



Issue 3  
2019

# WISCONSIN EPI EXPRESS

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## PROGRAM UPDATES

### STAFF UPDATES:

The Bureau of Communicable Diseases (BCD) welcomes the following staff to their new positions:

- Ashlie Dowdell, Healthcare-Associated Infections Unit Supervisor, [ashlie.dowdell@dhs.wisconsin.gov](mailto:ashlie.dowdell@dhs.wisconsin.gov)
- Jordan Mason, Enterics and Waterborne Diseases Unit Supervisor, [jordan.mason@dhs.wisconsin.gov](mailto:jordan.mason@dhs.wisconsin.gov)
- Ryan Westergaard, Chief Medical Officer, [ryan.westergaard@dhs.wisconsin.gov](mailto:ryan.westergaard@dhs.wisconsin.gov)
- Ricardo Wynn, HIV Capacity Building Coordinator, [ricardo.wynn@dhs.wisconsin.gov](mailto:ricardo.wynn@dhs.wisconsin.gov)

### NEW AND REVISED WEBPAGES:

The [Wisconsin HIV Program](#) has revamped their webpages for ease of navigation and readability.

### ONGOING OUTBREAK INVESTIGATIONS:

See the Department of Health Services’ [Outbreaks and Investigations webpage](#) for up-to-date information on outbreaks and investigations with wide impact in Wisconsin.

### NEW MEASLES RESOURCES:

- **Resources for the public:** The [measles webpage](#) has been redesigned to answer parent’s most commonly asked questions. [Put the Measles on the Spot](#) and [Measles Can Easily Spread from Person to Person](#) flyers are now available.
- **Resources for health care providers:** [Suspect Measles?](#) flyer outlining steps to take if you think you have a suspect measles case.
- **Resources for school administrators:** [School Administrator checklist](#), [School Administrators’ Quick Guide](#) and the School Immunization Requirements for [K-5<sup>th</sup> grades](#) and [6<sup>th</sup>-12<sup>th</sup> grades](#).

# Beat the Summer Blue-Green Algae Blues

By: Amanda Koch, Waterborne Diseases Epidemiologist

## WHAT ARE BLUE-GREEN ALGAE?

It's algal bloom season in Wisconsin, which means you might be seeing stagnant areas of lakes, rivers, and ponds affected by high concentrations of bacteria popularly known as **blue-green algae**. The more appropriate term for them is cyanobacteria, which are photosynthetic bacteria naturally found in surface water in Wisconsin and across the world. The term cyan, or dark blue in Greek, refers to the blue pigment cyanobacteria often release as their cells die and decay.

When cyanobacteria grow to very high concentrations, they can create a localized accumulation, called a blue-green algae or cyanobacteria bloom. Blooms can take on different appearances depending on which species of cyanobacteria are present and their concentrations in the water. Generally, the riskiest bloom conditions can look like the images below.

## HEALTH EFFECTS OF CYANOTOXINS

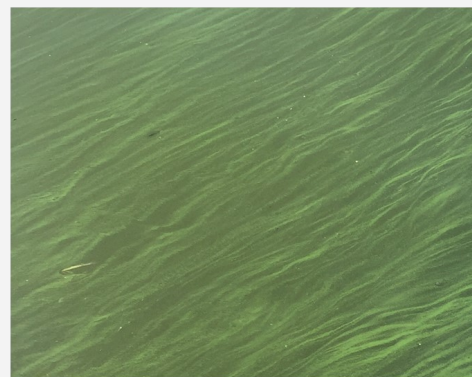
Some species of cyanobacteria can produce toxins, called cyanotoxins, that are harmful to human and animal health. Different cyanotoxins can target different parts of the body. For example, microcystin targets the liver while anatoxin-a targets the nervous system. Depending on the route of exposure to the water body experiencing a bloom, cyanotoxins may cause gastrointestinal illness, respiratory irritation, or dermal rash in humans (see figure 1). Because they are smaller in size and tend to ingest more water, dogs and other animals may experience more severe symptoms, such as diarrhea or vomiting, or neurologic signs like seizures, if water containing cyanotoxins is ingested. Blue-green algae (cyanobacteria) and cyanotoxin poisoning in humans is a Category II reportable condition in Wisconsin. Guidance for case reporting and investigation can be found in the [Case Reporting and Investigation Protocol](#).



Looks like spilled latex paint



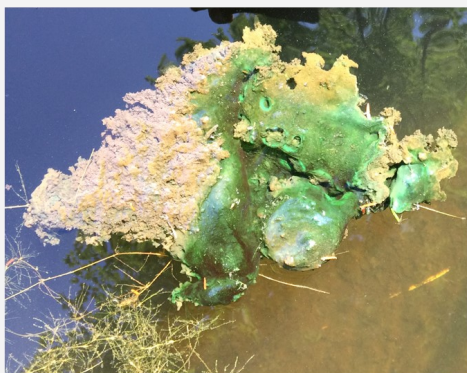
Is discolored or streaky



Looks like green pea soup



Has small green dots floating in it



Has floating scum, globs, or mats



Has dead fish or other animals

# Beat the Summer Blue-Green Algae Blues

By: Amanda Koch, Waterborne Diseases Epidemiologist

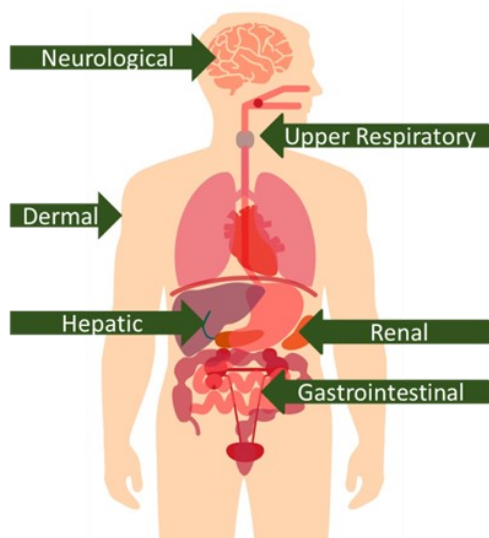
## BEACH CLOSURES

While Wisconsin laws do not require local health jurisdictions to monitor and test for cyanobacteria or cyanotoxins in their lakes, they must close public bathing beaches when a health hazard exists (see [Wis. Stat. § 254.46](#)). It isn't possible to tell how much toxin a cyanobacteria bloom is producing just by looking at it, but generally, higher concentrations that result in a visible scum layer or obvious change in the color of the water present a high probability of adverse human health effects. The local health officer can close a beach with these visual observations.

## DPH HARMFUL ALGAL BLOOM PROGRAM

The DPH Harmful Algal Blooms (HAB) Program exists to provide consultation to local health and tribal agencies on 1) the human and animal health impacts of cyanobacteria and cyanotoxins, 2) investigating an illness suspected to be due to cyanotoxins, and 3) public notification and messaging about health advisories and beach closures. The DPH HAB Program urges local jurisdictions to help keep families and pets safe this summer by promoting safe practices at the lake and taking preventive measures if public beaches and swim areas are known to be affected by bloom conditions.

## FIGURE I. EFFECTS OF BLUE-GREEN ALGAE EXPOSURE



*Humans and dogs should stay out of water with blue-green algae.*

## BLUE-GREEN ALGAE RESOURCES FOR LHDS

The [Wisconsin Harmful Algal Blooms Toolkit](#) for public health and emergency response professionals includes a quick and simple background on cyanobacteria, exposure routes and symptoms, drinking water and recreational safety information, pet safety guidance, talking points, and message maps.

- A [Protecting Your Family from Harmful Algal Blooms fact sheet](#) is available for the public.
- A [Blue-Green Algae and Dog Safety fact sheet](#) is available for dog owners.
- CDC offers a [social media library](#) for HAB messaging as well as HAB-related [buttons and badges](#) to post on Facebook and Twitter.
- Past issues of the HAB Program Newsletter, which provides education and resources about blue-green algae, are available on our [Resources for Health Professionals webpage](#). Those who would like to subscribe to future issues should send an email to [dhsdphabs@dhs.wi.gov](mailto:dhsdphabs@dhs.wi.gov).

# Candida auris: An Emerging Threat

By: Megan Lasure, Antibiotic Resistance Lab Network Epidemiologist

## CANDIDA AURIS OVERVIEW

*Candida auris* (*C. auris*) is a fungal disease that was first detected in the U.S. in 2013. There have since been 755 cases of *C. auris* detected in the U.S., primarily in New York, New Jersey, and Illinois. *C. auris* is concerning because it is often resistant to antifungal drugs used to treat *Candida* infections, meaning that infections with *C. auris* can be very difficult to treat. Of those who have a *C. auris* infection, 30–60% of people have died. However, because *C. auris* is most likely to affect people with other serious illnesses, it is often hard to determine the extent to which *C. auris* infection contributed to their deaths.

## LAB IDENTIFICATION OF C. AURIS

Another concerning aspect of *C. auris* is that it is difficult for laboratories to identify. Standard laboratory methods of identification will often misidentify *C. auris* as other *Candida* species, such as *Candida haemulonii*. Specialized laboratory methods are needed to accurately identify this organism. The Wisconsin State Laboratory of Hygiene (WSLH), as part of CDC's Antibiotic Resistance Laboratory Network, is offering confirmatory testing for isolates that clinical labs have identified as *C. auris*, along with those that are either suspected of being *C. auris* or were unable to be identified.

## C. AURIS OUTBREAKS

*Candida auris* can cause outbreaks in health care settings. This yeast is very hardy and can survive on surfaces for a long time. It can also colonize the skin of patients, living there without causing disease. Many of the normal cleaning products used in hospitals and other health care facilities aren't effective against *C. auris*, so special care must be taken to clean with appropriate disinfectants if this yeast is discovered.



## CONTAINING C. AURIS

Wisconsin has not yet seen any locally acquired cases of *C. auris*. Hospitals and other health care facilities need to remain vigilant so that if *C. auris* is found in the state, it can be quickly contained. There are a few ways that health care facilities can help to prevent the spread of *C. auris*:

- Any questionable isolates should be sent to WSLH for identification. These include suspect *C. auris* or unusual *Candida* species.
- Any patient with a history of overnight stay in a health care facility abroad in the previous year should be screened for *C. auris* and carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE). WSLH conducts this screening free of charge.
- Facilities should also consider screening patients with recent health care or stays in long-term care facilities in the Chicago or New York areas.

For more information on *Candida* isolate testing or screening, contact WSLH customer service at 608-224-4246 or 800-862-1013 or the Wisconsin Healthcare-Associated Infections Program at 608-266-0915.

# DHS “Fight the Bite” Social Media Campaign

By: DPH Vectorborne Program Staff

## TICK AND MOSQUITO ILLNESSES IN WI

During the summer, Wisconsin residents are excited to get outside and take advantage of all the wonderful outdoor activities that our state has to offer. However, along with warmer temperatures and longer days, summer also brings a large increase in tick and mosquito activity.

Some ticks and mosquitoes carry diseases that can be passed to humans through their bites. In 2018, Wisconsin had 3,105 estimated cases of Lyme disease and 366 reported cases of anaplasmosis (diseases transmitted by ticks), along with 33 reported cases of West Nile virus infection and 22 reported cases of Jamestown Canyon virus infection (diseases caused by mosquitoes).

## EFFORTS TO REDUCE DISEASE RISK

Luckily, there are steps that can be taken to significantly reduce one’s risk of getting a tick- or mosquito-borne illness while enjoying the great outdoors, such as wearing long sleeves, pants, and socks; using insect repellent; and checking for ticks after an excursion. In an effort to increase awareness of these prevention measures, the DPH Vectorborne Diseases Program launched a “Fight the Bite” social media campaign. The campaign began in May and will run on Facebook and Instagram through mid-October 2019.

AD 2.



**Tip 3** CHECK FOR TICKS AFTER EVERY ADVENTURE

The campaign consists of nine ads targeting parents with children under the age of 10 and older adults between the ages of 55 and 75 in Wisconsin, as these groups tend to have a higher risk of getting a vectorborne disease.

## FIGHT THE BITE RESOURCES

The DPH Vectorborne Diseases Program is also working on updating our webpages and creating additional resources for partners. One new resource that we are excited to announce is our Vectorborne Disease Communications Toolkit, which contains a wide variety of outreach materials, including fact sheets, flyers, handouts, press release templates, message maps, talking points, suggested social media messages, instructions on how to make tick removal kits, and links to educational videos. The materials in the toolkit can be found in the DPH Partner Communications and Alerting (PCA) Portal, under the “Communicable” and then “Vectorborne Diseases” tabs.

The PCA Portal can also be used to share locally developed outreach materials with other jurisdictions. Currently the portal houses Lyme investigation and outreach materials from about 10 different Wisconsin local health departments. If you have vectorborne materials that you feel may be helpful to your public health colleagues in other Wisconsin jurisdictions and you would like to share these on the portal, please let us know!

AD 1.



**Tip 1** TICKS AND MOSQUITOES CAN BITE ALL SPRING, SUMMER, AND FALL

# Communicable Disease Case Counts

This report contains a selection of reportable conditions with inclusion based on public health significance and frequency of occurrence. The case counts reflect confirmed and probable cases for all process statuses. These numbers are not final and are subject to change as confirmatory testing and case follow-up are completed.

**\*Quarterly case counts should not be considered final and are subject to change.**

Disease	2018 Case Counts		2019 Case Counts			
	Total	Q1	Q2	Q3	Q4	2019 YTD
<b>Enteric/Gastrointestinal (also includes suspect cases)</b>						
Campylobacteriosis	1,705	302	377			679
Cryptosporidiosis	862	111	128			239
Cyclosporiasis	319	3	7			10
<i>E. coli, Shiga toxin-producing (STEC)</i>	565	79	123			202
Giardiasis	675	90	82			172
Hemolytic uremic syndrome	8	0	2			2
Listeriosis	20	3	3			6
Salmonellosis	1,039	138	245			383
Shigellosis	129	30	41			71
Typhoid fever	5	1	1			2
Vibriosis (non-cholera)	31	10	6			16
Yersiniosis	84	14	22			36
<b>Invasive Bacteria</b>						
Group A Streptococcal disease	265	64	76			140
Group B Streptococcal disease	624	124	167			291
<b>Mycotic</b>						
Blastomycosis	104	10	7			17
Coccidioidomycosis	25	3	4			7
Histoplasmosis	22	1	3			4
<b>Respiratory</b>						
Please refer to the weekly respiratory virus surveillance report: <a href="https://www.dhs.wisconsin.gov/library/p-02346-2019-20.htm">https://www.dhs.wisconsin.gov/library/p-02346-2019-20.htm</a>						
Influenza-associated hospitalizations	6,243	2,521	751			3,272
Influenza, novel	0	0	0			0
Legionellosis	331	34	31			65
Tuberculosis	49	15	22			37
<b>Sexually Transmitted</b>						
Chlamydia trachomatis	28,225	7,176	6,778			13,954
Gonorrhea	7,925	1,910	1,895			3,805
HIV	215	50	43			93
Syphilis (all stages)	510	152	97			249
<b>Vaccine Preventable</b>						
Diphtheria	0	0	0			0
<i>Haemophilus influenzae</i> , invasive disease	117	30	16			46
Hepatitis B, acute (confirmed cases only)	14	4	0			4
Hepatitis B, perinatal	0	0	0			0

# Communicable Disease Case Counts (cont.)

Disease	2018 Case Counts		2019 Case Counts			
	Total	Q1	Q2	Q3	Q4	2019 YTD
<b>Vaccine Preventable (continued)</b>						
Measles (rubeola)	0	0	0			0
Meningococcal disease	10	1	1			2
Mumps	28	7	9			16
Pertussis (whooping cough)	697	106	73			179
Poliomyelitis	0	0	0			0
Rubella	0	0	0			0
<i>Streptococcus pneumoniae</i> , invasive disease	518	128	141			269
Tetanus	2	0	0			0
Varicella (chickenpox)	300	70	81			151
<b>Vectorborne</b>						
Babesiosis	64	3	11			14
Ehrlichiosis/Anaplasmosis	517	9	100			109
Jamestown Canyon virus infection	22	0	0			0
La Crosse virus infection	0	0	0			0
Lyme disease	1,883	64	321			385
Malaria <sup>1</sup>	16	3	2			5
Powassan virus infection	3	0	0			0
Rocky Mountain spotted fever	29	1	4			5
West Nile virus infection	33	0	1			1
Yellow fever <sup>1</sup>	0	0	0			0
Zika virus infection <sup>1,2</sup>	0	0	0			0
<b>Zoonotic</b>						
Brucellosis	3	0	0			0
Hantavirus infection	0	0	0			0
Leptospirosis	8	1	0			1
Psittacosis	0	1	0			1
Q Fever (acute)	6	0	0			0
Rabies (human)	0	0	0			0
Toxoplasmosis	7	6	5			11
Tularemia	1	0	1			1
<b>Other</b>						
CP-CRE	—	8	5			13
Hepatitis A	15	4	4			8
Hepatitis C, acute	142	29	14			43
Hepatitis E, acute	0	0	1			1
Kawasaki disease	23	3	2			5
Lymphocytic choriomeningitis virus infection	0	0	0			0
Transmissible spongiform encephalopathy (human)	2	1	0			1

<sup>1</sup> Denotes diseases where all cases in Wisconsin residents are travel associated. No local transmission occurs.

<sup>2</sup> Due to enhanced surveillance, asymptomatic confirmed cases are included.

