# Cyanobacteria Toxins & Health Effects

| | **Hepatotoxins**:<br>Route of exposure:<br>Swallowing water contaminated with cyanobacteria or toxins<br>Signs & symptoms:<br>elevated ALT, hepatomegaly gastroenteritis (diarrhea, nausea, vomiting, abdominal pain), fever<br>malaise, headache<br>Symptoms onset:<br>Minutes to hours<br>Differential diagnosis:<br>Acute Viral Hepatitis<br>Toxic Hepatitis | | | **Neurotoxins:**<br>Route of exposure:<br>Swallowing water contaminated with cyanobacteria or toxins<br>Signs & symptoms:<br>Tremor, twitching, muscles cramps, motor weakness, paresthesia, cardiac or respiratory paralysis<br>Symptoms onset<br>Minutes to hours<br>Differential diagnosis:<br>Pesticide poisoning, other Toxic Poisoning | | | | | **Dermatotoxins:**<br>Route of exposure:<br>skin contact with water contaminated with cyanobacteria or toxins<br>Signs & symptoms:<br>itchy skin, red skin, hives skin blistering/rashes,<br>Symptoms onset<br>minnutes to hours<br>Differential diagnosis:<br>Allergic Reactions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanobacteria Genera | Microcystin | Nodularins | Clindrospermosin | Anatoxin-a | Anatoxin-a(s) | Homoanatoxin-a | Saxitoxins | B-N-methylamino-L-alanine | Aplysiatoxin | Lipopoly-saccharides | Lyngbyatoxin |
| Anabaena | Y | | Y | Y | Y | | Y | Y | | Y | |
| Anabaenopsis | Y | | | | | | | | | Y | |
| Aphanizomenon | | | Y | Y | | | Y | | | Y | |
| Arthrospira | Y | | | | | | | | | Y | |
| Cyanobium | y | | | | | | | | | Y | |
| Clindorspermopsis | | | Y | | | | Y | | | Y | |
| Gloeotrichia | Y | | | | | | | | | Y | |
| Hapalosiphon | Y | | | | | | | | | Y | |
| Limnothrix | Y | | | | | | | | | Y | |
| Lyngbya-Microcystis | Y | | | Y | | | Y | Y | Y | Y | Y |
| Nodularia | | Y | | | | | | | | Y | |
| Nostoc | Y | | | | | | | | | Y | |
| Oscillatoria | Y | | | Y | | Y | | | Y | Y | Y |
| Phormidium | Y | | | Y | | | | | | Y | |
| Planktothrix | Y | | | Y | | Y | Y | Y | | Y | |
| Raphidiopsis | | | Y | Y | | Y | | | | Y | |
| Schizothrix | | | | | | | | | Y | Y | Y |
| Synechocystis | Y | | | | | | | | | Y | |
| Umezakia | | | Y | | | | | | | Y | |