes region. HABs have the potential to produce serious adverse human health effects due to the production of cyanotoxins from cyanobacteria. Common routes of exposure include recreational exposure (swimming, skiing, and boating), ingestion, and aerosolization of contaminated water sources. Cyanotoxins have been shown to adversely affect several major organ systems contributing to hepatotoxicity, gastrointestinal distress, and pulmonary inflammation.

**Methods:** We present three pediatric case-reports that coincided with HAB exposure with a focus on presentation of illness, diagnostic work-up, and treatment of HAB-related illnesses.

**Results:** Potential cyanotoxin exposure occurred while swimming in the Maumee River and Maumee State Park in Northwest OH during the summer months which coincide with peak HAB activity. Primary symptoms included generalized macular rash, fever, vomiting, diarrhea, and severe respiratory distress. Significant labs included leukocytosis and elevated C-reactive protein. All patients ultimately recovered with supportive care.

**Conclusion:** Symptoms following potential cyanotoxin exposure coincide with multiple disease states representing an urgent need to develop specific diagnostic tests of exposure.